Cambridge Science Park Interchange Socio-Economic Impacts

Introduction

This chapter provides an outline assessment of the predicted socio-economic impacts arising from Cambridge Science Park Interchange. It covers the following areas:

- The purpose and role of Cambridge Science Park Interchange (CSI) in terms of how it will support the wider transport network and economic growth in the sub-region;
- A review of how CSI fits with, and delivers against, the planning framework in the sub-region;
- Sets out forecasts for predicted economic growth in the sub-region, discussing the challenges to delivery of this growth and how CSI will address those challenges; and
- Outlines the expected conventional economic transport impacts as well as wider impacts that CSI will have on the local economy.

The Socio-Economic Impact analysis has been drawn from a range of existing documentation and analysis prepared in support of the scheme as well as economic research conducted independently for the public sector. Notably, it has drawn from a piece of research into the Cambridge economy undertaken by economic consultants SQW for EEDA and partners in 2010. This work very clearly sets out in some detail how the Cambridge Economy works, and identifies that transport capacity and connectivity is a key challenge to future sustainable economic growth. Where relevant, other data sources and research are clearly referenced.

Background to the Scheme

Cambridge Science Park Interchange encompasses a new railway station on the West Anglia main line in the north east quadrant of Cambridge providing access onto the wider public transport network, including guided bus services, a station car park and access for pedestrians and cyclists. Proposals for a new station north of Cambridge were first established in the Cambridgeshire Long Term Transport Strategy conducted in 2005 which identified Chesterton (as the station was then known) as being needed to support economic growth in the Cambridge Sub-Region and to deliver a cohesive and integrated transport network.

The existing station at Cambridge suffers from platform and passenger congestion problems; a new island platform has provided some redress for railway operations, but the passenger throughput far exceeds that which the station was designed for. In addition to providing crowding relief to the existing station, the location of Cambridge Science Park Interchange supports current and future development sites associated with sub-regional growth, a significant proportion of which are located on the northern boundaries of the city and further afield along the A14 and A10 corridors. The choice of location is further enhanced by its proximity to major employment and business areas, notably the internationally renowned Cambridge Science Park, as well as to the existing residential areas of Arbury and Chesterton. Cambridge Regional College is also close by.

It was originally envisaged that the station would have opened by 2011 with major scheme grant funding support from the Department for Transport. However, progression was impeded by the scheme's association with wider redevelopment proposals on the Chesterton Sidings site which were subsequently deemed incompatible with a rail industry need to retain operational land. Ultimately, it was the failure of the then Government's Transport Innovation Fund policy (which would have provided the means for funding), that resulted in Chesterton as a scheme becoming sidelined.

Throughout this time, housing and employment growth in the Cambridge Sub-region has continued, especially in the northern fringes of the City, and there has been a substantial growth in rail demand at stations in the Cambridge sub region (40% in station entries over the period 2003/4 – 2009/10). This rate of growth far exceeds the wider population growth reflecting the increased propensity to travel by rail which is placing additional pressure on Cambridge Station.

In order to ensure the continued delivery of economic growth in the Cambridge sub-region, Cambridgeshire County Council are now promoting Cambridge Science Park Interchange and will recover the debt by levying access charges on the train operators calling at the Station.
Growth and the Wider Transport Network

To support economic growth in the A14 corridor, the Cambridge to Huntingdon Multi-Modal Study (CHUMMS as it is more commonly referred to) recommended on-line widening of the A14 along with a guided bus-based public transport system to facilitate the delivery of a new settlement of up to 10,000 dwellings at Northstowe. CHUMMS was published in August 2001.

Since then, the County Council has successfully brought forward the Cambridgeshire Guided Busway, (which opened in August 2011). The busway carried around 2.5m passengers in its first year of operation, significantly greater than the 1.75 million forecast. A post opening survey indicates that overall bus ridership is up by 33% in the corridor it serves and at the busway halts it is estimated that bus ridership is up by over 50%. In fact 80% of Busway users in the survey were found to have a car available in the household, and 48% had a car available to drive for the journey they were making. That this is in part due to conditions on the A14 is without doubt; but equally the survey revealed how much they also valued comfort, the availability of Wi-Fi and the ability to use their time productively whilst travelling.

The Highways Agency led A14 Ellington to Fen Ditton scheme was cancelled following a Comprehensive Spending Review after the 2010 General Election and, as a result, a new settlement at Northstowe has not come forward. To date, there is outline permission for 1,500 dwellings but expansion beyond that is restricted by the A14 for which a new long term scheme is currently being developed by the HA. That scheme is not expected to be complete until the next decade.

Whilst development in Cambridge has come forward in the intervening period, notably at the Orchard Park and North West Cambridge development sites, transport network capacity remains a limiting factor in realising economic growth. Access to rail services in particular is imperative for the continued vitality of the sub-region’s economy, both for inward investment and for accommodating new housing. Cambridge Science Park Station, directly linked to Cambridgeshire Guided Busway and the A14, is an integral part of the infrastructure needed to accommodate this growth.

Economic Context

Function of the Cambridge Sub-Regional Economy

The Cambridge area is the home to some of the country’s most significant economic assets, with the area containing a wealth of strength within research institutions and universities, with broad opportunity for future economic growth. Cambridge is highlighted as being one of the most recession-proof cities in the UK, and as such, a key centre for leading the UK back towards economic growth.

Five key roles for the region have been identified:

Cambridge as a Hub for High Tech Business

The Cambridge Sub-Region has a pyramid of high tech businesses, with a large number of smaller businesses providing support for a small number of large enterprises. Seven $1bn companies have been generated in the Cambridge Sub-Region over the past 50 years, and these companies rely heavily on scientific consultants in the area which play an important underpinning role to their success.

The Cambridge Sub-Region is unique in its ability to attract diverse high tech businesses. A wide sectoral diversity is present in the sub-region, including drug discovery and testing, computer software and hardware, electronics, new printing technologies and web-based media development. This ‘cluster’ of associated activity exemplifies the ability for the area to benefit from a range of businesses and provide a successful platform for wider economic regeneration.

1 Cambridgeshire Guided Busway, Post-Opening User Research. Cambridgeshire County Council 2012
2 Cambridge Cluster at 50. The Cambridge economy; retrospect and prospect. SQW 2011
A new interchange at Cambridge Science Park will support its continued international recognition as a hub for hi-tech business. It will enable greater accessibility to local and national skilled labour and will also improve connectivity to national and international markets.

**Cambridge as a Research Community**

The success and growth of the Cambridge high tech business sector is supported by the scale and excellence of the wider research community within the sub-region. The overlap between the business and research communities helps to shape the character and performance of the sub-region’s economy.

The sub-region benefits from a large number of high quality research facilities which supports the global role of the businesses within the region. A new interchange at Cambridge Science Park supports the sub-region’s international recognition for research providing greater connectivity within the region, as well as greater accessibility to the wider research community both nationally and internationally.

**Cambridge as a City Centre Economy**

Recent significant investment in the amenities of Cambridge City Centre has encouraged growth expanding the city’s catchment area and resulting in a greater degree of movement between the City’s rail station and the central area. At the same time, the existing station acts as a major commuter hub with significant cross-city travel to access rail services to London and the South East.

A new interchange at Cambridge Science Park will provide an alternative hub for commuters to access rail services and reduce the amount of cross-city travel currently headed to Cambridge Station. This in turn releases capacity at Cambridge Station to accommodate growth from south of the City, as well as movement to and from the City Centre.

**Cambridge as a Regional Centre for the Public Sector**

With many regional public sector bodies having established a presence in Cambridge over the past decade, Cambridge established itself as a regional centre for the public sector. There is also a substantial proportion of jobs (30% in 2008), within the Cambridge Sub-Region associated with the education, health and social care sectors.

A new interchange at Cambridge Science Park would provide more opportunity for sustainable access to Cambridge Regional College, an important centre of further education in the region for the local population out with the established Universities of Cambridge and Anglia Ruskin.

**Cambridge as an International Visitor Destination**

Cambridge has long been recognised as an important focus for international visitors and specialist conferences, with tourism accounting for around 6% employment within Cambridge and South Cambridgeshire.

A new interchange at Cambridge Science Park will support improved access by sustainable modes to specialist conferences at The Trinity Centre in particular, but it will also indirectly support Cambridge’s international visitors by releasing capacity at Cambridge station making rail travel to and from Cambridge more amendable for foreign visitors especially.

**The Role of Transport Infrastructure within the Cambridge Sub-Region**

The Transport and the Economy of the East of England Study (TEES, September 2008) suggested that the level of congestion within the East of England transport network was a serious barrier to further economic growth, with Cambridge being identified as an urban centre where the economic cost to residents was particularly high. The key conclusions from the study were:

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3 Cambridge Cluster at 50. The Cambridge economy; retrospect and prospect. SQW 2011
The negative economic impacts of transport constraints and congestion within the Cambridgeshire sub-region will double between 2008 and 2021; and productivity losses due to congestion are high in both Cambridge City and South Cambridgeshire, primarily due to the presence of highly productive jobs on the boundaries of Cambridge City.

Four main transport investment priorities were identified:

- Cambridgeshire Guided Busway – opened in 2011;
- A14 Improvements between Cambridge and Huntingdon – a new scheme is now being developed by the Highways Agency;
- County cycle and pedestrian links – ongoing; and
- Rail upgrades to increase capacity and reliability between Cambridge and London.

Cambridge Science Park Interchange supports all of these priorities:

- It will provide additional capacity to the rail network addressing existing congestion at Cambridge Station;
- Offer direct links to Guided Busway services mitigating congestion on the A14; and
- It will promote walking and cycling through significant investment in links to the county network and a thousand new secure cycle parking spaces.

The TEES study notes that any improvements in urban access to Cambridge are likely to have a large beneficial impact to the local economy, although highway improvements alone within the urban area would not stimulate economic growth. The focus for urban improvements should therefore be on public transport infrastructure and connectivity alongside highway demand management.

Cambridge Science Park Interchange supports this vision by providing broader alternatives to travel across the sub-region, helping to relieve congestion on the transport network and creating new opportunities for economic activity. Two key benefits are likely to be seen:

- Reduced congestion and reliance on the highway network to access the Science Park helping to reduce the economic cost of congestion to both the immediate area of the interchange, but also across the sub-region; and,
- Enhancing the connectivity of the Science Park to the wider region, including London and Stansted Airport which will help establish wider links for both employment and trade.

### The Planning Policy Context

The National Planning Policy Framework (NPPF) document from March 2012 seeks to outline the policy statements and guidance for developments to enhance economic growth in the region. The document outlines three key stands within sustainable development. These include:

- Economic development – outlining the way in which the development should contribute to 'building a strong, responsive and competitive economy, by ensuring that sufficient land of the right type is available in the right places and at the right time to support growth and innovation; and by identifying and coordinating development requirements, including the provision of infrastructure’;
- Social development – identifying the requirement to support 'strong, vibrant and healthy communities, by providing the supply housing required to meet the needs of present and future generations’.
- Environmental development – reflecting the need for a high quality built environment, with accessible local services that reflect community’s needs and support its health, social and cultural well-being’.

Pursuing sustainable development involves seeking positive improvements in people’s quality of life, which can be sought by:

- Making it easier for jobs to be created in cities, towns and villages;
• Moving from a net loss of bio-diversity to achieving net gains for nature;
• Replacing poor design with better design;
• Improving conditions in which people live, work, travel and take leisure; and
• Widening the choice of high quality homes.

Strategies to mitigate and adapt to climate change and support for a low carbon future is recognised as being central to the delivery of economic, social and environmental sustainable development within part 10 of the NPPF.

Local policies recognise that Cambridge has a buoyant economy, but they also acknowledge that there are problems as well as opportunities posed by the further growth of Cambridge, on housing provision, employment and infrastructure. Particular areas for concern are the effects of this continued growth on outlying rural settlements and an increase in congestion levels because of a growth in car use.

Within the Strategic Objectives for South Cambridgeshire, the Council seeks ‘to create new and distinctive sustainable communities on the edge of Cambridge connected to the rest of the city by high quality public transport’. In addition there is an objective to ‘provide and enable provision of enhanced infrastructure to meet the needs of the expanded population’ and ‘to support the Cambridge Area’s position as a world leader in research and technology based industries, higher education and research’.

The council will seek to ensure that every opportunity is taken to increase integration of travel modes and accessibility to non-motorised modes, by aiming to minimise the distance and increase the use of non-motorised modes of travel, by all sectors of society, for trips between home, work, schools and colleges, other suitable destinations and for leisure.

A key site specific policy from January 2010 identified that ‘Land at Chesterton Sidings is safeguarded for the development of a railway station and interchange facility. The Council will use its powers under Section 106 of the Town and Country Planning Act 1990 to secure financial contributions at an appropriate level towards the development of the railways station and interchange facility.’

Cambridgeshire Local Transport Plan 2011 – 2026

Cambridgeshire County Council’s LTP3 highlighted that a “Chesterton Interchange” would deliver the following objectives:

• Provide an interchange facility which forms an integral part of the high quality public transport network for Cambridge and the surrounding area, including connections between rail and the Guided Busway;
• Provide a public transport alternative to the private car for local and regional trips to and from the Science Park and local residential developments, integrating public transport provision with urban development thus promoting non-car modes of travel;
• Provide a public transport alternative to the private car for International trips via Eurostar at Kings Cross, Stansted Airport and Gatwick (upon completion of the Thameslink upgrade);
• Remove car trips from the Cambridge central area to release decongestion benefits and improvements to air quality and noise for residents of, and visitors to, Cambridge City;
• Provide a parking resource away from Cambridge city centre potentially in conjunction with park and ride services; and
• Provide stabling facilities for freight trains to encourage increased use of rail for the movement of freight.

Cambridge Science Park Interchange has been designed with all of the above objectives in mind.

Greater Cambridge and Greater Peterborough LEP – Strategic Economic Plan 2014

The Greater Cambridge and Greater Peterborough LEP (GCGP LEP) Strategic Economic Plan (SEP) will guide discussion with Government in relation to the funding requirements to achieve the interventions set out in the SEP up to 2021. The SEP focuses on developing the area’s internationally
competitive, nationally significant economy by drawing together the diverse range of strengths in the area.

Following detailed consideration of the evidence base and discussions with a range of key stakeholders the LEP identified a range of intervention packages that were a priority. Package two relates to transport connectivity. Transport related issues are noted as often being a concern to both business and housing growth. Key transport issue include congestion and unreliable journey times, limited rail capacity and limited opportunities for modal shifts. Growth in rail travel (56%) over the period 2001-2011 is noted from GCGP stations. The modal share of rail in Cambridgeshire for commuting increased 44% over the same period (22% across England). The transport connectivity package outlines a number of key elements, most relevant to this proposal are:

- A transport network fit for an economically vital high growth area;
- Ensure the delivery of local transport priorities approved through the Local Transport Board; and,
- Ensure linkage with national transport investment decisions.

Specifically development of a new station to serve the Cambridge Science Park is noted in the SEP document, for operation in 2016. The SEP requests £61.9m for transport 2015/16 (plus £14m already agreed) and a further £260.6m over the period 2015-2021.

Role of Cambridge Science Park Interchange in delivering Economic Growth

Having established the economic context within which a need for Cambridge Science Park Interchange, this section considers the role it can perform in delivering economic growth. It includes forecasts of future economic growth and activity in the sub-region which have been drawn from existing publicly available information.

Population and Employment Activity Forecasts

Cambridgeshire County Council produce forecasts of population growth and the proportion of the population which would be within working age which is derived from the (now defunct) East of England Plan. Table 1 below shows sets out these population forecasts for Cambridge City and South Cambridgeshire combined, compared to the County as a whole. The forecasts show that Cambridge City and South Cambridgeshire is forecast to account for a large proportion of expected population growth between 2011 and 2021 and 2021 to 2036.

<table>
<thead>
<tr>
<th>Area</th>
<th>2011 (Baseline)</th>
<th>2021</th>
<th>2031</th>
<th>% Change: 2011 - 2021</th>
<th>% Change: 2021 - 2036</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cambridge City &amp; South Cambs</td>
<td>262,727,270</td>
<td>318,100,325</td>
<td>358,236,500</td>
<td>16.6</td>
<td>13.3</td>
</tr>
<tr>
<td>Cambridgeshire</td>
<td>599,262,300</td>
<td>673,671,380</td>
<td>739,577,930</td>
<td>14.8</td>
<td>9.2</td>
</tr>
<tr>
<td>Population of Working Age (15-64 years)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cambridge City &amp; South Cambs</td>
<td>189,000,174</td>
<td>211,700,203</td>
<td>217,422,700</td>
<td>12.0</td>
<td>7.2</td>
</tr>
<tr>
<td>Cambridgeshire</td>
<td>415,800,378</td>
<td>452,800,399</td>
<td>475,500</td>
<td>8.9</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Source: Population Forecasts 2013 Districts and Wards, Cambridgeshire County Council Research Group

4 Cambridge Cluster at 50. The Cambridge economy; retrospect and prospect. SQW 2011
5 Note forecast figures are not available age 16-64.
Economic Activity Rates (EARs) show the percentage of the resident population in a given area which is in the labour force. The EARs for Cambridgeshire taken from 2011 Census data are shown in Table 2 below:

<table>
<thead>
<tr>
<th>Area</th>
<th>Population Aged 16 - 74</th>
<th>Number Economically Active</th>
<th>Economic Activity Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peterborough</td>
<td>132,318</td>
<td>95,646</td>
<td>72%</td>
</tr>
<tr>
<td>Cambridge City</td>
<td>98,283</td>
<td>62,886</td>
<td><strong>64%</strong></td>
</tr>
<tr>
<td>East Cambridgeshire</td>
<td>60,714</td>
<td>45,920</td>
<td>76%</td>
</tr>
<tr>
<td>Fenland</td>
<td>69,258</td>
<td>47,829</td>
<td>69%</td>
</tr>
<tr>
<td>Huntingdonshire</td>
<td>125,346</td>
<td>93,481</td>
<td>75%</td>
</tr>
<tr>
<td>South Cambridgeshire</td>
<td>107,779</td>
<td>82,079</td>
<td>76%</td>
</tr>
<tr>
<td>East of England</td>
<td>4,245,544</td>
<td>3,038,090</td>
<td>72%</td>
</tr>
<tr>
<td>England</td>
<td>38,881,374</td>
<td>27,183,134</td>
<td>70%</td>
</tr>
</tbody>
</table>

Source: 2011 Census

Table 2 shows that the EAR for Cambridge City (64%) is well below that of the surrounding districts, particularly South Cambridgeshire (76%) and Huntingdonshire (75%), and is also well below East of England and England averages. Whilst this is in part due to the large student population of Cambridge, it does contain a clear implication for the need for a large net in-migration of labour.
Travel to Work in Cambridge

Cambridgeshire County Council undertakes an annual census of traffic travelling into central Cambridge on a weekday. Table 3 below shows the outcome of the 2012 survey by vehicle type, and changes since the 2001 census between the 2011 and 2012 data reports.

### Table 3: Vehicles and People Crossing the Cambridge Radial Cordon 2012

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Motorcycles</td>
<td>2,3861.899</td>
<td>1%</td>
<td>-2.28%</td>
<td>-2.25%</td>
<td></td>
</tr>
<tr>
<td>Cars and Taxis</td>
<td>456,211.158.086</td>
<td>81.79%</td>
<td>-2.30%</td>
<td>-2.2%</td>
<td></td>
</tr>
<tr>
<td>Light Goods</td>
<td>21,7232.542</td>
<td>11%</td>
<td>-11.3%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Heavy Goods</td>
<td>5,2203.787</td>
<td>2%</td>
<td>-18.12%</td>
<td>45%</td>
<td></td>
</tr>
<tr>
<td>Bus and Coach</td>
<td>2,1262.269</td>
<td>1%</td>
<td>2.46%</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>All Motor Vehicles</td>
<td>486,728.188.380</td>
<td>94%</td>
<td>-0.22%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>Pedal Cycles</td>
<td>8,9849.324</td>
<td>5%</td>
<td>49.4%</td>
<td>39%</td>
<td></td>
</tr>
<tr>
<td>Pedestrians</td>
<td>2,6503.415</td>
<td>12%</td>
<td>Data not available</td>
<td>Data not available</td>
<td></td>
</tr>
<tr>
<td>Total (All Modes)</td>
<td>487,359201.119</td>
<td>100%</td>
<td>Data not available</td>
<td>Data not available</td>
<td></td>
</tr>
</tbody>
</table>

Source: Traffic Monitoring Report 2011, Cambridgeshire City Council

Table 3 shows that in 2012 a considerable majority of trips (81.79%) into Cambridge were made by car, and that there has been very little change over the past decade. By contrast, there has been a marked increase (14%) between 2002 and 2012 in bus and coaches due to a combination of the successful Park & Ride and Cambridgeshire Guided Busway initiatives. Cycling has also increased substantially (39%) over the period 2002 to 2012.

Although not included in the census, rail has also seen significant increases in its use; as noted earlier demand at the sub-region’s stations grew by 40% between 2003/4 and 2009/10.

The relatively stable level of all motor vehicular traffic noted between 2001-2002 and 2011-2012 could well indicate some theoretical level of network capacity, This which limits further growth in car use, though the clear move to public transport has also been driven by significant changes in personal values and a wider awareness of the environmental impacts of private travel. Ultimately, however, the analysis does indicate that in order to accommodate significant growth in housing and economic activity noted in Tables 1 and 2, further investment in public transport is necessary.

### Socio-Economic Impacts

This section looks at the economic impacts Cambridge Science Park Interchange is predicted to have on the local and sub-regional economy. It reviews the existing conventional transport economic case for investment, and how this will support the “Cambridge Cluster”. It also contains an assessment of the wider indirect benefits that Cambridge Science Park Interchange is predicted to bring in terms of supporting job creation. Finally, the section considers how Cambridge Science Park will support the sub-region economy more generally.
Conventional Transport Economic Appraisal\textsuperscript{6}

Conventional transport scheme economic appraisal relies heavily on an assessment to the changes in travel times experienced by users of the transport system, as well as non-users who are affected (beneficially or not) by these changes in travel.

A full economic cost-benefit analysis has been prepared for Cambridge Science Park Interchange, in accordance with Department for Transport guidelines, as the basis of understanding the ‘value for money’ which investment in the scheme affords the tax-payer. This appraisal found a benefit-cost ratio of 4.5 - 1; that is to say the value of all of the benefits (and including some disbenefits) when monetised represented a value four and half times greater than the cost of the investment. In DfT terminology, this represents high value for money, indicating that the economy will benefit significantly from the investment.

A significant component of these benefits accrues from the revenues that the station will generate over and above demand currently using the rail network. Income from fares and car parking significantly exceed the annual operating costs of the new station, even after taking account for demand which has been ‘abstracted’ from nearby stations, notably Cambridge.

However in economic terms, the main beneficiary will be overall savings in journey time for transport system users against which a value can be attached. These journey time savings are significant and over a 60 year appraisal equate to £43m at 2002 prices and values (DfT requirements). As noted in the TEES study, productivity losses due to congestion are high in both Cambridge City and South Cambridgeshire, and such travel time savings will help to recover lost economic output.

The interchange would also lead to journey time savings for other transport network users resulting from decongestion on the wider transport network. By providing an alternative mode of transport to access key employment areas, such as the Cambridge Science Park and St John’s Innovation Centre, Cambridge Science Park Interchange will actively contribute to reducing congestion on the highway network both in and around Cambridge.

Wider Economic Benefits

There are also wider economic benefits from transport journey time improvements, especially where these can be said to ‘bring closer together’ similar sectors of the economy so that they may ‘cluster’. In such instances, this clustering effect delivers ‘agglomeration’ benefits to the wider economy as businesses are better able to work together and to draw from a common pool of skilled labour. A recent study of the Cambridge Cluster by SQW\textsuperscript{7} found that high-tech businesses consider the optimum time for access to London to be 1 hour. With spatial planning constraints limiting the opportunities to accommodate large corporate entities near to Cambridge Station, it is imperative for strategic but geographically peripheral employment sites such as Cambridge Science Park to achieve the same level of accessibility.

Figure 1 below is drawn from a County Council bid for Regional Growth Funding and illustrates how Cambridge Science Park will be within a 60 minute journey time of central London, as well as having direct connections to a number of other important centres of economic activity in the sub-region and international gateways (Stansted Airport and St Pancras International Station).

\begin{footnotesize}
\textsuperscript{6} Chesterton Interchange Business Case, Draft RPB Proposition Paper, Atkins 2012
\textsuperscript{7} Cambridge Cluster at 50. The Cambridge economy; retrospect and prospect. SQW 2011
\end{footnotesize}
Investment in Cambridge Science Park Interchange will also help to bring forward more localised development within Cambridge and its surrounds. Cambridgeshire County Council’s RGF bid identified that the following developments would be supported by, or brought forward, as a direct consequence of having a rail station in the area:

- The research and development cluster around St John’s Innovation Centre which is an exemplar hi tech incubator of international significance, along with the Science Park and landmark offices on Cowley Road;
- The Cambridge Business Park, housing important local employers such as Jagex;
- Strategic missed use development sites across North West Cambridge including the recently consented University of Cambridge centre for research and development; and,
- Full build out for the new town of Northstowe over the current outline consent and which will also provide a 20hectare employment site linked directly to the interchange by the guided busway.

Whilst in some instances these developments have already come forward, certainty of a new station at Cambridge Science Park (which the County Council has provided to the market) has been a key factor in making those investment decisions. Indeed, it has the potential to encourage investment in the wider sub-region; a recent announcement by Astra-Zenica to relocate its research base to Cambridge from Cheshire is a point in example.

An assessment of (the then named) Chesterton Interchange undertaken by CCC for the Regional Growth Fund bid indicated that the scheme will be a key contributor to the delivery of up to 160,000

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8 Chesterton Interchange, Regional Growth Fund Application Form, Greater Cambridge – Greater Peterborough Local Enterprise Partnership 2011
new jobs and £30 billion growth in GVA across the Cambridge sub-region (by 2025). Whilst these are aspiration targets which are contingent on other contributory factors, improved accessibility between residential areas and major employment sites on the northern fringes of Cambridge, as well as improved connectivity with London and other major centres of economic activity is fundamental to realising this future growth.

Social Accessibility

Increasing access to the transport network provides greater opportunities for those without access to a car to access employment opportunities and socially important services. Specifically it would:

- Enable a wider cross-section of the community in the sub-region to access employment and education facilities at the Science Park;
- Provide an improvement in public transport for those without access to a car, in terms of both journey times and accessibility to interchange between modes; and
- Enable residents in Cambridge to access to the county's market towns and wider countryside.

The potential benefits to individuals in the communities served by CSI would be demonstrated mainly in terms of improved access to alternative transport services, as well as in facilitating greater transport opportunities to access the area from wider Cambridgeshire and further afield.

Role of Cambridge Science Park Interchange in supporting the Cambridge Economy

Delivering a Hub for High Tech Business

Employee Access

Cambridge Science Park Interchange will significantly enhance public transport accessibility to an area of key private sector enterprise. The interchange will provide opportunity to link the area more closely to both rail services from London and Kings Lynn and bus services from Cambridge City, surrounding market towns and the Cambridge Guided Busway. More specifically, it will link the high tech cluster around the science park with that at the Cambridge Biomedical Research Park at Addenbrooke’s via rail and guided bus services.

Access to jobs will be made easier by providing a further alternative travel mode outside the already congested highway network. This provision will enhance the opportunities for employment in the cluster for people who cannot afford to live in the expensive Cambridge and South Cambridgeshire area, facilitating greater employment growth and development of skills of a population which is forecast to continue to grow at a rate above the national average. Greater access to public transport will widen the labour catchment area, which reinforces the area as a prime location for private sector employment growth as well as potentially contributing to alleviating staff shortages.

Provision of additional travel options also broadens the catchment area for employees outside the sub region. It is anticipated that the interchange will enable 800 inbound car based trips to switch to rail, significantly relieving congestion on the local and strategic highway network as well as providing capacity for new trips to support intensification of activities on the science park.

Business Development

A key part of the Cambridge sub-regional economy is business-to-business interaction, both within the sub-region and with other businesses nationally and internationally. B2B interaction will be enhanced with improved connectivity to London – this can give rise to significant agglomeration benefits which can typically boost the economic case for transport investment by 25-30%. Connectivity is also a key criterion for inward investment; Microsoft Research have already signalled their intention to leave high-quality facilities (and important agglomerations) on the city's periphery to sites nearer the station to bring employees within one-hour’s journey time of London. Given competing uses for city-centre land, Cambridge Science Park Interchange provides the ability to
increase opportunities for like minded business to locate near to a rail station with sub-60 minutes London journey times\(^9\).

Congestion in the Cambridge area will be reduced, thereby boosting business productivity and efficiency and hence supporting wider job creation in the Greater Cambridge area, as well as promoting the area of the interchange as a further area for future development. The ability to support existing businesses and local residents as well as attracting global high tech companies to the Science Park plays a critical role in intensifying economic activity.

**Delivering for the Research Community**

Cambridge Science Park Interchange will support the development of the research community through improved transport connectivity. Cambridge Science Park is renowned as a research and development focal point globally, with potential for intensification to include a further 25,000 sq m of accommodation with approximately 1,000 jobs demonstrating a clear example of the nature of economic growth that can be stimulated\(^10\).

Conferences form an important role within the research community, often with an international focus. Cambridge Science Park Interchange provides fast and reliable connections to national and international gateways including connectivity to London in less than 60 minutes journey time. Expansion of commercial activity will bring forward increased research opportunities, as the commercial enterprises seek to invest, support and benefit from local pioneering research organisations and communities.

More locally, Cambridge Science Park will also support the Cambridge Regional College which provides education to more than 10,000 full and part time students. Improved accessibility to the area from the wider sub-region provides opportunity for increased access to education for those residing outside of Cambridge, by providing an interchange with local bus and national rail services. As well as the immediate benefit to those attending the education establishment, the local economy is likely to benefit in the longer term, as employers have access to a larger pool of commensurately skilled labour.

**Summary**

Cambridgeshire County Council is promoting Cambridge Science Park Interchange in order to ensure the continued and sustainable economic growth in the sub region. A new rail station in Chesterton has been a long standing proposal, which is integral to the infrastructure needed to accommodate future economic growth in the sub region as identified by several major strategic transport and land use studies.

CSI will support the wider functions of Cambridge’s economy, specifically the five roles it performs which were identified by a leading piece of economic research work for EEDA and Partners in 2010 (the Cambridge Cluster at 50). This work notes the productivity gains which would be released through improving access to the urban area of Cambridge via investment in public transport infrastructure such as CSI.

The planning policy framework both identifies and is supportive of a new station at Chesterton as a facilitator for economic growth and the County Council’s Local Transport Plan 3 provides clear objectives for the scheme, against which it has been designed.

Forecasts of population growth including those who will be economically active indicate that a large proportion of this growth will come in the City and South Cambridgeshire areas. However, the city has a lower than average proportion of its population economically active and this generates a net immigration of labour into the city. An analysis of trends in travel to work into Cambridge over the past decade indicates that motorised traffic has remained broadly stable, but that there has been

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\(^9\) Cambridge Cluster at 50. The Cambridge economy; retrospect and prospect. SQW 2011

\(^10\) Chesterton Interchange, Regional Growth Fund Application Form, Greater Cambridge – Greater Peterborough Local Enterprise Partnership 2011
significant growth in public transport. More investment in public transport will be needed to support future economic growth.

An analysis of expected socio-economic impacts indicates that:

- The scheme offers high value for money for tax-payers as measured by DfT guidelines;
- There are significant journey time benefits which will deliver high productivity gains from reducing congestion on the transport network;
- A new station will act to bring the Science Park ‘nearer’ to similar sectors of the economy thus producing agglomeration effects;
- Significant job creation and wealth is dependent on improved accessibility to major employment and residential development sites, as well as with London; and
- The scheme would be directly linked to Northstowe and would contribute to enabling full build out.

The Socio-Economic analysis has shown that Cambridge Science Park Interchange will have a large beneficial effect on the sub-regional economy and is an important component in the delivery of sustainable economic growth. It has also shown that at a more localised level it will provide enhanced accessibility to jobs and services.