

THE UK CENTRAL HUB

Growth and Infrastructure Plan



Issue 1

8th March 2017



Urban
Growth
Company

“GBSLEP has long regarded UK Central as a prime location for significant economic growth. Few other places in Europe offer such a collection of nationally significant assets that are so well connected by air, road and rail. It is hugely positive to see the development of such an ambitious plan to capitalise on that opportunity. The Plan is well balanced and marries the ambitions of stakeholders with those of the local community. We look forward to working with partners on the continued development of the proposals, and turning them into reality.”

Chris Loughran, Deputy Chair, Greater Birmingham & Solihull
Local Enterprise Partnership

“We welcome the UGC’s initiative to create this Growth and Infrastructure Plan. This is a strong and necessary first step in ensuring that the masterplan for the NEC site, together with the aspirations of other neighbouring stakeholders, can be delivered within a coherent framework for infrastructure delivery.”

Paul Thandi, CEO, National Exhibition Centre

“Having a coherent strategy which supports the growth of Birmingham Airport and its neighbours within UK Central will allow for joined up long term thinking and collaboration. I therefore support this Plan to ensure we all benefit from the unique opportunity which HS2 presents.”

Paul Kehoe, CEO, Birmingham Airport

“Jaguar Land Rover welcomes the holistic approach to the growth aspirations outlined within the UKC Growth and Infrastructure Plan and will continue to work collaboratively in the delivery of this longer term vision for the region.”

Sarah-Jane Loughran, Property Director, Jaguar Land Rover

‘If UK Central is to realise the unrivalled opportunities that the arrival of HS2 at Arden Cross present, for not only the West Midlands but also the whole country, it is essential that there is a co-ordinated and well informed approach to the provision of infrastructure in the region.’

Robert Caddick, Chairman, Arden Cross Consortium

“This is a welcome initiative and a single masterplan for the Hub area will be a major asset to bring forward coordinated activity and transport investment.”

Laura Shoaf, Managing Director, Transport for West Midlands

“The HS2 Delivery Board welcome the publication of the UGC UK Central Hub Plan which sets out the aspirations for development and growth opportunities surrounding the Interchange site with the delivery of the HS2 Station following Royal Assent. This plan supports both the HS2 Growth Strategy and West Midland Combined Authority Growth Plan.”

Sir Terry Morgan, Chairman, HS2 Delivery Board

“It is clear that Solihull and the surrounding area have significant potential for growth and Highways England wish to engage with partners to realise this potential whilst ensuring that the Strategic Road Network can continue to operate effectively.”

Adrian Slack, Asset Development Leader, Highways England

“Warwickshire, Coventry and Solihull Local Nature Partnership welcomes the recognition of quality green infrastructure as a primary element in the plan and looks forward to working with Urban Growth Company to develop this through to implementation. The LNP’s vision includes: ‘Key decision-makers and influencers will engage in and champion the integration of the natural environment with economic growth’ and supports sustainable development initiatives.”

Gina Rowe, Living Landscapes Manager, Warwickshire, Coventry and Solihull Local Nature Partnership Board

“The approach from UGC to masterplanning at this scale provides opportunities to look at environmental impacts and benefits at a landscape scale and make decisions that can benefit proposed green infrastructure. We welcome this approach to planning and look forward to seeing the implementation that continues to prioritise green space connectivity.”

Georgina Stokes, Chair, WMCA HS2 Growth Board Environment and Landscape Workstream

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P PREFACE

UK Central Hub Solihull – A unique opportunity in a unique site.

The arrival of High Speed 2 (HS2) will undoubtedly change the economic landscape of the United Kingdom. In particular, the development of the UK Central Hub Solihull (the Hub) and the creation of the first interchange outside London, represents a huge opportunity for economic growth that will ensure the continued prosperity of this part of the Midlands.

The area surrounding the proposed HS2 Station-site represents a significant opportunity that will enhance the economic, housing and environmental offer of an area that already has a great track record in growing jobs, increasing employment security and sustaining environmental objectives and quality of life for residents and employees of the region.

The Urban Growth Company (UGC), on behalf of Solihull Metropolitan Borough Council (SMBC) and supported by the West Midland Combined Authority (WMCA), intends to ensure that the potential of the Hub is developed around a contemporary set of place making principles that create a place to attract more people and businesses to live and work in the area.

By developing this coherent UK Central Hub Growth and Infrastructure Plan (HGIP), the UGC has set out growth ambitions, including infrastructure requirements, to maximise the full potential of this 'once-in-a-generation' opportunity. Working with key stakeholders in the public and private sectors, the UGC aims to create a vision for the Hub that will combine all their development proposals as an overarching sustainable growth strategy.

The UGC expects the Hub can provide at least:

- 35,000 - 77,500 full time equivalent (FTE) jobs;
- 22,750 person years of construction employment;
- 775,000m² of new commercial and mixed-use floorspace;
- 3,000 - 4,000 homes; and
- £2.1 - £4.1bn in GVA.

The scale of the opportunity is immense. The Hub will be built on strong foundations as the area already hosts outstanding businesses including a world class automotive researcher and manufacturer in Jaguar Land Rover; a globally connected airport (Birmingham Airport) and an international showcase for business, leisure and entertainment (the National Exhibition Centre or NEC); all nestled in an area surrounded by high-quality homes and thriving businesses.

The UGC is determined to ensure that our shared ambitions for the area are fully realised by coordinating investment plans and growth opportunities. We will help to shape the delivery of high-quality commercial space, housing, and the infrastructure required to support it, by adhering to the strong design principles that SMBC wish to ensure for the continued high-quality development of this attractive place to invest. The current connectivity that exists will need further development to ensure that the HS2 Station is connected across the Hub and into the network of travel, employment and leisure opportunities across the region.

THE CRITICAL ROLE OF THE URBAN GROWTH COMPANY

The UGC is a special purpose delivery vehicle created specifically to realise the full economic potential of the HS2 Interchange Station and related infrastructure. The UGC will act as a critical catalyst for growth that will enhance the social and economic infrastructure of this part of UK Central. Solihull Council's vision positions the UK Central Hub as a key driver for the local and Midlands economy and clearly states the principles of design for a significant and attractive area in which this can take place. Through the formation of the UGC, the HGIP has the full support of key stakeholders. UGC will seek to optimise the full spectrum of opportunities for public and private investment in our nation's infrastructure.

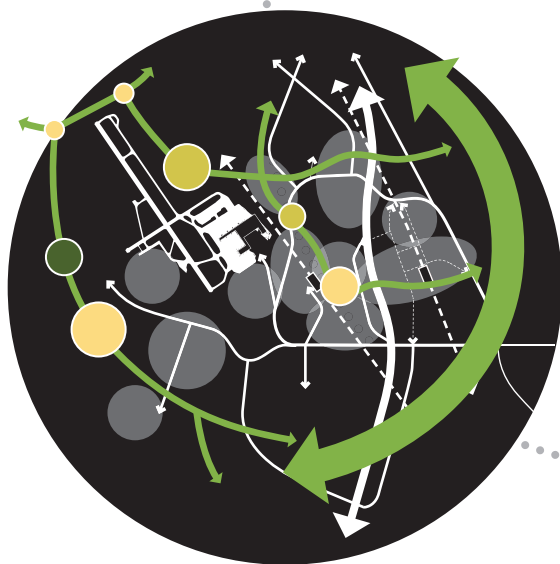
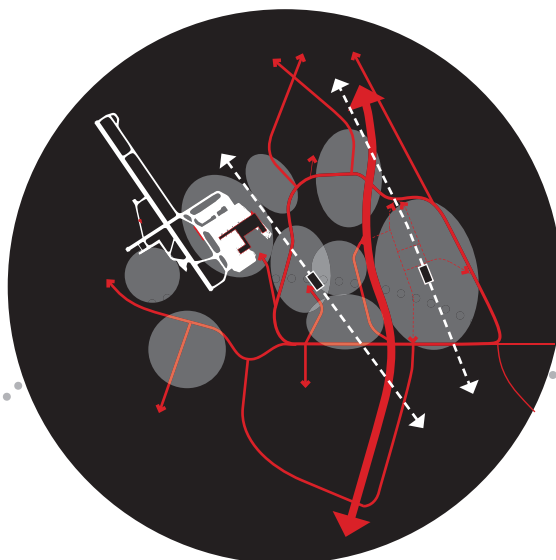
The UGC will establish the crucial conditions needed to drive even greater growth around a set of high performing economic assets. This special purpose vehicle provides unrivalled opportunity for the UK to deliver on the value outlined in the HGIP, combining real ambition with a clear focus on delivery. UGC will be at the heart of £1bn of infrastructure investment as the Hub embraces the opportunities created by the arrival of the HS2 Interchange Station.

HS2 is an opportunity that must not be missed. The UGC intends to provide the leadership required to ensure that, together, we deliver the world class infrastructure needed to power growth across the region for decades to come.

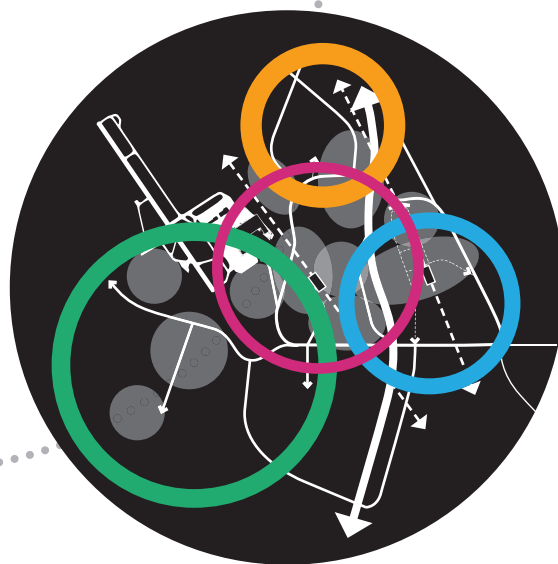
Nick Brown
Chairman UGC

DESIGN PRINCIPLES

INFRASTRUCTURE AND CONNECTIVITY



CREATING HIGH-QUALITY ENVIRONMENTS IN A GREEN LANDSCAPE SETTING



COMPLEMENTARY LAND-USES

FIGURE 1: TURNING VISION INTO REALITY – DESIGN PRINCIPLES FOR THE UK CENTRAL HUB

1 INTRODUCTION

Urban Growth Company – Driving the strategy.

The UGC aims to align the interests of the NEC, Birmingham Airport, Jaguar Land Rover and Arden Cross Consortium by producing and delivering this plan in collaboration with them. This will be supported by the creation of a more detailed framework which will allow them to invest and develop their own sites whilst providing a proportionate contribution to the infrastructure costs to ultimately release the value of their respective sites. The UGC's early stage role is to put in place a value capture mechanism, an infrastructure funding strategy and to influence development of appropriate planning policy.

TURNING VISION INTO REALITY

This High Level Growth and Infrastructure Plan sets out the scale of the UGC's ambition and the scope of the opportunity for the Hub for a period of 20 years and more (to 2032 and beyond). The proposals set out are based on the partners desired growth, but would ultimately be dependent on other factors such as market conditions and planning certainty.

The UGC intends to provide a pragmatic approach to drive this vision forward working closely with key partners (NEC, Birmingham Airport, Jaguar Land Rover, Arden Cross Consortium) alongside local, regional and national Government.

Sections 3 and 5 provide a broad analysis of the current limitations to growth of the key partners and their long term ambitions, examining contextual elements requiring improvement including the physical separation of the sites, capacity constraints on transport and the need for utility provision.

Sections 5 and 6 provide details of current commitments and future infrastructure projects and schedules, mapped out in five year phases alongside current stakeholder ambitions. They cover a host of schemes such as the HS2 Station in Arden Cross; M42 Junction 6 improvements; and options for airport expansion and hosting the Commonwealth Games.

Lastly, next steps are outlined in section 7, for the UGC in an enabling role and the responsibility of other parties, including Government, to support this collective growth ambition.

STAKEHOLDER AMBITIONS

National Exhibition Centre

The NEC is one of Europe's most prestigious venues and each year hosts over 500 exhibitions and events.

The NEC Group and Birmingham City Council (BCC) have prepared a high level masterplan for the NEC site responding to known current market demand for leisure related land-uses and forecast demand based on research and the ambition of UKC for the M42 corridor. The opening of Resorts World in October 2015 represents the first step in realising the masterplan vision.

The ambition of the land-use masterplan for the NEC site is to work seamlessly with the NEC Group's existing live events business. The proposed land-uses complement these business lines to enable a compelling lifestyle brand for the NEC site to be created and promoted.

Birmingham Airport

The demand for increased airport infrastructure in the UK is significant. Several UK airports are currently planning further runways and terminals to meet growing demand. Additional capacity should connect the UK's regions and businesses to the world and allow them to grow. The Midlands is the UK's industrial heart for engineering, science and technology employment. Birmingham Airport seek to maximise this potential at the site to support a national and regional need by increasing capacity within the existing assets and seeking alternative options for future growth within the Hub.

Jaguar Land Rover

Jaguar Land Rover is a major international business and one of the biggest local and national employers, creating both direct and indirect jobs within the UK. Its ambitions for Jaguar Land Rover Solihull are to significantly enhance manufacturing capability, including the construction of a new Logistics Operation Centre. The phased longer term proposals set out in this plan around Jaguar Land Rover's expansion are an ambition only and would be subject to future business cases and planning approval.

Arden Cross Consortium

Arden Cross is being delivered by a consortium of four landowners with the vision to create a vibrant, exciting and bustling community comprising high-quality homes, commercial space and retail and leisure facilities. At the heart of the development is the HS2 Interchange Station.

Masterplanning is already underway for over 266,000m² of commercial space suitable for national and international occupiers, 2,000 new homes and complementary retail and leisure amenities. These plans will seek to blend high-quality development with the existing landscape to create distinctive places.

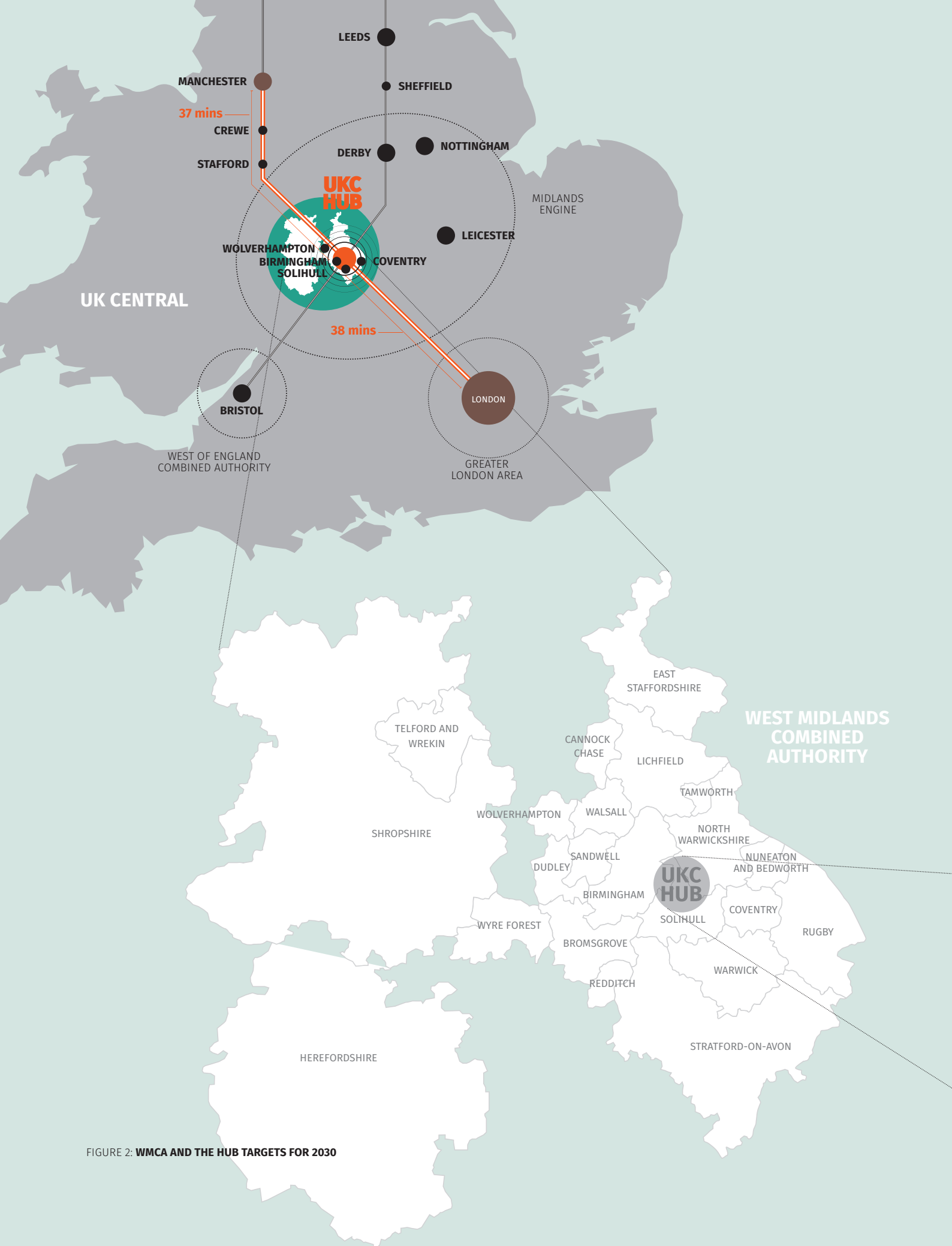


FIGURE 2: WMCA AND THE HUB TARGETS FOR 2030

2 GROWTH STRATEGY

The UK Central Hub sits at the heart of the country's transportation network and is unique in offering development opportunities that have direct access to national rail facilities, an airport, the NEC and the future HS2 Station in a single location. These diverse assets have the potential to grow significantly and provide the opportunity to deliver a substantial number of new homes, jobs and facilities.

WEST MIDLANDS COMBINED AUTHORITY

The newly formed West Midlands Combined Authority (WMCA), comprising of 19 local authorities and three Local Enterprise Partnerships (LEP's - Greater Birmingham and Solihull LEP, Black Country LEP and Coventry and Warwickshire LEP) and Transport for West Midlands (TfWM), has made significant progress in setting out the scale of its ambition and proposals through a devolution agreement with the UK Government. This is set in the context of the wider Midlands Engine Strategy whereby the economic potential of East and West Midlands will be fused and optimised.

The WMCA has established a number of ambitious targets for 2030, including the creation of 500,000 new jobs and strengthening its position as a Core City for private sector job creation.

Investment in HS2 provides a huge opportunity to help deliver 'game changing' growth on an unprecedented scale for West Midlands and will provide a key link between East Midlands (East Midlands Hub Station) and West Midlands (Curzon and Interchange Stations). The investment in HS2 and other big moves such as M42 Junction 6 and regional public transport have the potential to transform the region's economy. UK Central and the Hub area are at the heart of this and firmly anchored in the vision of the WMCA.

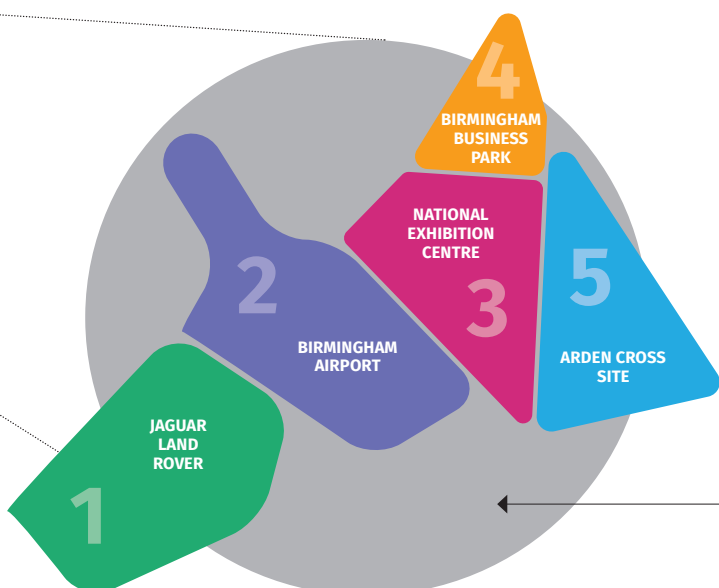
THE HUB

The component developments (shown in Figure 2) within the 1,300 hectare area are largely separate assets that are poorly integrated. This UK Central Hub Growth and Infrastructure Plan will be the first framework that looks to bring those components together to ensure the whole is greater than the sum of the parts. The plan is part of a process to create a shared strategy for investment and growth between public and private sector stakeholders. Investment in HS2, the Interchange Station and People Mover link connecting core assets is a catalyst for a different and transformational approach to planning and delivery. The potential the Hub offers is unrivalled with:

- Major assets (NEC, Birmingham Airport, Jaguar Land Rover, Arden Cross) that can provide the basis for growth;
- Substantial infrastructure investment;
- Exceptional quality environment – an aspirational setting; and
- 38 minutes to Central London (31 minutes to Old Oak Common) by high speed train and connectivity to the Midlands region.

The planned infrastructure investment (and phased growth) in the area will build on the unique circumstances, existing infrastructure and international economic assets currently in place as a basis for the formulation of a new, ambitious and aspirational strategy for future economic growth.

New airport facilities at the HS2 Interchange Station could create a unique multi-modal interchange co-locating high speed rail with air, road, bus, rapid transit and other transport modes. Uniquely, this option (outlined on pages 36 and 40) builds on top of HS2 and would create the potential to enhance the scale of office, industrial retail/leisure and hotel uses within the Hub. This could also include the provision of a combined Airport/HS2 Terminal to fully maximise the connectivity between air and rail and the economic benefits this would bring.



£ **£2.1 - £4.1BN GVA (PER ANNUM)**

35,000 - 77,500 FTE JOBS

3,000 - 4,000 NEW HOMES

775,000m² TOTAL FLOOR AREA

LEGEND

- Green Belt
- Ancient Woodlands
- Other Woodland
- SSSI
- Waterways
- Mineral Extraction (under way)
- Mineral Extraction (potential)
- Overhead HV Cable Corridor
- High Pressure Oil Pipeline Corridor
- Railway
- Road
- Jaguar Land Rover
- Birmingham Airport
- NEC – National Exhibition Centre
- Birmingham Business Park

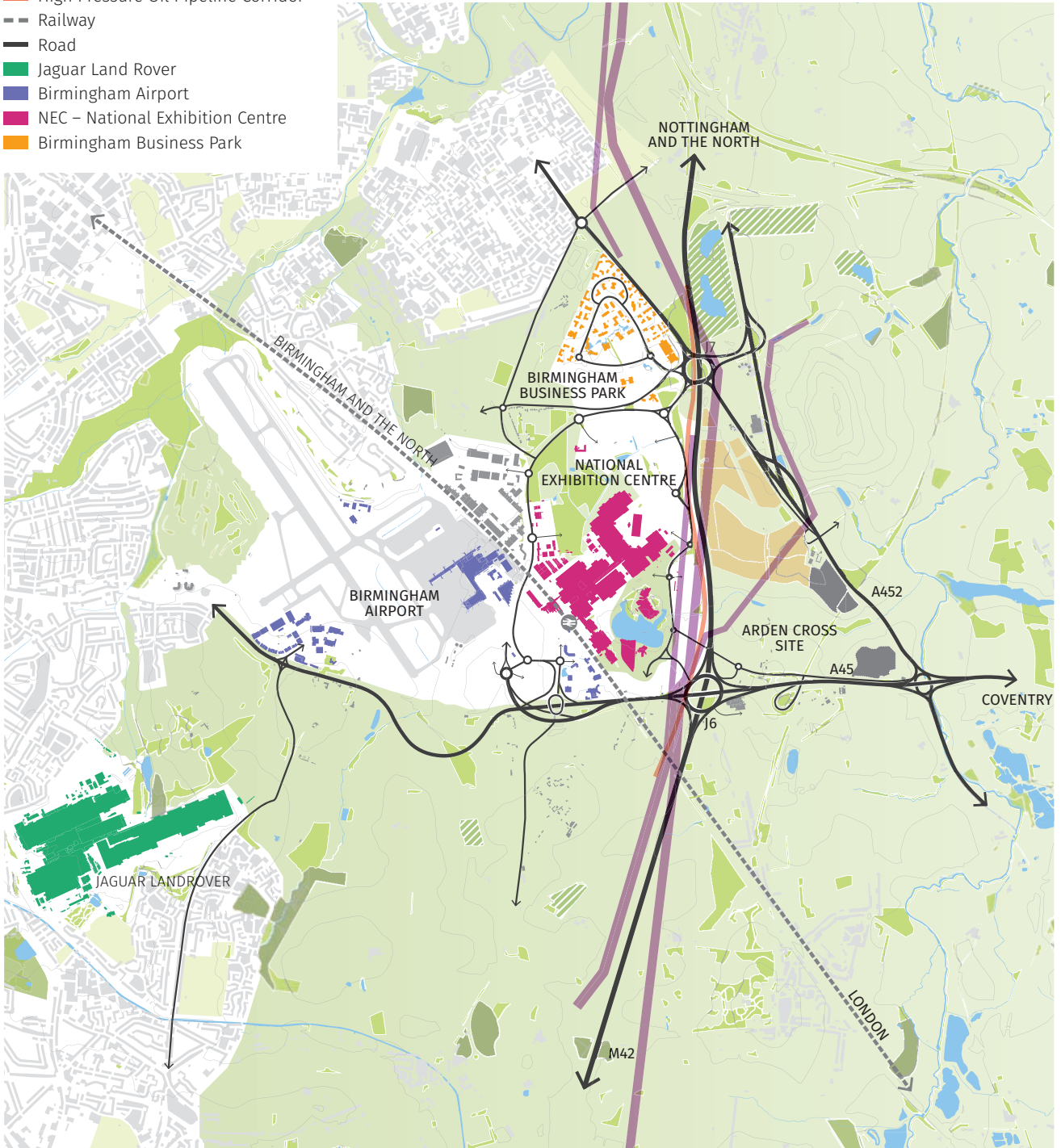


FIGURE 3: EXISTING CONSTRAINTS

3 CONTEXT

The vision in this plan and the forthcoming Hub Framework will be underpinned with an evidence base that allows challenge of the norm, and provides a demonstrable basis for investment by a range of statutory authorities and private investors.

URBAN GROWTH COMPANY ROLE

The UGC will lead and deliver major infrastructure investment in the area. Through the integration of the HS2 Interchange within Arden Cross Site a truly international transport hub will result, creating a world class development opportunity.

The UGC aims to align the interests of land owners with the Council's vision for the UKC Hub, and create a framework which allows them to invest and develop their own sites whilst providing a proportionate contribution to the infrastructure costs which ultimately releases the value of their respective sites. The UGC's early stage role is to put in place a value capture mechanism, an infrastructure funding strategy and to influence development of appropriate planning policy.

LAND-USE STRATEGY

At present the individual assets are not well-connected and can appear somewhat isolated from one another. Until recently, there has been no agreed collaborative strategy to provide a combined approach to how all relevant development and growth opportunities could be considered as part of a cohesive plan and delivery strategy.

PLANNING

A review of the Solihull Local Plan is underway (the new plan will cover the period 2017-2033) and there will be a requirement to identify sites that will accommodate future development in order to meet current and future economic needs. The Hub has been identified in the Draft Local Plan as a potential growth site. This High Level Growth and Infrastructure Plan does not form part of the formal planning process but will contribute to the evidence base.

In addition, the government's plans for HS2 are currently passing through Parliament and have reached an advanced stage. Works are scheduled to start in 2017 and construction should be complete by 2026.

The masterplan for the NEC considers brownfield land, allowing opportunities to come forward without disrupting the Green Belt. The Interchange station will be constructed on land that is currently within the Green Belt (shown in Figure 3). The ambitious growth plans for the Hub are partially proposed within the

Green Belt land around the station and between Jaguar Land Rover and airport land. To deliver those ambitions will require due consideration throughout the planning process, demonstrating appropriateness of development within the Green Belt. The interface between urban and rural and the purpose of the Green Belt will therefore be a key design consideration.

CONSTRAINTS

The physical separation of sites by existing strategic infrastructure (roads, rail corridors and power cables) is just one of the key challenges. In order to create a well connected place, investment is required to overcome some of these physical barriers and upgrade capacity. There are a number of environmental issues that will require careful consideration including specific land designations (ancient woodlands, protected nature conservation areas and waterways), habitats and species, mineral and landfill workings, noise and pollution/air quality.

Primary infrastructure such as road and rail are already at capacity in the area. New development will require new connections between sites and integration of modes of transport to meet proposed demand set out in this plan. The development will create new demand for utility provisions to serve the new homes and businesses. The Hub will require reinforcement to power, digital connectivity and utility supplies in the area and diversion of infrastructure that impinges on land-uses. It will, at the same time, need its own utility infrastructure comprising power lines, gas pipelines, water mains and sewers to suit development patterns and flexibly accommodate a range of aspirations. All these works will have long lead-in times and need to be planned to consider both the HS2 works and the Hub aspirations.

The area is characterised by high-quality green spaces such as Elmdon Park and natural assets such as the River Blythe SSSI and Hollywell Brook, and its setting within a wider area of attractive open countryside.

Currently many of these assets are isolated and some are under-used. The scale of development and change envisaged for the Hub presents an exciting opportunity to create an integrated network of accessible green and blue spaces and natural resources, resulting in significant biodiversity enhancement and new opportunities for leisure and enjoyment.

There are a number of environmental challenges that will require careful consideration including specific land designations, habitats and species, mineral and landfill workings, noise and pollution/air quality. A proactive approach to the environment will maximise positive outcomes to fulfil sustainable development to reduce negative impacts.

New development, in particular the construction of HS2 and the associated mitigation and remediation strategy, present huge opportunities for environmental and ecological enhancements.

MARKET OPPORTUNITIES

There is strong existing demand for housing, leisure, retail and commercial uses in the area. There is, however, currently a limited sense of place in the Hub area as a whole, exacerbated by insufficient connections between the sites, which require significant upgrades to support the creation of a much larger, viable economic zone.

To achieve the scale of development proposed in this plan, a sequence of large anchor occupiers will be required in order to establish the critical mass of occupation and to drive further demand. Attracting these occupiers will present a significant challenge. Early stage supporting retail, leisure and social infrastructure development within the overall Hub area will be required to ensure that occupiers have suitable amenities. New developments will need to be coordinated carefully through the planning process under a strong vision to ensure there is a 'sense of place' for employees, residents and business users.

The UKC Hub could provide some of the best connected development opportunities in UK/Europe with the potential for other sectorial interest such as education, health, life sciences and automotive.

HS2 will provide strong links into Birmingham's key established markets and London. It is critical to the Hub's success that these links are capitalised upon.



FIGURE 4: THE UKC HUB AND ITS CONTEXT



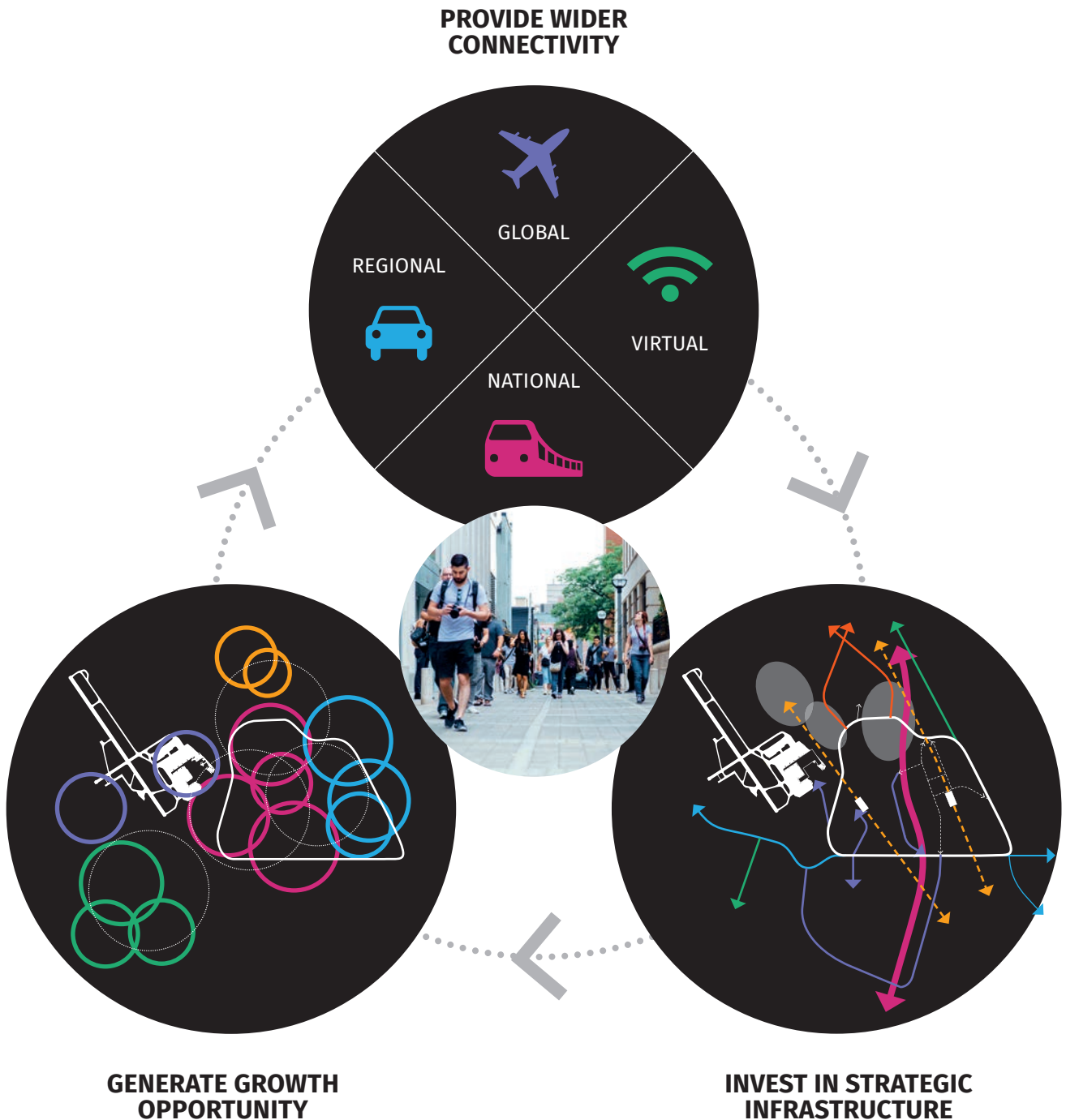


FIGURE 5: UK CENTRAL VISION: CREATING A GREAT PLACE THROUGH WIDER CONNECTIVITY, STRATEGIC INFRASTRUCTURE AND GROWTH OPPORTUNITY

4 VISION

The Hub will become a globally renowned point of connection in the country and beyond, and a major engine for economic growth at a regional and national scale.

The Hub sits at the heart of the national motorway network with 75% of the UK population within a 3 hour drive time. The Hub will become globally renowned as the best connected business, leisure and entertainment destination in Europe and home to one of the world's most advanced automotive manufacturing facilities – and in doing so become a major driver of the UK economy.

The Hub will be a major growth accelerator by creating a unique national and international gateway cluster – the first of its kind in the UK. It will be a point of convergence, where businesses and people can benefit from great connectivity. It will attract mobile global investment by creating a new 'landing pad' in the UK and will stimulate the growth in exports by facilitating international trade. The Hub will enhance global competitiveness by increasing transport and business efficiency, thus improving productivity.

The additional multiplier effects of the Hub are expected to be substantial, with extensive further demand for goods and services through the supply chains and networks. This will range from those supplying the expanded Jaguar Land Rover plant to new tourists visiting the West Midlands through Birmingham Airport and HS2. Its impacts will be much greater outside of the Hub, stimulating growth in key sectors including advanced manufacturing, destination leisure and tourism, and knowledge intensive business and professional services. It will create a world class, innovative centre with high standards of design and environmental sustainability, combined with unique accessibility.

It will be unique in its own offer of providing a brand new HS2 Station in close proximity to a major airport (that is expanding), prestigious exhibition, conference and leisure facilities, internationally renowned employers and the heart of the country's rail and road network. It will provide economic growth through a significant increase in new jobs and housing opportunities – creating innovative new communities.

The Council's vision is to create an outstanding new contemporary district in the Midlands. Leveraging the unique opportunity of location and assets at the heart of the UK, at the nexus between city and landscape, the Hub is one of the most exciting development growth projects within the UK today.

The UGC's ambition is to coordinate and facilitate infrastructure investment in order to deliver the Council's vision. This will build on existing advanced

manufacturing capabilities; as well as the prestigious exhibition, conference, leisure, entertainment and business offer. Residential and commercial developments will complement existing uses and also to enhance the public realm and green connections to the natural landscapes.

The provision of an attractive and sustainable natural environment is essential to the success of the vision. This will underpin financial investment, attracting and retaining a skilled workforce and sustainable development throughout the many phases.

The Hub will benefit from exceptional connectivity at a global scale through Birmingham Airport, at a national scale through the existing International Station, the proposed HS2 Station and the M42, and at a regional level through the excellent road network and proposed public transport improvements. This will be enhanced at a virtual level through cutting edge smart technology and data networks.

It will also benefit from its landscape setting and utilise and enhance the existing natural features as a resource to give the proposed high-quality urban development an excellent quality of place. A well-integrated network of green and blue infrastructure will provide a host of environmental, social and economic benefits to the Hub and the wider area.

This plan sets out the phased growth strategy for the Hub, identifying key infrastructure requirements and development opportunities which, because of their unique location, will provide:

- **Maximisation of transport systems;**
- **Utilisation of new systems for increased power generation;**
- **Improved economic competitiveness for global markets;**
- **Market leading digital technology;**
- **Creation of unique forms of sustainable housing and community facilities; and**
- **Well connected, high-quality green and blue infrastructure.**

The UGC is the key enabler in realising this vision. This UK Central Hub Growth and Infrastructure Plan sets out the scale of the UGC's ambition and the scope of the opportunity for the Hub for a period of 20 years and more (to 2032 and beyond). The proposals are based on the partners' desired growth, but will be influenced by and dependent on factors such as market conditions and planning certainty.



BIRMINGHAM

NETWORK RAIL

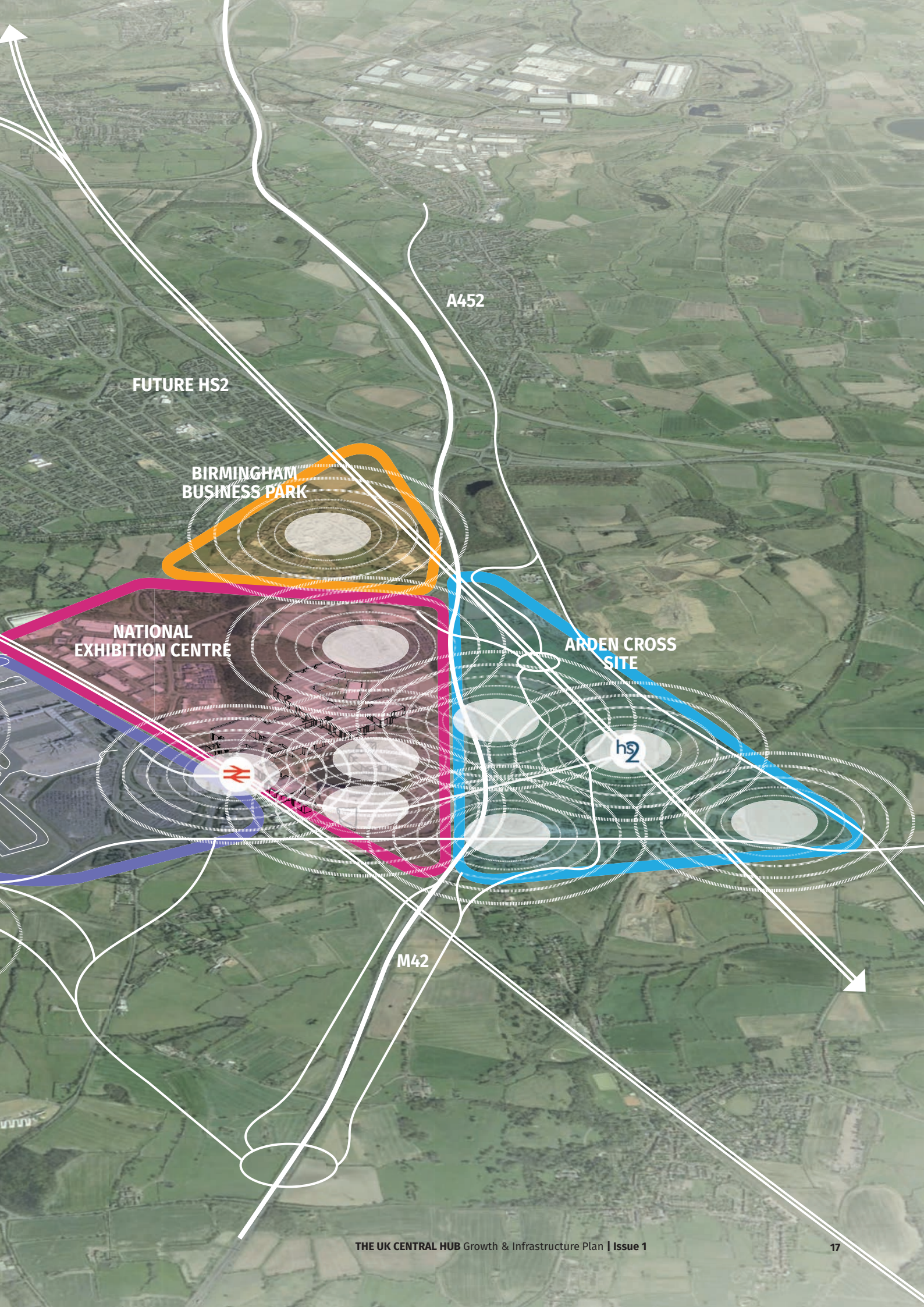
A45

BIRMINGHAM AIRPORT

JAGUAR LAND ROVER

SOLIHULL

FIGURE 6: GROWTH POTENTIAL IN THE UKC HUB



FUTURE HS2

A452

BIRMINGHAM
BUSINESS PARK

NATIONAL
EXHIBITION CENTRE

ARDEN CROSS
SITE

M42

5 PHASED GROWTH

To enable the successful delivery of the UK Central Hub Growth and Infrastructure Plan, the UGC has considered a phased approach to enable appropriate primary infrastructure to be in place for sustainable growth.

To achieve its ambition, the UGC will work closely with key sponsors including the Government, HS2, Highways England (HE), Network Rail (NR) and Transport for West Midlands (TfWM) to ensure that key primary infrastructure and national scale investment is optimised. The UGC intends to adopt a facilitation role that will aid cooperation and collaboration between scheme promoters and ensure a phased approach is adhered to (as set out in this document). In addition, the UGC will be looking to deliver key secondary infrastructure investment in partnership with the WMCA/SMBC and development interests in the area. This approach involves a full understanding and appreciation of all infrastructure needs, costs and potential sources of finance and funding.

The long term growth ambitions for the Hub are shown in phases of five years to reflect the infrastructure delivery requirements (current position, three subsequent phases and a last phase beyond 2032). At each phase the sections set out the proposed growth ambitions in terms of:

- Related infrastructure requirements; and
- Development use.

The plans show the direction of travel for the area within each phase. For earlier years, there is some degree of certainty about proposals. More variables/ options occur in later years because the outcomes of key decisions for primary infrastructure are unknown. Further detailed analysis of these ambitions will be undertaken to inform a more comprehensive Hub framework (outlined in Section 6). In this plan, proposals are based on evidence which would also be required in the preparation of the Business Case, planning permissions and additional information provided by landowners.

MARKET

For the overall Hub area, an ambitious baseline assessment of build out rates has been adopted on a macro level to inform this Plan (aggregating the build out of different land-uses across all sites in the Hub). This build out rate is based on underlying assumptions that:

- There is joint public/private sector commitment to lead in creating the vision for the Hub and provide significant up front funding;
- Landowners have the ability to harness the UK's occupier/investor/development market; and

- The Hub becomes a successful area ('market maker') and establishes its own demand profile.

In relation to the individual land-uses, a mix of the following critical factors (or similar variations) need to be met in order to bring forward sustainable development at the pace envisaged:

Office:

- Significant organisation relocations occur to pump prime development;
- Increased certainty for occupiers through an agreed delivery strategy (evidence and demonstration of early infrastructure investment and marketing/ branding of the Hub as a place which is sustained and consistent);
- Enterprise Zone designation;
- Potential direct public sector development;
- Early stage social infrastructure, retail and leisure amenities, green/blue infrastructure provision/ quality of place; and
- Simplified Planning Zone/LDO.

Residential:

- Early stage social, community and green/blue infrastructure provision;
- Careful design to minimise the noise impacts on development sites from infrastructure upgrades (i.e. roads, railways and airport); and
- Potential public sector support for emerging market sectors.

Retail and Leisure:

- Careful consideration of the mix of provision relative to existing retail/leisure provision in the wider catchment area; and
- Potential public sector support, investment and a phasing structure which ensures that provision is in place at an early stage (to support other uses such as office provision) and utilises innovative delivery mechanisms to overcome any initial viability challenges.

INFRASTRUCTURE

A significant amount of infrastructure is required to enable the realisation of the ambitions of the Hub. Primary infrastructure will be the responsibility of various agencies including HE, NR and Birmingham Airport. The intention of phased development would be to prioritise public transport provision first, in order to make journeys to the area attractive, combined with controlled parking provision.

Secondary infrastructure (schools, roads etc.) will fall under the remit of the WMCA/SMBC. The UGC will continue to promote and coordinate the delivery of all required infrastructure.

UTILITIES

The delivery of utilities infrastructure for the Hub can be split into three core activities:

- 1. Network reinforcement – ensuring sufficient capacity to serve developments;**
- 2. Infrastructure delivery – ensuring infrastructure is in place across each site for connections to be made when required; and**
- 3. Diversions and re-routing – ensuring utilities infrastructure does not hinder the optimisation of land-uses.**

A new utility infrastructure network must be created across the Hub, addressing each of these activities. The need for local distribution must be balanced with wider capacity upgrades, and intrusive equipment needs to be moved in a timely and economic manner.

However, the next 15 year period will be a rapidly changing world in terms of utility demands:

- Electric vehicles will demand significant upgrade in power requirements;
- Different electricity network management and generation technologies are changing the way the Grid works;
- increasing use of battery technology required to smooth flow round the Grid; and
- Further controls on water treatment outfalls may need different solutions.

Currently, the regulatory framework is not set up to respond to this type of large scale, long-term growth.

The delivery of utilities supplies ahead of need will be critical to the success of the scheme. This will require creative thinking, collaboration and coordination across stakeholders, and the ability to challenge the norm.

The approach UGC will take is to engage with the stakeholders with the regulatory framework as a starting point, but then explore innovation in delivery using examples and models from elsewhere. There will be a need to lobby for change, support and innovation in the delivery mechanisms.

The UGC will take on the role of facilitator of these mechanisms and, as guardian of the over-arching utilities strategy, encourage the utilities companies, developers, landowners and local authorities to participate in its delivery due to its clear mutual benefits. The use of common corridors, shared hubs and facility locations, working together to fund schemes early and then using appropriate levers to recover investment as development comes forward, will all reduce overall costs for the Hub and help to maintain the programme of delivery.

Development of a Utilities Strategy is required to provide:

- An overview of the current utilities and digital connectivity provision in the area, and the effect that this may have on masterplanning in the Hub;
- An assimilation of the utilities plant and equipment in the Hub, and the way that this interacts with the other constraints on development, both existing and planned for the future;
- A capacity assessment of the existing availabilities to supply further development in the area, followed by an appraisal of the likely demands of development for the various utilities supplies (including charging) and identification of shortfalls;
- An overview network planning exercise to show where core utilities plant and equipment should be located in the Hub, and how this dovetails with the phasing envisaged for the developments and how additional provision should be coordinated;
- An appraisal of the potential for a Multi-Utilities Service Company (MUSCo) to be established; and
- An overview of funding strategies, including support for the regulatory investment programme, and innovative approaches that could be taken to the delivery of utilities infrastructure.

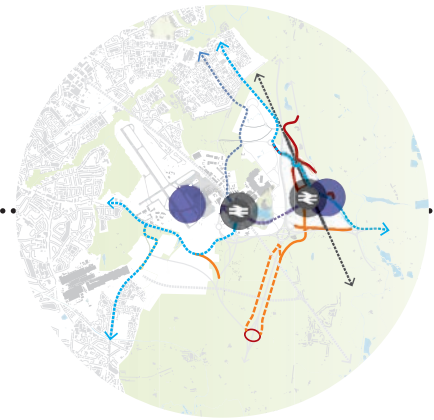
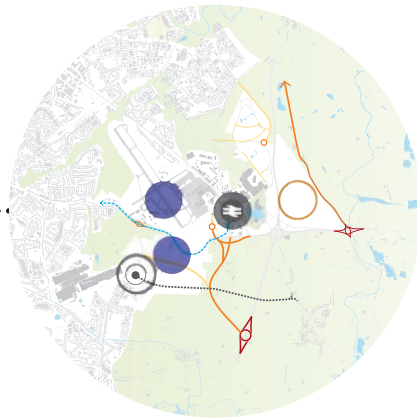
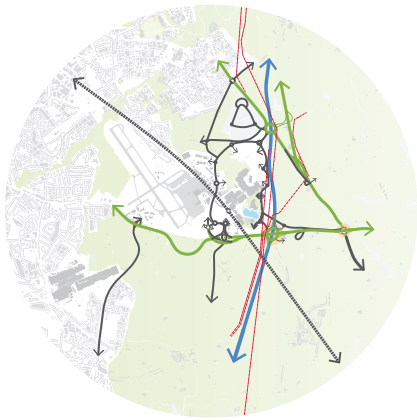
Furthermore, engagement is required with the newly formed National Infrastructure Commission (NIC).

CURRENT POSITION

PHASE 1

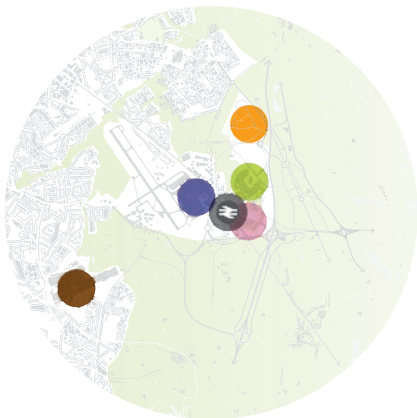
PHASE 2

INFRASTRUCTURE



- Primary Roads
- Secondary Roads
- Tertiary Roads
- Midland Metro
- Sprint
- HS2 Automated People Mover (APM)
- Potential Midland Metro
- Potential Sprint
- - - Potential Rail Link to Jaguar Land Rover
- - - Possible Additional Secondary Roads

DEVELOPMENT



2017



2018-2022

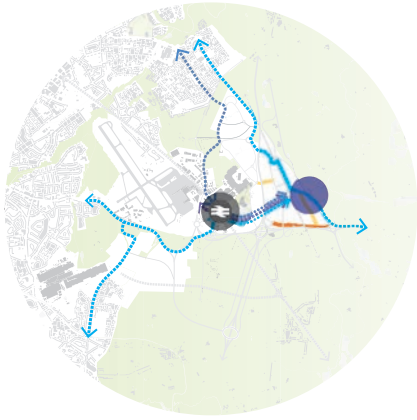


2023-2027

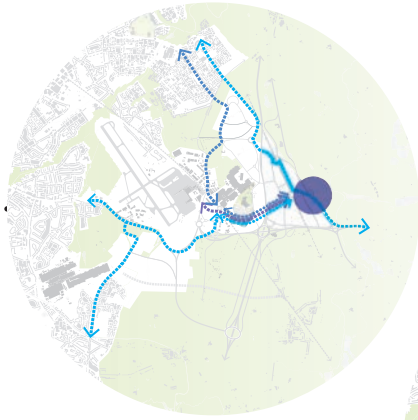
- Station
- Airport
- Commercial
- Retail (including Food and Beverage)
- Hotel
- Leisure/Institutional
- Mixed-use/Housing
- Light Industrial
- Industrial
- Energy Centre
- HS2 Enabling Work

FIGURE 7: OVERVIEW OF PROJECTED INFRASTRUCTURE DELIVERY AND GROWTH POTENTIAL

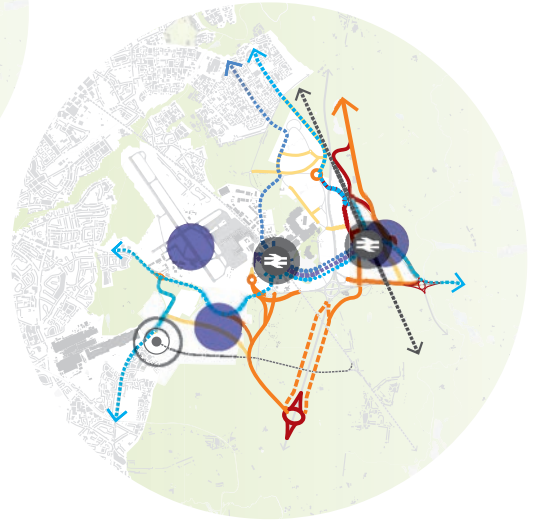
PHASE 3



PHASE 4



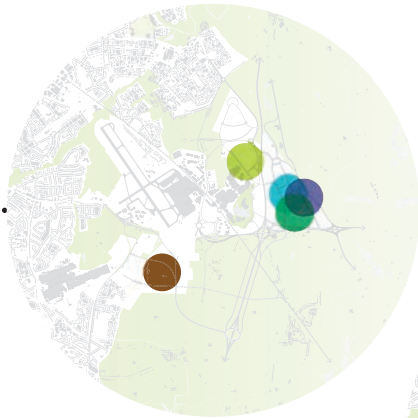
ALL PHASES COMBINED



2028-2032



BEYOND 2032



TIMELINE OF PROJECTED INFRASTRUCTURE DELIVERY AND GROWTH AMBITIONS

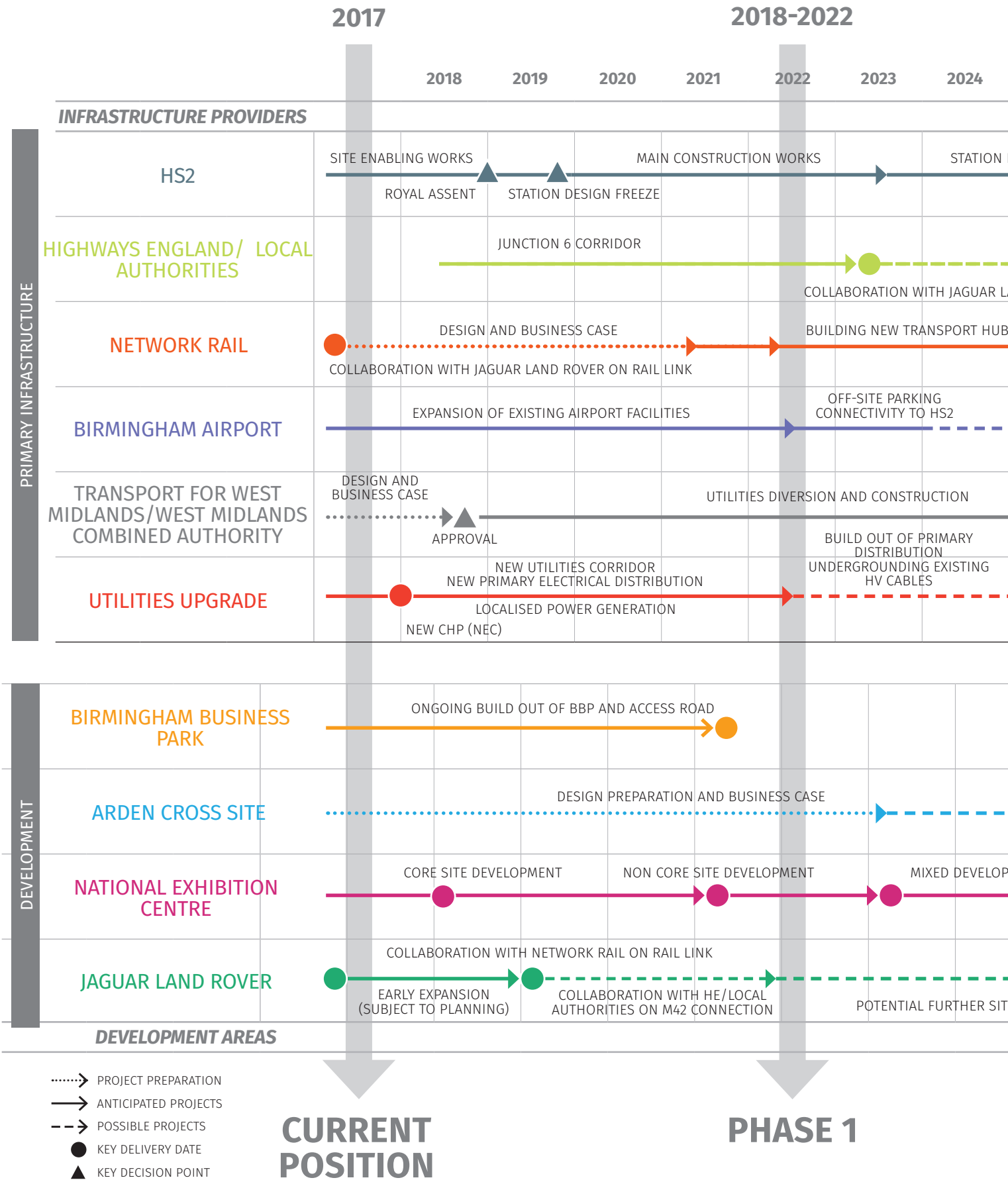
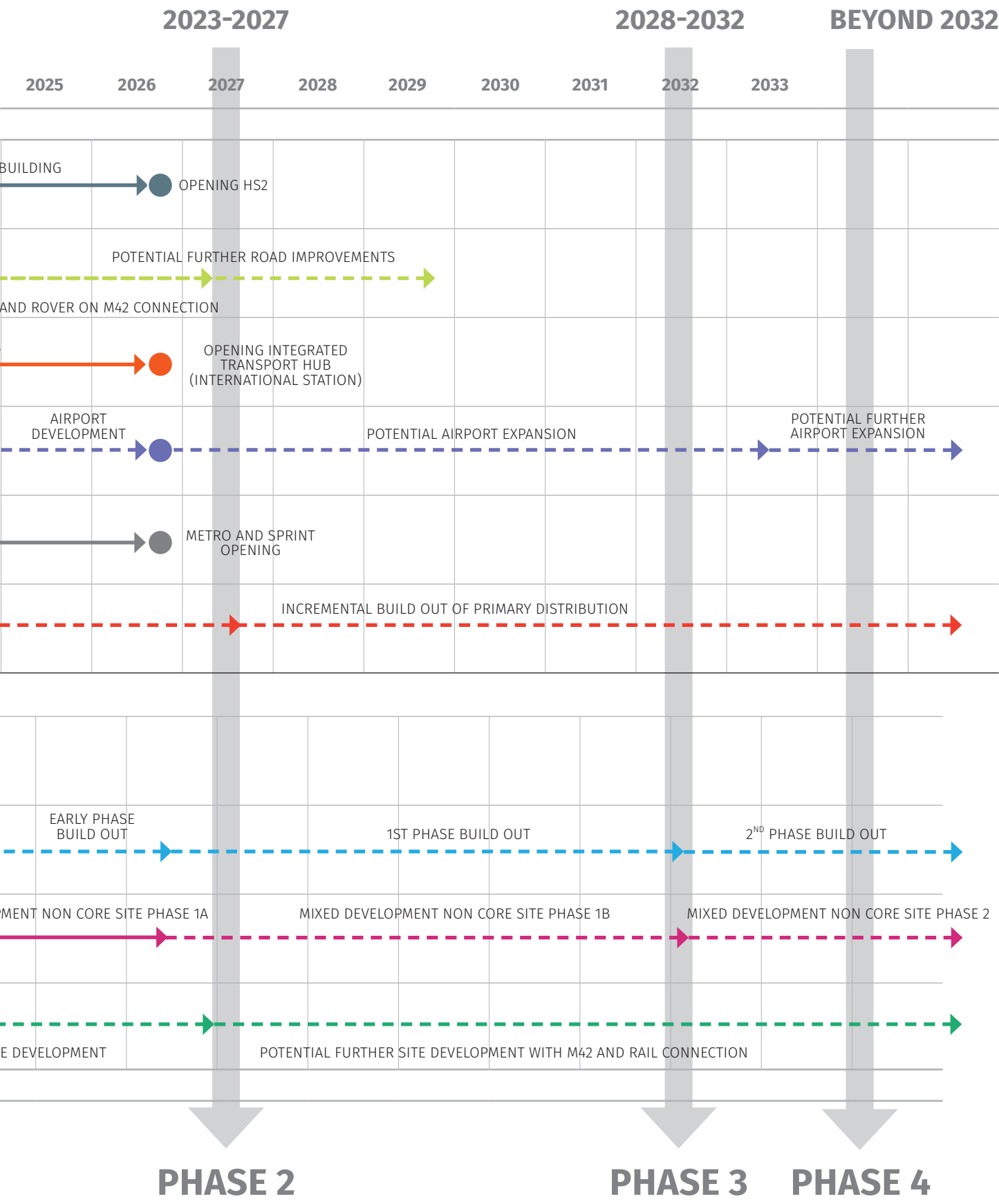


FIGURE 8: TIMELINE OF PROJECTED INFRASTRUCTURE DELIVERY AND GROWTH AMBITIONS



The ability to deliver space for potential occupiers is impaired due to key infrastructure issues all currently under review by the relevant agency/organisation.

PRIMARY INFRASTRUCTURE

RAIL

Key existing rail connections in the area include Birmingham International Station which is part of the West Coast Main Line route and also acts as a cross country route. This station is one of the busiest in the West Midlands, handling around 5 million rail passengers a year. As well as serving many local stations, frequent and direct services from Birmingham International Station serve many key national destinations such as London, Manchester, Glasgow, Edinburgh, Bournemouth and Northampton. Around 1 in 4 of Birmingham Airport passengers arrive by rail, making this facility key to the success of the Airport. The station has around 3,500 parking spaces and, in combination with the wide number of destinations served, it is fulfilling the role of a parkway station. Due to the proximity of the NEC and Genting Arena, there can be significant peak events at the end of exhibitions and concerts, where up to 1 in 5 people travel by rail.

BIRMINGHAM AIRPORT

Birmingham Airport plays a key role in the success of both the Midlands and the national economy. It currently deals with circa 12 million passengers per annum (mppa), which equates to around 4% of all national passenger movements. The Airport expects the overall number of passengers to continue to increase in the coming years. Their ability to do so will form an integral part of the strategic infrastructure for delivering growth and economic prosperity.

ROAD LINKS AND PUBLIC TRANSPORT

The key issues related to the highway network serving Birmingham Airport include capacity constraints at the M42 J6, Clock Tower (link with the A45) and the signal intersection at Elmdon with Damson Parkway. The east side, alongside A45 Stonebridge Island, is also a congestion area. There is a lack of resilience in the road network, in particular in connecting south eastwards to Coventry and Warwick.

Public transport provision to the Airport has good rail links provided via Birmingham International Station. Bus links serve traffic to and from the conurbation. The West Coast Mainline capacity constraints are a key issue in developing further rail based passengers. This will be alleviated once HS2 Phase 1 opens.

UTILITIES PROVISION

The current assumption is that development up to 2020/21

can be serviced from the existing network. If significant early intervention is necessary (beyond the measures that an individual developer could fund), then some funding mechanism, will be required to procure this as the utility companies programmes do not account for significant growth plans.

There will need to be a strategic water management plan by the end of 2019 and a strategic energy plan by the end of 2020, to feed into the utility companies' regulatory investment frameworks. The Utilities Strategy needs to identify the range of demands that the Hub will generate, including the take up of electric vehicles (and how energy is provided for this significant requirement), with an indicative phasing strategy tested against the ability of the network to provide for it.

The current strategic electricity infrastructure in the Hub area has around 20MVA of spare capacity. This will not be sufficient to meet the forecast development demands of around 76MVA and potentially significant further demands in respect of supporting electrification of vehicles. A discussion with Western Power Distribution has concluded that a new primary substation will be required. The location of this will need to be fixed to ensure that the distribution network around the Hub functions as efficiently as possible.

Funding mechanisms will be defined in the Utilities Strategy supported by the Value Capture Model (under development), with a defined action plan to allow work to commence immediately on the extensive period of forward planning that will be needed to achieve the required works to facilitate development.

GREEN AND BLUE INFRASTRUCTURE

The UKC Hub sits both at the edge of a large urban conurbation and within a wider area of attractive countryside, characterised by farmland structured with hedgerows and pockets of woodland. Water is also an important element in the landscape, with the River Blythe, Hollywell Brook and several lakes in the near vicinity. The character of the UKC Hub is very much connected with its rural surroundings and the quality of the environment is important to its continued success.

Green and Blue Infrastructure will be considered to enhance existing natural resources as part of a connected system, recognising that natural features and green space bring a host of environmental, social and economic benefits.

LEGEND

- Motorway
- A Roads
- Local Roads
- - Railway
- - Utilities
- Key Congestion Areas
- Green Belt
- Waterways

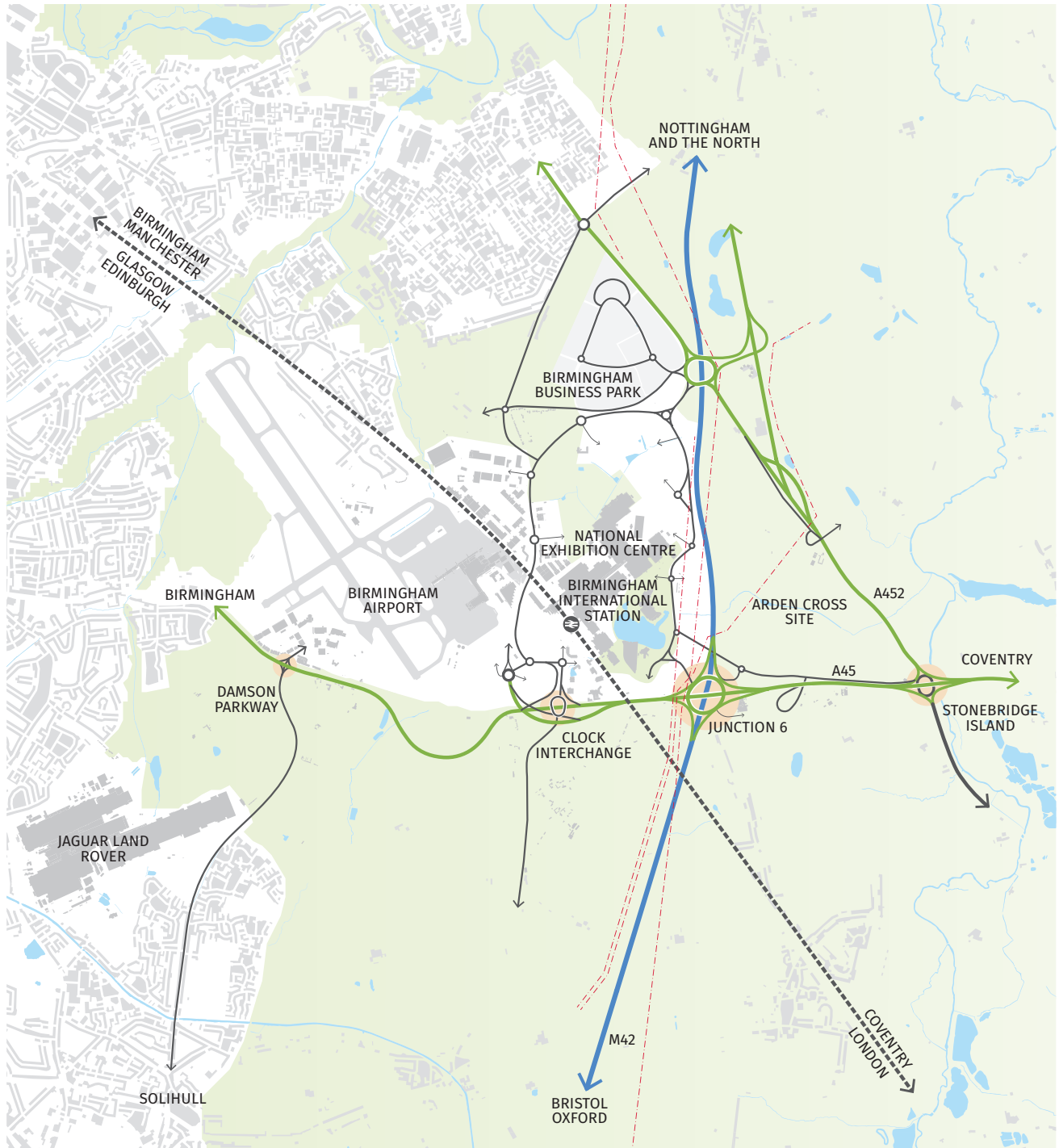


FIGURE 9: EXISTING ROAD AND INFRASTRUCTURE (CURRENT POSITION)

DEVELOPMENT

MARKET CONTEXT

The Hub has significant land assets in a strategic location on the east side of Birmingham. However, there are major barriers to them becoming developable to the scale envisaged in this plan. The market is characterised by:

- Strong leisure demand around the NEC given its existing offer. This is currently restricted, in part due to infrastructure constraints. Retail demand is particularly focused in Solihull Town Centre, along with out of town retail parks in the vicinity;
- Hotel demand linked to the NEC and the Airport with potential for some limited expansion, linked to developments at these two locations;
- Office demand which is limited (the development of Birmingham Business Park has taken a stepped approach to growth) in part by the current access arrangement;
- Larger housing with densities of below 40 dwellings per hectare is more dominant than apartment led development. Sales rates equate to a typical 50-80 private dwellings per annum; and
- Strong industrial demand and values given the site's logistical position.

JAGUAR LAND ROVER

Jaguar Land Rover is a major international business and one of the biggest local and national employers, creating both direct and indirect jobs within the UK. Jaguar Land Rover's UK operations take place at six principal locations. They sold more than 583,000 vehicles in 2016 of which 80% were exported to over 150 countries around the world. It has three vehicle manufacturing plants, two in the West Midlands, at Solihull and Castle Bromwich, and one near Liverpool in Halewood. It also has two advanced design and engineering centres at Gaydon and Whitley, and an engine manufacturing centre near Wolverhampton.

These combined facilities provide around 40,000 jobs, with over 19,000 of these provided across the network of sites in the West Midlands. Jaguar Land Rover has consistently invested in their products and facilities. In 2015/16 they invested more than £3.5bn into new products and site development.

The existing manufacturing plant at Solihull is laid out over a site of approximately 130 hectares, and cars have been manufactured at the site since 1948. Approximately 10,500 staff work at the manufacturing plant at Jaguar Land Rover Solihull.

NATIONAL EXHIBITION CENTRE

The NEC is at the heart of the national motorway network with 75% of the UK population within a 3 hour drive time. The site sits on around 207 hectares and accommodates over 182,000m² of indoor space, 20 interconnecting halls, 34 specialist conference and meetings suites, the Vox conference centre and the 15,000 capacity Genting Arena. It has around 18,500 car parking spaces, with a shuttle bus service straight to the halls and is the largest events venue in the UK.

The NEC is one of Europe's most prestigious venues and each year hosts over 500 exhibitions and events. Additionally, the Vox and Genting arenas each host over 100 events per year. There are over 1,750 hotel rooms on-site. Resorts World, which opened in October 2015, offers an array of bars and restaurants to the NEC campus, thereby providing a 24/7 leisure destination. The offer comprises outlet shopping, bars/restaurants, cinemas, casino, hotel and conference facilities. Overall, the facilities attract circa 6 million visitors each year.

BIRMINGHAM BUSINESS PARK

The Business Park is an established employment centre in multiple ownership, with Blackrock controlling a significant element. It consists of 60 hectares of land and currently accommodates circa 177,000m² of office space. Occupiers are focused within the advanced manufacturing and technology sectors, with key occupiers including Rolls Royce, Fujitsu and BT.

There is a range of amenities available within the park to complement the office provision and planning permissions exist for a further 14,100m² of office development. In terms of the traditional 'M42 market' this location is typically seen as providing a different offering to Blythe Valley Park to the south.

ARDEN CROSS SITE

The Arden Cross Site is a land asset located to the east of (and bordered by) the M42 and enclosed by the A452 and A45. It encompasses circa 150 hectares of land currently in agricultural use (with some mineral extraction already underway in part). The site is the location for the proposed HS2 Birmingham Interchange Station and is considered to have potential for significant development of mixed-use space relating to the station and the wider Hub area.

PREDOMINANT LANDUSE

- Hotel
- Leisure/Institutional
- Light Industrial
- Industrial
- Station
- Airport
- Green Belt
- Indicative Green Belt Boundary

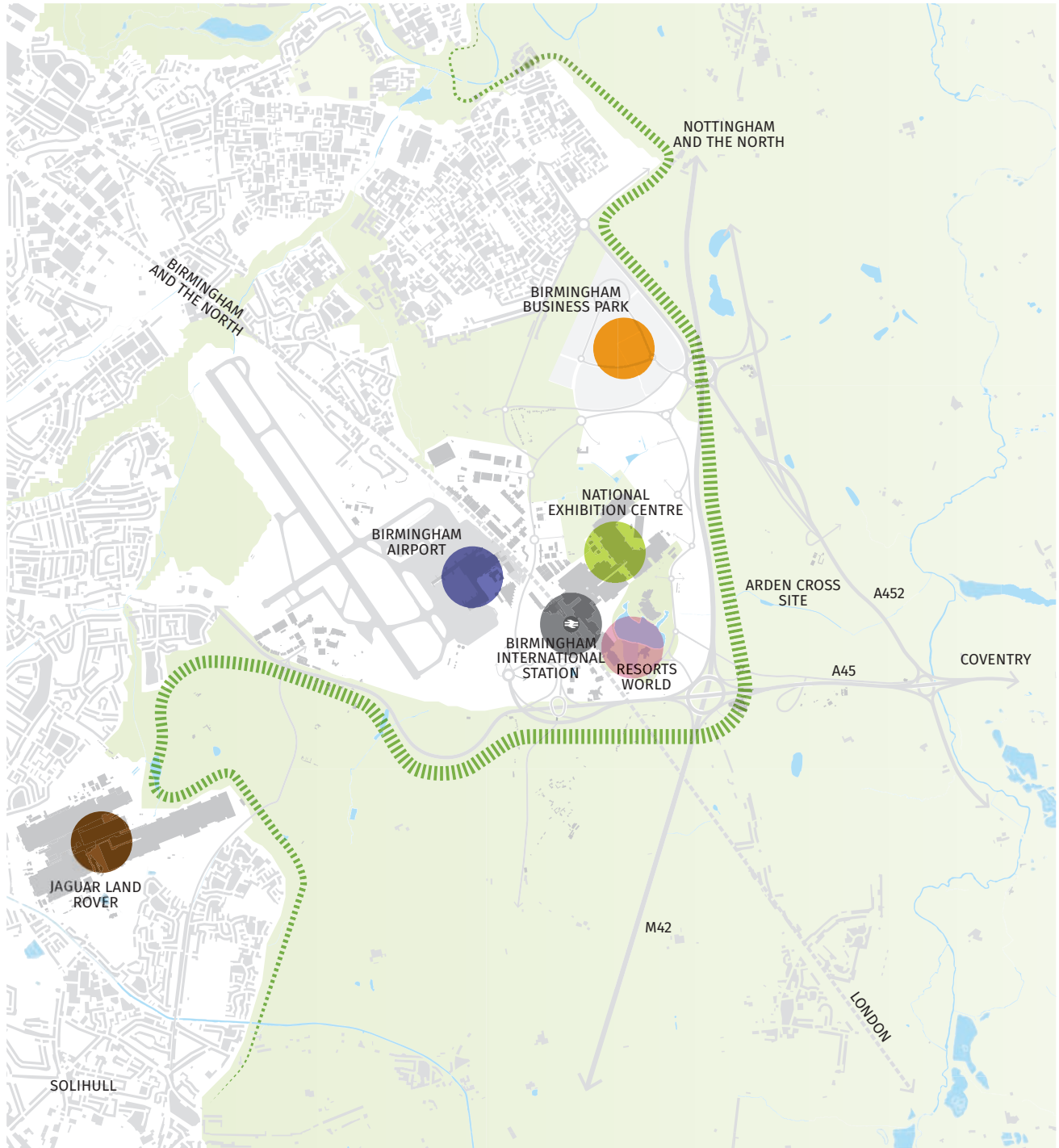
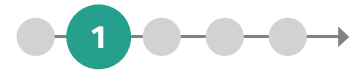


FIGURE 10: EXISTING LAND-USES (CURRENT POSITION)

PHASE 1 (2018-2022)



Growth strategies and policy at the sub-regional and local level will be adopted in this phase providing greater certainty for decision making including: the WMCA strategies for HS2, employment, skills and housing; the TfWM Strategic Transport Plan, freight strategy and HS2 connectivity programme; and the Solihull and North Warwickshire Local Plans.

PRIMARY INFRASTRUCTURE

RAIL

Network Rail expects the number of passengers using Birmingham International Station to increase by approximately 50% by 2023, and recognises that the capacity of the existing facility may become a problem. In 2026, the station will become a key interchange point for people from the West Midlands to access the HS2 network, via the proposed Automated People Mover (APM). This, in combination with the expected increase in airport passengers, will exacerbate the problem anticipated by Network Rail and potentially lead to severe capacity constraints. It is critical that station capacity is enhanced so as not to constrain growth in the UKC Hub area.

This necessity provides an opportunity to fully integrate all existing and proposed transport modes at an enhanced station, including the Airport and HS2 APMs. Providing efficient interchange between Network Rail, Birmingham Airport, HS2, Midland Metro, Sprint and local buses at a single location within the UKC Hub will make the Integrated Transport Hub and its immediate surroundings one of the best connected places in the UK. It is key that this Integrated Transport Hub is delivered before HS2 phase 1 is operational in 2026.

The Airport would work with HS2 to ensure that the construction of the HS2 Interchange Station is future proofed to ensure that a combined HS2/airport terminal can be built with minimal operational and construction difficulties in a later phase.

This would involve ensuring, that any bridging works across the HS2 line required to construct the combined terminal are provided in advance the HS2 terminal itself is easily capable of extension, the road network will facilitate a combined terminal and plinths are provided across the track to facilitate the combined terminal.

The future proofing of the terminal would not preclude other development by third parties taking place on some of the land surrounding the Interchange Station.

Jaguar Land Rover is exploring the costs and benefits of a freight rail link at Solihull to support both site and global operations. Depending on the outcomes and decision making, this may need to be delivered by the end of Phase 1.

Enabling works for HS2 will commence during this phase.

This will include undergrounding of overhead high voltage cables, key railway crossings and the main roads to the site. It is important that roads and infrastructure built during this phase are aligned with the layout of the framework plan which was developed jointly by the UGC and Arden Cross. The layout has been submitted to HS2.

BIRMINGHAM AIRPORT

In order for the Airport to provide suitable additional capacity to accommodate the increase in passenger numbers over the next five years (estimated to be 12-17 mppa), a series of developments and improvements to the existing facilities (airside, landside and terminals) will be required. Furthermore, improved and enhanced movement and access will be required locally, regionally and nationally. The Airport is currently developing plans and options for how this might be achieved which will be subject to future public consultation and potential refinement.

During this period the Airport may also need to expand into the green belt to the south-west of the A45 to provide support facilities that enable the forecast passenger growth.

ROAD LINKS AND PUBLIC TRANSPORT

The M42 Junction 6 (J6) will be over capacity during this period. The M42 J6 Government Road Investment Strategy (RIS) Major Project will be delivered by 2023 as part of the Highways England Programme.

The current preferred solution supported by UGC is Highways England Option 1 (which is out for consultation) and allows for development of the junction in phases to support further development growth as and when it materialises. Option 1 will provide a new southern junction and proposed new dual carriageway into the clock interchange. This will release some capacity from the M42 J6 to reduce congestion and prolong its life.

Improvements as part of HS2 to Stonebridge Island are also to be implemented. Further improvements are as follows (although dependent on ongoing capacity analysis):

- Potential western link to M42/Southern Junction (JS) depends on capacity analysis;

LEGEND

- Primary Roads
- Secondary Roads
- Tertiary Roads
- - - Sprint
- Airport Upgrade
- Station (Public Transport Interchange)
- Rail Freight Link
- HS2 Enabling Works

NEW LOCAL HIGHWAY

- New Local Highway: M42 to Damson Parkway + A45

BIRMINGHAM AIRPORT

- 12-17 million passengers per annum (mppa)
- A series of developments airside, landside and to the terminals will be required
- Enhanced surface access will be required both locally and regionally
- Potential Airport development south of the A45

UKC INTERCHANGE STATION

- Enabling work for HS2

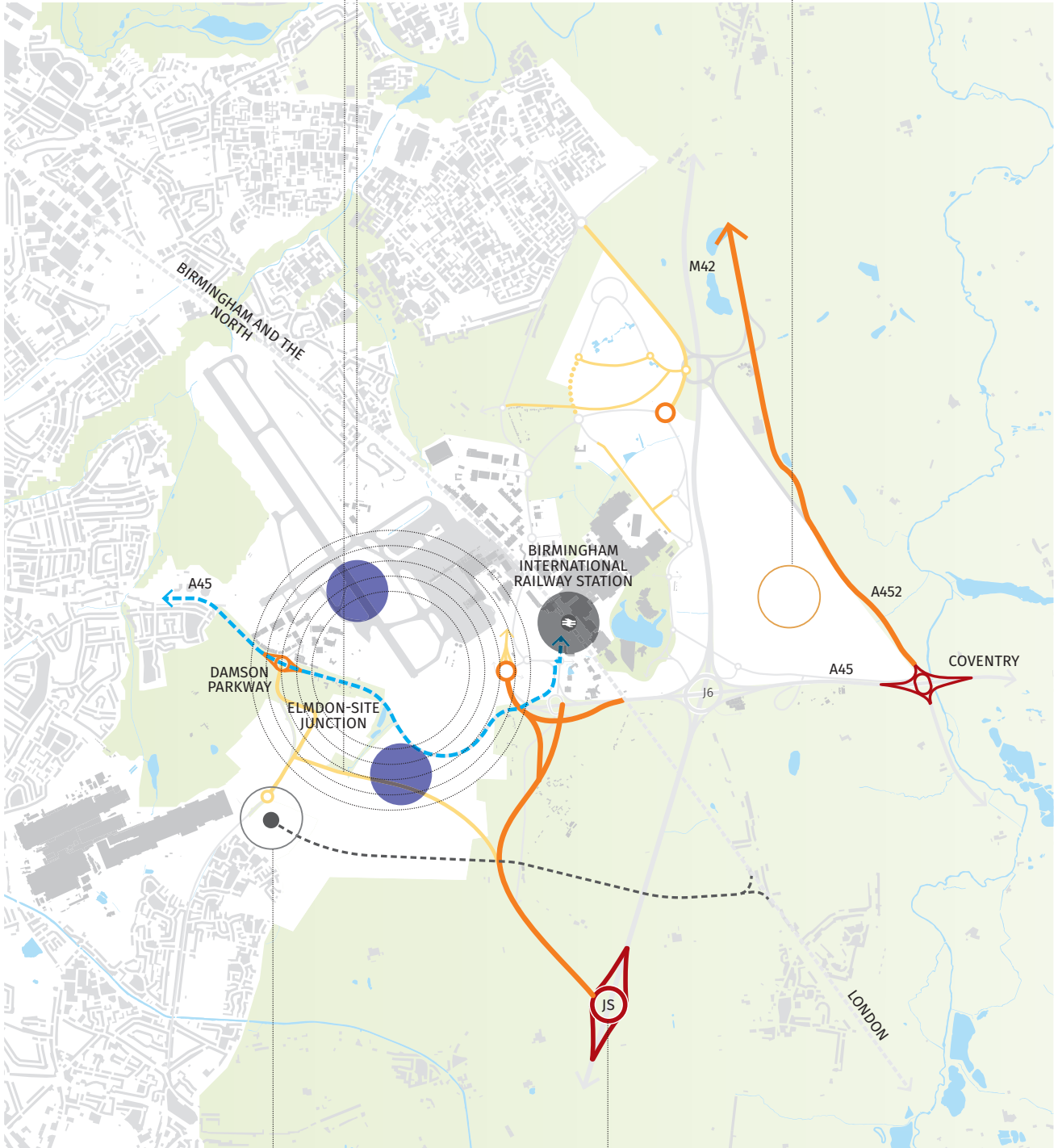


FIGURE 11: TRANSPORT INFRASTRUCTURE UPGRADES BY 2022 (PHASE 1)

NETWORK RAIL/ JAGUAR LAND ROVER

- Potential Freight Rail Link to Jaguar Land Rover/possible future Mixed-use Manufacturing Campus

M42 JS

- M42 J6 Improvement Option 1: Link to East of Bickenhill
- Potential western link to M42/JS
- Grade separation of Damson Pkw/A45/Elmdon-site junction

- Public transport interchange to be up and running in area by existing Birmingham International Station (including Sprint services); and
- Grade separation of Damson Parkway/A45/Elmdon-site junction (or potential to provide a new link to J6 of M42).

The Metro from Birmingham Eastside to the Hub is planned to be constructed in the period 2021-26. The A45 Sprint opening dates should stay in the 2018-2022 section but other routes are likely to come on stream when HS2 opens, or potentially even later as the Hub develops.

UTILITIES PROVISION

A series of business cases will need to be prepared to establish how the strategic utilities will be funded and delivered. Forward planning for some of the diversion and re-routing elements will need to be progressed in this period, as the lead time to programming and delivery of some of these works is exceptionally long.

Within the Hub, energy provision will need to commence across the area. With capacity requirements already determined, and utility corridors beginning to be populated with new cables and pipes, (including a new utility corridor for the NEC) primary electrical distribution and substations for NEC and Damson Parkway. Utility corridors should be shared as far as possible between different services for maximum efficiency. NEC have plans for the implementation of a Combined Heat and Power plant by the end of 2017. The utilities corridors will also have to accommodate the implementation of gas pipes, albeit with relatively small scale incoming gas mains and distribution networks.

The potential charging needs of vehicle electrification could add to this challenge, to the capacity requirements/needs and to the provision of sufficient charging infrastructure.

During this phase, potable water distribution networks and supplies at the NEC and Damson Parkway will be required; including the implementation of both foul and surface water drainage.

Improvements are critical to provide state of the art digital infrastructure for the Hub to meet future growth ambitions.

This phase will see the need to address strategic network upgrades to ultimately serve the Hub. New primary substations and electricity distribution networks, potential waste water treatment works and upgrades to potable supply storage and distribution are all possible, and subject to more detailed investigations.



FIGURE 12: M42 AND UTILITIES CORRIDOR BETWEEN THE NEC AND ARDEN CROSS



PHASE 1 (2018-2022)



DEVELOPMENT

MARKET CONTEXT

Significant leisure and hotel development is planned in 2018 at the NEC site. This is then followed by significant mixed-use development from 2020 and associated medium density residential development close to the lake and existing active assets. This pace of delivery and type of residential development may require consideration of different tenures (e.g. Private Rental Sector housing) to allow for such critical mass to be developed at pace in an unestablished location.

Office development will come forward at Birmingham Business Park (in terms of the existing planning consents). This is envisaged to be completed by 2021 based on an optimistic rate of development. Office development at the NEC commences in 2020 for phased delivery until 2026. For this to be delivered, a consistent and large proportion of the 'M42 market' and a widening of the demand profile is required. These are likely to be occupiers with existing ties to the area, those attracted by the future potential of the Hub area but not reliant on the provision of HS2 services, as well as occupiers migrating from the South East as they seek to reduce occupational costs.

Subject to the successful gaining of planning permission, the Logistics Operations Centre (LOC) for Jaguar Land Rover is forecast to be complete in 2019. Small scale apartment building commences in 2020 on the NEC site in areas with existing access to Birmingham International Station. There is likely to be increased demand from land purchasers for peripheral sites to the Hub area given the expected ongoing infrastructure works and commitments.

JAGUAR LAND ROVER

The proposed LOC is required to improve the efficiency and capability of the Solihull site and ensure the logistics movements between Jaguar Land Rover and its suppliers are not impacted upon by disruption on the road network. The LOC would reduce the amount of road based mileage required to support logistics operations.

NATIONAL EXHIBITION CENTRE

The NEC Group and Birmingham City Council (BCC) will have a completed high level masterplan for the NEC site responding to known current market and forecast demand for leisure related land-uses. The opening of Resorts World in October 2015 was the first step in

realising their vision. The ambition of the NEC is to progress development within the context of the wider Hub vision and complementary to the NEC Group's existing live events business to enable a compelling lifestyle brand to be created. The aim is to maintain the NEC's existing amount of car parking and a high level strategy for this has been established.

The NEC's site development ambition in the earlier phases of the masterplan can be delivered prior to and regardless of these major infrastructure schemes and could include: a Combined Heat and Power plant (end of 2017); a leisure box (early 2018); a hotel (2019); film studios; initial residential apartments; office space and other mixed-use development.

BIRMINGHAM BUSINESS PARK

There is disparate ownership of the site and planning consents in place for the delivery of 14,100m² of additional office space. Given the existing strong planning position, occupier 'buy in' to the overall Hub vision, limited infrastructure upgrade requirements and the future projected competition from office space, an optimistic delivery rate of 3,500m² pa has been assumed. This assumes development from 2018-2021.

ARDEN CROSS SITE

Development will not commence in this phase because the site requires infrastructure to connect to the road network and the construction of the HS2 Station.

IMPLEMENTATION

Land owner coordination is a critical mechanism required in order to aid implementation at this point in time. The UGC needs to put in place a clear value capture mechanism, infrastructure funding strategy and steer planning policy.

The UGC and SMBC (from 2017) will undertake a marketing strategy (complementary to individual landowners' strategies) to emphasise the offer of the Hub and to help push for occupiers and investment in this area based on known (and committed) infrastructure improvements.

PREDOMINANT LANDUSE

- Commercial
- Hotel
- Leisure
- Light Industrial
- Industrial
- Energy Centre
- Green Belt

JAGUAR LAND ROVER

- Planning application to be submitted in late 2016 for a new Logistic Operations Centre which is anticipated to be determined by the Local Planning Authority during 2017
- Floorspace within the logistic operation centre will comprise of approx. 97,500m²
- Jaguar Land Rover will consider option for power generation

BIRMINGHAM BUSINESS PARK

- Office: approx. 14,100m²

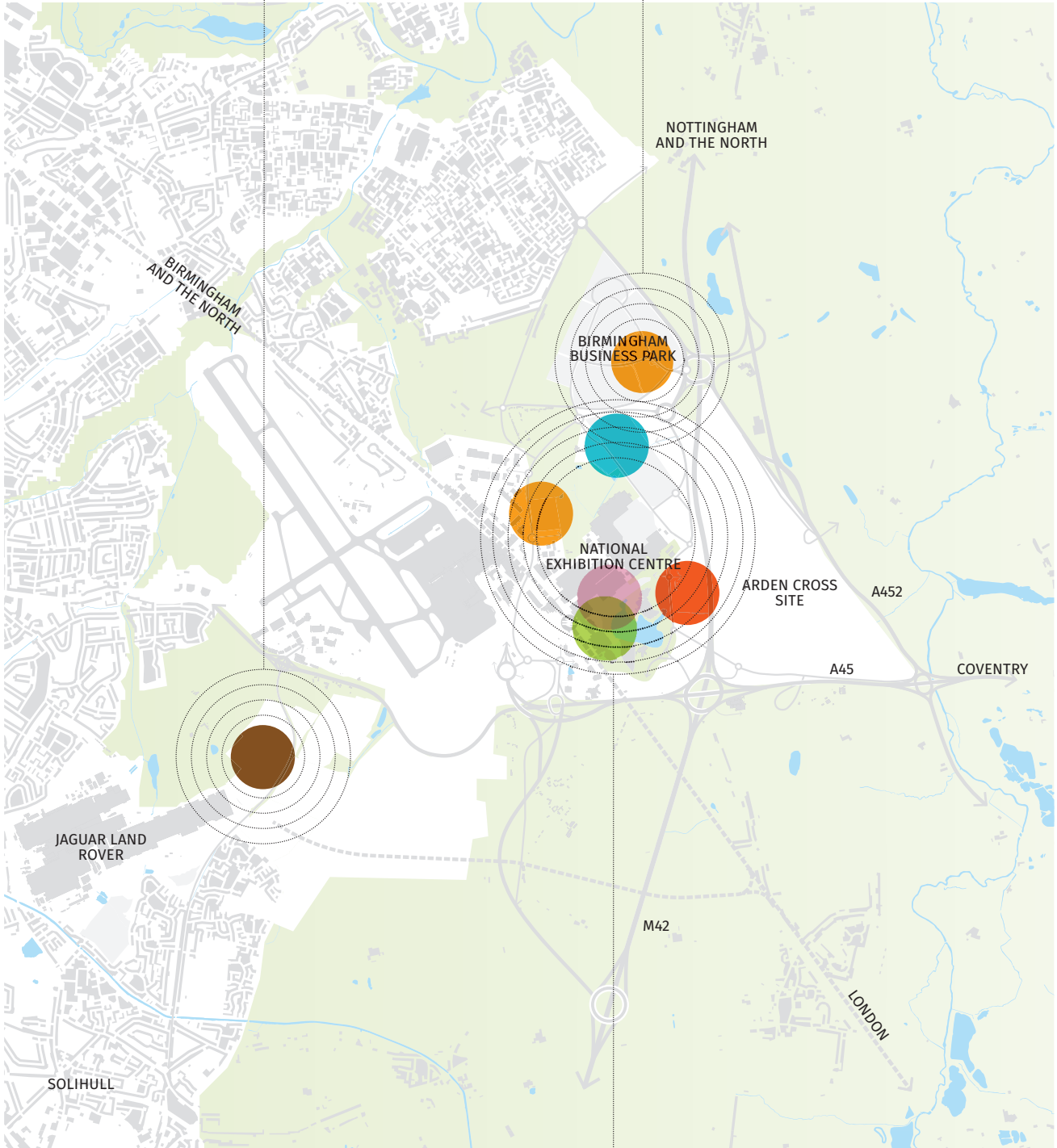


FIGURE 13: PROPOSED LAND-USES BY 2022 (PHASE 1)

NATIONAL EXHIBITION CENTRE

- Combined Heat and Power: completed by Q4 2017
- Office: 4,600m²
- Mixed-use (including Leisure Box): 27,300m²
- Hotel (H1) – open in 2018: approx. 7,900m²
- Film Studios – 2020/1: approx. 6-8ha
- Residential: 130 units (potential for up to 550 units)

PHASE 2 (2023-2027)



HS2 Phase 1 expected to be operational by the end of this period, as is much of the associated internal infrastructure, including Midland Metro, Sprint and Airport Loop.

PRIMARY INFRASTRUCTURE OPTION 1

RAIL

To facilitate the projected increase in growth of air passengers (a significant proportion of whom will arrive by rail), there may need to be further changes at Birmingham International Station beyond the opening of the HS2 Phase 1. The necessary changes will vary, depending on the way in which the Airport expands (see option 2 overleaf). This will require continued collaboration between HS2 and the Airport during the construction period of the HS2 Interchange Station.

Multiple public transport upgrades will be opened to coincide with or precede the opening of HS2 Phase 1 in 2026:

- **Integrated Transport Hub sufficiently complete to receive HS2 Automated People Mover (APM), Midland Metro;**
- **HS2 APM operational between Birmingham Interchange Station, Birmingham International Station and Birmingham Airport;**
- **Midland Metro operational to a terminus at the Integrated Transport Hub; and**
- **Other Sprint schemes operational, terminating at either Birmingham Interchange Station or the Integrated Transport Hub.**

BIRMINGHAM AIRPORT

Current estimates indicate that further increases in passenger numbers would equate to 17-23 mppa.

To accommodate such expansion, it is envisaged that further significant development would be required to maximise the capacity of the current site. In addition, it is predicted that additional passenger car parking will be required off-site.

It is expected that in 2026, the new HS2 Phase 1 rail line and accompanying Interchange Station will be constructed. As part of the current proposals, there will be an APM linking the new HS2 Station with the existing main terminal building which will help maximise benefits for both future passengers, airlines, Birmingham and the wider region as a whole.

ROAD LINKS AND PUBLIC TRANSPORT

Work will be continuing from the previous phase and it is likely that further road capacity will be needed, and one potential solution would be to build link roads between the new M42 Southern Junction and the existing J6 on both sides

of the motorway to provide direct access to the UKC Hub/ HS2 Station.

The UGC is proposing this solution to aid traffic flows to and from the area and to reduce potential severe delays and congestion which may affect attractiveness of the development sites. It builds on the proposed option 1 Highways England have shown in their consultation process.

All HS2 infrastructure must be in place to serve the station and a potential junction and western link to connect to Jaguar Land Rover and Birmingham Airport (with potential parking). Consideration will be given to the timing of the possible development of the Coventry and A46 phase 3 scheme, providing a link to the A45/A452, and the improved access to HS2 and other developments it could deliver.

UTILITIES PROVISION

This phase is forecast to see the most intensive period of infrastructure delivery, with significant demands from development occurring at this time, in addition to strategic implementation schemes coming online in readiness for development related to HS2 growth.

It is assumed that all of the network reinforcement work would need to be complete by the end of this period, with allowance for significant investment in primary electricity distribution infrastructure, undergrounding of high and low voltage power lines and delivery of new waste water treatment facilities.

For power, the long-planned undergrounding of both 400kV and 11kV high voltage overhead lines should be implemented. This project may come forward as part of the wider HS2 Station delivery, however there is a risk that if not coordinated with the Hub framework, some additional costs may be incurred in ensuring compatibility. Further substation development at the Arden Cross Site may be necessary along with extensions of the NEC utilities corridor. Gas infrastructure development may not be needed during this phase. Potable water distribution networks, supplies at the Arden Cross Site and NEC, and foul water collection and pumping stations will be needed, with surface water and SUDS implementation.

Liaison with HS2 will be critical in this period to avoid abortive work and to ensure that opportunities to share infrastructure (especially for electricity) are secured where possible. Potable water supply routes will need to be determined and upgrade works well underway.

LEGEND

- Primary Roads
- Secondary Roads
- Tertiary Roads
- - - HS2 Phase 1
- - - Midland Metro
- - - Sprint
- - - HS2 APM
- Airport Upgrade
- Station (New and Upgrade)
- - - Potential J6 Link Road

BIRMINGHAM AIRPORT

- 17-23 mppa
- Further development required to maximise current site capacity
- Additional car parking provided off-site

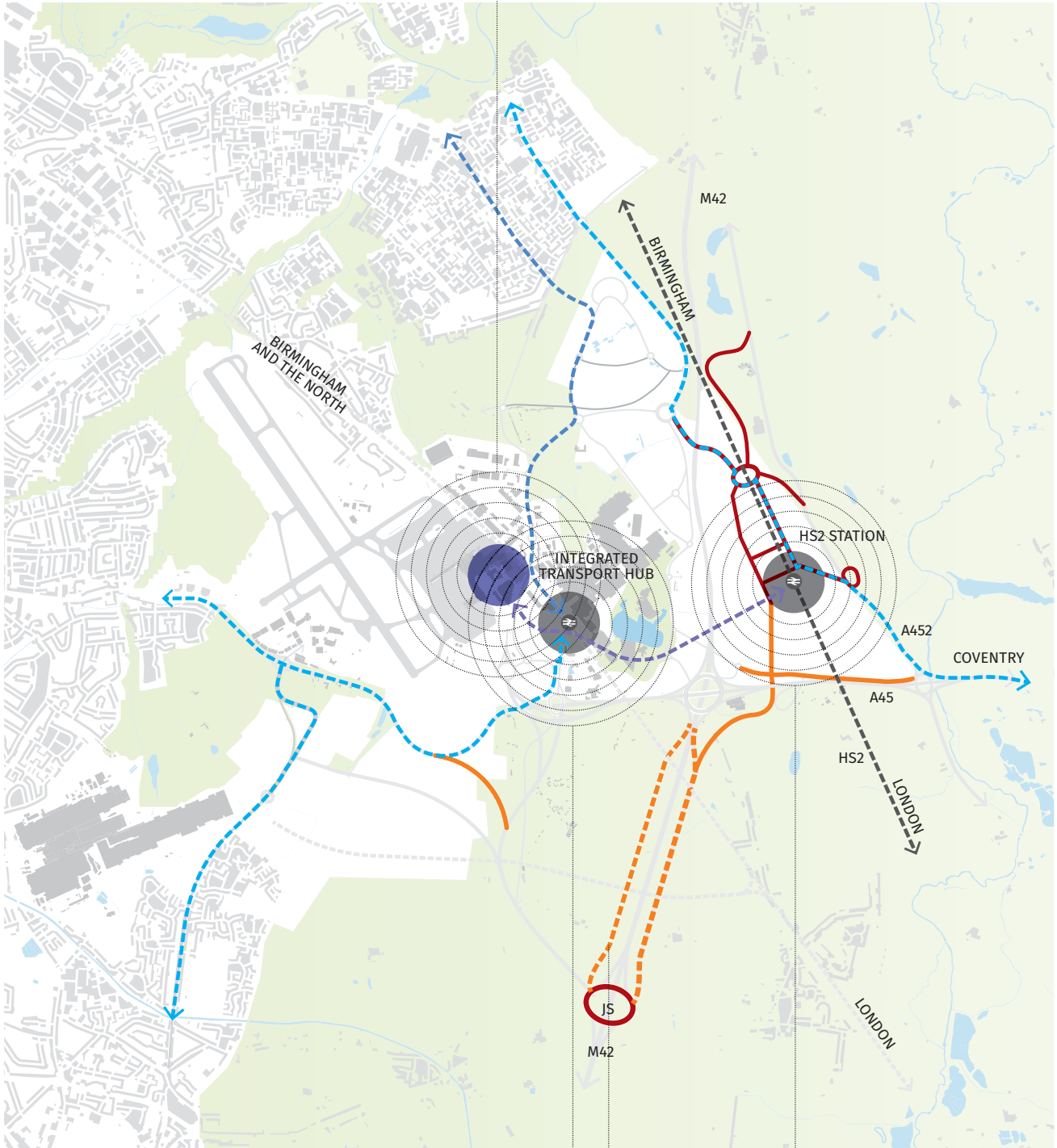


FIGURE 14: TRANSPORT INFRASTRUCTURE UPGRADES BY 2027 OPTION 1 (PHASE 2)

INTEGRATED TRANSPORT HUB

- Integrated Transport Hub sufficiently complete to receive HS2 APM, Midland Metro
- HS2 APM operational between Birmingham Interchange, Birmingham International and Birmingham Airport
- Midland Metro and Sprint schemes operational up to the Integrated Transport Hub

DOUBLE JUNCTION

- Proposed double junction to support development of Arden Cross Site

UKC INTERCHANGE

- An APM link between the HS2 Interchange Station and the existing terminal will be provided as part of the Hybrid Bill

PRIMARY INFRASTRUCTURE OPTION 2

NEW COMBINED AIRPORT TERMINAL/HS2 STATION

Option 2 describes the potential scenario of a combined HS2 Station/Airport Terminal being built during this phase. The infrastructure upgrades west of the M42 are likely to be identical to those described in option 1. It is recognised however that the supporting infrastructure (roads and utilities) this option may require could be significant. A further study and working in partnership with the key stakeholders is needed to determine requirements and implementation strategy which will depend on the Airport's development scenario.

For example, if the Airport chooses to develop capacity at its current site, it could be optimal to provide some check in and baggage drop facilities at the station. It is therefore key to build flexibility into the way the Integrated Transport Hub is planned, designed and developed.

The future proofing of the HS2 Interchange Station would continue during construction until its opening in 2026.

OPPORTUNITY

This development option provides an opportunity to deliver the majority of the benefits of the Arden Cross option whilst providing the region with enhanced global connectivity and a significant uplift in jobs and GVA. This option is complementary and not in place of the Arden Cross development.

AIRPORT GROWTH

Birmingham Airport are forecasting passenger growth which could likely result in passenger numbers in excess of 20 million by 2026. The current configuration of the Airport site and the location and size of the current terminal building is likely to constrain the Airport's ability to accommodate further growth based on the current single runway configuration.

In order for the Airport to maximise growth it does need to extend its airside facilities (e.g. aircraft stands) and provide additional terminal facilities. To achieve this there will need to be additional terminal facilities outside the current site.

Restricting the Airport to development within its current site will not only cap the Airport's growth to circa 25 mppa but will critically limit regional jobs and GVA.

IMPLEMENTATION

The options of relocating the terminal building are limited. The only viable location identified, taking into account the need for excellent connectivity, is at the site of the HS2 Interchange Station where a combined HS2/Airport facility could be provided. Birmingham Airport is currently exploring with HS2 the possibilities for delivering such a facility .

Once the HS2 Interchange Station opens in 2026, it could include basic airport facilities which would not include any airside functionality (security, departure lounge etc.). The future proofing of the station would still enable other non-aviation development to take place on some of the land surrounding the Interchange Station.

A new combined terminal with the HS2 Station could create a unique multi-modal interchange, co-locating high speed rail with air, road, bus, rapid transit and other transport modes. Uniquely, this option builds on top of HS2 and would create the potential to enhance the scale of office, industrial retail/leisure and hotel uses within the Hub.


Birmingham Airport has estimated that the provision of a combined terminal on the HS2 Station-site could generate up to an additional 8,000 jobs on-site supported by off-site jobs of up to 23,000.

A new combined terminal is likely to effectively facilitate new office cluster and lead to increased demand in areas close to the Airport, if passenger numbers are similarly increased. It could also provide an opportunity to make more efficient use of car parking provision for both the Airport and HS2 operations.

For retail, hotel and leisure uses, the scale and potential of a combined terminal with direct links to the HS2 Station could be significant and drive a higher floorspace provision than otherwise envisaged which would boost employment and job creation.

It is vital that the UGC is involved in the process of developing the combined HS2 Station/Airport Terminal option. This will ensure that the optimum outcome is achieved to meet the needs of the Airport and HS2, as well as growth and infrastructure aspirations and the vision that both Solihull and the WMCA share for the UK Central Hub area.

LEGEND

- Secondary Roads
- Tertiary Roads
- - - Railway
- - - Midland Metro
- - - Sprint
- - - HS2 APM
- Airport
-  Railway Station
- - - Potential J6 Link Road

BIRMINGHAM AIRPORT

- 23-30 mppa
- Current site is likely to have reached capacity
- New airport facilities at the HS2 Interchange Station together with an additional APM link between the new facilities and gates to enable growth

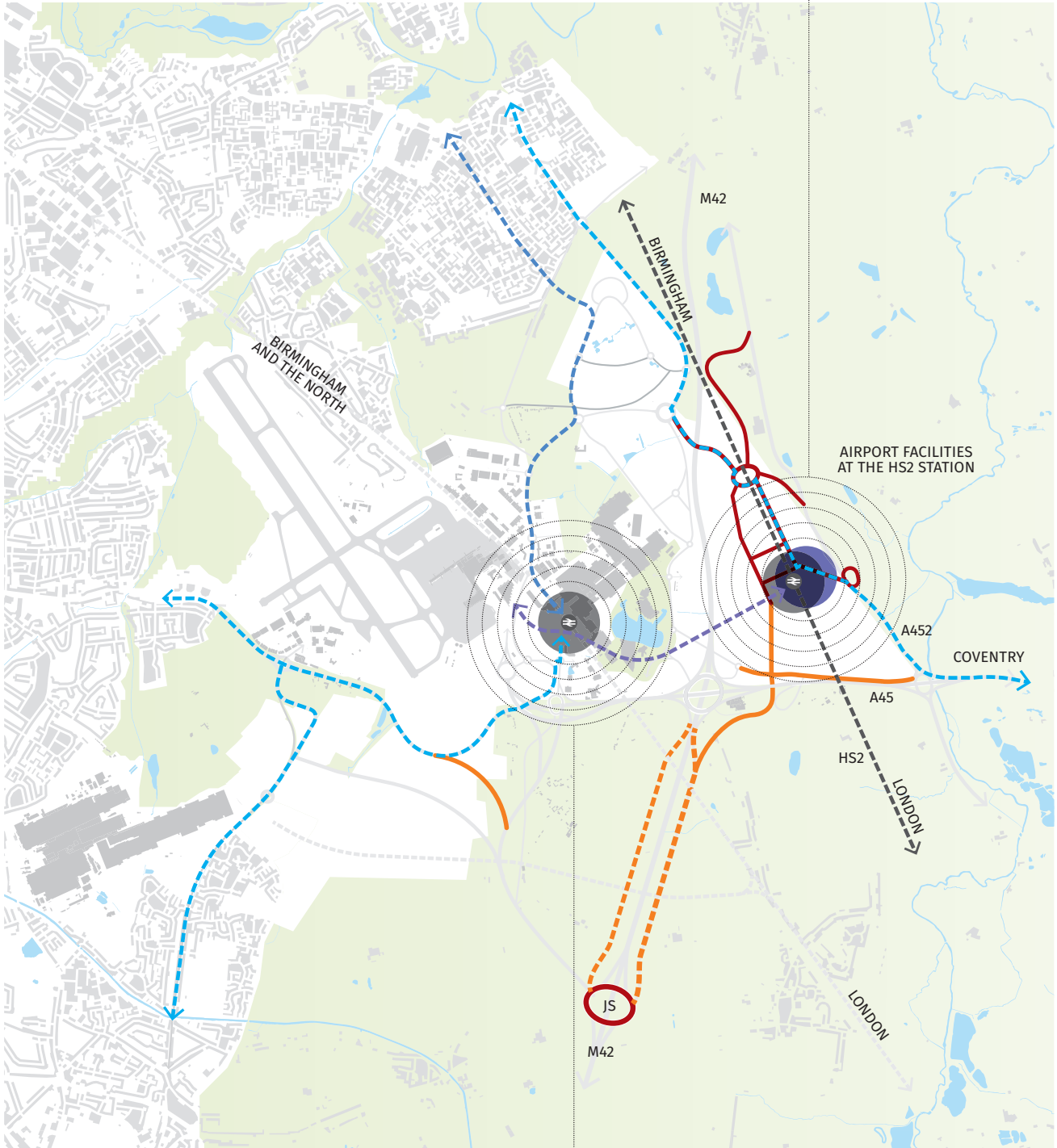


FIGURE 15: TRANSPORT INFRASTRUCTURE UPGRADES BY 2027 OPTION 2 (PHASE 2)

TRANSPORT INFRASTRUCTURE

- All other transport infrastructure upgrades as option 1

PHASE 2 (2023-2027)



DEVELOPMENT OPTION 1

MARKET CONTEXT

In this phase, occupier and investor demand is likely to be building in anticipation of the opening of HS2 Phase 1 and potential commitment to HS2 Phase 2.

There will be ongoing significant mixed-use development at the NEC totalling circa 70,000m² by 2026 (predominately prior to the opening of HS2 Phase 1 in 2026). Small scale supporting retail/leisure provision commences at the Arden Cross Site around 2026 as the first phase of offices are developed.

To achieve the development aspirations on the NEC site, office development will need to step up to circa 10,000m² pa for 2022-2025 and hit a total provision of just under 56,000m² by the end of Phase 2. This pace of development is likely to rely upon on a number of significant anchor tenants being secured and if this is not achieved, it may be more realistic to consider a longer take up period, in part, competing with the Arden Cross Site. Office, retail, food and hotel uses will also commence on the Arden Cross Site in 2026, to tie in with the opening of the HS2 Station.

Small scale apartment building is assumed to continue on the NEC site (as part of the 'mixed-use' area quantum), interspersed with the emerging office and leisure developments as the wider site becomes serviced and accessible. Subject to infrastructure constraints, early phases of residential development could come forward on the Arden Cross Site.

JAGUAR LAND ROVER

During Phase 2, Jaguar Land Rover may look to increase the efficiency and capability of the site through further development. To meet this objective, Jaguar Land Rover may need additional facilities which could require new off-site development away from the existing plant and would need to be focused on land adjacent to the existing Jaguar Land Rover plant.

At the same time, global end product businesses like Jaguar Land Rover could benefit from major strategic suppliers being located adjacent or close to their factory to cut costs and increase productivity. Jaguar Land Rover would strongly support the development of a mixed-use manufacturing campus next to their existing facilities in Solihull.

An allocation is proposed for advanced manufacturing which would provide high-quality jobs that would attract high calibre businesses to the area. This would complement the wider land-use allocation at the Hub.

NATIONAL EXHIBITION CENTRE

It is envisaged that within this phase, building on the achievements within Phase 1, further development and facilities could be introduced, such as an additional hotel, residential apartments, offices and a greater range of mixed-use development.

ARDEN CROSS SITE

Office development commences on-site in 2026 with a significant anchor occupier to kickstart development. This will help to create an initial scale of take up, build confidence in the scheme and enable the establishment of the Hub as a major office and residential location with apartments around the station. Completion of these developments would tie in with the opening of HS2.

The first phases of light industrial/commercial development open in 2024, as the road servicing is put in place. Strong latent demand, not subject to the need for HS2 connections, is likely to drive take up. Subject to infrastructure constraints, initial phases of residential development could also come forward.

In order to maximise opportunities at Arden Cross, the zUGC and the Council need to ensure that sustainable green infrastructure and development is implemented on its site.

IMPLEMENTATION

The UGC will have a framework which has a robust contractual structure with landowners, infrastructure funding support (public sector led) and there should be a clear planning policy position.

The UGC and Council's key role in Phase 2 will be to market the Hub at international trade fairs and to promote the composite schemes of the Hub within the WMCA in an appropriate manner along with landowners. Whilst the principle of infrastructure funding support will have been secured in Phase 1, there is a continued need to articulate and evidence the need for the drawdown of these funds from public sector sources and to test the eventual payback.

With the increased internal linkages within the Hub area, the UGC may need to coordinate areas such as wayfinding/signage across the area and also liaise with the landowners to establish ongoing maintenance/management arrangements for the Hub area sites.

PREDOMINANT LANDUSE

- Mixed-use/Housing
- Retail (including food and beverage)
- Industrial
- Green Belt

BIRMINGHAM AIRPORT FURTHER DEVELOPMENT

- Generating great job opportunities and GVA benefits to the region

ARDEN CROSS SITE

- Office: approx. 18,000m²
- Light Industrial: approx. 17,000m²
- Mixed-use: approx. 784m²

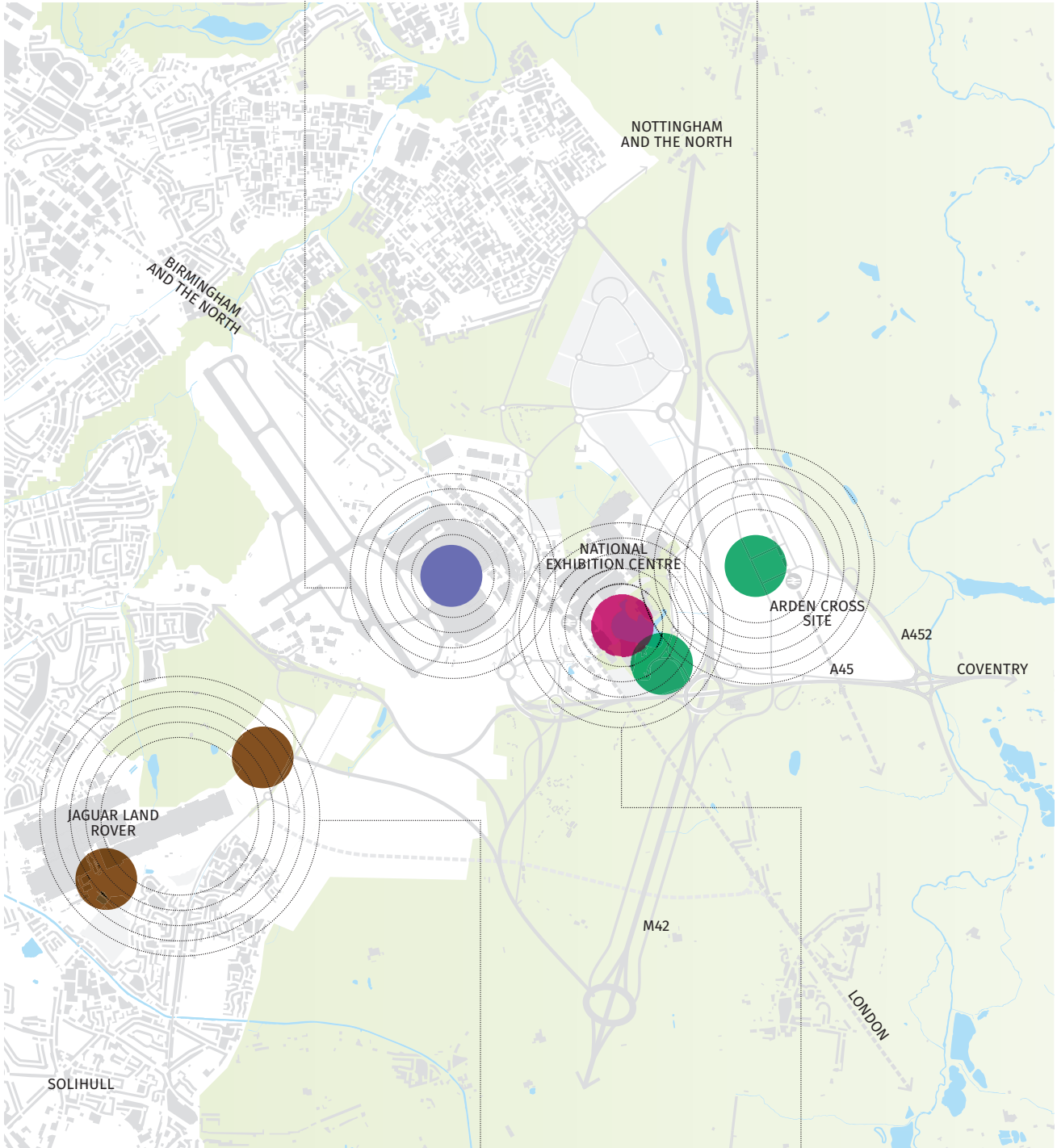


FIGURE 16: PROPOSED LAND-USES BY 2027 OPTION 1 (PHASE 2)

JAGUAR LAND ROVER

- Site development subject to planning, both on and off-site, which could lead to potential new sites being required along the Damson Parkway corridor for manufacturing and warehousing uses

NATIONAL EXHIBITION CENTRE

- Hotel: approx. 17,000m²
- Office: approx. 56,000m²
- Mixed-use: approx. 73,000m²
- Industrial Use: 16,000m²
- Residential: 420 units

PHASE 2 (2023-2027)



DEVELOPMENT OPTION 2

MARKET CONTEXT

This option reflects the possibility of a new combined HS2 Station and Airport terminal on the Arden Cross Site. This is likely to increase occupier and investor demand in anticipation of the opening of HS2 Phase 1. The land take for a combined station terminal on the Arden Cross Site will be greater when compared with just a rail station. However, as the site is over 144 ha in size, it is anticipated that it can still accommodate a variety of development uses.

The development potential of the other sites is likely to be very similar as described in option 1. Any anticipated differences are described here .

BIRMINGHAM AIRPORT

The possible development configurations being considered by the Airport and HS2 of a combined station and terminal building could provide further development land on the site which could augment those currently considered under development option 1. The benefits of this are not included in this HGIP but would likely to lead to greater job creation and GVA benefit to the region.

ARDEN CROSS SITE

The first phases of industrial/commercial development could open in 2024 but will be influenced by the supporting roads and infrastructure required to service a combined station and terminal building.

Office development could commence on-site in 2026 with the opportunity for a significant anchor occupier coming in to development at this time.

In order to maximise opportunities at Arden Cross, the UGC and the Council need to ensure that sustainable development, including green infrastructure, is implemented on its site, taking into account the combined station and terminal development option.

IMPLEMENTATION

Implementation of this option is predicated on the early current collaboration between the Airport and HS2 and the future proofing of the station design described in phase 1. The proposed UGC Hub Framework with its robust contractual structure with landowners, infrastructure funding support and a clear planning policy position, will play an important role in the implementation of this scenario.

PREDOMINANT LANDUSE

- Mixed-use/Housing
- Retail (including food and beverage)
- Industrial
- Airport
- Green Belt

ARDEN CROSS SITE/BIRMINGHAM AIRPORT

- Arden Cross - Office: approx. 18,000m²
- Arden Cross - Light Industrial: approx. 17,000m²
- Arden Cross - Mixed-use: approx. 784m²
- Birmingham Airport - 23-30 mppa
- New airport facilities combined with HS2 Interchange Station

BIRMINGHAM AIRPORT FURTHER DEVELOPMENT

- Generating great job opportunity and GVA benefit to the region

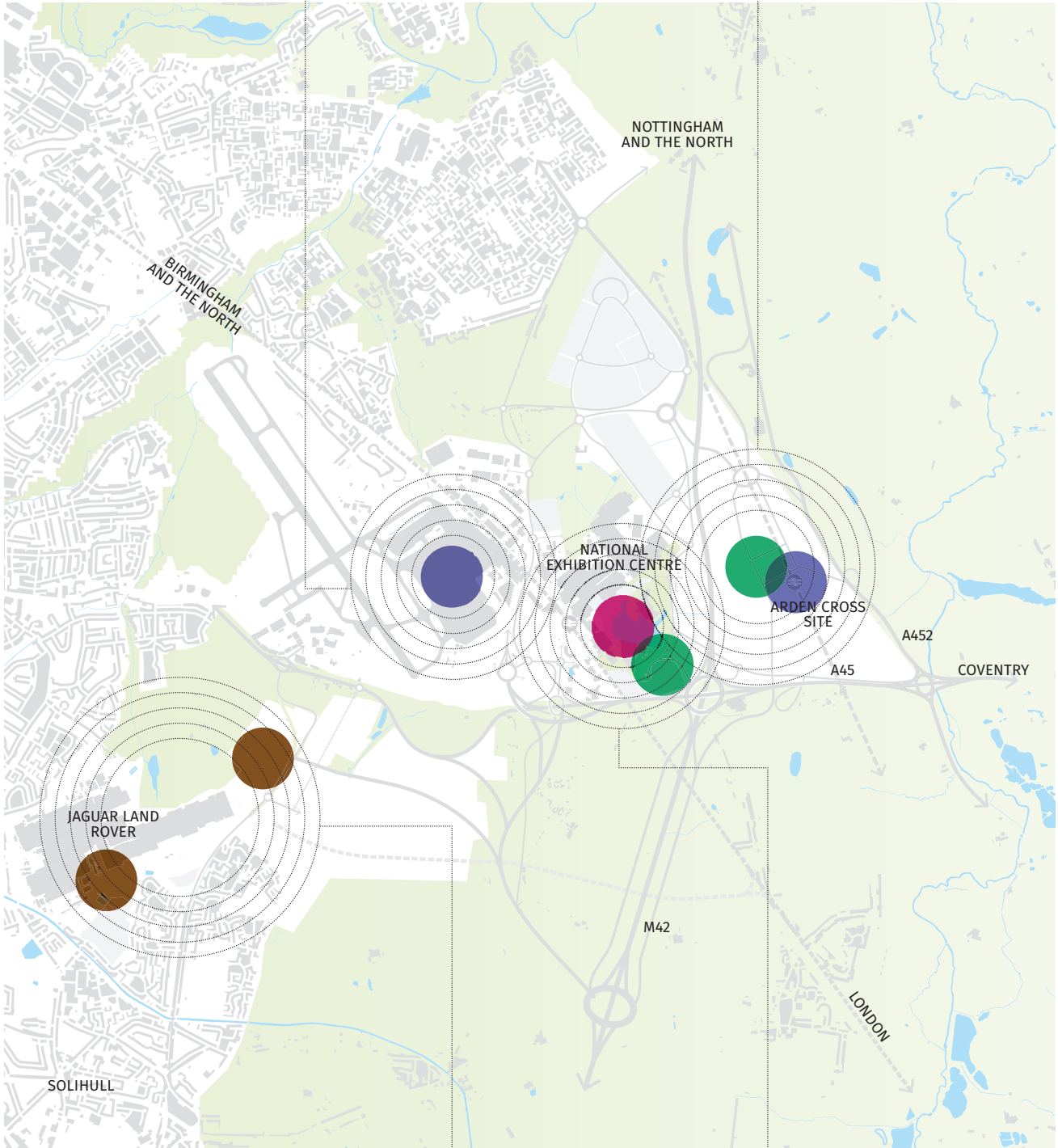


FIGURE 17: PROPOSED LAND-USES BY 2027 OPTION 2 (PHASE 2)

JAGUAR LAND ROVER

- Site development subject to planning, both on and off-site, which could lead to potential new sites being required along the Damson Parkway corridor for manufacturing and warehousing uses

NATIONAL EXHIBITION CENTRE

- Hotel: approx. 17,000m²
- Office: approx. 56,000m²
- Mixed-use: approx. 73,000m²
- Industrial Use: 16,000m²
- Residential: 420 units

PHASE 2 (2023-2027)



COMMONWEALTH GAMES OPPORTUNITY

2026 COMMONWEALTH GAMES AND LEGACY

Birmingham City Council (BCC) launched its official bid to host the 2026 Commonwealth Games in September 2016. Alongside the Birmingham City Council, the bid is also backed by the Greater Birmingham and Solihull Local Enterprise Partnership (GBSLEP), the Midlands Engine and the West Midlands Combined Authority (WMCA). Should the 2026 Commonwealth Games be held at the site then the UGC will need to have a contractual position with the Games' Operating Committee and work on the implementation of any 'legacy vision' which emerges as part of these proposals.

The Commonwealth Games would drive the development of social infrastructure and encourage some sport anchor occupiers to locate within the Hub (primarily within the NEC site at this stage) following the selection of Birmingham as the host city (potential announcement in 2020).

Hosting the games could boost the region's economy and generate in excess of £390m GVA for the local economy, create thousands of jobs and propel the region onto the global stage. In addition to the huge economic impact, the events would bring significant social and cultural benefits and would showcase the very best of the city and wider region to the world. Planning for the bid would also help boost the city's transport and housing plans.

Both the WMCA and the GBSLEP believe the region's existing infrastructure, the improved transport links which will see faster and more efficient travel, its skilled workforce and experience in the events sector makes the West Midlands a very attractive proposition for the Commonwealth Games, or any other future international event. It is also noted that HS2 Phase 1 is set to be operational from 2026.

BCC plans to commission a full feasibility study and form the Commonwealth Games 2026 bid committee to progress the city and region's ambition to host the event. A decision on which UK city will be chosen to go ahead with its bid will be made in 2018. The final decision on the host city is due to be made in September 2019 by the Commonwealth Games general assembly.

MARKET POSITION

Although not a driving demand factor, should Birmingham be selected as the host city for the Commonwealth Games 2026, there is the potential that this event could assist in raising the profile of the Hub at a time when it is newly benefiting from the first phase of HS2 (2026) and the associated infrastructure.

This potential comes from the assumption that the mix of uses and interest that such an event brings about could help to maximise the branding opportunities for the Hub. This could have the effect of enhancing demand from both commercial and residential occupiers, and providing focus and drive to development of social infrastructure, with the benefit of sports anchor occupiers within the Hub (particularly the NEC area).

This view is supported by examples of the legacy left by the impacts of previous sporting events on areas that previously experienced lacklustre demand, such as the Commonwealth Games in Manchester in 2002.

UTILITIES

If the Commonwealth Games goes ahead in 2026 then it is likely to be in a context where strategic utilities works will already be underway in readiness for HS2 related growth across the Hub area. As the Games site will occupy some of the development area, it is likely that it will require capacity that has been planned and provided for the development zones. The provision of strategic infrastructure in advance of demand would facilitate such a strategy.

It will be important to track the progress of the bid, as a successful bid would allow a conjoined approach to utilities provision from an early stage which would ensure that it can be delivered in a way that provides the necessary legacy opportunity for economic activity once the games are completed. It is possible that the Games requirements would change some of the development land-uses permanently. If that is the case, it will be important that the Utilities Strategy allows for this variation from the outset.



FIGURE 18: COMMONWEALTH GAMES OPPORTUNITY – COMMONWEALTH GAMES 2026 (PHASE 2)

PHASE 3 (2028-2032)



During this phase the HS2 Station and secondary infrastructure should be fully operational.

PRIMARY INFRASTRUCTURE

RAIL

The number of passengers using the rail station up to 2032 will depend on the success of delivering the projected growth on the rail network, at Birmingham Airport and HS2, and on the way in which the area around the station develops. It is key to build flexibility into the way the Integrated Transport Hub is planned, designed and developed.

The Integrated Transport Hub will have been completed with the form of facility dependent on the aligned development strategy for the Airport. In addition, Midland Metro will be extended to Birmingham Interchange, and Sprint services will be connected to the Integrated Transport Hub and Birmingham Interchange (dependent on development demand and overall strategy for airport development).

The HS2 Station will be fully operational in this phase.

BIRMINGHAM AIRPORT

It is estimated that passenger numbers will increase to circa 23-30 mppa by 2032. By this time, the current site will have reached capacity. Realisation of the opportunities provided by the new HS2 Interchange, APM, new airport facilities and additional parking will be required in order to release space within the existing site to increase capacity.

The key issues related to the highway network serving Birmingham Airport include capacity constraints at the M42 J6, Clock Tower (link with the A45) and the signal intersection at Elmdon with Damson Parkway. These issues would still remain even if the airport terminal building was co-located with the HS2 Station.

Public transport to the Airport is good with rail links provided via Birmingham International Station and bus links that serve traffic to and from the conurbation. The West Coast Main Line capacity constraints are a key issue in developing further rail based passengers.

If passenger numbers continue to grow at their current rate, there could be the need for a combined airport/HS2 terminal with an airside link between the existing terminal and the new combined terminal during this phase. Such a terminal would include all airside and landside facilities. It would also require ancillary facilities

such as parking and access. It could be a landmark feature, representing the gateway into the UKC Hub, providing seamless connectivity between HS2 and the airport and facilitating the wider development of the Hub to maximise the economic and social benefits of HS2 and the Airport.

ROAD LINKS AND PUBLIC TRANSPORT

Further upgrades to the road network inside and around the Arden Cross Site are proposed to provide better access and to unlock further development potential.

Public transport will also benefit from a Sprint or Metro Transit type system that will connect Birmingham City Centre with east Birmingham and North Solihull including the NEC, Airport, Arden Cross Site and the wider Hub area.

In addition, a full Sprint bus service is expected to be up and running.

UTILITIES PROVISION

Network reinforcement would be complete in this phase.

Further power underground cabling will be required, alongside work on primary distribution routes at the Arden Cross Site and NEC. There will be an incremental build-out of electrical distribution and primary and secondary substations at the Arden Cross Site and NEC, along with required diversions. For gas, the Arden Cross Site gas main network will require implementation, although much depends on the rate of residential build out. Foul and surface water projects will also be required.

During this phase, potential airport expansion could have a significant impact in terms of utility demands. It will be important to have appropriate safeguards in place, even within earlier phases, to allow this step change to occur, if appropriate. It is unlikely that this would have been fully provided for to date. This may involve some works in the Phase 2 period to achieve the programme.

Some of the creative funding mechanisms are likely to be seeing a return by this stage, as the early investment that may have been pump-primed would be maximised with developers paying back for the connections they were using.

LEGEND

- Secondary Roads
- - - Possible additional Secondary Roads
- Tertiary Roads
- - - Midland Metro
- - - Sprint
- - - HS2 APM
- Potential Midland Metro
- Potential Sprint
- Railway Station (New and Upgrade)
- Airport

INTEGRATED TRANSPORT HUB

- Integrated Transport Hub complete (form of facility dependent on Airport scenario)
- Midland Metro extended to Birmingham Interchange dependent on development demand and Airport scenario
- Selected Sprint schemes connect Integrated Transport Hub and Birmingham Interchange dependent on development demand and Airport scenario

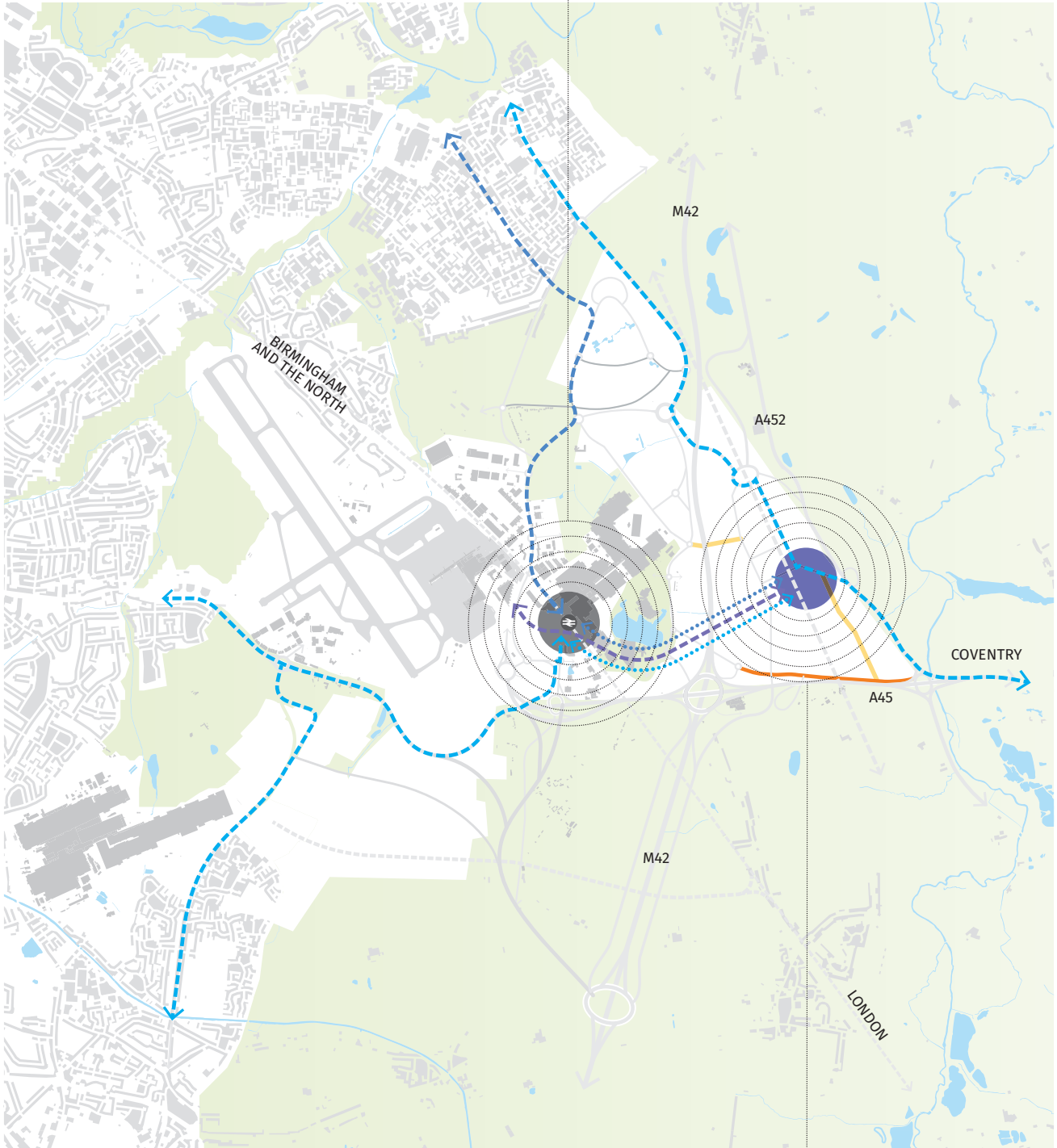


FIGURE 19: TRANSPORT INFRASTRUCTURE UPGRADES BY 2032 (PHASE 3)

UKC Interchange

- Possible further expansion of airport facilities if combined airport terminal/ HS2 Interchange Station is built

PHASE 3 (2028-2032)



DEVELOPMENT

MARKET CONTEXT

By this phase, the land market should be mature and development values will be well-established. The opening of HS2 Phase 1 will drive significant levels of occupier requirements, based on a wider pool of demand and potential occupiers. Demand should be building in anticipation of further links to be provided by HS2 Phase 2.

Initial planned development at the NEC is expected to be complete, leaving other land to the north of the site to potentially be developed in the long-term. Office development is focused on the Arden Cross Site with additional major national/international anchor occupiers in 2031. Mixed-use development at the Arden Cross Site comes forward in tandem with office and residential development to ensure that there is the look and feel of a major development which attracts and retains occupiers.

Industrial provision for the open market at the Arden Cross Site runs at circa 9,000m² per annum. There continues to be the potential for a Mixed-use Manufacturing Campus on land adjacent to Jaguar Land Rover's existing facilities. This space could potentially be utilised by Jaguar Land Rover and/or third parties.

Residential development is complete at the NEC in 2026 and development is concentrated at the Arden Cross Site, with the base development trajectory averaging 90 units per annum, with an upward trajectory as the area becomes more established and popular.

JAGUAR LAND ROVER

Should prior phases have been implemented by 2032, Jaguar Land Rover will have continued its site development which may lead to additional manufacturing and warehouse facilities. At the same time, the rail freight link from the West Coast Main Line to a potential Mixed-use Manufacturing Campus and Jaguar Land Rover would be commercially beneficial.

NATIONAL EXHIBITION CENTRE

Ongoing office development at the NEC is likely to be incremental in character and trade at a discount to the areas immediately adjacent to the HS2 Station.

There is likely to be development of further leisure facilities in the north of the site. Residential development is likely to be completed in this phase of sustained growth.

ARDEN CROSS SITE

The Arden Cross Site will provide the main focus for provision of office space in the Hub area, with annual delivery of new space.

Leisure and retail development will be underway which will be critical for creating a sense of place in the development. This will tie in with the office development to provide a blend of spaces that is not always possible to achieve in city centre locations. It will reinforce the site as an attractive location for commercial occupiers.

Significant residential development will come forward as initial infrastructure and office occupiers will be in place. However, provision is likely to be limited until there is a reasonable critical mass in commercial offer and greater public realm infrastructure to attract purchasers/renters and support a buoyant apartment market.

Light industrial development continues at a steady pace.

IMPLEMENTATION

In Phase 3, the UGC will be assumed to have a framework which has a robust contractual structure with landowners, infrastructure funding support (public sector led) and a clear planning policy position. In partnership with landowners, clear branding should be in place for the component sites within the Hub area. If any communal areas should require shared maintenance/management then the UGC should seek to facilitate this. Whilst the principle of infrastructure funding support will have been secured in Phase 1, there is a continued need to articulate and evidence the need for the drawdown of these funds from public sector sources and to test the eventual payback.

PREDOMINANT LANDUSE

- Mixed-use/Housing
- Commercial
- Hotel
- Leisure/Institutional
- Light Industrial
- Industrial
- Airport
- Green Belt

ARDEN CROSS SITE

- Office: approx. 39,000m²
- Light Industrial: approx. 45,000m²
- Mixed-use: approx. 13,000m² (plus approx. 445 residential units)
- Possible further expansion of airport facilities if combined airport terminal/HS2 Interchange Station is built

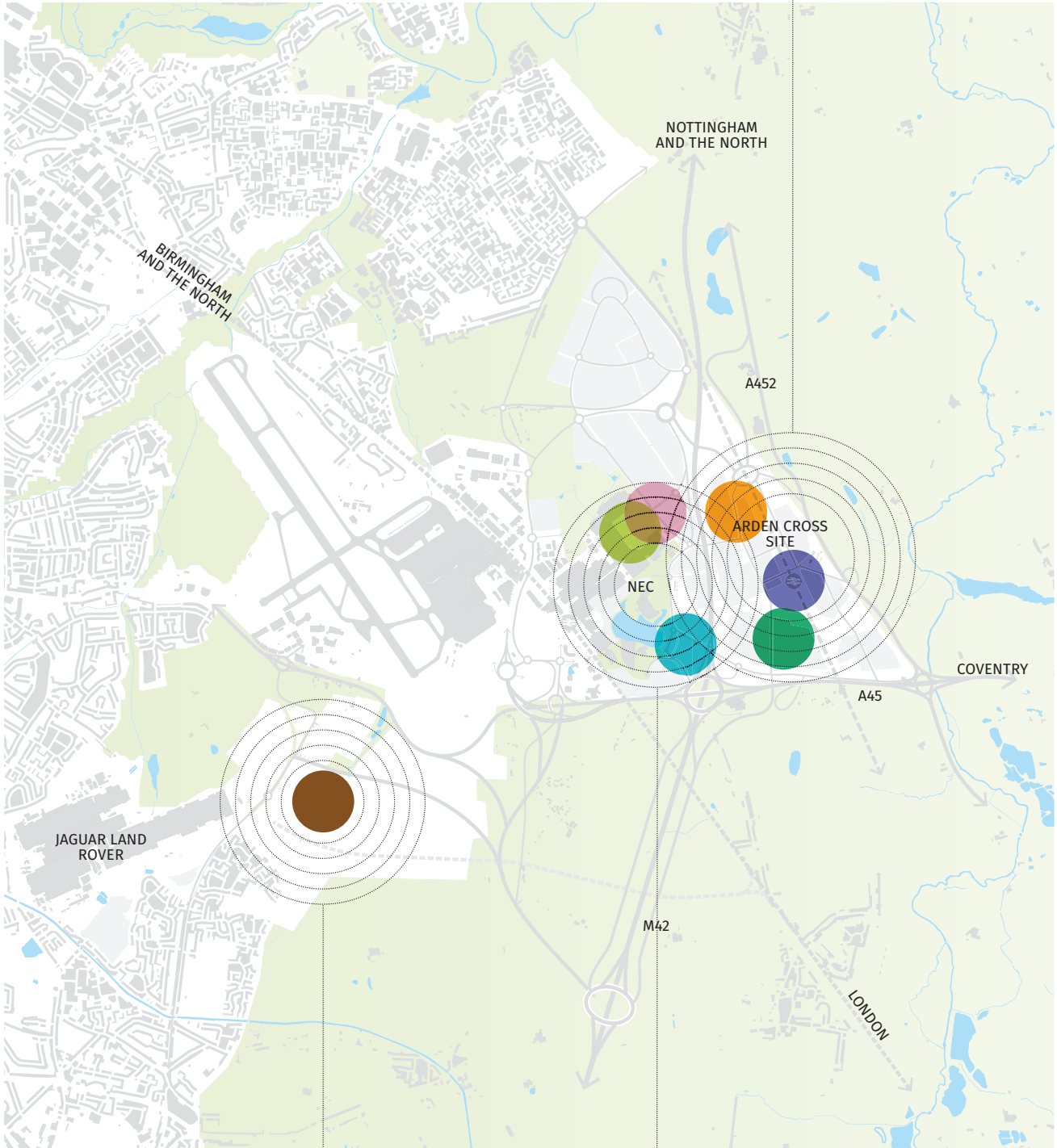


FIGURE 20: PROPOSED USES BY 2032 (PHASE 3)

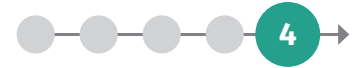
MIXED-USE MANUFACTURING CAMPUS

- Potential development of a Mixed-use Manufacturing Campus

NATIONAL EXHIBITION CENTRE

- Further phases will include additional leisure, retail and hotel facilities

PHASE 4 (BEYOND 2032)



HS2 Phase 1 and internal infrastructure will be operational, HS2 Phase 2 under construction. The new combined airport terminal could be in progress during this phase.

PRIMARY INFRASTRUCTURE

RAIL

The number of passengers using the rail station beyond 2032 will depend on the success of delivering the projected growth on the rail network, at Birmingham Airport and HS2, and on the way in which the area around the station develops. It is therefore key to build flexibility into the way the Integrated Transport Hub is planned, designed and developed to accommodate possible further significant growth.

Beyond 2032, further expansion of Midland Metro and Sprint services will respond to development demand.

BIRMINGHAM AIRPORT

Longer term, should the airport passenger volumes continue to grow, then consideration may well be required for further expansion of the airport facilities. This is likely to be required to achieve growth beyond 30mppa. A taxiway would also be required to link the new runway with the existing runway to maximise operational efficiencies.

A lot of work would be required by the Airport to substantiate and demonstrate need, and to prepare a business case (supported by their shareholders) to justify further expansion, which would also require the support of Government with an updated Civil Aviation Policy for regional UK airports.

Birmingham Airport have estimated that a 65 mppa airport with new terminal infrastructure and a second runway could deliver at least £7.3bn in GVA for the greater Birmingham economy and contribute some £11.4bn to the total UK economy per annum.

Beyond 2032 the combined airport/terminal could become established and ancillary development such as hotels and other commercial uses will be attracted to the triangle as passenger numbers at the airport increase.

UTILITIES PROVISION

For power, new utilities corridors will be required at the Arden Cross Site, with distribution and secondary substations. A new utilities corridor will be required for the NEC. Ongoing gas distribution networks will require implementation, along with potable water delivery in line with build out at the Arden Cross Site during this period. Foul and surface water projects will also be required.

LEGEND

- - - Midland Metro
- - - Sprint
- - - HS2 APM
- Airport

UKC Interchange

- Possible further expansion of airport facilities if combined airport terminal/HS2 Interchange Station is built

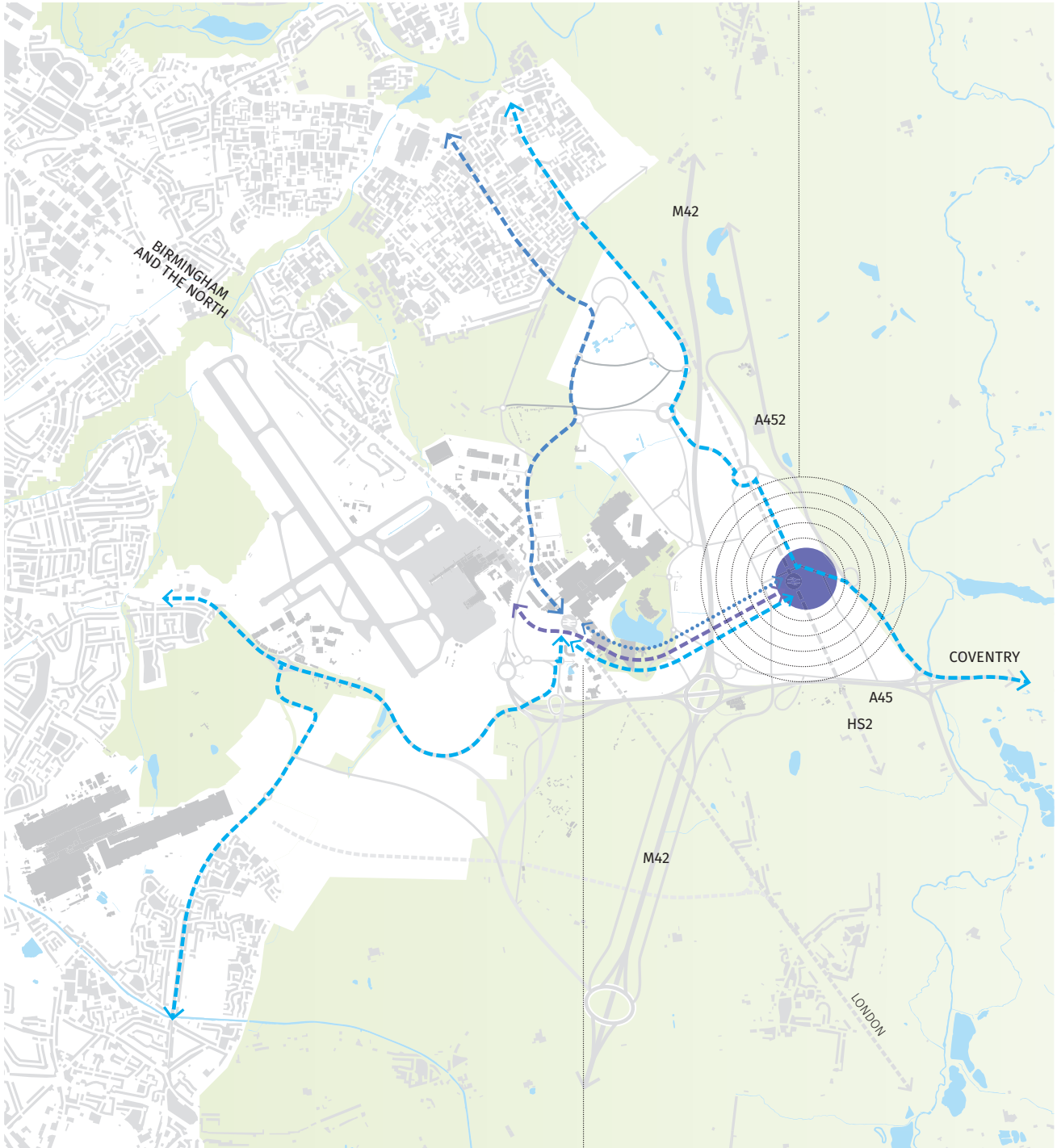
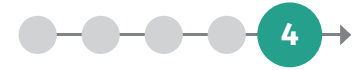


FIGURE 21: TRANSPORT INFRASTRUCTURE UPGRADES BEYOND 2032 (PHASE 4)

INTEGRATED TRANSPORT HUB

- Any further extensions of Midland Metro and Sprint to respond to forthcoming developments

PHASE 4 (BEYOND 2032)



DEVELOPMENT

MARKET CONTEXT

HS2 Phase 2 will open in 2033. This will drive additional retail/leisure provision close to the HS2 Station and the developing office provision. Other smaller scale retail, leisure and mixed-use development continues alongside the development of office space and residential units.

Office development will continue on the Arden Cross Site with a major national/international anchor occupier in 2035. From this point onwards the office development is undertaken on a more incremental basis as the site becomes more established; this completes in 2046 with build out at near 6,000m² annually.

Light industrial development at the Arden Cross Site completes a few years into this phase. Subsequently, all of the assumed 13,300m² pa take up in the Hub area will be within the Mixed-use Manufacturing Campus adjacent to Jaguar Land Rover's existing facilities.

Residential development at UK Central will increase in pace annually from 137 in 2032 up to 150 units pa at completion based on a multiple housebuilder model and varied tenures. Through this period, the residential development is positioned as a mixed-use offer linked into the office and commercial development within the Hub area. This allows for value growth which has the potential to sustain the proposed trajectories and support the development of apartments in this location. The southern part of the Hub could also be considered for lower density housing.

MIXED-USE MANUFACTURING CAMPUS

Potential development of the Mixed-use Manufacturing Campus.

NATIONAL EXHIBITION CENTRE

Although timescales for longer term developments are as yet undefined, it is envisaged that the northern part of the site could be developed for leisure destination uses, potentially including a theatre venue, additional visitor attractions and mixed-uses.

ARDEN CROSS SITE

It is anticipated that there will be continued, steady office development as the scheme begins to achieve critical mass, along with a final large anchor in 2035. Leisure and retail provision will be developed in sync with office and residential space provision.

The pace of residential development will increase. The proposed scale of provision is considered to be ambitious. However, the fact that the UKC Hub will be part of an interconnected whole is a key strength. If attempting to bring forward this scale of provision, the Arden Cross Site must ensure the unique attributes of the location are emphasised together with the added benefit of larger apartment sizes.

Light industrial development completes early in this phase.

IMPLEMENTATION

It is assumed that the UGC has by now a framework with a robust contractual structure with landowners, infrastructure funding support (public sector led) and a clear planning policy position. In partnership with landowners, clear branding should be in place for the component sites within the Hub. Should any communal areas require shared maintenance/management then the UGC should seek to facilitate this. Infrastructure funding will be secured and expended for all critical and non-incremental items.

Circa 40% of the overall Hub development (excluding residential) is envisaged to come forward post 2032. The enforcement and flexibility of planning policy to adapt to changes in market demand/requirements will be important to ensure the success of development at the sites.

If the Airport variant is to be pursued, any major retail development around the combined terminal (and links to the HS2 Station) will require agreement between the existing landowners, the UGC and Birmingham Airport in relation to funding and ownership.

PREDOMINANT LANDUSE

- Mixed-use/Housing
- Commercial
- Leisure/Institutional
- Industrial
- Airport
- Green Belt

UKC INTERCHANGE

- Retail: 20,000m²
- Possible further expansion of airport facilities if combined airport terminal/HS2 Interchange Station is built

MIXED-USE MANUFACTURING CAMPUS

- Potential expansion or completion of a Mixed-use Manufacturing Campus

ARDEN CROSS SITE

- Office: approx. 125,900m²
- Light Industrial: approx. 21,200m²
- Mixed-use: approx. 24,200m² (plus approx. 2,000 residential units)

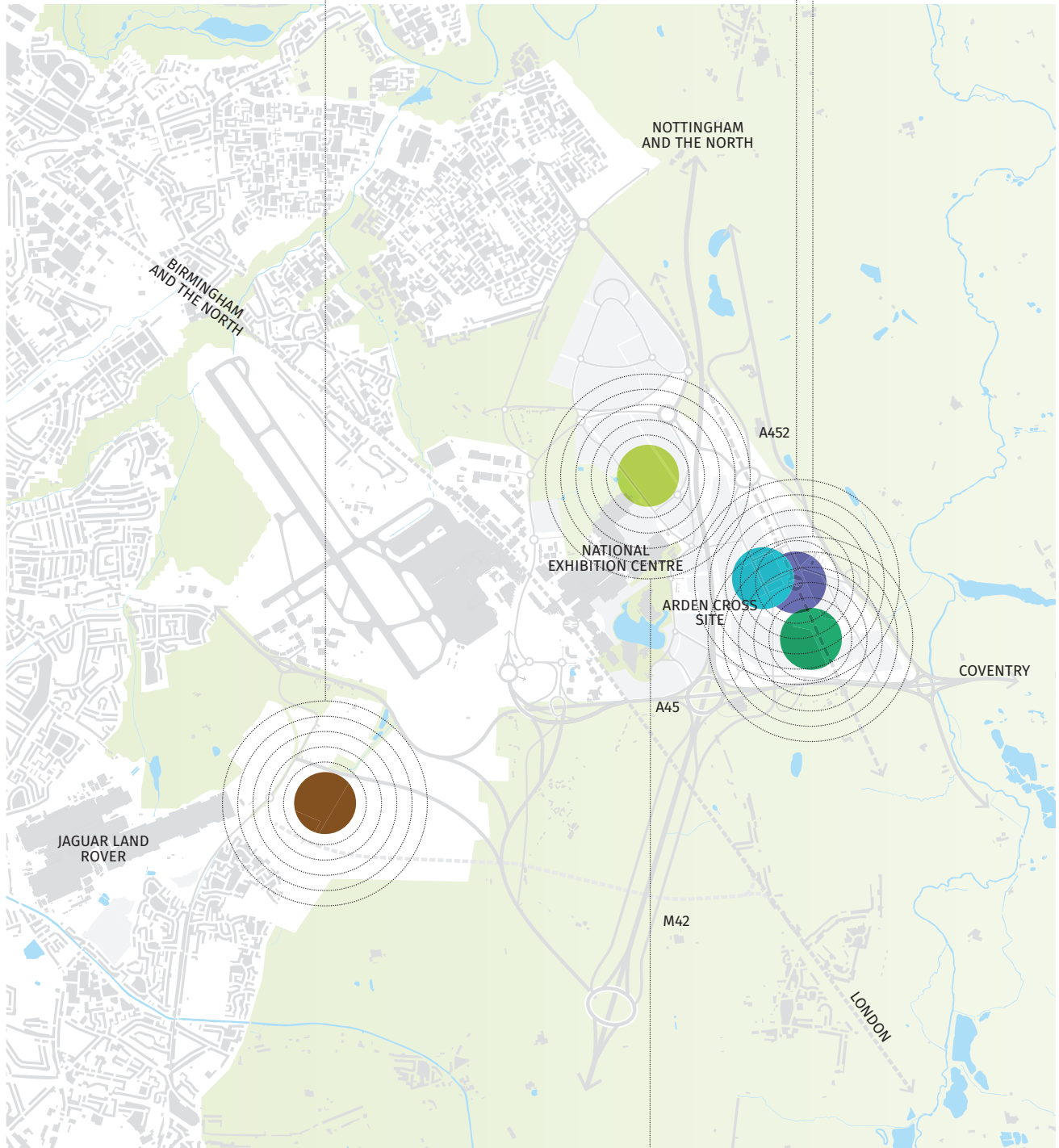


FIGURE 22: PROPOSED USES BEYOND 2032 (PHASE 4)

NATIONAL EXHIBITION CENTRE

- North part of site: ambition for leisure destination uses including theatre venue, visitor attractions and mixed-uses

6 OUTCOMES

Delivery of the UK Central Hub Growth and Infrastructure Plan will result in substantial economic growth.

MARKET DEVELOPMENT

The UKC Hub has the potential to become a major engine for economic growth at a regional and national scale. Targeted investment in infrastructure will be the catalyst for all new development and the expansion of existing businesses. Investment will ensure that the area can achieve its full market potential with the development of new offices, industrial accommodation, mixed-use schemes and hotels, as well as additional homes.

In addition to new commercial and residential development, it is projected that investment at Birmingham Airport will enable significant increases in the number of passengers, from 11 million to more than 30 million per annum in the longer term.

FLOORSPACE

In total, 775,000m² of commercial and mixed-use floorspace is expected to be developed within the Hub over the longer term. Circa 20% of this (156,000m²) is forecast to be delivered by 2022. By 2032, with HS2 operating and other infrastructure improvements in place, almost 470,000m² of commercial floorspace is expected to be delivered – circa 60% of the total.

The early phases are forecast to see substantial industrial development associated, in particular, with Jaguar Land Rover. In Phase 2, significant office and mixed-

use development is expected at the NEC. Further office, industrial and mixed-use development is then anticipated in Phases 3 and 4, fuelled by the opening of the HS2 Station.

NEW HOMES

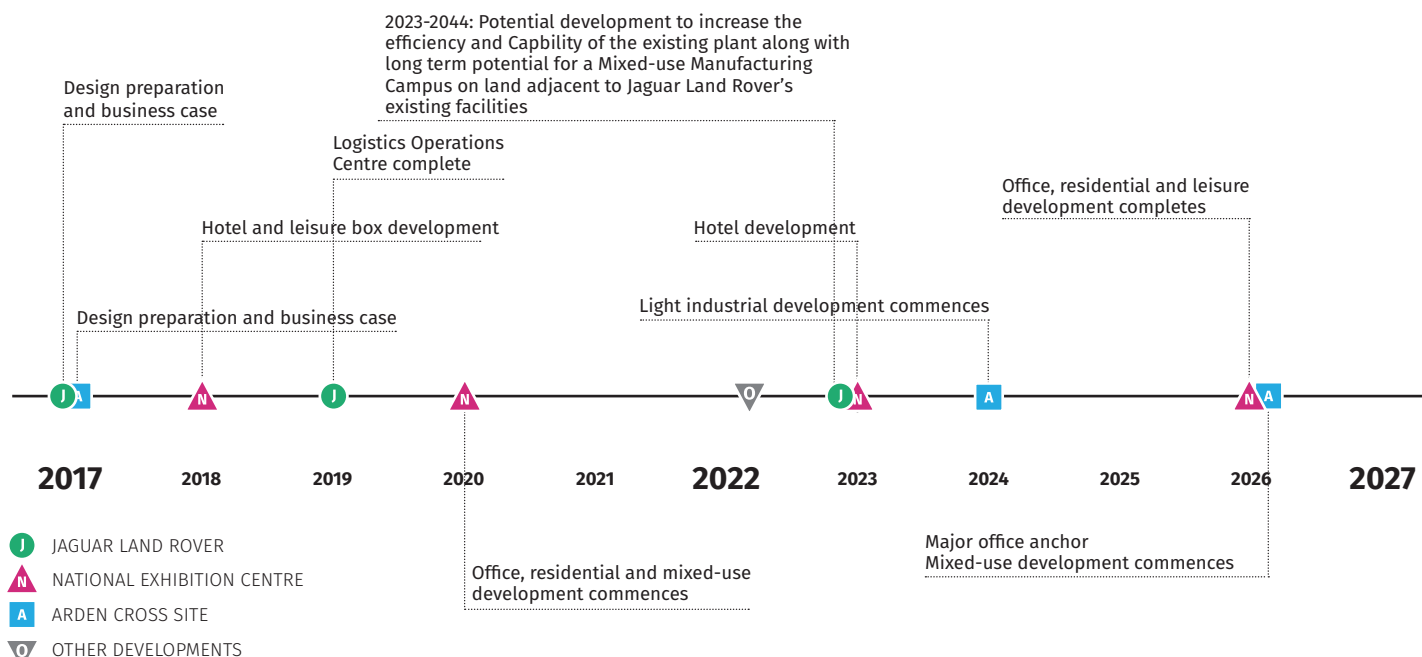
Over 3,500 new homes are forecast to be developed in the Hub over the longer term. The number of units envisaged to be delivered per phase, from a predominately market led perspective, is outlined in Section 4. However, taking a more aspirational view of potential delivery rates based on a development heavily focused on ‘market making’, strong public sector intervention/delivery mechanisms, innovative construction methods and upfront infrastructure provision, an upper end range has been utilised in the figures overleaf. If demand could be generated to deliver at these rates, then the sites in the Hub area should have the capability to accommodate this. The range of units to be delivered by 2032 is 1,000-2,230.

The provision of new infrastructure in the UK Central Hub will also provide additional and wider housing growth opportunities in other areas of the WMCA.

BUSINESS RATES AND COUNCIL TAX UPLIFT

It is estimated that the sites, once fully developed, will generate additional business rates of more than £36m per annum (excluding the expanded airport). In addition, Council Tax of some £3.5m each year would be generated.

FIGURE 23: DEVELOPMENT DELIVERY



CONSTRUCTION JOBS

Based on the forecast of new floorspace and homes, it is estimated that over 22,750 person years of construction employment (or 2,275 ten year equivalent jobs) will be generated in total in the Hub. Further construction sector jobs will be supported through developments to expand the Airport and to deliver the new infrastructure.

PERMANENT JOBS

The development of new floorspace within the UKC area will create significant additional employment opportunities. There is an estimated capacity to accommodate almost 35,000 FTE jobs across the Hub area.

Over 4,600 FTE direct jobs are expected to be generated by 2022. By the end of Phase 3 (2032), more than 16,500 FTE direct new jobs (half of the total) are forecast to be created.

Approximately 50% of the total employment is expected to be office based, while around 20% will be industrial (comprising manufacturing or distribution activities). The remaining 30% is expected to comprise a mix of employment opportunities including service based activities within the Airport.

Based on initial projections, it is anticipated that a significant proportion of the office employment will be accommodated within premises delivered at the Arden Cross Site and through the expansion of facilities at the NEC. A high proportion of the industrial employment is expected to be within the advanced manufacturing sector.

The expansion of Birmingham Airport is forecast to create approximately 10,000 FTE jobs and potentially substantially more associated with both the direct operation of the Airport alongside retail and other service activities within the terminal. Allowing for wider off-Hub effects, it is estimated that some 77,500 FTE jobs could be supported across the West Midlands.

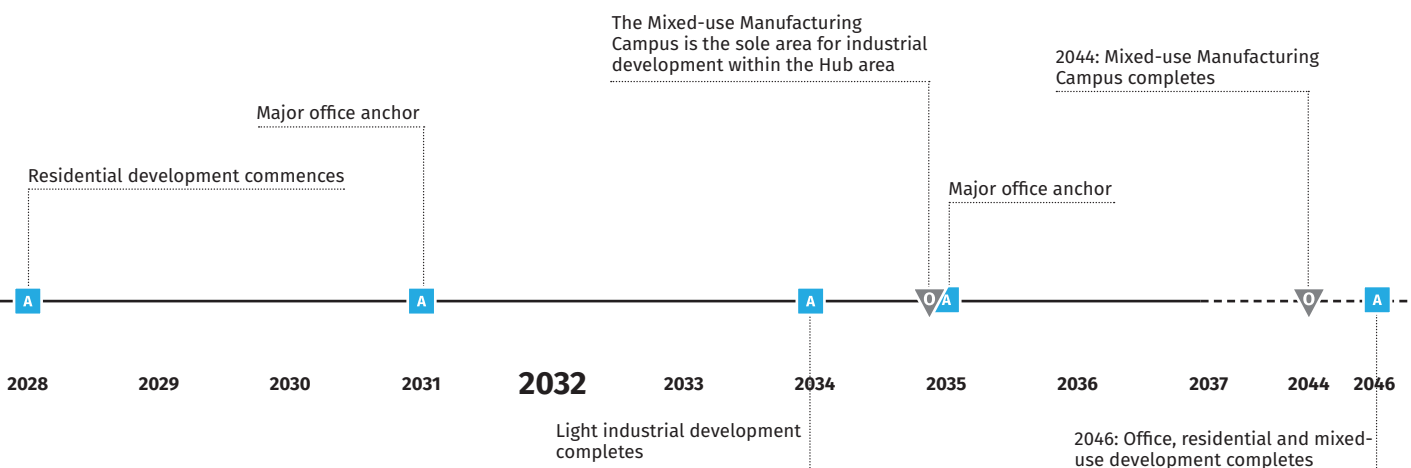
OCCUPATIONS

A wide range of employment opportunities are expected to be created. This includes a significant proportion of managerial and professional occupations, as well as associated professional and administrative roles.

Alongside primarily office based roles, the initial estimates also identify the potential for a significant number of skilled trade roles to be created, particularly associated with the proposed industrial activities at Jaguar Land Rover. This will be supported by opportunities for process, plant and machine operatives.

Opportunities are also expected to be created for service based occupations, particularly through the proposed expansion of the Airport alongside the delivery of new mixed-use facilities within the Arden Cross Site and at the NEC.

In addition to professional activities, it is anticipated that the industrial and service sector activities will create a significant quantum of elementary occupations, generating employment for relatively low skilled workers.



DEVELOPMENT DELIVERY

INFRASTRUCTURE AND DELIVERY RESPONSIBILITY

DEVELOPMENT OUTCOMES

PHASE 1 (2018-2022)

M42 J6 Improvements – Highways England
 Strategic Highway Improvements – HE /WMCA and TfWM
 CEF Birmingham Int'l Station Integrated Transport Hub – Network Rail
 HS2 Enabling Works – WMCA with Landowners
 Strategic Public Transport (Metro, Sprint) – WMCA and TfWM
 Local Highway Schemes – WMCA and TfWM
 Local Public Transport Schemes – WMCA and TfWM
 Energy and Communications – Utility Companies
 Water and Drainage – Utility Companies

£285m
 £20m
 £216m
 £20m
 £328m
 £16.5m
 £0
 £12.5m
 £25.5m

TOTAL INFRASTRUCTURE INVESTMENT:

£923.5m



- 156,000m² COMMERCIAL GFA**
- 4,600 - 9,700 FTE JOBS**
- 130 - 550 NEW HOMES (UKC HUB)**
- 750-1,500 NEW HOMES (WIDER WMCA)**

PHASE 2 (2023-2027)

Motorway Improvements – Highways England
 Strategic Highway Improvements – HE /WMCA and TfWM
 CEF Birmingham Int'l Station Integrated Transport Hub – Network Rail
 HS2 Station Design Change – WMCA, GBLEP, with Landowners
 Strategic Public Transport – (Metro, Sprint) WMCA and TfWM
 Local Highway Schemes – WMCA and TfWM
 Local Public Transport Schemes – WMCA and TfWM
 Energy and Communications – Utility Companies
 Water and Drainage Utility Companies

£0
 £30m
 £0
 £260m
 £200m
 £64.9m
 £1m
 £34.6m
 £28.3m

TOTAL INFRASTRUCTURE INVESTMENT:

£618.8m



- 193,000m² COMMERCIAL GFA**
- 6,800 - 12,400 FTE JOBS**
- 420-600 NEW HOMES (UKC HUB)**
- 1,000-1,500 NEW HOMES (WIDER WMCA)**

PHASE 3 (2028-2032)

Motorway Improvements – Highways England
 Strategic Highway Improvements – WMCA and TfWM
 CEF Birmingham Int'l Station Integrated Transport Hub – Network Rail
 HS2 Works – WMCA with Landowners
 Strategic Public Transport – WMCA and TfWM
 Local Highway Schemes – WMCA and TfWM
 Local Public Transport Schemes – WMCA and TfWM
 Energy and Communications – Utility Companies
 Water and Drainage – Utility Companies

£0
 £0
 £0
 £0
 £0
 £20.7m
 £0.6m
 £8.8m
 £2.9m

TOTAL INFRASTRUCTURE INVESTMENT:

£33m



- 118,000m² COMMERCIAL GFA**
- 5,300 - 11,500 FTE JOBS**
- 440-1,500 NEW HOMES (UKC HUB)**
- 1,500-2,000 NEW HOMES (WIDER WMCA)**

PHASE 4 (BEYOND 2032)

Motorway Improvements – Highways England
 Strategic Highway Improvements – WMCA and TfWM
 CEF Birmingham Int'l Station Integrated Transport Hub – Network Rail
 HS2 Works – WMCA with Landowners
 Strategic Public Transport – WMCA and TfWM
 Local Highway Schemes – WMCA and TfWM
 Local Public Transport Schemes – WMCA and TfWM
 Energy and Communications – Utility Companies
 Water and Drainage – Utility Companies

£0
 £0
 £0
 £0
 £0
 £34.3m
 £4.8m
 £5.1m
 £2.9m

TOTAL INFRASTRUCTURE INVESTMENT:

£47.1m



- 312,000m² COMMERCIAL GFA**
- 17,800 - 44,000 FTE JOBS**
- 800-2,020 NEW HOMES (UKC HUB)**
- 2,000-2,500 NEW HOMES (WIDER WMCA)**

FIGURE 24: DEVELOPMENT DELIVERY

SKILLS

The development of the Hub will result in an increase in demand for a range of skills. Service sector companies and advanced manufacturing activities would be expected to attract highly qualified staff, and may support a higher retention of graduates within the sub-region and across a wider area. While it is anticipated that a high proportion (some 30%) of employees will be qualified to NVQ level 4 or 5, it is forecast that a broad range of opportunities will be created, particularly within the service, leisure and industrial sectors.

TRAINING AND APPRENTICESHIPS

The new jobs that will be created within the Hub area and through the supply chains will result in a substantial range of training and apprenticeship opportunities, in order to ensure that the wide variety of skills required are available. In terms of the construction and engineering works, it is estimated that over 3,500 new apprenticeships will be created. These will be generated over a period of more than 25 years, resulting in a sustained pipeline of apprentice opportunities.

SUPPLY CHAIN

The Hub area is expected to result in substantial supply chain or indirect multiplier effects during both the development and operational phases. The infrastructure and construction investment will demand inputs from a range of contractors and professionals through the feasibility design, pre-development, works (including engineering and construction) and post-development stages. Construction work will take place over a 25 year plus period – again sustaining construction sector activity over the long term. The UGC and its partners will work with HS2 Limited, Highways England, Network Rail, developers and other agencies to ensure that the local benefits are maximised. The supply chain effects of the operational phase are anticipated to be substantial. For example, the expansion of Birmingham Airport and development of HS2 will bring new visitors to the area, while Jaguar Land Rover's expansion will result in significant demand for new goods and services from its supply chain. Again, the UGC will work with local partners to ensure the potential local supply chain linkages are exploited to the full.

GROSS VALUE ADDED (GVA)

It is estimated that the direct employment created through the delivery of new commercial floorspace and expansion of the Airport within the Hub could potentially generate more than £2.1bn GVA per annum (2016 prices) upon completion. Over the shorter term, there is estimated to be potential for new direct employment created over the period to 2022 to result in an increase in GVA of almost £300m per annum (2016 prices).

Across the West Midlands as a whole some £4.1bn GVA per annum (2016 prices) could be generated once the Hub is fully developed.

VALUE CAPTURE

The creation of new infrastructure, such as that proposed within the UKC Hub, has the potential to generate substantial benefits to businesses, individuals and landowners. It is important that those that benefit make an appropriate contribution to the costs of this infrastructure, reflecting those benefits. However, there is no agreed or consistent approach to capturing this value. Therefore, the UGC is developing a Value Capture Framework and Mechanism, which can be applied within the UKC Hub area and elsewhere in the West Midlands.

There are a variety of potential value capture approaches, including: planning mechanism; taxation and leveraged borrowing; voluntary business contributions; user charges; development-based mechanism and operational mechanism. There is no single favoured mechanism and a packaged approach, bespoke to the specific circumstances of any investment, will be required, based on an agreed suite of approaches (or tool kit). A specific value capture framework is being developed for the UKC Hub based on this tool kit.

MAXIMISING THE ADDITIONAL IMPACTS

The scale of activity proposed within the Hub area will result in significant additional impacts at local, regional and national level. Based on national benchmarks, it is estimated that over 25,000 of the total number of jobs created could be net additional at the WMCA level, after allowing for issues such as displacement.

Meeting the future labour and skills needs of businesses will be critical if the vision for the UKC Hub is to be achieved and the additional and wider benefits maximised. Therefore, a benefits realisation plan will be developed to ensure local people and businesses benefit during both the construction and operational phases. This will include 'capturing' demand through the procurement process, using 'targeted recruitment and training' clauses, and delivering targeted apprenticeship and training programmes.

CONTRIBUTING TO THE GROWTH STRATEGY

Delivery of the Hub will contribute strongly to the delivery of the WMCA Growth Strategy. By 2030 it can deliver:

- 14,800-31,500 FTE jobs;
- £875m-£1.600m in GVA Growth (per annum); and
- 900-2,200 new homes (gross additional).

The overall potential is expected to be:

- £2.1-£4.1bn GVA growth (beyond 2030);
- 35,000-77,500 FTE jobs; and
- 3,000-4,000 homes.

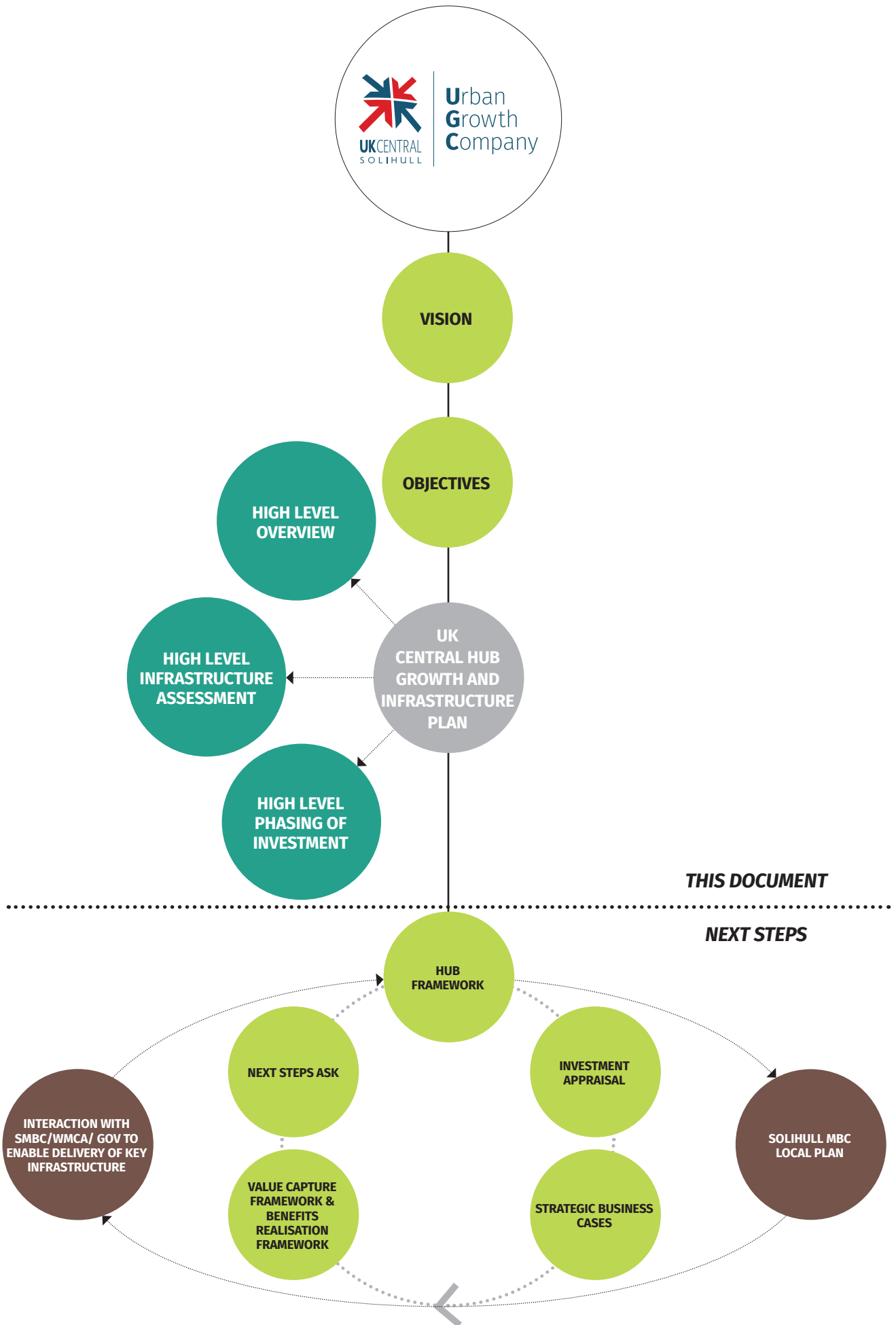


FIGURE 25: THE UGC'S ROLE AS AN ENABLER FOR GROWTH AND INFRASTRUCTURE DELIVERY

7 NEXT STEPS

The UK Central Hub Growth and Infrastructure Plan sets out a strategic ambition for the Hub which is the start of a long term process to coordinate growth by the UGC.

This plan provides a collective overview of the growth ambitions of the key stakeholders for the Hub. It is aimed to be flexible as it includes a variety of development and investment opportunities over a considerable period of time, some of which will change and/or be refined due to conditions at the time.

The UGC will aim to continue to work with key stakeholders on progressing the ambitions in this plan to develop a more detailed Hub Framework. This work will be aligned with any emerging infrastructure plans including the Midlands Connect strategy, the A46 Link Road and Highways England plans for improvement to the Strategic Road Network. Individual stakeholders will also bring forward their own detailed proposals in the future for site specific development applications.

The UGC will also continue in its role as enabler for growth at the Hub, by entering into contractual agreements with key landowners to cover issues in relation to sharing value uplift with the funders of infrastructure.

It is anticipated that landowners will refine their development plans collaboratively to maximise the overall outputs from the development of the Hub area.

The UGC will also act as the coordinator for future utility provision by exploring different mechanisms for delivery and forward planning for utilities infrastructure.

FURTHER EVIDENCE

The UGC intends to progress with developing a detailed evidence base to support the forthcoming Hub framework to include:

- Market analysis to test the ability to deliver the infrastructure upgrades required to support the development trajectories, particularly prior to 2026, and setting out the building blocks of likely occupier demand;
- Further development of the overall Hub Vision and design and integration of the component schemes;
- Additional feasibility work, including transport and movement assessment;
- Plan for green and blue infrastructure; and
- Produce evidence for the Development Infrastructure Funding (DIF) requirements (develop detailed, phased proposals for infrastructure projects, utilities and social infrastructure).

UGC ENABLING ROLE

In parallel to the completion of a robust evidence base, the UGC will also need to develop its capacity to support delivery in terms of programme management.

Core Tasks:

- Prepare and submit a business case to HS2 to modify station design;
- Prepare strategic and specific business cases to support funding application to both Government and WMCA;
- Promote the case for inclusion of the Hub framework growth plans within the emerging Local Plan;
- Develop a Utilities Strategy (including proposals for a MUSCO) to define a clear delivery plan for the infrastructure required to achieve the planned programme. The strategy will be a catalyst to drive economies of scale and collaborative working between stakeholders to plan for delivery ahead of need;
- Undertake a valuation of current land/property assets in the Hub;
- Provide guidance to developers on green and blue infrastructure to ensure best design principles/ and place making are achieved on any proposed developments;
- Review opportunities for expanded housing potential across the Hub;
- Undertake a car parking strategy review. The UGC will need to coordinate a deliverable strategy that is likely to require mechanisms for timing of land value capture;
- Develop an integrated action plan for each component of the UKC Hub;
- Finalise, agree and implement a Value Capture Framework and Mechanism and appropriate land owner joint venture/collaboration arrangements;
- Develop and implement benefit realisation plans to maximise the net additional impacts of the schemes;
- Set out the building blocks of likely occupier demand. The scale of space proposed to be developed in this area is vast and will need a number of major anchor operators in order that it is able to come forward. Groups of key target sectors will be assessed at a high level e.g. academic institutions;
- Provide guidance and advice to SMBC and WMCA on green infrastructure and the importance of place making; and

DECISION POINTS AND OUTCOMES

£923.5m INFRASTRUCTURE INVESTMENT

2017

2018-2022

This diagram illustrates the role of the UGC in enabling complex coordination of key infrastructure to realise ambitious growth plans for the UK Central Hub. Working together with SMBC, WMCA, Government and landowners is critical for delivery.

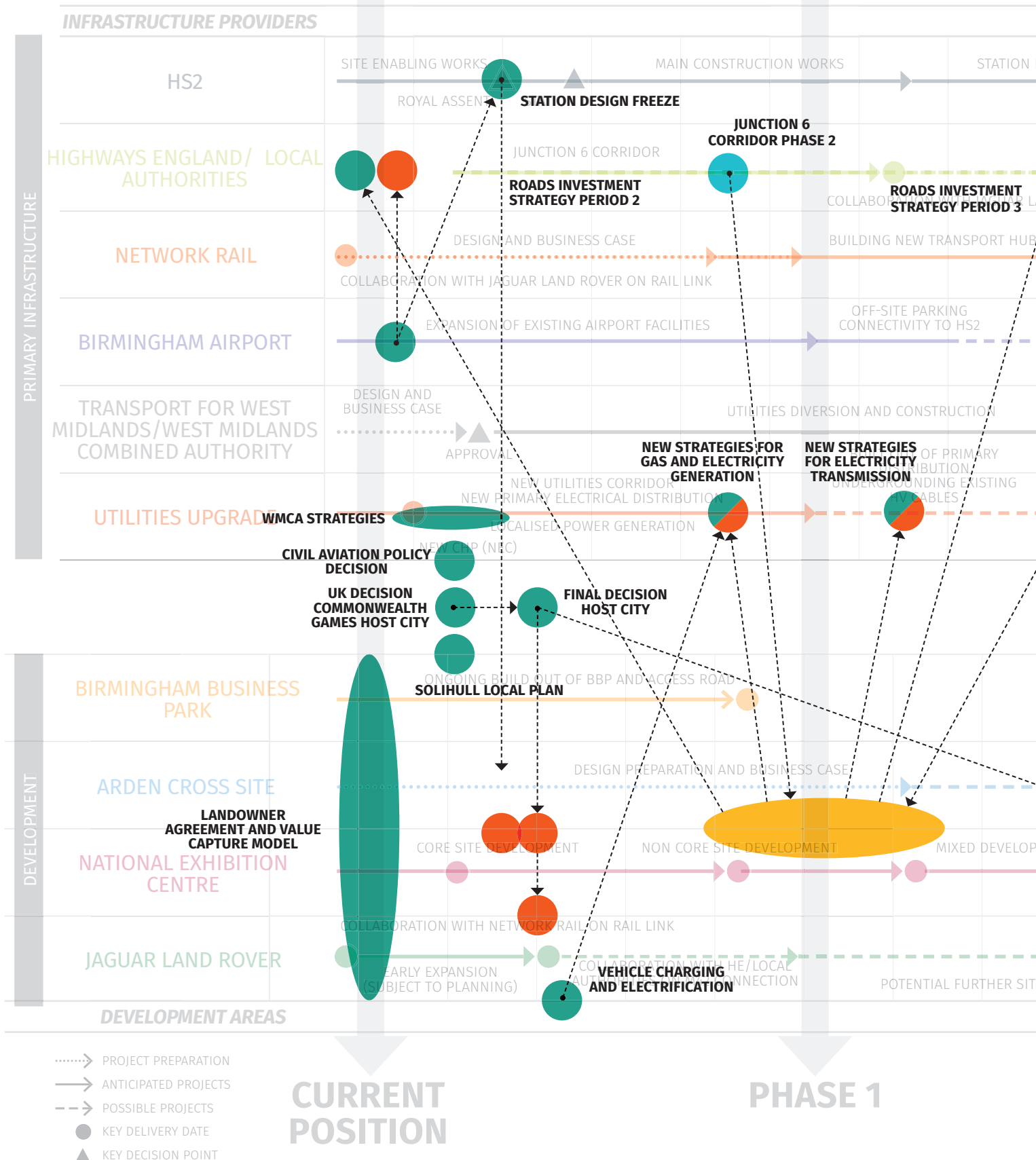


FIGURE 26: DECISION POINTS AND OUTCOMES

£618.8m INFRASTRUCTURE INVESTMENT

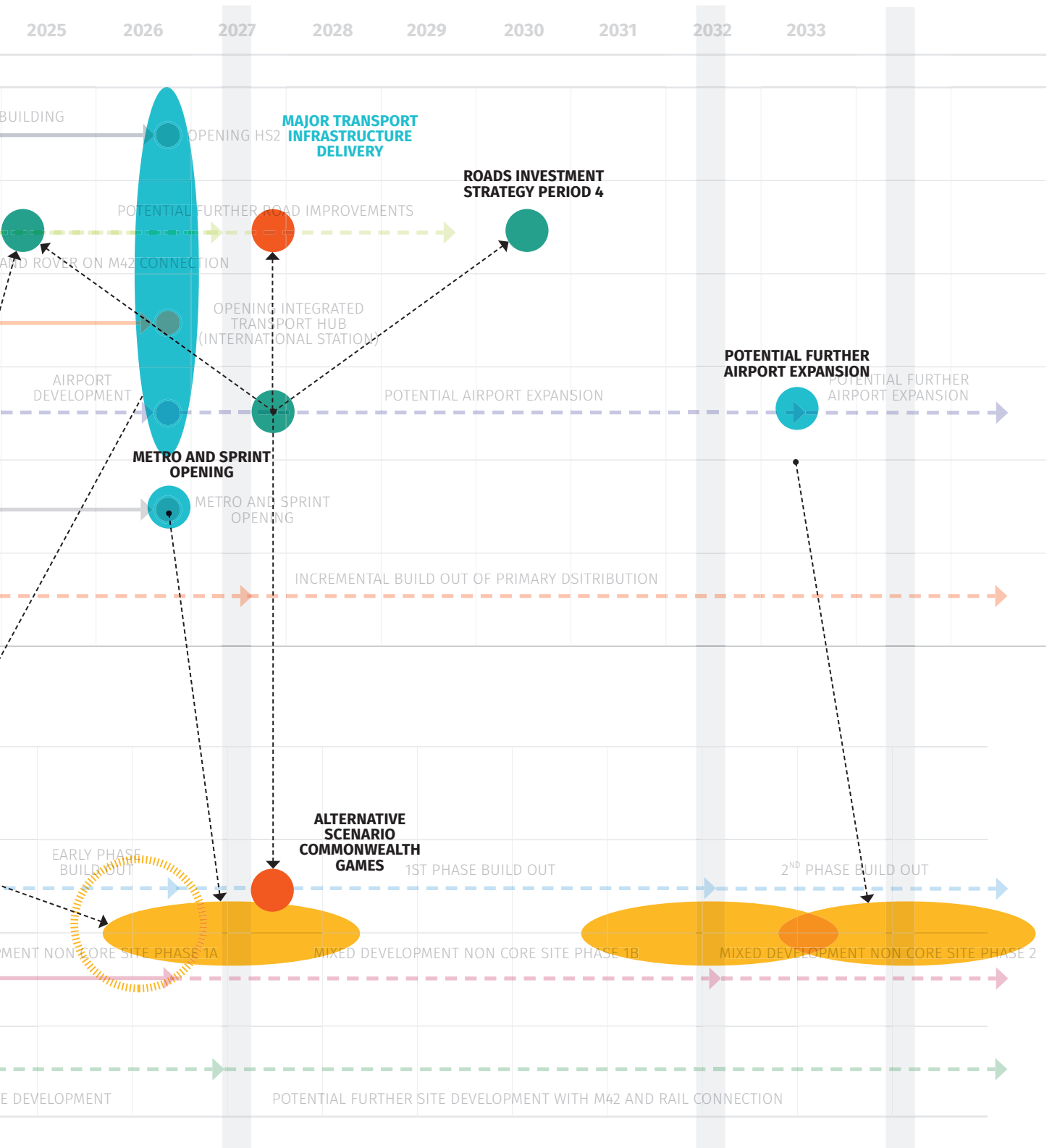
2023-2027

£33m INFRASTRUCTURE INVESTMENT

2028-2032

£47.1m INFRASTRUCTURE INVESTMENT

BEYOND 2032



PHASE 2

PHASE 3

PHASE 4

- DECISION/TRIGGER POINT
- GROWTH OUTCOME
- IMPACT
- ⊙ ALTERNATIVE SCENARIO
- INFRASTRUCTURE DELIVERY
- BOTH TRIGGER POINT AND IMPACT

- To undertake review with HE and TfWM regarding the impact of construction traffic of all the various development proposals and HS2 Implementation, and to develop a mitigation plan to minimise impact on local infrastructure and communities.

Enabling Activities:

- Convene a regular group of representatives from the incumbent utility companies to create a focal point towards delivery; and
- To provide support to Government and WMCA to safeguard implementation of development following infrastructure investment.

WMCA/MAYOR ASKS

- WMCA has secured approval through a devolution agreement with Government or all regional/local infrastructure investment and funding to support HS2 changes. UGC seeks to work with them to realise the ambitions for the Hub and ensure early utility safeguarding;
- Timely support for business case approvals and funding support for UGC; and
- Confirm and support the implementation of the Value Capture Mechanism, with the resources generated being ring-fenced to fund infrastructure investments.

GOVERNMENT ASKS

In producing this UK Central Hub Growth and Infrastructure Plan, it is clear that working in partnership with various departments of Government, there is a need to have Government support to deliver this growth ambition for the Hub as follows:

- HS2 enabling works – agree timetable and process for agreeing changes to fix in order to determine costs to development;
- HS2 – Modify current station design (including car parks ponds etc,) from Parkway to proposed business case design to support development aspirations of the plan
- Road investment strategy – Ensure Highways England deliver M42 J6 option 1 as per published programme (2021)
- Utilities – support the negotiation of Utilities Strategy with providers and regulators (National Infrastructure Commission) to ensure timely delivery of essential services to development plots;

- Rail investment – funding through Network Rail to deliver a multi-modal interchange at Birmingham International Station;
- Aviation – a supportive regional airports growth policy;
- DCLG Secretary of State timely approval for Solihull local plan;
- To facilitate and coordinate the wider ‘picture’ of regional and national infrastructure and transport planning; and
- Value Capture – to support the implementation of the Value Capture Framework and tool kit enabling the WMCA to capture value uplift to support local infrastructure funding

LAND OWNERS ASKS

- Ensure funding and shareholder approvals gained to support and fund development and expansion; and
- To note the role that this value capture model will have on infrastructure costs recovery.

- Station
- Airport
- Commercial
- Retail (including Food and Beverage)
- Hotel
- Leisure/Institutional
- Mixed-use/Housing
- Light Industrial
- Industrial
- Energy Centre
- Primary Roads
- Secondary Roads
- Tertiary Roads
- Midland Metro
- Sprint
- HS2 APM
- Potential Midland Metro
- Potential Sprint
- Potential Rail Link to Jaguar Land Rover
- Possible additional Secondary Roads

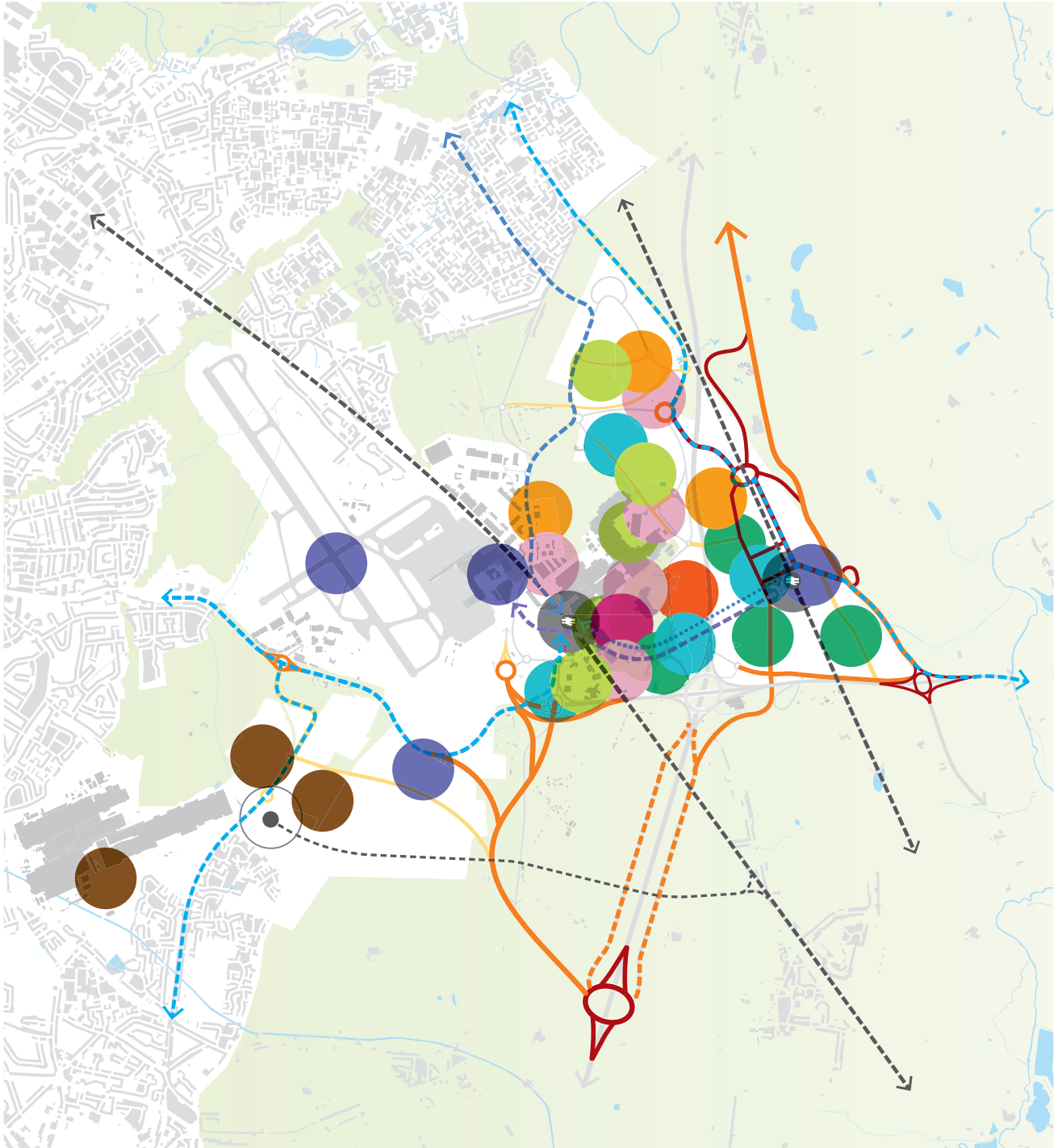


FIGURE 27: COMBINED DEVELOPMENT AMBITION AND PRIMARY INFRASTRUCTURE (2017-BEYOND 2032)

GLOSSARY OF TERMS

APM – AUTOMATED PEOPLE MOVER
BCC – BIRMINGHAM CITY COUNCIL
DCLG – DEPARTMENT OF COMMUNITIES AND LOCAL GOVERNMENT
DFT – DEPARTMENT FOR TRANSPORT
DIF – DEVELOPMENT INFRASTRUCTURE FUNDING
FTE – FULL TIME EQUIVALENT
GBSLEP – GREATER BIRMINGHAM AND SOLIHULL LOCAL ENTERPRISE PARTNERSHIP
GVA – GROSS VALUE ADDED
HE – HIGHWAYS ENGLAND
HGIP – UKC HUB GROWTH AND INFRASTRUCTURE PLAN
HS2 – HIGH SPEED 2
LDO – LOCAL DEVELOPMENT ORDER
LEP – LOCAL ENTERPRISE PARTNERSHIPS
LOC – LOGISTICS OPERATIONS CENTRE
MPPA – MILLION PASSENGERS PER ANNUM
MUSCO – MULTI-UTILITIES SERVICE COMPANY
NEC – NATIONAL EXHIBITION CENTRE (BIRMINGHAM)
NR – NETWORK RAIL
SMBC – SOLIHULL METROPOLITAN BOROUGH COUNCIL
SUDS – SUSTAINABLE DRAINAGE SYSTEMS
TFWM – TRANSPORT FOR WEST MIDLANDS
UGC – URBAN GROWTH COMPANY
UKC – UK CENTRAL
WMCA – WEST MIDLANDS COMBINED AUTHORITY



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PARTNERSHIP**

HIGHWAYS ENGLAND

HS2 DELIVERY BOARD

JAGUAR LAND ROVER

NEC BIRMINGHAM

TRANSPORT FOR WEST MIDLANDS

**WARWICKSHIRE, COVENTRY AND SOLIHULL LOCAL
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ARUP



GRIMSHAW

