The UK’s Innovation Corridor Priority Infrastructure Report
for stakeholder review

August 2019

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A Corridor-wide Approach to Infrastructure  

1. Supporting Workforce Mobility  

2. Enabling Development (Housing and Commercial)  

3. Supporting Productivity and Business Growth
A Corridor-wide Approach to Infrastructure

Having undertaken a review of the evidence base for the UK’s Innovation Corridor, Hatch Regeneris was asked to carry out a short review of the infrastructure projects currently being proposed by London Stansted Cambridge Consortium members. The assignment is intended to consider which investments have the potential to have the greatest positive impact upon productivity, jobs and the evolution of the corridor as a globally significant innovation node.

The UK’s Innovation Corridor

The UK’s Innovation Corridor (UKIC) is a unique functional economic geography linking London to Cambridge and Peterborough. It is home to three international airports, major road and rail networks, a world-class city in the South and a world-class city in the North.

The corridor hosts several enterprise zones, science parks, university campuses and international companies, supporting a range of sectors and economic activity.

Hatch Regeneris’ recent (2019) review of the UK’s Innovation Corridor’s performance, shows that the London Stansted Cambridge Corridor is probably the most productive and innovative region in the country and remains the location which can best compete with the world’s most notable innovation locations.

In addition, the 2016 LSCC Growth Commission Report, cemented a vision for THE UKIC built upon:

- Its position in the world’s top three life sciences clusters
- Its ambition is to be in the top five global clusters for technology and health innovation
- Its contribution as a £152 billion economy
• Its ambition to deliver up to 200,000 new homes in the next 20 years, and
• A rapidly emerging strategic desire to balance commercial and economic evolution of the corridor with objectives linked to decarbonisation and social equity.

**London Stansted Cambridge Consortium**

To continue this positive story, the LSCC vision for the UKIC is to:

• Deliver on its potential to drive the UK's economy, building on its already significant GVA and higher than average productivity;
• Contribute to local, regional and national ambitions around connectivity, helping to raise the corridor's profile nationally and internationally;
• Ensure local communities reach their potential with the skills needed for a modern competitive employment market;
• Ensure UKIC remains an attractive and sustainable place for people to live and work;
• Drive economic growth to be an exemplar in supporting a dynamic private sector, linking the economies of Cambridge and London.

The principal objective of the Consortium is to drive economic development in the UKIC. This means not only driving productivity and investment, but also increasing economic activity by ensuring local communities access employment opportunities and are strategically connected.

Both the 2016 LSCC Growth Commission Report and 2019 Hatch Regeneris Independent Evidence Review have identified the importance of improved physical and digital connectivity to achieving this.

**Investing in Success: Focus of the Infrastructure Review**

To respond to the challenge of connectivity, consortium partners have identified investments conservatively estimated at £20-25 billion in value. These will support the creation of jobs and new homes, helping to capitalise upon existing economic sectors, as well as to create new opportunities for growth.

These projects have been organised into the following categories:

1. Supporting Workforce Mobility within UKIC
2. Enabling Development (Housing and Commercial)
3. Supporting Productivity and Business Growth

Underpinning all these projects is the absolute imperative to supporting sustainability and enhancing quality life. We will be taking ongoing steps to ensure this is part of all growth plans.

This document is not intended to be a definitive list of every local intervention, rather it is a collection of current and potential projects which it is felt will benefit the corridor as a whole and deliver the wider objectives of the partnership. Each of the above categories will be discussed in the next chapters.
Summary of Priority Infrastructure Investments

The following table of investment opportunities provides a list of priority projects which, if funded or supported, can have a direct impact upon the successful evolution of the UK’s Innovation Corridor.

<table>
<thead>
<tr>
<th>Project</th>
<th>Linked Jobs</th>
<th>Linked Homes</th>
<th>Contribution to UKIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crossrail 2 and Four-Tracking of the West Anglia Mainline Railway</td>
<td>60,000 across the UK during construction and 200,000 additional jobs across London and the South East once operational</td>
<td>200,000 across London and the South East</td>
<td>Provides the central spine for UKIC, linking assets and supporting collaboration</td>
</tr>
<tr>
<td>Digitalisation of the West Anglia Mainline</td>
<td>N/A</td>
<td>N/A</td>
<td>Supports capacity and movement enabling more efficient collaboration and productivity through connectivity</td>
</tr>
<tr>
<td>Cambridge Autonomous Metro</td>
<td>100,000 across Greater Cambridge</td>
<td>60,000 across Greater Cambridge</td>
<td>Supports more efficient movement of labour in the city, connecting a wider population to opportunity</td>
</tr>
<tr>
<td>Hertfordshire Mass Rapid Transit Scheme</td>
<td>50,000 along the A414 Corridor</td>
<td>50,000 along the A414 Corridor</td>
<td>Enables metro-isation of Hertfordshire, provide more sustainable connection to skilled workforce</td>
</tr>
<tr>
<td>A47 Dualling Cambridgeshire</td>
<td>N/A</td>
<td>10,000 homes (phase one) for the new Garden Town at Wisbech</td>
<td>Addresses inefficiencies within road network supporting movement of workforce and goods</td>
</tr>
<tr>
<td>Eastern Herts A10 Upgrades</td>
<td>Up to 7,000 jobs within Broxbourne Borough</td>
<td>7,700 homes within Broxbourne Borough</td>
<td>Addresses inefficiencies within road network supporting movement of workforce and goods</td>
</tr>
<tr>
<td>Gilston and Harlow–Sustainable Transport Corridors Network</td>
<td>Access to Harlow Enterprise Zone (delivering 5,000 jobs) and New Frontiers Science Park (3,500 new jobs will be introduced to the town)</td>
<td>16,500 in Gilston and Harlow Garden Town</td>
<td>Supports the creation and consolidation of new knowledge-based jobs, supporting greater engagement of Western Essex in the health and life science opportunity</td>
</tr>
<tr>
<td>Wisbech Rail Link</td>
<td>N/A</td>
<td>Up to 12,000</td>
<td>Supports more efficient movement of labour in Cambridge, connecting a wider population to opportunity and creating greater capacity for growth of the city</td>
</tr>
<tr>
<td>Ruckhold Road Station</td>
<td>5,000 within Eastside area</td>
<td>15,000 within the East side area</td>
<td>Supports capacity for development and the accommodation of innovation and knowledge activity</td>
</tr>
<tr>
<td>Project Description</td>
<td>Scale</td>
<td>Benefits</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
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<tr>
<td>Cambridge South Station</td>
<td>27,000 (on the site of the Bio medical Campus)</td>
<td>An additional 4,000 homes</td>
<td>Supports more efficient movement of labour in Cambridge, connecting a wider population to opportunity and creating greater capacity for growth on the city</td>
</tr>
<tr>
<td>Stansted Airport Expansion</td>
<td>5,000 at the airport</td>
<td>N/A</td>
<td>Provides vital new international links into the corridor, supporting its competitiveness as a globally significant corridor</td>
</tr>
<tr>
<td>Essex and Herts Digital Innovation Zone</td>
<td>N/A</td>
<td>N/A</td>
<td>Provides cross-boundary approaches to digital activity, ensuring central sub-region of the corridor has the connectivity and capacity to capitalise upon recent digital growth</td>
</tr>
<tr>
<td>Corridor-wide Digital Connectivity</td>
<td>Examples include: Superfast Essex Broadband: 65,000 homes and businesses, and a further 144,000 by the end of 2019 Bucks and Herts Connected Counties: 90,000 homes and businesses, and 10,000 more by the end of 2019 Cambridge and Peterborough Digital Connectivity Strategy: Superfast Broadband to 99% of homes by 2020</td>
<td></td>
<td>Provides local connectivity to support growth of business and connectivity of local people to the wider opportunities in the corridor.</td>
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**Principles for LSCC Engagement**

1.1 LSCC is not a delivery organisation but can play an important role in advocating the expedited delivery of the projects set out in this report, as well as promoting new investments that underpin consortium objectives. As such, as well as supporting existing and new proposals the following principles are recommended to underpin LSCC’s engagement in infrastructure projects:

- Lobby for additional and expedited investment based on the innovation case
- Provide data, intelligence and insight to support the ongoing evolution of the strategic case for investment
- Bring together partners across boundaries to enhance the case for local and regional investment
- Forward the case for enhanced sustainability and decarbonisation in delivery of projects
- Develop proposals for new strategic and governance structures to enable investment and delivery in the UKIC.
1. Supporting Workforce Mobility

Successful global innovation regions are dependent upon their ability to allow talented people to meet, exchange ideas and collaborate. The benefits of innovation and growth are embedded and shared when as many people as possible can be connected to opportunity.

Global competitors to the UKIC are already taking affirmative action to deliver specific improvements in mobility to increase the capacity to innovate. The North Carolina Triangle Innovation Corridor has formed its own transport authority to address issues of mobility and deliver more sustainable transport. Significant proposed investments in the OxCam Arc show the domestic commitment to doing this elsewhere.

The projects below have all been proposed to support a more mobile and connected workforce within the UKIC. These are nationally and regionally significant investment plans which support the efficient and sustainable movement of people between the centres that make up the corridor.

**Investment 1: Four-Tracking of the West Anglia Mainline Railway and Crossrail 2**

**Four tracking of the West Anglia Mainline Railway**

**Description:** The Consortium has proposed the four-tracking of a section of the West Anglia Mainline by 2033 to improve connections to Stansted and Cambridge from Liverpool Street and Stratford. This objective is not only a fundamental and pre-cursive component of Crossrail 2, but also the key ‘ask’ of the recent West Anglia Taskforce, chaired by the former Deputy Speaker, The Rt. Hon. Lord Haselhurst.

The West Anglia Mainline (WAML) consists of a two-track railway from London Liverpool Street and Stratford stations to Kings Lynn via, stations including Harlow, Bishops Stortford, Stansted Airport and Cambridge / Cambridge North stations, with an important westerly spur to Hertford East. Operating services with only two tracks has meant that the speeds and timings to and from important destinations, such as Stansted airport, Harlow, and Cambridge are constrained and compete for space and paths with the outer-suburban stopping services which commuters expect and rely on, daily.

**Impact:** Crossrail 2 ‘Metro’ style services to and from the North of London would commence /terminate variously at New Southgate on the East Coast Mainline (ECML) and at Broxbourne on the WAML. But, in order to do so, it will need two extra dedicated tracks for these frequent stopping suburban/outer suburban services and in so doing free-up the other two tracks for faster (limited stop) services to Stansted Airport and Cambridge. This track-doubling would run south from Broxbourne Junction as far as Coppermill Junction, whereafter Crossrail 2 trains would enter a tunnel section serving central London, before emerging at London Waterloo and utilising the existing surface lines via Clapham Junction and Wimbledon to Shepperton, Hampton Court, Chessington South and Epsom respectively.

This infrastructure development would save journey times by up to six minutes to Cambridge and up to ten minutes to Stansted Airport, while also improving line capacity and transport reliability across the UK’s Innovation Corridor.

**Contribution to the UK’s Innovation Corridor:** The project is effectively delivering ‘UKIC Rail’. It provides a higher speed link between the corridor’s metropolitan and
urban centres, reducing journey times and tightening the networks which will enable future growth within the corridor.

**Crossrail 2**

**Description:** With a suggested completion date of 2030, Crossrail 2 is a new rail network which will effectively create a 160-mile corridor from Portsmouth to Cambridge, through London, and bring 800 National Rail stations within one interchange of the route. This will enable faster connections across the UK, helping to drive productivity and growth. Its north-eastern section runs through the centre of the LSCC area linking much of the corridor more effectively to London, the south west of England and these regions’ transport networks.

**Cost:** TfLs most recent estimate of the capital needed to deliver Crossrail in its entirety is £41.3 billion. The 2014 baseline figure for the four-tracking works as part of CR2’s construction is £4.2 billion but clearly, this estimate may rise too. A report by PWC from 2014 found that 50% of Crossrail 2 could be funded by a combination of local funding sources, with the rest being funded by central government through direct grants or subsidy channelled through Network Rail.

**Impact:** Fundamentally, Crossrail 2 would help the whole country grow. Detailed analysis by KPMG shows that Crossrail 2 could boost the UK economy by up to £150 billion. It would generate extra tax revenues of up to four times the proposed government investment, with billions in extra stamp duty alone. It would also offer excellent value with every £1 invested potentially creating £6.90 in benefits for the country. In addition, it is estimated that Crossrail 2 could support 60,000 jobs across the UK during construction and 200,000 additional jobs across London and the South East once operational.

**Contribution to the UK’s Innovation Corridor:** LSCC is keen for the government to reassert its commitment to Crossrail 2. Transport modelling has shown that this would significantly improve congestion in the south east of England, where stations already suffer from overcrowding and queues. This in turn will support the mobility of one of the world’s most talented workforces, linking them to the growing opportunities in the corridor. This will better connect growing areas in Eastern Herts and Western Essex helping them to continue their momentum towards growth in the Digital and Life Science sectors.

**Investment 2 - Digitalisation of the West Anglia Mainline**

**Description:** The UKIC is seeking support for the digitalisation of the West Anglia Mainlines through the European Train Control System (ETCS). ETCS is a means of applying digital technology to track and trains, obviating the use of lineside colour aspect signals and permitting greater service frequencies by (safely) reducing the headroom between trains through in-cab signalling and thereby increasing the number of paths and trains able to operate in ECTS controlled areas at any one time.

**Cost:** The cost of installing an advanced form of ECTS to all the mainlines within the Anglia railway (franchised) region, including the West Anglia Mainline and the Great Eastern Main Line (GEML) is estimated at £1 billion. There is encouraging evidence to suggest that the necessary up-front capital costs could be raised by the private sector, whose initial investment and borrowing costs would be recovered (with a suitable return) through an increase in rail traffic and revenue that an ECTS controlled railway would facilitate and accommodate.
The European Train Control System is to be rolled out first on parts of the East Coast Mainline (in fact tender notices for these works have already been placed by Network Rail) and the Hertford Loop, in Control Period 6, before being deployed elsewhere on the network. Given that legacy signalling systems will soon reach the end of their operational life on large parts of the national rail network, switching to digital signalling (ETCS) on the WAML and throughout the wider Anglia region should be regarded as a "when" not "if" investment decision.

**Impact:** Digital signaling is recognised as a sure measure to release additional capacity on rail lines and thereby improve frequencies, performance and reliability. On the West Anglia Mainline, this would allow for more trains to pass along the corridor, unlocking the productivity of workers all throughout the UKIC. It would also provide temporary relief across parts of the transport network until Crossrail 2 is completed.

**Contribution to the UK’s Innovation Corridor:** As with investment in four-tracking and Crossrail 2, digital signalling will make it easy for people to connect with jobs, knowledge and each other within the corridor. The potential to enhance delivery of 5G and enable smart ticketing not only provides a more modern rail system, it becomes an innovation exemplar in and of itself.

**Investment 3 - Cambridge Autonomous Metro**

**Description:** Creating a new rapid transit system is one of the highest transport and infrastructure priorities for the Mayor of Cambridgeshire and Peterborough, the Cambridgeshire and Peterborough Combined Authority (CPCA) and the Greater Cambridge Partnership (GCP). It will provide a high quality, fast and reliable transport network that will transform transport connectivity across the Greater Cambridge region. The vision for this innovative and sustainable transport solution is an expansive metro network that seamlessly connects Cambridge City Centre, key railway stations (Cambridge, Cambridge North and future Cambridge South), major city fringe employment sites and key ‘satellite’ growth areas, both within Cambridge and the wider region.

The Cambridge Autonomous Metro (CAM) will operate on an entirely segregated basis from traffic through Central Cambridge via an underground tunnel, ensuring swift, uninterrupted services unaffected by traffic congestion. Services will be provided by electric, zero-emissions low-floor trackless metro vehicles. It is intended that the CAM will initially operate with drivers, before transitioning to driverless operation as and when the requisite technology matures and is therefore not dependent or predicated on autonomous operation.

**Cost:** The CPCA is currently working on the Outline Business Case for the project and collaborating with central and local government partners to establish the innovative funding and financing model required for securing the £4 billion in capital funding. Construction could start as early as 2021 with the GCP ‘City-deal’ funded schemes, with the core metro infrastructure anticipated to be built between 2023 and 2029.

**Impact:** The Strategic Outline Business Case (SOBC) for the CAM describes the project’s objectives as:

- *Promoting economic growth and opportunity* – including improving transport connectivity and journey time reliability, agglomeration and increasing labour market catchments.
- **Supporting the acceleration of housing delivery** – serving and supporting existing and new sustainable housing developments and accommodating future growth.
- **Promoting Equity** – improving opportunities for deprived residents.
- **Promoting sustainable growth and development** – improving local air quality, promoting the low carbon economy and supporting environmental sustainability.

**Contribution to the UK’s Innovation Corridor** - The CAM will enhance the city’s innovation economy, connecting assets and people through a more efficient and sustainable transport. The CAM is also expected to help unlock 60,000 new homes. The CPCA’s Business Plan states that the CAM project creates opportunities to fund future investment through Land Value Capture. The CPCA will consider acquiring and promoting strategic housing sites along the proposed CAM routes. They will work to develop these as possible future garden villages.

**Investment 4 - Hertfordshire Mass Rapid Transit Scheme**

**Description:** Hertfordshire County’s A414 Corridor Strategy (2018) identified the potential for a new Mass Rapid Transit (MRT) scheme spanning the entire A414 corridor. The overarching aim of this MRT is to be “A fast and reliable, express inter-urban passenger transport network linking major urban settlements within the A414 corridor to facilitate sustainable travel and address the pressure of delivering significant growth in housing and jobs”.

**Cost:** the indicative cost for this scheme ranges between £95 million and £215 million. The Hertfordshire County’s A414 Corridor Strategy further specifies that “No detailed feasibility work has been undertaken at this stage”. Subject to public consultation and sufficient funding, more detailed studies will be required at a later point to explore all aspects of a Mass Rapid Transit”.

**Impact:** Initial modelling suggests that the MRT scheme would help significantly reduce congestion, journey times and improve Herefordshire’s image by providing a sustainable form of mass transit for east-west inter-urban trips.

**Contribution to the UK’s Innovation Corridor:** Much like the Cambridge Autonomous Metro, the Hertfordshire Mass Rapid Transit would make travel mobility more efficient within the county while promoting a more sustainable travel method for workers and residents. Linking a network of metro transit schemes will help to expand the reach of the corridor and its opportunities.

**Investment 5 - A47 Dualling Cambridgeshire**

**Description:** In 2017, Highways England revealed plans to expand the A47 through dualling on three sections of the road between Great Yarmouth and Peterborough. It is one of the eastern region’s main roads and plays an important role in the region’s prosperity. The project is set to start in March 2020 and the first phase is expected to be completed by March 2021.

**Cost:** The scheme is expected to amount to £300 million of improvements. The A47 Alliance is calling for a funding commitment from the Department of Transport’s Road Investment Strategy 2 funding pot and is currently producing a series of strategy and feasibility documents to demonstrate the viability of the scheme.
Impact: The A47 currently suffers from heavy traffic and long journey times. The dualling of the A47 would reduce congestion and delays, shorten journey times and improve road safety.

Contribution to the UK's Innovation Corridor: By making journey times more consistent along the A47, this scheme would significantly enhance connectivity in the region and help make the UKIC a more attractive place to run a business.

Investment 6 – Eastern Herts A10 Improvements

Description: The A10 acts as a key transport route in the UKIC, running through London and Cambridge to Norfolk. It faces congestion problems and is constrained by frequent traffic delays. Broxbourne Council has put forward a number of transport interventions which would improve the southbound part of the A10 road. These range from capacity improvements at Junction 25, works to provide an additional arm from the junction to serve Plaza North and West, to smaller at-grade improvements at College Road and Church Lane.

Cost: Broxbourne Council estimates that these interventions would amount to an average £37.1 million. Funding is currently being sought by the council.

Impact: These improvements will improve capacity and flow along the A10, helping to cater for the future increase in demand to travel.

Contribution to the UK’s Innovation Corridor: The Eastern A10 Improvements will further improve traffic flow through the heart of Broxbourne, which will improve connectivity of workers to UKIC opportunities. Positive impacts upon quality of life have also been modelled as well as improvements in air quality.
2. Enabling Development (Housing and Commercial)

The UKIC Growth Prospectus 2019 identified that whilst there is available space for commercial development, many areas are already at or nearing capacity, whilst some areas have lower quality space which does not currently appeal to either the local or global inward investment market.

Similarly, UKIC needs to attract a more skilled workforce, meaning more housing, including affordable housing, is required. As regional transport bodies pursue a focus upon ‘metro-isation’ and transport-orientated development, good infrastructure plays a more fundamental role in the delivery of housing.

In short, to remain competitive, UKIC needs more housing for a growing population, and better-quality workspaces for growing and diversifying businesses. Investment in infrastructure is fundamental to enabling this.

The investments set out below are those which have the potential to unlock sites for either housing or commercial developments, supporting an increase in the capacity of UKIC to deliver further growth and diversification.

Investment 7 - Gilston and Harlow Garden Town – Sustainable Transport Corridors Network

**Description:** Gilston and Harlow is a major new Garden Town planned to the north of Harlow. As part of this development, the councils will make improvements to off-site infrastructure, including new roads (Junction 7A) and an upgraded junction from the M11 (Junction 7).

The delivery of the Gilston and Harlow Garden Town will also be supported through the creation of a Sustainable Transport Corridors Network, which “will form a strategic network of routes, principally, north-south and east-west across the Garden Town, connecting the new neighbourhoods and villages to Harlow Town Centre, the existing neighbourhoods of Harlow new town and key locations including the railway stations and employment areas. This network will provide dedicated routes for public transport as well as cycling and walking, identified in the Harlow and Gilston Garden Town Transport Strategy”.

**Cost:** The next step for this development, as identified in the transport strategy, is to secure funding, initially in the form of £151 million from the Housing and Infrastructure Fund, and subsequently from developer funding.

**Impact:** These developments will be key to sustaining a vibrant community in the garden town and maintaining a good quality of life for its residents. They will enable the new town to adhere to the highest standards of sustainable transport in delivering 16,500 new homes on the site.

**Contribution to the UK’s Innovation Corridor:** Harlow and Gilston is one of the most significant new settlements being delivered within the corridor. It will provide space to support a growing workforce at all levels. To maximise this opportunity, it is critical that the new town is linked to employment and knowledge assets across UKIC.
Investment 8 - Wisbech Rail

**Description:** Wisbech Rail aims to provide a new rail solution, primarily linking Wisbech and March, ultimately linking Wisbech to the wider region and national rail networks. The project is at a pre-feasibility stage.

**Cost:** Passenger services ended on the line in 1969, but in 2018 the Cambridgeshire and Peterborough Combined Authority approved a budget of £1.5 million (£1.3 million estimated cost and a £200,000 contingency fund) to develop a business case for bringing the railway back to Wisbech. A Heavy Rail Study (GRIP 3B) is being carried out as part of Network Rail’s wider eight-stage process to bring the Wisbech Rail infrastructure project to completion.

**Impact:** This infrastructure development would help support the vision for Wisbech Garden Town which seeks to regenerate the town and reverse high levels of deprivation in the area through the growth of housing and the economy, with plans for 10,000-12,000 homes over the next 40 years.

**Contribution to the UK’s Innovation Corridor:** The development of this scheme would help unlock significant growth within the corridor, providing further supply of housing to support the ongoing expansion of Cambridge and its wider city region.

Investment 9 - Ruckholt Road Station

**Description:** As part of its vision for Lea Valley Eastside, London Borough of Waltham Forest is considering promoting the development of a new railway station at Ruckholt Road in Leyton. The Council is currently in dialogue with Network Rail and partners to progress the feasibility of developing a new station which could serve the borough’s largest growth area around Leyton, with an aspiration to deliver this by the mid-2020s.

**Cost:** The cost of the station will be defined by the feasibility work. Initial funding is required.

**Impact:** Ruckholt Road sits at the centre of a number of significant sites, with capacity to accommodate around 6,000 residential units as part of the borough’s aspiration to delivery 15,000 homes and 5,000 new jobs within the wider Eastside area.

**Contribution to the UK’s Innovation Corridor:** In addition to the new homes and subsequent labour market benefits, Ruckholt Road will also enable the delivery of new employment spaces in the area. These will enable the further expansion of the innovation ecosystem which has developed around Here East and the developments on the Queen Elizabeth Olympic Park.

Investment 10 - Cambridge South Station

**Description:** Following in the wake of the successful integration of the new station at Cambridge North into the National Rail network and the Greater Anglia timetable, there is now widespread support and demand for a new station, south of the main Cambridge station, to serve the globally significant Cambridge Biomedical Campus (CBC) Addenbrookes Hospital, the Royal Papworth Hospital and AstraZeneca’s global HQ and strategic R&D facility.

Given proposed local growth (including an additional 4,000 homes) the station is part of a solution to the potential strain which could be put on the local road network. The impact of congestion and journey time delays is seen as a key threat to the
development of Europe’s most significant life science cluster and potentially 27,000 high-skilled jobs.

**Cost:** The Cambridge South Station’s capital cost is estimated at £200 million. The design and feasibility work is estimated at £10 million. Government has already provided £5 million to support the development of proposals for this station and this has been matched with £5 million from local and private sector partners (the Cambridgeshire and Peterborough Combined Authority, the Greater Cambridge Partnership and AstraZeneca Limited).

The Department for Transport (DfT) published a Strategic Outline Business Case (SOBC) in November 2017, which in turn has led Network Rail to develop plans for a new station under the heading of the *Cambridge South Infrastructure Enhancement Project*, which recognises the need for additional associated infrastructure on the lines to the approaches to Cambridge Station. The most significant of these, which is necessary to permit the optimum number of trains able to serve a new station at Cambridge South, is the requirement to increase the tracks from two to four between the two stations (Central and South).

**Impact:** The station would support new connections across Cambridgeshire, Stansted Airport, Kings Cross, Liverpool Street and a range of destinations en-route to Oxford, via the East West Rail.

**Contribution to the UK’s Innovation Corridor:** The development would make a huge contribution to a modal shift from car use across the city and would further improve the quality of transport services in the area for residents and workers. More importantly, the station would help make the Cambridge Biomedical Campus a more convenient and attractive work destination for a larger number of skilled staff across the wider area, thereby supporting UKIC’s mission to become a national and international competitive place to do business.
3. Supporting Productivity and Business Growth

Maintaining a comparative advantage for UKIC as a business location is dependent upon companies being able to work more efficiently and access new markets better than other locations. As the UK exits the EU this will become even more important; quick and easy access to markets and enhanced global connections will be critical.

As well as being physically connected – from the corridor’s two airports (Stansted and London City) or from London St Pancras International Station – connections to markets can also be supported through enhanced digital connectivity.

The interventions below will allow more companies to become more connected to regional, national and global markets. These will come together to increase not only the competitiveness of the corridor, but also the UK economy as a whole. They will also help to address some of the economic inequalities that have been identified, increasing access to opportunity for all residents.

Investment 11 - Stansted Airport Expansion

**Description:** In 2018 Uttlesford District Council approved Manchester Airport Group’s planning application to expand Stansted Airport. The interim construction scheme would start in 2019 and be completed by 2021.

**Cost:** Estimated at a £600 million construction cost, this scheme will be funded by the Manchester Airport Group.

**Impact:** This five-year project includes plans to build a new arrivals terminal, upgrades to the existing terminal, new baggage delivery and security systems. More importantly, Stansted’s airport expansion would increase passenger numbers from 35 million to 43 million and would further help create 5,000 extra jobs at London Stansted Airport.

**Contribution to the UK’s Innovation Corridor:** This development provides an opportunity to enhance international links to UKIC while creating better opportunities for all passengers, business partners and the local community. The expansion will also act as a catalyst for economic growth and productivity across the wider region. As passenger numbers are set to grow, so will the number of employment and business opportunities.

Investment 12 – Essex and Herts Digital Innovation Zone (DIZ)

**Description:** This project is backed by a partnership between West Essex and East Hertfordshire and is made up of a mix of urban and rural areas which will support digital innovation projects, such as ‘Smart City’ and ‘Smart Places’ initiatives. The vision of the DIZ is “to be the best-connected place of its type in the UK. A place of innovation and inclusion. A place where benefits of digital investment in the public and private sectors are harnessed, maximised and shared across residents, commuters, businesses and borders.”

The area is currently made up of 500,000 residents and 500,000 businesses.

**Cost:** Final costs for the delivery of the DIZ and its constituent projects are currently being finalized.

**Impact:** Some of the key investments to date in the DIZ are:
- £200 million from Kao Data, a member of the DIZ, which has led to the creation of a new data centre at the Harlow Enterprise Zone;
- £400 million from Public Health England which is creating a world-leading health science campus at Harlow, and will help to attract a further 2,750 government scientists within the DIZ area;
- £500 million from Princess Alexandra Hospital that will lead to the redevelopment and relocation of the hospital, creating a new medical campus using the latest digital technology for its patients.

**Contribution to the UK’s Innovation Corridor:** This partnership will help catalyze investment in the region and will provide a clear steer for the UKIC’s future performance in digital innovation. It will support the ongoing capacity for the central area of the UKIC to continue the positive growth trajectory identified in the last five years.

### Investment 13 – Corridor-wide Digital Connectivity

**Description:** The success of UKIC has been built upon growth in Knowledge-Intensive industries, particularly Life Sciences and ICT & Digital activities. Both of these sectors need access to enhanced connectivity to continue to evolve and grow. More widely it will boost the expansion of small and medium enterprises across the corridor. As the preeminent UK location for these sectors, it is critical that the corridor and its constituent locations receive ongoing public and private investment to secure continuous uplift in connectivity and access to new technology.

Each LSCC member has their own plans for investment in digital connectivity. This includes investments in superfast broadband, full fibre and 5G. Some of these plans are highlighted below, demonstrating how investment in digital connectivity is being optimised across the UKIC. The challenge now, is how to better coordinate these into a single digital strategy for the corridor as a whole.

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### Cambridgeshire and Peterborough Digital Connectivity Strategy

The Cambridge and Peterborough Combined Authority (CPCA) plans to invest £2.1 million in digital connectivity infrastructure, in partnership with Connecting Cambridgeshire. It is expected that:

- £1 million will be invested in mobile coverage, prioritising coverage along A and B roads and rail routes by 2022;
- £500,000 will be invested in full fibre, with a target to expand threefold the combined authority’s full fibre footprint;
- £200,000 will be invested to develop a 5G network, with a particular focus on maximising businesses’ economic impact;
- £100,000 will be invested in public access Wi-Fi in public buildings and open spaces, expanding provision in market halls, village halls and community buildings.

As part of this strategy, the CPCA is also driving efforts towards the improvement of superfast broadband, which will take place in four phases. Phase four aims to target over 99% of homes and businesses by the end of 2020.
Essex County Council has invested more than £75 million into Superfast Essex Broadband, a programme that aims to extend superfast broadband coverage to 97% of Essex by 2019 and nearly 100% by the end of 2021. This programme recognises the importance of superfast broadband availability as a means to stimulate economic growth and social wellbeing.

Today, around 65,000 homes and businesses have benefited from this programme and 144,000 more are planned to benefit from it by the end of 2019.

The Council, as part of Local London, has secured funding from the Strategic Investment Pot to invest in digital connectivity improvements. The investment will use public sector assets to provide connectivity in underserved areas – particularly where there is a high concentration of business activity – to stimulate further investment from the private sector, additionally providing a platform for Gigabit and 5G infrastructure.

Similarly to Essex County and the Cambridgeshire and Peterborough Combined Authority, Herts and Buck County Councils are partnering to deliver improved fibre coverage across the two counties.

Today, around 90,000 homes and businesses have benefited from this programme, and 10,000 more are planned to benefit from it by the end of 2019.

Cost: The cost of investments in digital connectivity vary on a case by case basis. Most members have some committed projects to enable this, alongside aspirations to expedite delivery.

Impact: The delivery of the projects above and other initiatives promoted by corridor members will help to ensure that the vast majority of homes and business premises will have access to superfast broadband by the start of 2020. This however, should be the foundation for ongoing investment, specifically in fibre to premises and 5G which will support further enhancements in productivity.

Contribution to the UK’s Innovation Corridor: Improved connectivity will support growth of business and improve links for local people to the wider opportunities in the corridor, including links to education. Better digital infrastructure, will also enable more people to work flexibly, with a positive contribution to the environment. It is anticipated that these benefits would be more significant in Eastern Herts and Western Essex, narrowing the gap between these growth locations and more established business hubs in London and Cambridge.
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