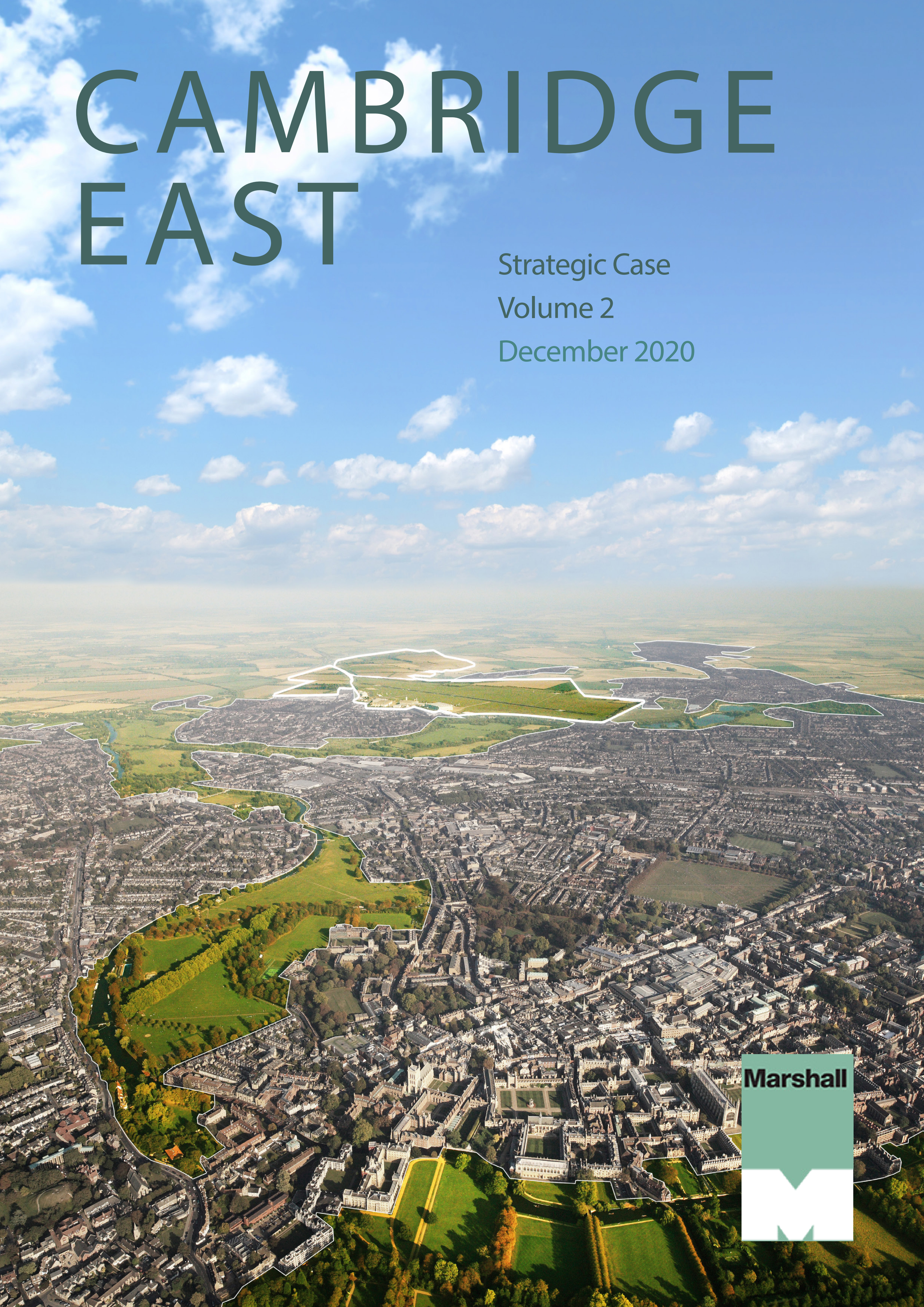
CAMBRIDGE EAST

Strategic Case

Volume 2

December 2020



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Contents – Volume 2

"Cambridge is at a decisive moment in its history where it must choose whether it wants to once again reshape itself for growth or let itself stagnate and potentially wither. We believe the latter would be disastrous for its people and the UK economy."

Cambridgeshire and Peterborough Independent Economic Review (CPIER Final Report)

7 Cambridge East – an opportunity for transformational and sustainable economic growth

Introduction

7.1 Cambridge East has a number characteristics that make it a unique opportunity for the area. The potential for a combination of the research hub, significant University space and the commercial space to accommodate both large scale global occupiers and the flexible, affordable space for the small, high growth businesses for which Cambridge is renowned. It will include maker spaces to provide spaces for creative industries and entrepreneurs, space for growing sectors that require mid-level skills, and the leisure and retail offer will provide opportunity for entry level jobs.

7.2 It has the scale to achieve transformational change in the east of the City that will significantly improve the lives of local residents through the provision of a range of job opportunities, affordable homes and a range of cultural, leisure and retail options.

7.3 The Marshall Group takes its role as a key Cambridge stakeholder very seriously and is committed to the long-term, patient development of a high-quality new quarter. The mix of uses – commercial, residential, retail, educational, cultural and leisure will ensure a high quality of life for residents, workers and visitors.

7.4 At the heart of the proposals are the opportunity for research and laboratory space – bringing together the best of the City and the University's cutting-edge research with its commercial application and development. The research hub could (in Scenario C) include space for two anchor tenants and significant university space; it has the potential to create a new high productivity cluster that builds on Greater Cambridge's existing strengths – the University in the city centre, the bio-med cluster in the south and the science park in the north,

7.5 It is also an opportunity to do something new – Cambridge's success to date has not always been shared by everyone. Cambridge East will provide a significant amount of other commercial space for other uses, including retail and leisure and low cost "maker space". This will create a mix of employment and training opportunities suitable for residents of different skill levels.

7.6 Even some of Cambridge's fastest growing sectors do not require high skilled workers for every job – approximately a quarter of people working in information and communication in Greater Cambridge do not have an NVQ 4 (undergraduate degree) or above. Accommodating these sectors is an opportunity to provide space for high paid, mid skill level jobs that help create sustainable career options for local residents.

7.7 Marshall has a long legacy of investing in skills and is committed to ensuring that the benefits of the scheme felt equally across the local area – the Skills Charter sets out our initial approach to address the challenges in the east of Cambridge. The scale and ambition of Cambridge

East will allow for a comprehensive effort to address barriers to training and employment. Of the total employment supported onsite, approximately 5,700 jobs would be suitable for people with qualifications of Trade Apprenticeships, NVQ2 (equivalent to GCSE grades A*-C or 9-4) and below onsite – this is equivalent approximately 60% of residents of East Cambridge with this level of qualification.

7.8 The mix of uses and the density of development will support major new transport infrastructure and the proposals will include large-scale green space as well as the potential for major cultural and leisure attractions.

7.9 The result will be a development that offers economic and sustainability benefits that cannot be delivered elsewhere. It will make a contribution to the target of doubling GVA by delivering both more jobs and more productive jobs. It will attract and grow jobs in higher productivity sectors, transport investment will increase agglomeration effects across the city and investment in training will help existing residents boost their skills and productivity.

7.10 The masterplanning team have tested four scenarios (A-D) which have different amounts, mixes and quantity of development:

- **Scenario A** – a scheme covering the Safeguarded Airport land which is compliant with the adopted Cambridge East Area Action Plan. This scheme includes high quality public transport (HQPT)[1] links as envisaged in the AAP, a relocated P&R and dedicated transit corridor through the site. It does not require a dedicated off site mass transit link connecting to Cambridge Station. It includes delivery of a Country Park to the east of Airport Way.
- **Scenario B –** a scheme covering the Safeguarded Airport land but which achieves a greater mix of uses than is envisaged in the AAP, including a significant increase in the provision of commercial development to enable and capitalise on the delivery of a research hub. This scheme is supported by comparable on site transport infrastructure as Scenario A (including relocated P&R and dedicated on segregated transit corridor), but with a dedicated off-site mass rapid transit link[2] connecting to Cambridge Station with further connections to Cambridge North.
- **Scenario C** – a scheme covering the Safeguarded Airport land and additional Green Belt land to the east of Airport Way, which enables the delivery of a significantly greater quantum of development than Scenarios A or B, including a greater mix of uses, notably more residential units, and a greater scale of commercial development. This scheme is supported by comparable on site transport infrastructure as Scenario A (including relocated P&R and segregated transit corridor), but with a dedicated off-site mass rapid transit link connecting to Cambridge Station with further connections to Cambridge North.

[1] High Quality Public Transport (HQPT) - surface, bus based rapid transit solutions which will operate in existing street corridors and will be supported by priority measures and alongside design features to reduce delays caused by passengers boarding or leaving buses, or purchasing fares.

[2] Mass rapid transit link – fully segregated high capacity transit solutions with the potential to be part of the CAM

It also provides a Green Infrastructure network which extends beyond the redline of the site to the east.

- **Scenario D** – a scheme which achieves the same amount of development as Scenario C but covering the Safeguarded Airport land only. This scheme is supported by comparable on site transport infrastructure as Scenario A (including relocated P&R and segregated transit corridor), but with a dedicated off-site mass rapid transit link connecting to Cambridge Station with further connections to Cambridge North. It is being tested to examine the potential to densify Option B.

Supporting employment and productivity growth

7.11 Cambridge East is an ideal location for the growth needed to reach the target of doubling GVA. The target requires an increase in employment (and in particular in high productivity sectors) and an increase in productivity in existing sectors. The proposals for Cambridge East will deliver all three elements.

Cambridge East would accommodate up to 38,000 jobs

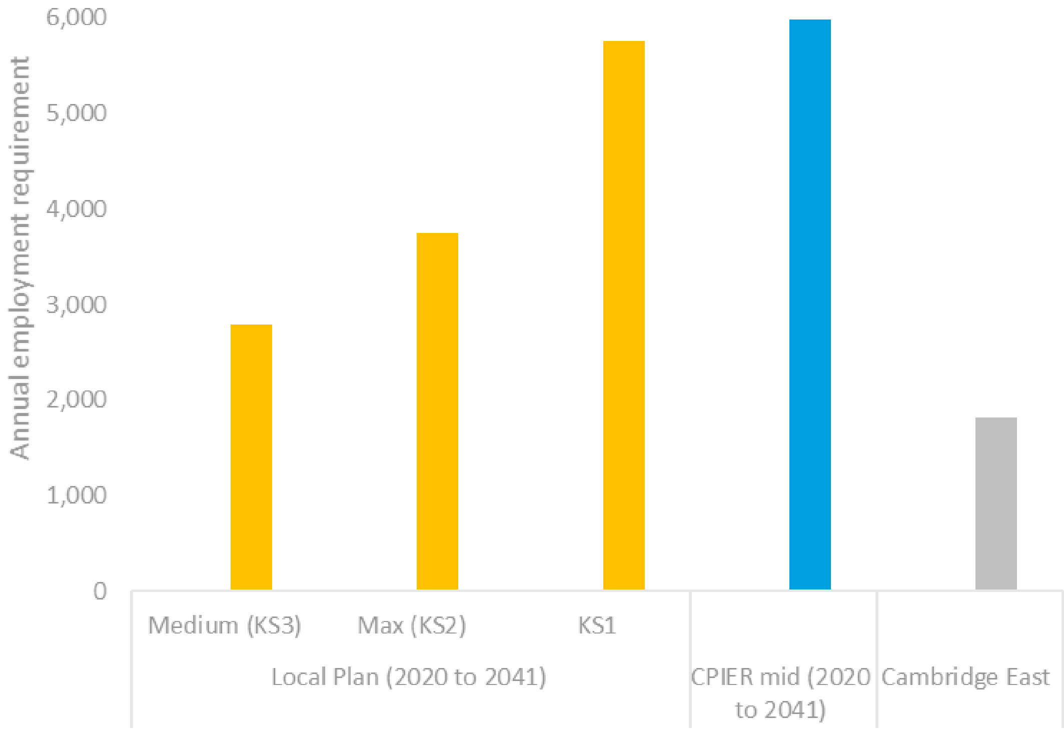
7.12 Cambridge East could provide employment space for c. 38,000 job in Scenario C. This would support a range of occupiers from local occupiers, start-ups who have the potential to become the next generation of high value businesses, and the existing high value global occupiers.

7.13 The previous sections have outlined how Cambridge needs both more, and more productive jobs in order to meet the target of doubling the GVA. The CPIER mid scenario requires 126,000 jobs in Greater Cambridge between 2020 and 2041, increasing to 232,000 additional jobs across Greater Cambridge by 2055. This is equivalent to between 6,000 and 7,000 per year.

7.14 Cambridge East would be an important part of this – Scenario C would deliver approximately 2,000 jobs per year between 2034 and 2055. These timescales are conservative and there may be opportunity for acceleration (for further information refer to the *Timescales for the Delivery of Cambridge East Report* which makes up part of this submission).

7.15 Placing employment in locations such as Cambridge East will result in a highly productive cluster that will contribute to this challenge – this would mean that the central CPIER mid employment projection would be sufficient to meet the doubling GVA target. Without this target, we anticipate that employment growth across Greater Cambridge would need to be a lot higher (177,000 by 2041) and result in higher land take.

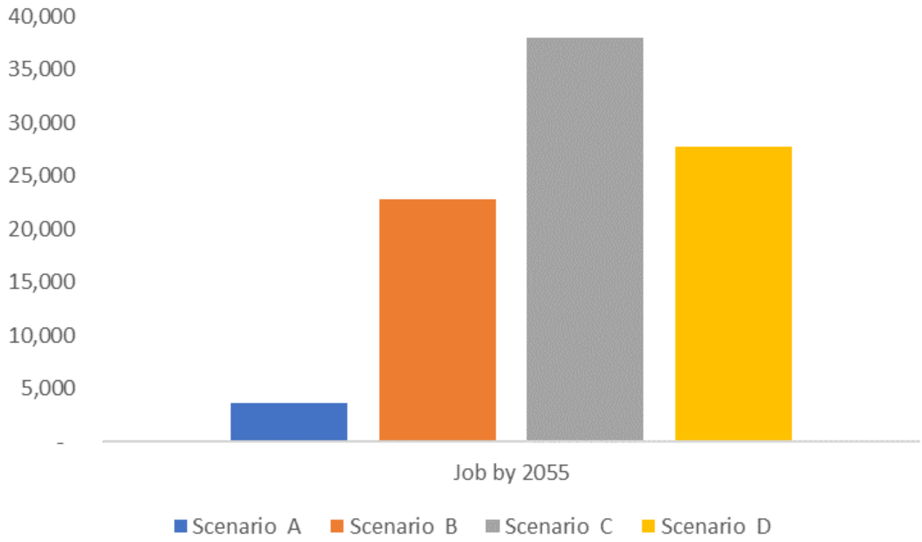
Figure 7.1: Cambridge East – Scenario C contribution to employment



7.16 The alternative scenarios for build out at Cambridge East would not result in as much employment, or as quickly, as Scenario C (full build out of commercial space by 2055):

- Scenario D results in a similar total employment as Scenario C but is delivered over a longer period of time (full build out anticipated of commercial space by 2062) and therefore only 28,000 jobs will be delivered by 2055. This is because the phasing and mix of uses mean that take-up can be achieved more quickly in Scenario C – the critical mass of commercial and residential space that make Cambridge East an attractive place to locate will occur more slowly in D.
- Scenario B would result in 28,000 additional jobs at full build out, and 23,000 jobs by 2055 (full build out of commercial space by 2059) – this is still a significant contribution to the total growth required across Greater Cambridge but is not making full use of the site and its potential to be a high value and sustainable cluster of employment.
- Scenario A would contribute minimal employment growth (c. 4,000 jobs) in the context of the level required.

Figure 7.2: Cambridge East – Contribution to employment by 2055



More productive jobs

7.17 As well as providing a significant proportion of the jobs that are needed, Cambridge East would also contribute significantly to the productivity challenge. Raising productivity is notoriously difficult – the purpose of the national Industrial Strategy is largely to address the productivity puzzle in the UK. The CPIER mid scenario requires 0.8% growth per annum. As set out in volume 1, this is not insignificant.

7.18 Cambridge East is the only location that can deliver the scale and functional link to the City Centre that can attract high value footloose firms that are highly productive in their own right and at a scale that can facilitate agglomeration benefits within the site.

7.19 The mix of commercial space, the research hub and potential for University presence mean that Cambridge East is uniquely placed to build on the strengths of Cambridge and its existing successful clusters. Cambridge's success to date has been built on the nexus of public sector and private sector activity – that success cannot continue unless growth is planned in a way that allows this synergy to continue.

7.20 The research hub (in Scenario C) is large enough to incorporate two anchor tenants, thereby facilitating a more complex and ultimately more innovative and productive cluster. Anchor tenants could include elements of the University (for example the Chemistry Department occupies 200-300,000 square metres of space or it could operate in the same model as the Cavendish labs, which are operated by the Department for Physics).

7.21 Anchor tenants are attractive to other R&D occupiers across the public and private sectors and facilitate faster take up. A survey by Bidwells and YouGov of global R&D businesses found that they favour premises that are in a city district location (1st choice), in dedicated premises on or near in a university/research institution (2nd and 3rd) or a hot desk space in a major university / research institution (4th). The combination of the research hub / institution, the commercial space and the University College would create a complex cluster of public and private activity that epitomises Cambridge's success to date.

7.22 The mix of commercial space will be suitable for large global companies who cannot be accommodated elsewhere in the city, but also provide affordable space for the small, growing companies and university spin-offs that make Cambridge so uniquely successful.

7.23 This is not simply about providing employment floorspace to accommodate employment growth. It is planning for and designing the mix of uses that creates Cambridge's fourth cluster. Cambridge East creates an opportunity to build on the existing strengths of the city. As well as building on existing clusters of the University in the city centre, the biomed cluster in the south, and the science park in the north, but also to accommodate fast growing sectors.

7.24 Computer science/ICT is a significant, and growing sector in Cambridge – and 'AI and the Data Economy' is one of the Industrial Strategy's Grand Challenges as the Government commits to *'UK at the forefront of the artificial intelligence and data revolution'*. Cambridge is already to home to tech giants including the Microsoft Research Lab and Apple, a number of fast growing start-ups such as PROWLER and Wayve, and DeepMind (owned by google) funded the University's first Professor of Machine Learning.

> "I don't know of any other university in the world that lets you do this in terms of IP. It's a pretty unique set-up that I can start a business, raise venture capital, and still retain a research position and do open-ended research. I feel very lucky. A lot of other universities wouldn't allow this, but here you can – and it's resulted in some pretty amazing companies."
>
> Dr Alex Kendall founder of Wayve, who recently completed his PhD the Department of Engineering
> Source: Cambridge and AI: what makes this city a good place to start a business? University of Cambridge

7.25 The productivity benefits are not limited to the site. Cambridge East would unlock a transport solution that increases the effective density (productivity benefits that arise from better transport connectivity) across Cambridge as the existing clusters are better connected to each other, and to the fourth cluster at Cambridge East. This improved transport accessibility would increase the effective density of Cambridge and therefore increase innovation, spill-overs and the potential for competition. All of this results in productivity benefits.

Figure 7.3:Contribution of Cambridge East to GVA target

7.26 The productivity effect of the cluster will increase disproportionately with scale. Scenario C would accommodate the mix of uses, including the research hub large enough for two anchors and University presence. This creates a highly productive fourth cluster that cannot be replicated elsewhere. It would accommodate up to 38,000 jobs onsite is at a scale big enough to facilitate agglomeration onsite. The densest parts of the city currently have GVA per worker of between £60,000 and £100,000 (refer to Volume 1, Section 4).

7.27 If the GVA per worker onsite was £80,000 (average of the densest areas of the city currently) then the GVA of the site would be £1.2bn per annum by 2042, increasing to £3.0bn by 2055. This assumes that 14,000 of the total 38,000 would be onsite by 2042 and all 38,000 could be onsite by 2055.

7.28 If it is assumed that the GVA per head of the most productive places increases by 0.8% per annum – as per the CPIER mid scenario – then it is anticipated that the GVA per worker onsite would increase to £97,000 by 2042 and £107,000 by 2055. This would result in a contribution of £1.4bn per annum by 2042 and £4.1bn by 2055.

7.29 This GVA contribution of £1.4bn per annum is equivalent to 6% of the total GVA needed to double the GVA of the CPCA. This increases to 19% based on the contribution by 2055 (£4.1bn) albeit not within the target timescale. This is an extremely significant contribution that could not be replicated elsewhere.

7.30 Scenario D would have a similar total GVA impact as Scenario C but would take longer for the benefits to occur. By 2055, the 28,000 jobs that would be anticipated to have been built out would be expected to generate between £2.2bn and £3.0bn of GVA per annum by 2055.

Table 7.1: GVA contribution of Cambridge East (Scenario C)

		Scenario C		Scenario D
		2042	2055	2055
Number of jobs		14,000	38,000	28,000 (full build out of 38,000 not until 2062)
Annual GVA	Lower bound *GVA per worker = £80,000*	£1.2bn	£3.0bn	£2.2bn
	Central projection *GVA per worker grown by 0.8% per annum from £80,000 in 2018* *2042 GVA / worker = £97k* *2055 GVA per head = £107k*	£1.4bn	£4.1bn	£3.0bn

7.31 The productivity benefits increase disproportionality with scale; this is due to the quantum of employment (and therefore density) that can be accommodated onsite, but also the nexus of occupiers – large and small, public and private – that contribute to the innovation and productivity benefits. The benefits of Scenario B would therefore be lower than Scenario C, and the benefits associated with Scenario A would be minimal:

- Scenario B results in a lower contribution to GVA. This is partly due to the lower number of jobs but also due to a lower productivity per job: it is assumed that the GVA per head in Scenario B is £75,000 in the lower bound. On this basis, Scenario B would be expected to generate between £1.7bn and £2.3bn of GVA per annum by 2055.
- Scenario A would have comparatively low benefits of agglomeration – it is anticipated that Scenario A would be expected to generate between £0.2bn and £0.3bn of GVA per annum by 2055.

Table 7.2: GVA contribution of Cambridge East (Scenario B)

		Scenario B	
		2042	2055
Number of jobs		7,000	23,000 (full build out of 28,000 not until 2059)
GVA / Worker	Lower bound *GVA per worker = £75,000*	£0.5bn	£1.7bn
	Central projection *GVA per worker grown by 0.8% per annum from £80,000 in 2018* *2042 GVA / worker = £90k* *2050 GVA per head = £102k*	£0.7bn	£2.3bn

7.32 Great places are not solely about the employment provision. The mix of commercial uses, the housing and the leisure and cultural offer onsite will combine to create a successful place. This is crucial to ensuring both the success of Cambridge East but also the wider success of Cambridge. Occupiers will ultimately only locate where their workers want to live – and employment opportunities, housing affordability, sense of place, and cultural amenities all affect where people want to live. This is considered in further detail in Section 8 to 11.

A high productivity cluster that would otherwise be lost to the UK

7.33 Cambridge East is a unique opportunity to create a new cluster in Cambridge – the offer of the site and its link to the businesses and the University in the city mean the is not an opportunity that can be replicated elsewhere.

7.34 As set out in section 3, Cambridge is a significant attractor of FDI. Over a fifth (22%) of all employment in Cambridge and almost two fifths (39%) of knowledge industries is in foreign owned firms.

7.35 As a result of both the importance of Cambridge to the UK economy, and the constraints on future growth in Cambridge, the UK Government should adopt a Cambridge or overseas approach.

> "The UK Government should adopt a 'Cambridge or overseas' mentality towards knowledge-intensive (KI) business in this area, recognising that in an era of international connectivity and footloose labour, many high-value companies will need to relocate abroad if this area no longer meets their needs. Ensuring that Cambridge continues to deliver for KI businesses should be considered a nationally strategic priority."
>
> *Source: CPIER Final Report*

7.36 Globally successful high value firms are attracted to locations that have a talent labour supply, a range of affordable options for office and labs, proximity to similar business and their supply chain, a higher education presence, opportunities for private/public sector collaboration and access to domestic and foreign investment.

7.37 The success of Cambridge is largely because it can provide these attributes in abundance. The existing clusters are so successful partly because of the offer of the clusters in their own right – the office and lab space, the density of employment that allows for knowledge spill overs – but also due to the relationship with the City that accommodates and attracts a highly skilled workforce a world renowned University and the resulting network of private and public sector investment and collaboration

7.38 Cambridge East is an opportunity to create a new cluster of economic activity that can provide employment space to attract a range of occupiers but also provide the other elements that attract global occupiers in highly productive sectors – the digital and transport infrastructure, the university offer, the cultural and leisure offer and affordable housing to attract the staff.

7.39 A lack of space, rising rents and availability of larger floorspaces means that the existing clusters are not suitable for large global operations, and the science parks further away from the city are not suitable for attracting the necessary talent. Rising commercial rents are a barrier to locating in Cambridge for both established and newly starting firms Cambridge East can accommodate both small creative firms (in the maker space), starts-ups in the small business incubator space and large occupiers over bigger floor plates.

7.40 The benefits associated with Cambridge East cannot be accommodated in existing clusters – there simply is not the space - and there are few opportunities for this scale of employment in a location that is so well connected to the existing clusters.

7.41 The full development of Cambridge East (Scenario C) would provide a range of floorspaces to suit occupier needs including lab space and big floorspaces for global operators. As well as attracting the global occupiers who may otherwise be lost to the UK economy (if they locate in Boston, for example), Cambridge East would also accommodate start-ups and spin-off that are currently small and relatively unknown – but could be the next generation's major global company. It is these companies that make Cambridge uniquely important to the UK economy – these companies grow to make significant contributions to the local and national economy.

7.42 Scenario D would ultimately have a similar economic footprint to Scenario C, although it would accommodate a smaller college and therefore a smaller university presence. It would take longer to build out and therefore the take longer and be more difficult for the high value cluster to form.

7.43 Scenario B would have a smaller research hub, less commercial space and would take longer to build out. While it would still create a significant and high value cluster, it would not maximise the opportunity or the potential of the site. It is largely a less aspirational version of Scenario C

Fixing the economic geography of Cambridge and improving productivity across the city

7.44 Cambridge East is an opportunity to unlock investment in transport infrastructure to fix its economic geography. It provides the opportunity to improve connectivity to the city centre via a transit link to the station as well as improved connectivity to the existing clusters in the north and the south. This results in benefits to residents – reduced journey times and reduced congestion – but also creates economic benefits as it increases the effective density of the city, making jobs effectively closer to each other, resulting in productivity benefits.

> "In Cambridge specifically, though there are limitations to the growth of the city in other directions, the east side of the city offers significant scope for housing and commercial development. Such development would have the advantage of being close to the principal centres of employment and the existing rail infrastructure whilst also opening up opportunities for new transport links to connect the main centres of employment more effectively."
>
> *Source: CPIER Final Report (page 79)*

7.45 The level of transport improvement that is possible will depend largely on the scale of development at Cambridge East. Commercial space and homes result in more transport journeys and therefore require more investment in transport and make that investment more viable.

7.46 In Scenarios B to D, the transport strategy would include a transit link to Cambridge Station – this would have the benefits of providing connectivity between the site and the city centre – but also providing connectivity from the east of the city. The transport strategy could also include transport connectivity to the north and south of the city, providing connectivity to the existing high density highly productive clusters. The scale of development in Scenario A means that these benefits cannot be delivered in Scenario A; refer to the Transport Strategy for further detail.

7.47 Transport infrastructure would result in productivity benefits across the city as the effective density of the city increases and therefore increases innovation, spill-overs and the potential for competition. Businesses in the existing clusters would benefits from the both the additional employment at Cambridge East and also the reduced journey times between the existing clusters.

7.48 The combination of the highly productive cluster of employment at Cambridge East and the effect of both the employment and transport connectivity unlocked by the development on wider productivity across Cambridge would mean the combined contribution to GVA will be significant in Scenario B and even larger in Scenario C and D.

Employment at Cambridge East is more sustainable compared to employment elsewhere

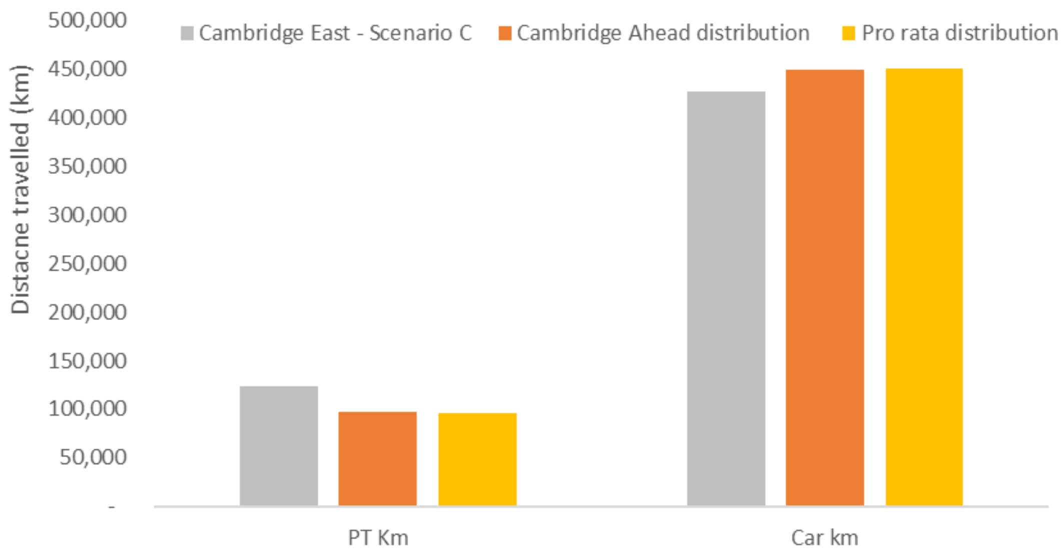
7.49 The Transport Assessment that accompanies this document includes analysis of the impact of development at Cambridge East on the length and type of journeys made by residents and employees. It assesses the different effects on journeys for each of the four development scenarios for Cambridge East and in the case of Scenario C, the impact of locating the additional job growth at Cambridge East compared to elsewhere across Cambridge and South Cambridgeshire.

7.50 The analysis re-distributes the growth that could go at Cambridge East to other places under two scenarios:

- All current employment locations experience a pro rata increase in jobs
- Specific, well-connected locations get a disproportionate share of the growth

7.51 The results are that compared to either of these scenarios, focusing growth at Cambridge East increases kilometres travelled on public transport (in the morning peak) by just under 30% and reduces car kilometres by 5% across the whole of Cambridge and South Cambridgeshire.

Figure 7.4: Scenario C growth (38,000 jobs) at Cambridge East or elsewhere (AM peak period – total trips across Cambridge and South Cambridgeshire)

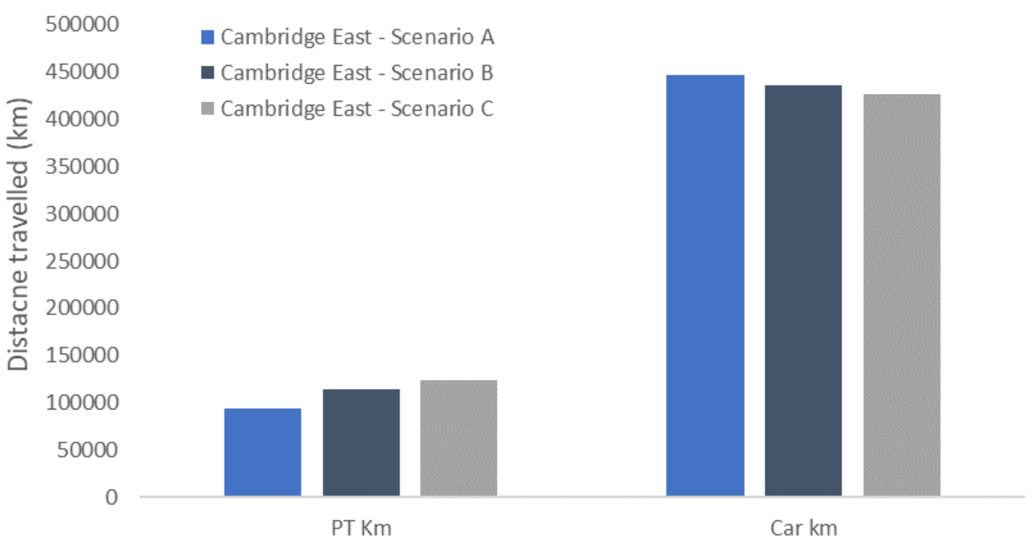


Source: Stantec

7.52 In addition, the transport intervention associated with Scenario C makes such a difference that there are anticipated to be fewer car trips and car kilometres in this scenario than in the lower development scenarios. This is despite Scenario C resulting in more overall trips and km travelled. All else being equal, Scenario C is anticipated to result in:

- 2% fewer car km across Cambridge and South Cambridgeshire (in the morning peak) than in Scenario B and 4% fewer than Scenario A.
- 8% more public transport km across Cambridge and South Cambridgeshire (in the morning peak) than in Scenario B and 32% more than Scenario A.

Figure 7.5: Cambridge East (AM peak period – total trips across Cambridge and South Cambridgeshire)



Source: Stantec

8 Cambridge East - a catalyst for inclusive growth in the East

8.1 Growth in Cambridge has not always benefited everyone equally. Inclusive growth must be at the centre of any future growth in Cambridge, combining job opportunities for local people with the provision of high quality and affordable housing as well as leisure and cultural amenities.

8.2 The east of Cambridge typically is predominantly residential – with more limited employment space and has higher levels of deprivation and unemployment. Cambridge East provides an opportunity to provide employment space and unlock transport infrastructure to catalyse growth in the area. This will be matched by the significant quantum and range of homes – providing affordable and high-quality options that mean Cambridge can maintain its status as an attractive place to live and work.

8.3 Cambridge East has the potential to include a University facility, cultural anchor, a football stadium and a range of other leisure uses which local people can utilise but also that encourage people to visit the area, spending money and facilitating further economic activity.

8.4 Cambridge East can be an economically and environmentally sustainable place in its own right and contribute to the sustainable growth of Cambridge. The development of the proposal to date has been underpinned by the four pillars of the Greater Cambridge Local Plan – climate change, biodiversity and green spaces, wellbeing and social inclusion and great places.

8.5 Key to these pillars is providing jobs, homes and infrastructure. This means delivering a mix of jobs suitable for people with different levels of qualifications and homes for households with different demands.

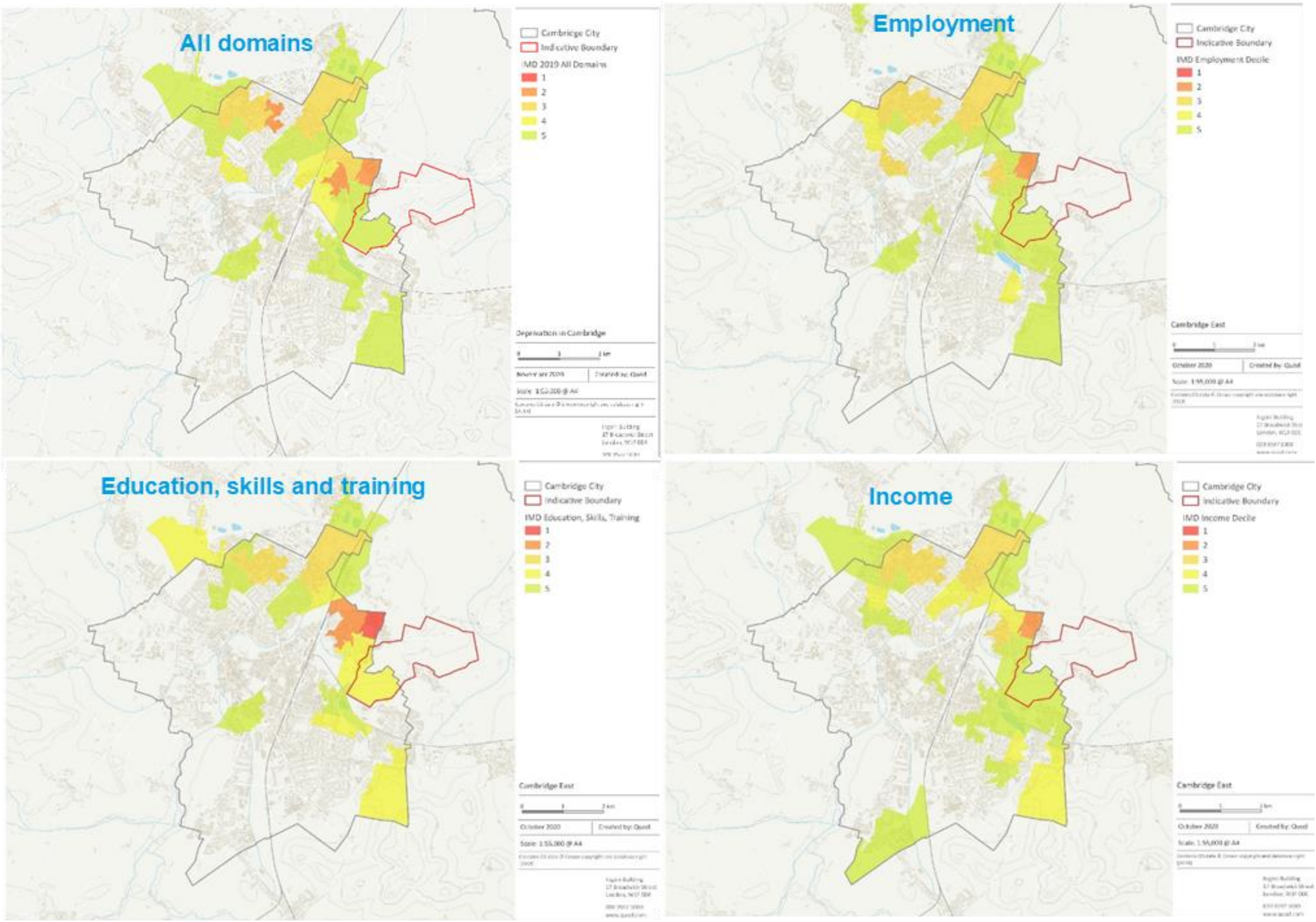
The context of the East – low employment and pockets of deprivation

8.6 The Index of Multiple Deprivation (IMD, 2019) measures relative levels of deprivation across England. It is made up of seven domains: income deprivation; employment deprivation; health deprivation and disability; education, skills and training deprivation; crime; barriers to housing and services; and living environment deprivation.

8.7 Deprivation is Cambridge is low on a national scale, but insofar as it does exist, deprivation tends to be concentrated in the east of the city. For example, the Thorpe Way neighbourhood is located immediately north of the site and sits within the top 20% of deprived places in England with respect to employment deprivation and income deprivation.

8.8 The picture is more acute in terms of education, skills and training deprivation. The north and east of the city include areas within the top 10% and 20% in England in terms of education, skills and training deprivation. Notably, this includes neighbourhoods immediately north of the site (such as the neighbourhoods boarded by Howard Road, Ditton Fields, and Thorpe Way.

Figure 8.1: Deprivation in Cambridge



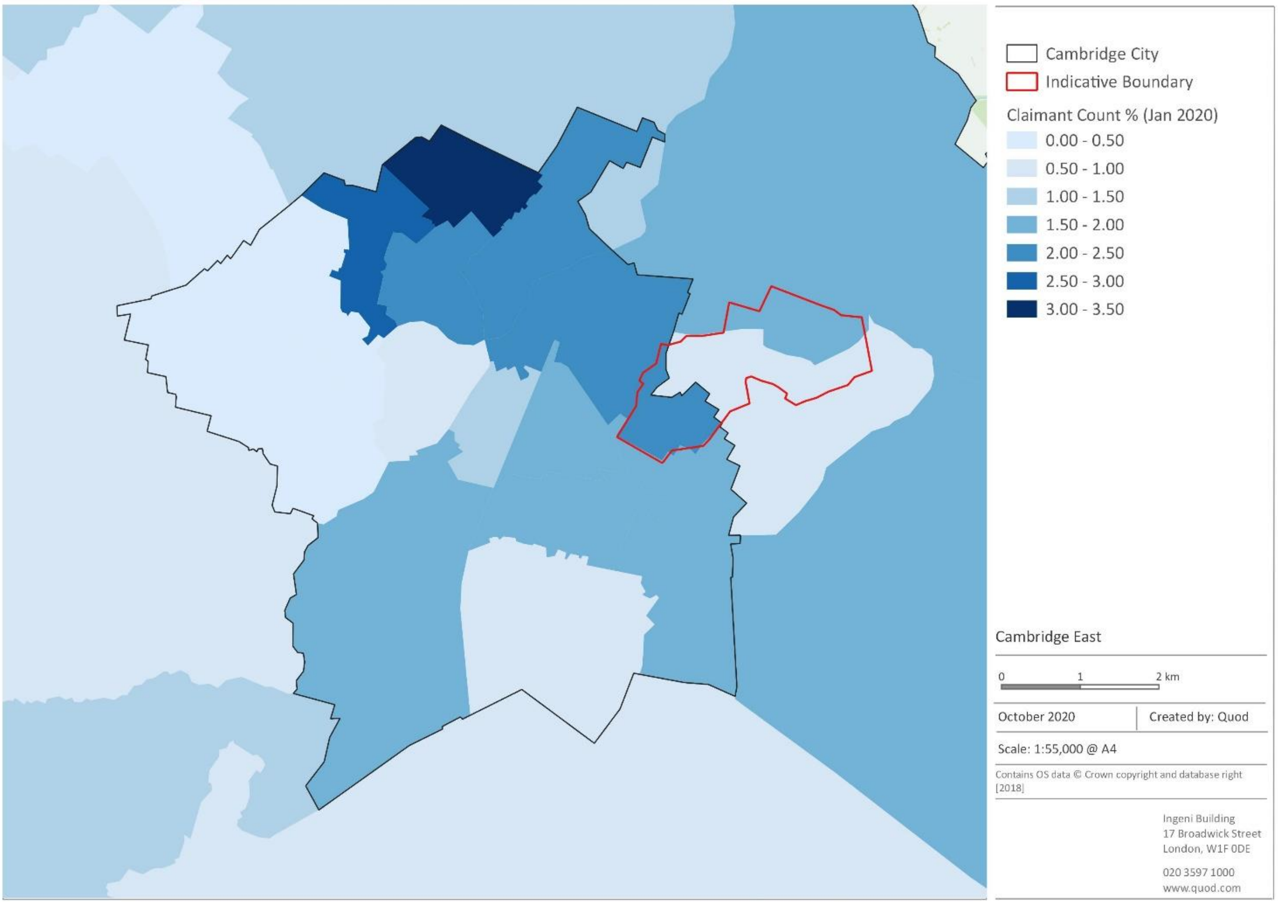
Source: IMD (2019)

8.9 As set out above, whilst the levels of deprivation are not very high by national standards, they are one factor in the very high levels of inequality experienced in Cambridge.

8.10 The average rate of unemployment in Cambridge[3] is almost half the England average, at 1.6% compared to 2.9%.However, in so far as there is unemployment in Cambridge, this tends to be focused in the north and east of the city, where unemployment runs above the national average. King's Hedges ward in the north has the highest rate in Cambridge, at 3.5%; Abbey ward to the east, which includes the western part of the site, has a rate of 2.4%, which is 0.8% above the Cambridge average

[3] Claimant Count, January 2020.

Figure 8.2 Claimant Count Rates in January 2020



8.11 A historic under-delivery of infrastructure in the city has contributed to an inclusivity problem, resulting in the south and west with low levels of deprivation (but high cost of living) and the north and east having high levels of deprivation, particularly in skills and education, and income.

8.12 Cambridge needs to do better at inclusive growth, generating benefits and opportunities for those who live in more deprived areas and for those with lower qualifications. Cambridge East provides an opportunity to address a number of issues which have beset the skills and employment landscape of Cambridge and the wider region, including:

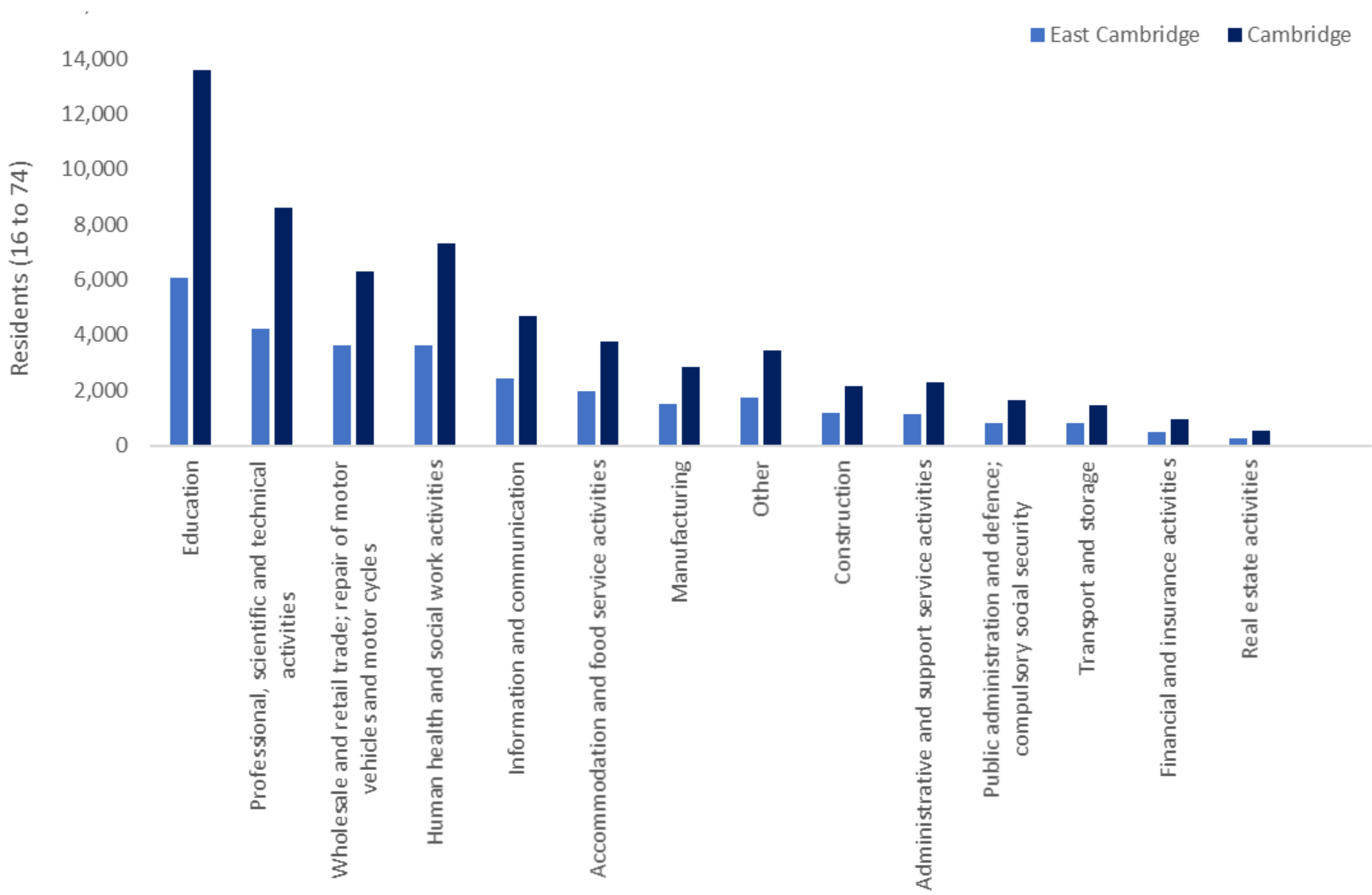
- Access to opportunity for local people - spatial inequalities in skills and employment, particularly in the vicinity of the site
- Employment opportunities for non-graduates - addressing the limited vocational training opportunities and weak incentives for employers to train
- Disparity of incomes and low pay

Addressing the income disparity in the east

8.13 As set out previously, there is a pay disparity that is particularly evident in the East of the city. Development at Cambridge East would provide a range of opportunities that would improve the opportunities for residents accessing high level jobs

8.14 Residents of East Cambridge typically work in education (c.6,100), professional, scientific and technical activities (c.4,200) and wholesale and retail (c.3,600), human health (c.3,600) and information and communication (c. 2,400).

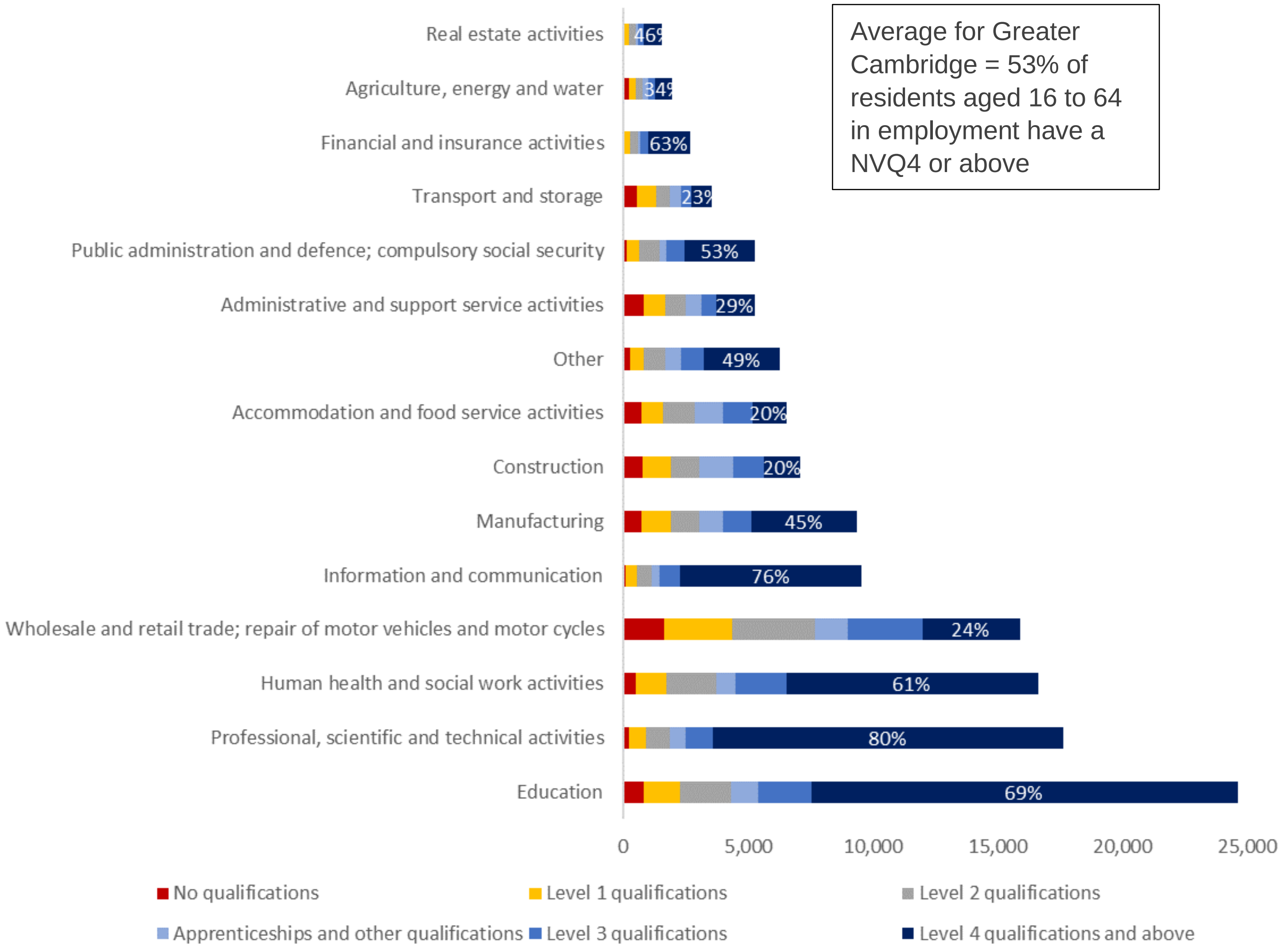
Figure 8.3 Employment by sector (residents)



Source: Census 2011

8.15 Different levels of education are required for different industries. The industries that are the largest employers of residents in the east of the city also tend to have higher proportions of people with NVQ 4 (undergraduate degree) or above – 69% of residents of east Cambridge who work in education have a NVQ 4 or above, the equivalent stats are 80% for professional, scientific and technical activities and 61% for human health. The proportion of those working in wholesale and retail – the third largest employer in the east of Cambridge – is much lower with only 24% of residents having a NVQ 4 or above.

Figure 8.4 Employment of residents in Greater Cambridge by highest level of qualification

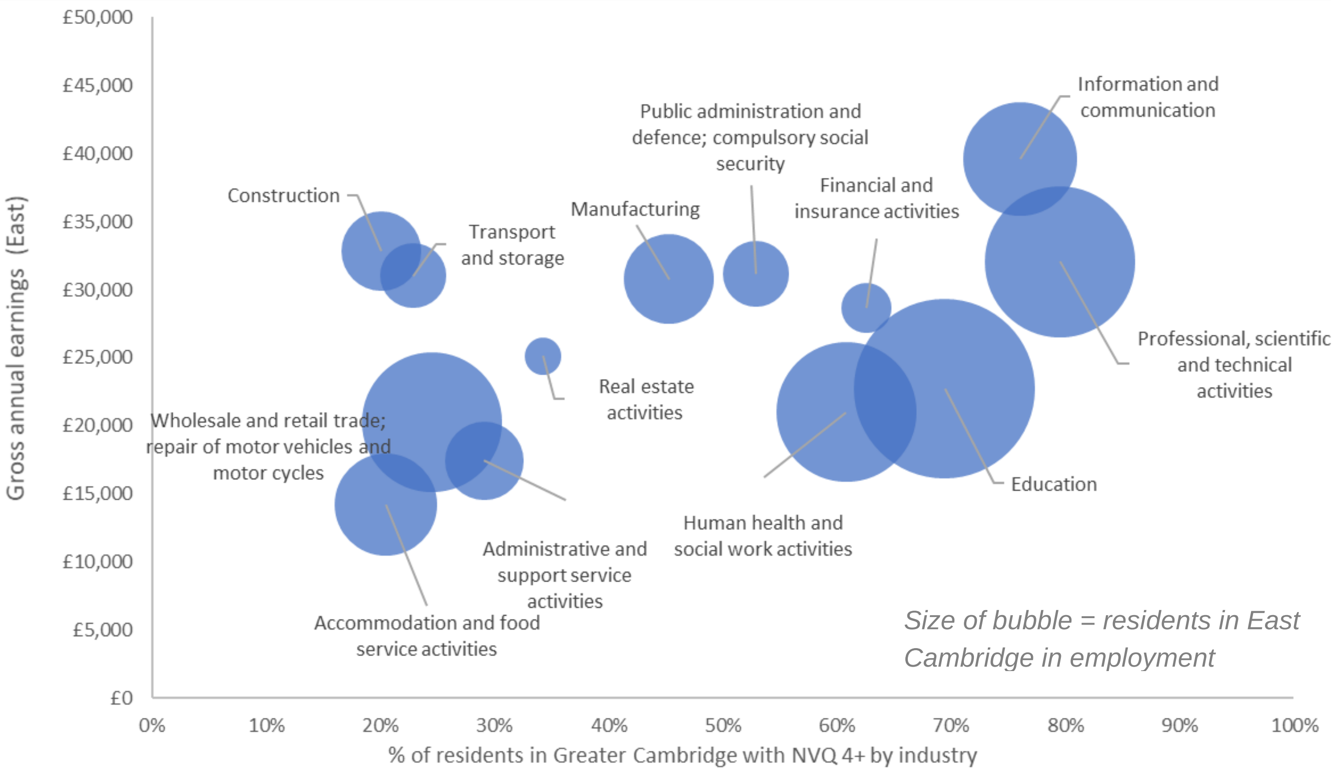


Source: Census 2011

8.16 The Annual Survey of Hours and Earnings reports median earnings by industry in each region of the UK. Combining this with the information on the occupation of the residents of East Cambridge – and the qualification levels of resident of Greater Cambridge gives some helpful insights:

- Some of the largest sectors of employment of residents of the East of Cambridge pay relatively low wages – particularly education, human health and social work and wholesale and retail.
- There are relatively few residents of East Cambridge employed in construction, which typically has lower entry requirements (approximately 20% have NVQ4 or above)
- The higher paid jobs still have significant proportion of people who do not hold a qualification of NVQ 4 or above – Information and communication is the highest paid sector (in the East of England) but approximately a quarter of people have qualifications below NVQ4 (undergrad degree).

Figure 8.5: Earning by industry and level of qualification of residents aged 16 to 64 of the east of Cambridge



Source: Census 2011, ASHE 2019

8.17 It is important the jobs at Cambridge East match the skills of the local people – both the existing population and the new population that will live in the development. The range of jobs at Cambridge East, and the skills needed to work in them, will broadly match the skill level of the local area.

8.18 It would create a pipeline of construction jobs – which have lower entry requirements and are typically relatively highly paid. – and could accommodate growing sectors such as ICT which have significant proportion (c.25%) who do not have a degree level qualification. Cambridge needs to be a place which can sustain employment opportunities at all levels, and not just at the high end.

Cambridge East - An opportunity to create jobs and opportunities for local people

8.19 Scenario C presents an opportunity to provide up to 38,000 jobs in the east of the city providing opportunities for employment to people at all stages in their careers and lives. This is an extremely significant employment provision in an area of the city that is typically more residential.

8.20 The quantum of employment space in Scenario C would accommodate a range of uses and therefore attract a range of occupiers and jobs. Marshall is committed to ensuring that the benefits of the scheme are maximised in the local area – the Skills Charter (the next section) sets out our initial approach to address the challenges in the east of Cambridge.

8.21 The scale and ambition of Cambridge East will allow for a comprehensive effort to address barriers to training and employment. This can be maximised both through the design of the buildings – and therefore the types of occupiers who would be attracted to locate at the site and through the interventions and support available to businesses to encourage investment in skills and training.

8.22 The scheme has been developed to accommodate a research hub to facilitate research and development and cluster with the University and incubator space to accommodate the spin-offs, start-ups and SMEs that contribute so significantly to Cambridge's success. It will include opportunities for flexible working to accommodate those who do not want to work at home, but do not want to commute every day.

The role of incubator space

- The oldest incubator in the UK is St John's Innovation Centre in Cambridge, which launched in 1987.
- They are primarily physical workspaces –the provision of physical space with the addition of some shared facilities and business support services, such as mentoring, training and access to investors.
- A survey by BEIS found that 73% of start-ups reported that incubator space had been significant or vital to their success

Source: The impact of business accelerators and incubators in the UK, BEIS 2019

8.23 The low-cost maker spaces will provide space for creative industries and entrepreneurs while the incubator space will provide the space and support for start-ups and small businesses to thrive. This type of space provides a range of opportunities for those with different skill levels. The University College, the retail and leisure offer and the cultural offer will provide a further range of opportunities.

The role of maker spaces / affordable workspace

The Workspace that Works programme has gathered insight and best practice on SME workspace provision. They found that the key benefits were:

- Providing the conditions for small businesses to grow (flexibility, affordability, networking)
- Providing opportunities for learning, work experience and apprenticeships
- Providing business support, both formal and informal
- Providing space for charities and social enterprises
- Bringing activity to underused buildings or high streets, or to sites awaiting development
- Supporting economic sectors which are underserved by the property market
- Working with local institutions (colleges, universities, major employers) to provide pathways for employment or developing businesses

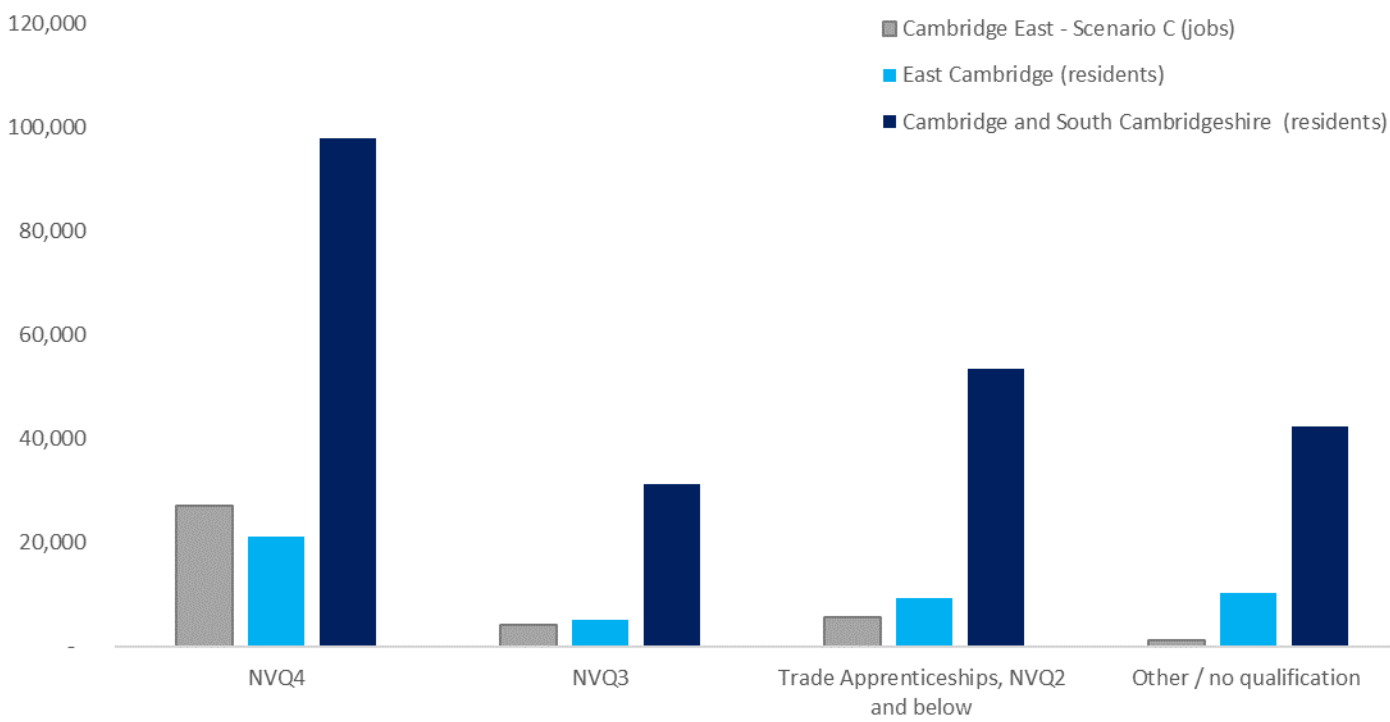
Source: Workspace that Works (2017) Future of London

8.24 The combined effects of the different employment uses will be to create an economically vibrant place. The ground floor uses will include maker spaces and artist studios with open frontages to facilitate an active streetscape.

8.25 It is estimated that the range of uses in Scenario C could accommodate approximately 5,700 jobs for people with Trade Apprenticeships, NVQ2 (equivalent to GCSE grades A*-C or 9-4) and below onsite – this is equivalent approximately 60% of residents of East Cambridge with this level of qualification. Similarly, it is anticipated that Cambridge East would be able to support approximately 80% of residents of East Cambridge with NVQ3 (equivalent to A-levels) onsite and over 100% of those with NVQ 4 and above.

8.26 While unemployment is relatively low in Cambridge it is still important to provide entry level jobs and ensure that barriers to entry are reduced wherever possible. The Skills Charter sets out a number of ways which this may be achieved. It is anticipated that there would be approximately 1,300 entry level jobs – this is more opportunities than there were unemployed claimants in East Cambridge at the end of 2019 (650 residents) and a significant proportion of unemployed claimants in October 2020 (1,755 residents) which is heightened as a result of the effect of Covid-19.

Figure 8.6: Job by qualifications at Cambridge East (Scenario C) compared to qualifications of residents of East Cambridge and Greater Cambridgeshire



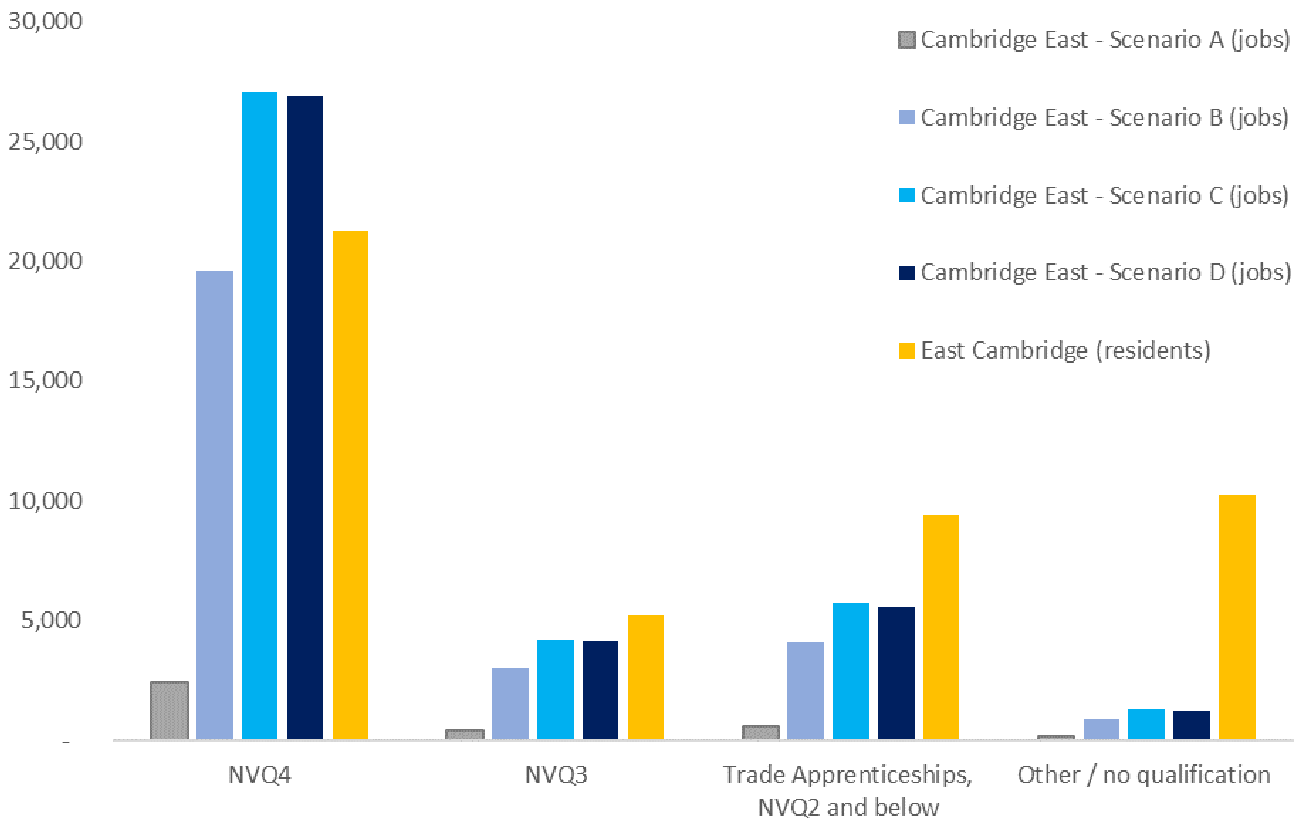
Source: Census 2011, Annual Population Survey 2015 Qualification by industry, Quod Calcs

8.27 Scenario A and B would result in fewer jobs onsite, and fewer entry level jobs and jobs that require a lower qualification level. Scenario A would result in only 170 entry level jobs – significantly fewer than the number of claimants – and 630 jobs for people with Trade Apprenticeships, NVQ2 and below onsite.

8.28 Scenario B would result in 920 entry level jobs and 4,100 jobs for people with Trade Apprenticeships, NVQ2 and below onsite. This is lower than Scenario C (compares to 1,300 and 5,700 respectively) but still a significant quantum of jobs in the context of the population of East Cambridge.

8.29 There are also economies of scale and efficiencies associated with providing skills and training interventions that mean the impact of Cambridge East will grow disproportionately with scale – the more job opportunities, businesses, vacancies the easier it is to maximise the skills and training opportunities.

Figure 8.7: Job by qualifications at Cambridge East (Scenario C) compared to qualifications of residents of East Cambridge and Greater Cambridgeshire



Construction jobs present opportunities to fill skills gaps

8.30 The construction sector is a critical one for the city, in part because of the wide range of skills it requires. It is one of a small number of large sectors in Cambridge that needs lots of workers with mid-level skills (another is ICT). This means it provides a route from both academic and vocational training into relatively well-paid jobs.

8.31 The construction of Cambridge East will provide a long and relatively consistent pipeline of construction work. The duration and consistency means that is will be easier to align recruitment and training of local people with the needs of the project – local residents would be able to find work at an entry level (or indeed any level) and then train to acquire new skills and be promoted. Investment in skills and jobs is one way the city can grow and become a more equal place to live and work. The Skills Charter set out our initial approach to developing a pipeline of skills to facilitate the building of Cambridge East and a pipeline of scheme across Greater Cambridge.

8.32 The precise number of jobs will depend on the method of construction for different elements and things like off-site manufacturing can reduce the number of workers on-site. However, the scale of development is such that even in the smallest scheme (scenario A), there would be an average of between 700 and 1,000 workers on-site over a 35-year period. The largest need for workers would be from Scenario C with between 1,500 and 2,200 over just under 30 years. The figures for scenario B and D are similar (1,400-2,000 over 31 years and 1,300-1,900 over 34 years).

8.33 Because of the scale of demand, the development will both need and have the ability to train local residents in key occupations where the Construction Industry Training Board is forecasting shortages. Key examples are bricklaying, interior fit out, electrics, and plumbing where it is estimated that the project would require over 100 workers on site each year

9 Skills Charter for Cambridge East

9.1 Marshall has been training apprentices for 100 years. Its commitment to training was re-affirmed on its centenary by the opening of the Marshall Centre – a state of the are learning and development centre. As the company moves through the next phase of its development, its commitment to supporting local people to acquire and improve skills will continue.

9.2 The proposals for Cambridge East will continue the company's tradition of providing skilled jobs for entry via academic or vocational routes. From the construction phase, through to the occupation by a mix of global and local businesses, there will be significant opportunities for local residents to gain skills and employment. The scale of the proposals and their delivery over many years will ensure that the opportunities are sustained and help to overcome barriers to training and employment.

9.3 This Skills Charter sets out Marshall's emerging thinking on how Cambridge East can be used to transform the lives of local residents.

The Opportunity

9.4 The development at Cambridge East will generate a range of skills and employment opportunities through its construction and the operation.

- **Construction.** A critical sector for the city, in part because of the wide range of skills it requires. It is one of a small number of large sectors in Cambridge that needs lots of workers with mid-level skills. This means it provides a route from both academic and vocational training into relatively well-paid jobs. With up to 2,200 jobs a year for 30 years, the development will both need and have the ability to train local residents in key occupations where the Construction Industry Training Board is forecasting shortages. Key examples are bricklaying, interior fit out, electrics, and plumbing where it is estimated that the project would require over 100 workers on site each year.
- **Science, technology and STEM**. Cambridge is world renowned for these sectors. We expect a significant proportion of end user space to be taken by these industries and it follows that a specialist focus on these subjects can be developed in local schools and educational settings to ensure a good supply of education leavers to fulfil these jobs. Nationally there is a deficit in STEM learning so there is an opportunity for Cambridge to lead the way in STEM education provision.
- **Retail and leisure**. These service industries remain central to people's everyday experience and as such leisure and retail employment provide opportunities for local people. Successful precedents for training in these areas include academies which provide intensive, good-quality training for individuals from broad educational backgrounds.
- **Maker spaces and incubators**. These spaces can accommodate a wide range of businesses and organisations. The imagination is the limit and as such special efforts can be made to ensure businesses and organisations from all areas can make Cambridge East their home. This could include making space available at special rates

for local start-ups or not-for-profit organisations, providing high quality space for start-ups to evolve and grow, becoming the success stories of tomorrow.

- **Sports stadium**. Sport is a well-known way to engage with local communities and Cambridge United has set a precedent by running its outreach programme through the Cambridge United Community Trust. Examples include working with Astra Zeneca on its Active Science programme to promote science through learning and working with local journalists to allow children the experience of reporting on matches. These sorts of engagement activities, focused on the world of work, are meaningful ways to connect children from all backgrounds with careers opportunities through the lens of sport and the benefits it brings.
- **A cultural anchor**. Cultural uses, such as museums, galleries and performance spaces, provide a wide range of outreach and education opportunities. Engaging with, and learning through art, music and performance, are demonstrable ways for children and young people to cultivate their identity, build curiosity and develop skills required for life. Structured outreach programmes can be successful in helping focus this energy and provide unique settings for learning and development outside of the classroom.

Marshall's Proposed Commitments

9.5 Marshall has been training apprentices for 100 years and, through its investment in the Marshall Centre which opened in 2020, it will continue to do so for years to come. The company also runs professional qualification programmes for experienced workers, providing training opportunities and practical qualifications (from levels 1 to 4) for those who are looking to expand their skills and expertise. Cambridge East provides an opportunity to galvanise Marshall's expertise in training and apprenticeships, bringing it to bear in the provision of skills and training initiatives which maximise the employment opportunities growth at Cambridge East can bring.

9.6 The previous sections of this Skills Charter have set out both the scale of the challenges the city faces and the opportunities that the next phase of Marshall's proposals can bring to improve the skills and employment opportunities for local people in Cambridge. This section explains some of the interventions which can work towards improving:

- Access to opportunity for local people - spatial inequalities in skills and employment, particularly in areas near the site
- Employment opportunities for non-graduates - addressing the limited vocational training opportunities and weak incentives for employers to train
- Disparity of incomes and low pay

9.7 Seeking to address these issues is in line with recommendations made by CPIER, one of which is for the CPCA to "*encourage employers to bring forward new and innovative proposals for increasing the skills supply with public funding used to pump prime new employer-led provision*"[4]. This recognises the collaborative roles of both the public and private sector in creating a step-change in skills provision which will pay dividends for both employers and employees in the medium and long term.

[4] Subsidiary Recommendation XI. Page 108, CPIER Final Report (2018).

9.8 Marshalls will seek to work with key partners in Cambridge and further afield to develop a training and employment plan in order to maximise the opportunities in skills and employment at Cambridge East.

9.9 The interventions set out in this section are ideas for discussion. Some are well suited to the construction phase of development, and in some cases can be achieved through securing obligations from the construction supply chain. Others are more relevant to the operational phase. It is too early to commit to specific interventions, but these ideas serve as a starting point for consideration and dialogue.

- **Prioritise local people for vacancies and training opportunities**. Ensure appropriate obligations are placed on construction contractors and encourage operational end users to identify and advertise vacancies to local people.
- **Skills and training brokerage**. With a focus on the local labour market, skills brokerages can help to match candidates with roles but also act as a gateway to helping candidates upskill towards other roles. This can be most effectively done in partnership with local training providers, and in the most comprehensive schemes achieved through on-site academies and programmes.
- **STEM and construction ambassadors**. Appoint Science, Technology, Engineering and Maths (STEM) and Construction Industry Training Board (CITB) ambassadors to raise the profile of opportunities in these sectors.
- **Monitor and improve**. Subject to GDPR and other legal duties, organise for employers regularly to report information on training and hiring in order to monitor uptake by local people, and/or those with barriers to employment, such as length of residency in the local area, length of time previously out of work, qualification level, and demographic information. This applies to both the construction and operation phases.
- **Traineeships and work experience**. Provide traineeship places for young people to explore areas of interest and aspiration, to better understand the world of work opportunities and potentially then move onto an apprenticeship.
- **Apprenticeships**. Embed structured apprenticeships schemes in the construction supply chain across a wide range of disciplines and trades. Apprenticeships can be targeted at school-leavers and can be focused on filling skills gaps at local and regional levels.
- **In-work training.** There is a long-term skills deficit arising from poor education and skills training, in part due to a lack of incentives on employers to train. Businesses taking space in the completed development should be incentivised and/or obliged to provide structured in-work training throughout the course of employees' careers. Progression could be an indicator monitored and measured, in order to hold employers to account and make a meaningful difference to careers for local people.
- **Sector based academies**. Set up sector-based programmes for those aged 18 and over, in order to create opportunities for local people to up-skill and specialise in high-value and/or growing sectors, in order to achieve higher incomes in the long run. This applies to both the construction and operation phases.
- **Awareness raising initiatives**. Endeavour to raise awareness of training and employment opportunities open to local people, especially those who have faced barriers

to employment or whose career progression is limited by training. This could be through a range of initiatives including events, workshops, and surgeries.

- **Work with local education providers.** Promote a range of career opportunities and introduce students and local people to work in the construction industry and Science, Technology, Engineering and Maths (STEM) sector, which typically commands higher salaries. This could be through scheduled events, national careers weeks, site tours, mentoring schemes and volunteering outreach efforts.
- **Secure the “real living wage”.** Oblige or guide employers in the completed development to pay the “real living wage” to their employees. This is of particular relevance to those employees working in lower-paid jobs, such as cleaning. The “real living wage” is championed by the independent Living Wage Commission and is set by a formula to better reflect the cost of living (compared to the national living wage).

10 Cambridge East - Providing housing to meet the needs of local people

10.1 Successful growth in Cambridge does not only rely on employment growth, it also requires housing growth to provide affordable accommodation for local people – making Cambridge an attractive place to live, and therefore somewhere that businesses want to locate

10.2 As set out previously, Cambridge has an affordability crisis. This means homes are becoming increasingly unaffordable, which has a detrimental effect on people's health and wellbeing, making Cambridge a less attractive place for people to live and for businesses to locate. Cambridge East would accommodate up to 12,000 homes (in Scenario C and D) in a range of sizes, types and tenures.

How many homes are needed?

10.3 The CPIER sets out a need for between 6,000 and 8,000 homes per annum across the Combined Authority area. If they are distributed in line with employment, that means around half those numbers should be in Greater Cambridge.

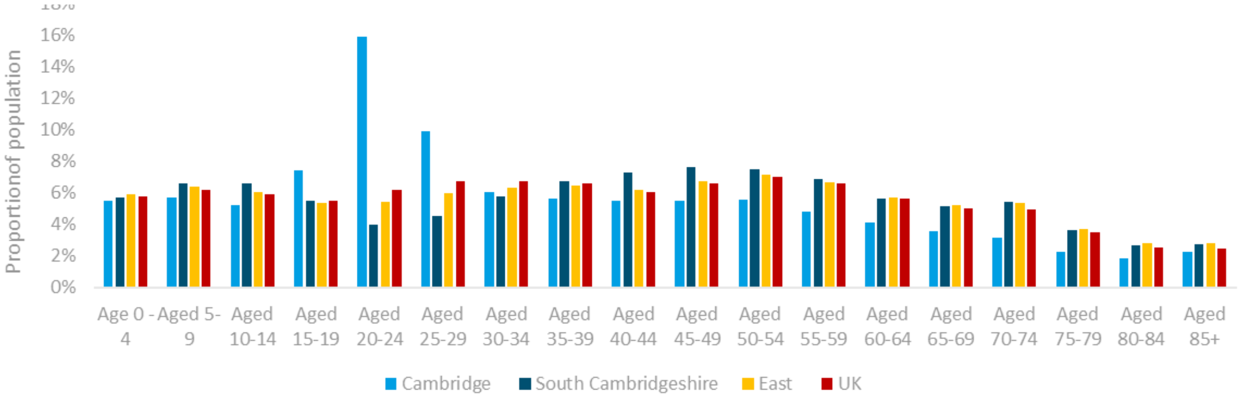
10.4 By contrast, the emerging Local Plan includes scenarios for between 1,748 and 2,690 dwellings per year. This is despite the fact that employment forecasts for the plan have been downgraded in part because of a perceived lack of workers which in turn reflects a lack of housing.

Who are the homes for?

10.5 Cambridge has a large population of young adults – over quarter (26%) are aged 20 to 29, compared to regional average of 13%. These who would normally be suited toward private rented housing, for those unable to afford to buy, but also may include people looking for starter homes.

10.6 A high proportion of Cambridge population are non-UK born (36%) compared to regional average of 13%. This may include people working on a more short-term basis and require a flexible tenancy.

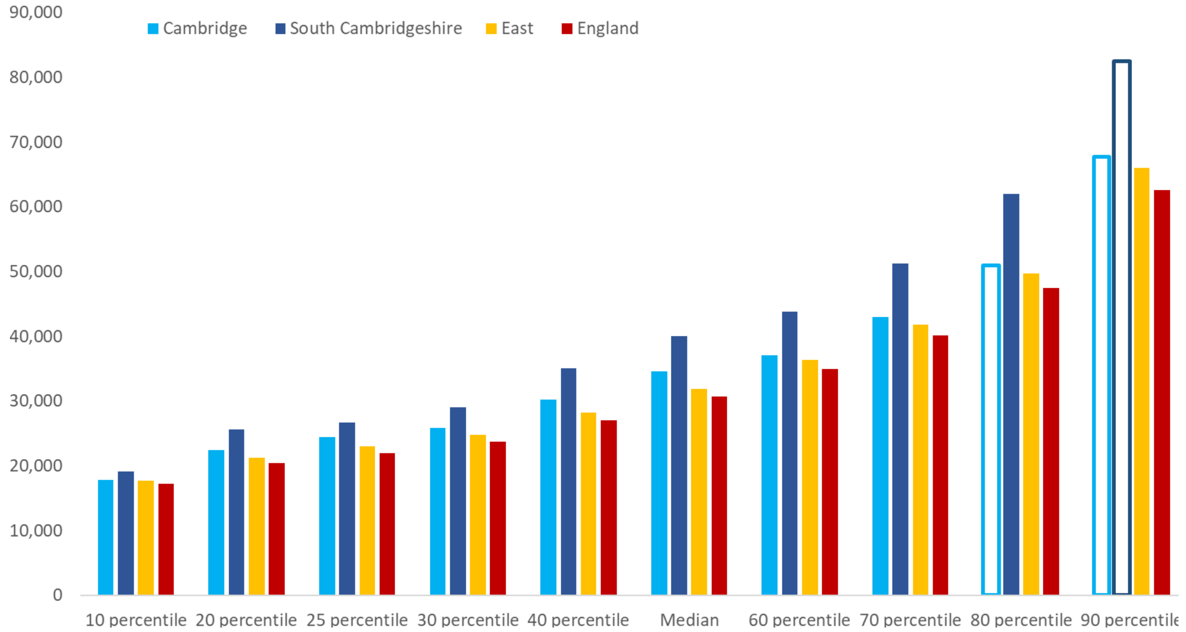
Figure 10.1: Age Structure



10.7 While the median incomes of residents in Cambridge (£34,600) and South Cambridgeshire (£40,100) are above the regional (£31,900) and national average (£30,700), there is still a significant range of income. 30% of residents of Cambridge earn less than £25,800, 40% earn between £25,800 and £42,900 and 30% earn over £42,900.

10.8 As set out previously the house price to income ratio in Cambridge is the highest of anywhere outside of London. The affordability crisis become more acute for those that earn less than the median income – incomes are typically lower in the east of Cambridge. It currently needs a household income of around £45,000 to be able to afford a 1 bed flat on typical mortgage terms. For a two bed this rises to £55,000 and for a 3 bed it is £70,000.

Figure 10.2: Gross annual earnings by income decline of residents in Greater Cambridge (2019)



Source: Annual Survey of Hours and Earnings (2020) NB 80th percentile for Cambridge and 90th percentile for both Cambridge and South Cambridgeshire are estimates.

10.9 People require different housing options depending on their situation – family status, income, age. Young people are typically more mobile – seeking flexible and affordable options, while young families may require more stability and more space. The unaffordability of housing to buy means many will need rental products, including at below market levels.

Cambridge East contribution to housing

10.10 The mix of housing options at Cambridge East have been developed to meet the needs of the local population – including student accommodation and purpose built to rent (B2R) options for those working or studying at the university or in shorter term roles at the research hub or with businesses. There are also a range of affordable flats and houses to meet the needs of those on lower incomes. The range of units has also been developed with the view of the middle earners who may not qualify for affordable housing options but nonetheless require high quality but affordable options.

10.11 The scheme has been developed with a view to maximise internalisation (the number of people who live and work on site) as much as possible; as such there are a range of sizes of flats and houses to accommodate the different needs.

10.12 Scenario A and B result in 9,500 homes while Scenario C and D accommodate 12,000 homes. There is variation in the scenario around the mix of units provided due to the constraints of the space - Scenario C has the highest quantum of houses (over 4,100 houses as opposed to flats) and the highest number of affordable homes (3,840 homes). Scenario C and D include the most private rented sector (PRS) homes which would suit the needs of a younger workforce who demand for more flexibility and / or working households with lower incomes.

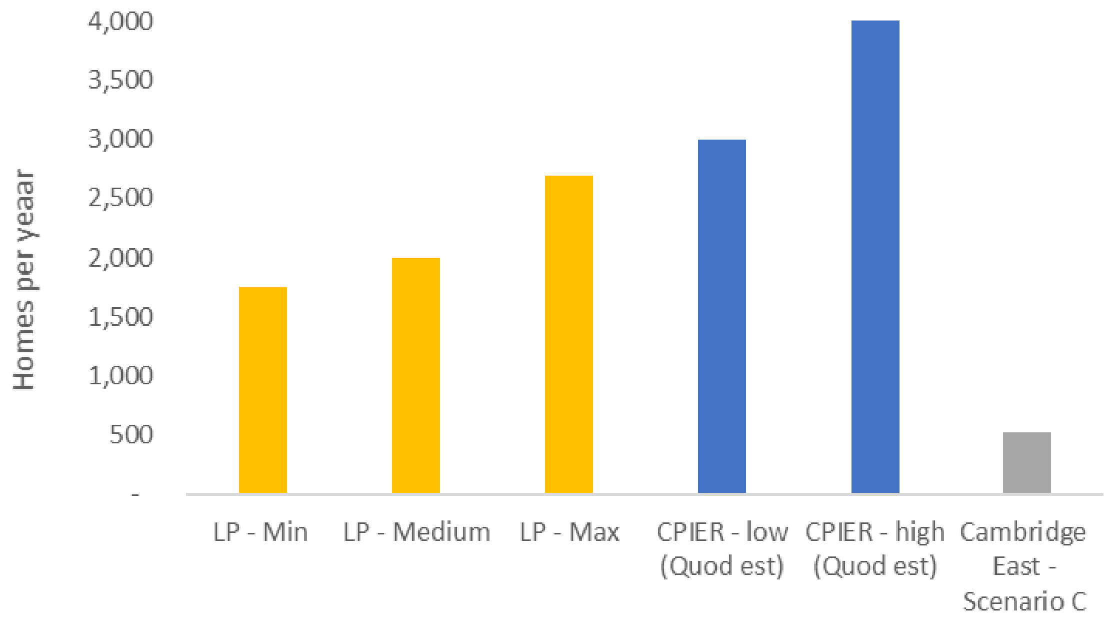
Table 10-1: Homes by type for each scenario

	Scenario A	Scenario B	Scenario C	Scenario D
Private	4,370	3,516	4,440	4,440
Affordable	3,610	3,040	3,840	3,840
PRS	190	190	240	240
Later living	855	855	1080	1080
Student	475	1900	2400	2400
TOTAL	**9,500**	**9,500**	**12,000**	**12,000**

10.13 Cambridge East would be a significant contribution to the housing need in Greater Cambridge. In Scenario C, Cambridge East would deliver 12,000 homes at approximately 500 homes a year (between 2029 and 2052)[5].

[5] Note this includes all tenures including B2R and student. For market and affordable housing only; this is 400 per annum.

Figure 10.3: Need for and contribution to homes in Greater Cambridge



11 Cambridge East – a cultural and leisure destination

Introduction

11.1 Cambridge is making a transition from being a (relatively) small University city to being a globally significant hub for advanced business. In many ways, Cambridge already punches above its weight: it has a track record as a productive place, contributing far more than many cities of comparable size, both in the UK and internationally. Furthermore, the University, the historic centre, and River Cam attract many tourists, especially for day trips.

11.2 As it grows, the city needs to build its cultural and leisure offer, to make it more attractive to investors, visitors, workers and local people. This section sets out the reasons why the city should make strides in its cultural and leisure offer, and why Cambridge East can be at the heart of that.

11.3 Marshall is considering including a major cultural attraction as part of its proposals for Cambridge East. This would both support the global marketing of the site and the City, but also contribute to the daily life of residents both on the site and across the city.

11.4 The aim would be to replicate the success of other places by hosting an out-post of a major cultural institution like the Guggenheim Foundation. There are numerous examples of these across the country, including the Tate in Liverpool and St Ives, the BBC, V&A and Sadlers Wells in the Queen Elizabeth Olympic Park, and the V&A again in Dundee. There is also the potential to include space for a community stadium for Cambridge United in some of the development scenarios.

11.5 These investments in culture help to reinforce key elements of a placemaking strategy. They raise profile, drive footfall and help establish their host areas as new or improved places to live, work and invest.

Global cities increasingly use culture to compete

11.6 Cambridge's profile as a leisure destination is reasonably limited compared to its status as a global player in scientific research, innovation and education. Cambridge does not have the brand recognition other cities have, in part because its cultural offer is comparatively limited.

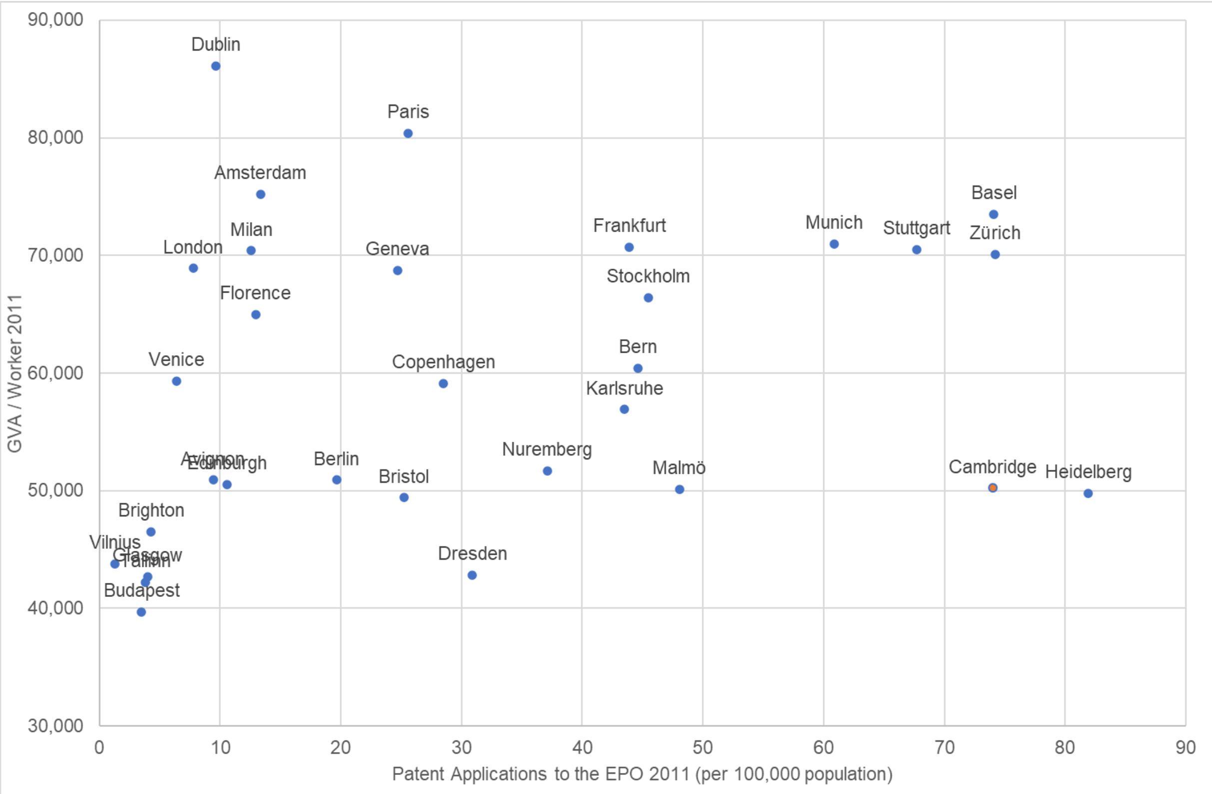
11.7 Renown is not limited to global capital cities such as London and Paris; smaller, second-order cities, such as Hamburg and Palma de Mallorca, rank well as "ones to watch"[6]. Cambridge can be a "one to watch": it can do more to raise its profile and compete for visitors, workers and businesses, and do this by growing its culture and leisure offer.

[6] The Saffron City Brand Barometer 2020 (https://cbb20.saffron-consultants.com/) ranks 109 cities across the world which have a sizeable tourism sector. Palma de Mallorca's population is around 400,000 and Hamburg's is around 1.8m.

11.8 Cambridge holds its own nationally: the theatres, the architecture, the Fitzwilliam Museum, and other cultural assets mark out the city's cultural value and contribution to the national picture. However, compared to other leading British university cities, which have an international track record in spin-out activity[7], the city falls behind at a more international scale: Oxford is building a 'world class' concert hall to add to its roster of music venues[8], and Edinburgh is known world-over for its varied and high-quality festivals.

11.9 Looking further afield, Cambridge does not compete with its European neighbours in terms of cultural offer. The Cultural and Creative Cities Monitor assesses 190 cities (of at least 50,000 inhabitants) on their cultural vibrancy, creative economy, and enabling environment for creativity. To make it onto the monitor, a city has to have won or been shortlisted as a European Capital of Culture; to be classified as a UNESCO Creative City; or to host regularly at least two international cultural festivals. Cambridge does not meet any of these three criteria. Yet, cities with a far small economic punch do.

Figure 11.1 Top 30 Highest-Ranking Cities in the EC Cultural Cities Monitor (2019), plus Cambridge



Sources: Annex E, 2019 Report, Cultural and Creative Cities Monitor (2019) European Commission; Centre for Cities European Cities Data Tool

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[7] The University of Cambridge is ranked second in The Times World University Rankings (2021) and ranked first globally by value of spinout deals (2013 to 2017). By comparison, Oxford University is ranked first and fifth respectively, and the University of Edinburgh is ranked thirtieth and ninth respectively. Source: Developing University Spinouts in the UK (2019) Accessible online: https://re.ukri.org/documents/2019/developing-university-spinouts-in-the-uk-tomas-coates-ulrichsen-v2-pdf/

[8] https://www.bbc.co.uk/news/uk-england-oxfordshire-54024776

11.10 Providing a home at Cambridge East for a world class cultural institution like the Guggenheim would significantly improve the global profile of Cambridge as a place to live and work.

Culture and leisure is good for Cambridge's economy

11.11 For highly educated footloose workers, quality of life is a key consideration in where they choose to live and work. Good quality of life can mean different things to different people, but typically this includes access to green spaces, good quality healthcare for workers and their families, decent schools, and safe neighbourhoods.

11.12 One of the key indicators of good quality of life is access to cultural amenities[9]: 43% of people cite arts and culture as an important factor in their decision on where to live and work[10]. Cultural vibrancy and the facilities which create it draw highly educated footloose workers to live and work in these places: they are exciting and stimulating places to spend time and raise families.

11.13 It follows that cultural vibrancy attracts businesses because businesses locate to where high-quality workers are[11]. Cambridge is already well established as an attractive location for highly educated workers (and therefore high value businesses) – it is world-leading employment opportunities in high tech sectors are appealing to many. But, as set out in earlier sections, the city is at risk of losing its competitive edge. Introducing additional reasons to relocate to the city, such as through cultural and leisure assets, will support the city in competing internationally for high quality workers and businesses.

11.14 Cultural vibrancy breeds innovation and value creation[12]. The co-location of cultural anchors and highly educated workers generates valuable innovation, which drives productivity and increases local and national GVA. While Cambridge is already accomplished in doing these things, arguably greater cultural assets would shore up that capability further.

11.15 Therefore, Cambridge's ability to attract highly educated, high quality workers is in part predicated on its ability to offer a great lifestyle, which is partly determined by its culture and leisure offer.

11.16 Dundee is a British city of comparable population size to Cambridge (150,000 people). It has recently opened a V&A

The renewal and rise of Dundee

In the face of industrial decline, Dundee's local government embarked on a £1bn regeneration programme for the city, spearheaded by cultural and leisure assets. To date, a new V&A Museum and the Regional Performance Centre for Sport have been delivered by the local council and its partners.

This investment has changed the perception of the city, raising its profile, and making it easier to attract new residents, and further investment from the business community.

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[9] Mercer's 2019 international research found that access to culture, such as theatres, restaurants and 'social places', was in the top three reasons to live in a particular city for 11% of those surveyed.

[10] The Value of Arts and Culture in Place Shaping (2019), Parkinson et al, Wavehill for Arts Council. Accessed online: https://cbb20.saffron-consultants.com/

[11] What Investors Want (2017), Centre for Cities. Accessed online: https://www.centreforcities.org/reader/investors-want-guide-cities/makes-city-attractive-investors/

[12] Richard Florida, The Creative Class

Museum[13], which has brought international acclaim to the city, manifest in a 20% increase in tourism in the year of opening. The planning and construction of the museum has helped drive improved prospects for the business community of Dundee, which experienced a growth of 9% in the five years leading up to the museum's opening.

11.17 In addition, the arrival of the museum and other cultural facilities on Dundee's waterfront have catapulted the city to be crowned the best place to live in Scotland by The Sunday Times in 2019. Dundee serves as a case study for how a small British city can significantly raise its profile and prospects through the provision of a world-class cultural offer.

Culture and leisure facilities provide opportunities for existing residents and businesses

11.18 New cultural and leisure facilities will bring direct and indirect benefits to existing local communities, especially those located close to Cambridge East – some of which are relatively deprived.

11.19 New cultural facilities bring opportunities to learn, engage and discover. Outreach programmes that work with schools and community organisations can help connect local people with what is on their doorstep, such as 'Stories by the Sea' run by the Time and Tide Museum in Great Yarmouth[14].

Raising literacy attainment through the Time and Tide Museum outreach programme

In partnership with the National Maritime Museum, Great Yarmouth's Time and Tide Museum runs 'Stories by the Sea', a literacy and history programme which has generated better literacy outcomes in 13 local schools, in an area of high socio-economic deprivation. The programme has also encouraged repeat visits by students.

11.20 These efforts can help address underlying societal issues by increasing community participation. Marshall has a track record in delivering these sorts of programmes with Cambridge United, such as organising opportunities for local schoolchildren to go 'behind the scenes' and shadow journalists on matchdays.

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[13] Best Value Assurance Report, Dundee City Council (2020), Accounts Commission. Accessed online: https://www.audit-scotland.gov.uk/uploads/docs/report/2020/bv_200929_dundee.pdf
Dundee Economic Profile (2019), Dundee City Council. Accessed online: https://www.dundeecity.gov.uk/sites/default/files/publications/dundee_economic_profile_2019.pdf

[14] Now and the Future: A Review of Formal Learning in Museums (2016), Arts Council England. Accessed online: https://www.artscouncil.org.uk/sites/default/files/download-file/Now_and_the_future_formal_learning_in_museums_NOV2016.pdf

Community outreach and corporate income at the Amex Community Stadium
Brighton & Hove Albion FC's 30,000 seat stadium was completed in 2008. From design concept, the aim was to build not only a football stadium but a community hub, including education and learning spaces for two local colleges, as well as corporate hospitality facilities and an exhibition hall. Its latest award-winning achievements include expert coaching for 5,000 children, and football-themed numeracy and literacy lessons for over 1,000 pupils.

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11.21 Beyond their headline use, culture and leisure facilities are multi-purpose assets. For example, on non-match days, sports stadia can be repurposed for stadium concerts, exhibitions, receptions (such as weddings), seminars and events. On-site catering facilities and good transport connections lend themselves to a variety of other uses and purposes, bringing in important income for the club but also providing sustained employment opportunities for local people. Facilities such as meeting rooms can also be hired by local groups, providing top-of-the range spaces for community organisations to meet and grow. Brighton and Hove Albion FC's new stadium has successfully managed to blend a football stadium with alternative income sources (such as corporate hospitality) and an award-winning community outreach offer[15].

11.22 In addition, new facilities bring knock-on impacts to local businesses – whether that be through driving additional footfall or contributing to shoring up local supply chains. They also, of course, provide new employment opportunities, at a range of qualification levels.

[15] Albion in the Community, Brighton and Hove Albion FC. Accessed online: https://www.albioninthecommunity.org.uk/about-us?src=menu
Winning On and Off the Field (2017), Mott Macdonald. Accessed online: https://www.mottmac.com/download/file?id=35540&isPreview=True

12 Funding proposition for the East of Cambridge

Introduction

12.1 The benefits unlocked by a transit link to Cambridge East are of a similar scale and importance to national Government as other schemes that have received funding for major infrastructure costs. The Local Plan Evidence Base is clear that national investment will be needed to unlock growth: *‘This is likely to require government support both financially to invest in regional scale infrastructure, or through structural interventions, to drive forward growth at these higher levels’* (*Paragraph 7.2.3 of Development Strategy Options –Summary Report).*

12.2 A transit link to Cambridge East would unlock significant growth both through allowing Cambridge East to be developed to its full potential and also through catalysing growth in the east of the city. As presented elsewhere in this report, full development of Cambridge East would result in 12,000 homes, 38,000 jobs generating £4.1bn GVA per annum onsite. The improves connectivity would result in productivity across the city as a result of better connectivity between existing clusters, and with Cambridge East. Unlocking these benefits is anticipated to require government funding, particularly for transport investment.

12.3 Cambridge has a uniquely important role within the UK economy, and this must not be taken for granted. A lack of transport investment has resulted in congestion, increased journey times, business costs, lower residents’ quality of life, and a highly segregated economy that does not perform to its full potential. Simultaneously a lack of delivery of homes has contributed to unequal growth and a lack of affordable options for key workers. Ultimately difficulty attracting talent combined with rising rents affects the attractiveness of Cambridge as a business location – and the UK risks losing these high value, highly productive companies overseas.

12.4 Cambridge East is an opportunity not just for significant economic benefits onsite, but also to fix the issues that threaten Cambridge’s future. Cambridge East would deliver 12,000 homes, including affordable and flexible PRS homes for key workers. The transport needed to unlock the development would provide more than the benefits onsite – though these are significant – it would help to unlock other sites in the east of the city and beyond. It would provide transport connectivity to, and between, the existing cluster of economic activity in the city centre, the northern science park and the bio-med cluster to the south.

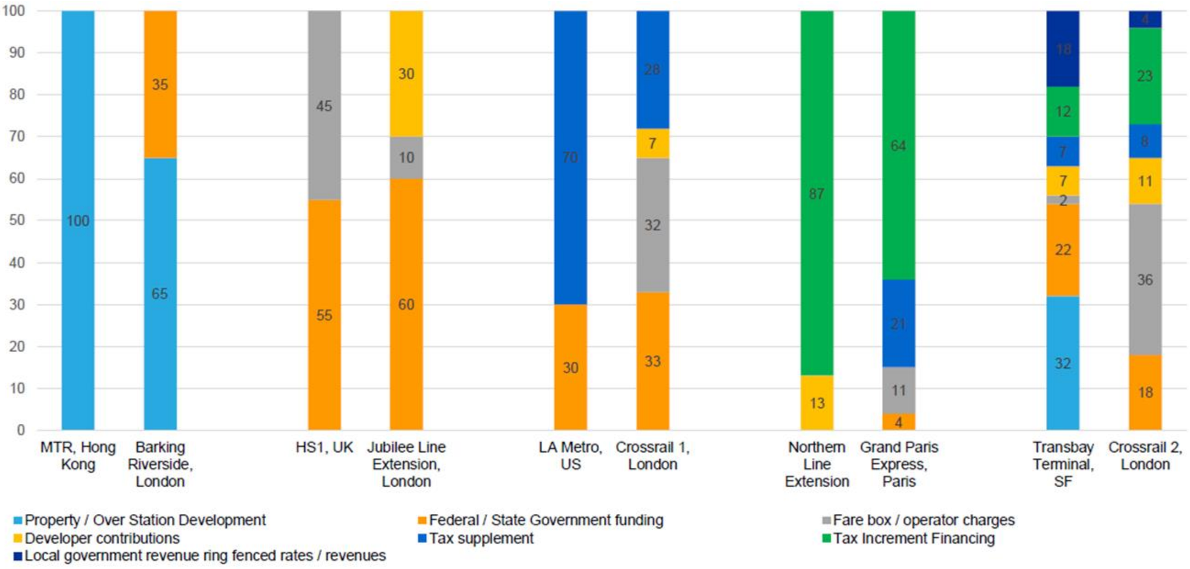
12.5 Planning for infrastructure, commercial space and homes together allows for a holistic approach. The provision of employment space and homes will contribute to the viability of a transit scheme since it will promote significant patronage (Link to Transport Strategy). Commercial space will provide significant business rates revenue (c. £60 million per year) which could be used for funding infrastructure. Equally, the provision of transport infrastructure will make Cambridge East a more attractive place to live and for businesses to locate, thereby facilitating the economic and social benefits that delivering the site brings.

12.6 There is a strong case for government investment at Cambridge East – it aligns with Government growth objectives for delivery of homes and promotion of a high productive employment cluster in a sustainable location. Any funding option for Cambridge East would be developed into a five-case business case (strategic case, economic case, commercial case, financial case and management case) which meet the requirements of Green Book. This would include consideration of distributional, equality and places effects as required by the updated 2020 Green Book.

Funding options based on previous precedents

12.7 Major infrastructure projects are by their nature unique; they each have their own challenges and opportunities and therefore different funding options will be appropriate in different cases. Figure 11.1 shows the different approaches uses on precedent case study schemes.

Figure 12.1: Funding Proposition of case study projects



Source: Arup

12.8 The funding proposition for Cambridge East is still at a relatively early stage. Constructive conversations are underway with Homes England – including the suitability of some of the options set out below. It is likely that any agreement would be bespoke, but it is likely to be one (or a combination) of Homes England funding, a Northern Line style Tax Increment Financing (TIF) model, money through the City Deal or city/regional funding package for the Cambridge Autonomous Metro (CAM).

The City Deal / CAM

12.9 The City Deal included £1bn of funding, of which 50% was committed by Central Government and the remainder matched by local government. Cambridge East is well aligned with the City Deal objectives to accelerate delivery of homes and increase employment.

12.10 The Future Investment Strategy (delivers City Deal) currently has a programme total of £743m, of which £703m is approved allocations. Of this £703m, the majority (over £660m) is transport:

- c. £400m is GCP corridor schemes: CAM phase 1 routes
- c. £155m is PT schemes/services
- c. £100m is cycling

12.11 Investment at Cambridge East would not only address existing issues, but it also opens up it opens significant opportunity for employment benefits and housing in a strategically important location.

Homes England Funding

12.12 Homes England's exists "**to accelerate the delivery of housing across England**".

12.13 The Housing Infrastructure Fund was a £4 billion fund allocated to Local Authorities between 2018/19 and 2023/24 for physical infrastructure such as roads, community facilities and utilities. The CPCA were awarded £227 million in funding for Northern Fringe East.

12.14 The final round of funding for HIF has completed and will be replaced by a Single Housing Infrastructure Fund (SHIF). This is a £10 billion fund announced in the Queen's speech and as part of Budget 2020. It was expected the further information would be available in the November 2020, but it appears that this has been pushed back to the next multi-year spending review. The Home Building Fund is a £4.5 billion is a flexible source of funding that is open to small builders, community builders, custom builders and regeneration specialists.

12.15 Ongoing constructive conversation with Homes England suggest that the criteria will be a rolling fund that can be accessed by any party (i.e. including the private sector and not limited to upper tier local authorities). It is likely that the assessment criteria will be similar to the HIF and will of course be inline with the Green Book.

12.16 Investment in infrastructure to unlock Cambridge East would accelerate the delivery of homes (Scenario C includes 12,000 homes) and therefore would be suitable for SHIF or other Homes England Funding. Homes England are also open to be being part of combination of government sources, as occurred in the Brent Cross Example.

Brent Cross

- Unlocked 7,500 homes & 27,000 jobs
- The 2018/19 funding agreement included a **partially recoverable grant up to the value of £420m**
- This was made up of the Central Government grant of c.£100m (previously granted in 2015) plus Homes England funding of c.£320m
- Government **expected to recover c. £140m of the funding**: c.£100m from business rates plus around £35m from land receipts and JV surplus
- June 2020 an additional c. £150m was granted by Homes England from the Home Building Fund to deliver infrastructure to facilitate housebuilding

Northern Line style TIF

12.17 The Northern Line Extension cost £1bn in capital cost plus £0.9bn in financing. It unlocked 20,000 homes and 25,000 jobs – therefore not dissimilar in scale to Cambridge East.

12.18 HMT gave GLA permission to borrow and this was repaid from combination of developer contributions (CIL/S106) and incremental Business Rates from an Enterprise Zone. Developer contributions totalled £266m and were largely made up by Battersea Power Station. The remained was funded by from the Enterprise Zone.

12.19 Business rate retention at Cambridge East could raise £0.8bn to £1.0bn based on 100% retention (30-year NPV). This could be used in the same way as the Northern Line Extension – to repay a loan, or it could be used to (partially) repay a Homes England funding (as occurred at Brent Cross).

Conclusion - Cambridge East Funding

12.20 Investment in the east of the City is long overdue and would unlock large scale development, as well as combatting existing issues. Cambridge East is unique opportunity that combines housing and commercial delivery. Investment in transport infrastructure would unlock development onsite and catalyse growth across the east of the City. It lends itself to a bespoke funding deal based on TIF, Homes England funding, City Deal and CIL / S.106.

12.21 Cambridge East aligns with National Government, Home England and City Deal objectives for accelerating housing delivery. It is therefore credible SHIF or other Homes England funding proposition. Equally it fulfils the objectives of the CAM and the City Deal.

12.22 Simultaneously, it delivers National Government economic objectives for a high productive employment cluster in a sustainable location and has the potential for significant business rate retention. This could be used to finance a Northern Line Extension style TIF or to repay a Homes England funding.

13 Impact of Different Scenarios

13.1 There are currently four options for development at Cambridge East. Table 13.1 provides a summary of each of the scenarios and their contribution to (a) transformation and sustainable growth, (b) creating a cultural and leisure destination (c) inclusive growth and (d) providing housing to meet the needs of local people.

13.2 This report has demonstrated that the social and economic benefits of the site would be maximised by Scenario C. In this scenario the site would be fully built out by 2055 with 38,000 jobs and 12,000 homes. The combination of uses – the commercial space and prominent research hub, the University College, the mix of housing, the cultural and leisure uses – and the investment in transport infrastructure would combine to create a 'great place' which attracts a talented workforce to live and work, and ultimately ensures that Cambridge continues to be an attractive location for businesses to locate. The quantum of jobs and the design of the space would allow for inclusive growth, providing employment and training opportunities for residents with lower or no qualifications.

13.3 Scenario D would provide similar benefits to Scenario C, but it would take longer for these benefits to come to fruition. Scenario B would be a create a significant and high value cluster which would contribute to Cambridge's success, but it would not maximise the opportunity or the potential of the site. It is largely a less aspirational version of Scenario C which would result in higher growth (employment and housing) being required elsewhere in the city in order to meet the growth targets. It would also take longer to deliver. Scenario A is a significant underutilisation of the site resulting in minimal economic benefits relative to the other scenarios.

13.4 The location and scale of Cambridge means it is uniquely important to growth in the City – it has the potential to accommodate a highly productive fourth cluster that regenerates the east of the city. The question is not simply Cambridge or overseas its Cambridge East or overseas.

Table 13-1: Summary of Benefits

Cambridge East		Scenario A	Scenario B	Scenario C	Scenario D
Transformational and sustainable economic growth	Jobs supported onsite	4,000 jobs	28,000 jobs	38,000 jobs	38,000
	Attractiveness of site to footloose global occupiers	Limited scope to attract globally significant occupiers	Scope to attract globally significant occupiers but not as significant as Scenario C / D. The cluster of employment would be smaller, and the research hub would not be as significant.	Significant scope to attract globally significant occupiers. Optimum mix of commercial space. Includes space for a prominent research hub and a University College.	Significant scope to attract globally significant occupiers. However less attractive than Scenario C since includes space for a smaller University College and the build out rate is anticipated to be longer – so it will take longer for a high productivity cluster to form.
	GVA supported onsite	Limited agglomeration effects onsite Central projection = £0.3bn per annum by 2055	High agglomeration effects onsite GVA / worker = £90k by 2042. Central projection = £2.3bn per annum by 2055	Very high agglomeration effects onsite GVA / worker = £97k by 2042. Central projection = £4.1bn per annum by 2055	Very high agglomeration effects onsite GVA / worker = £97k by 2042. Central projection = £3.0bn per annum by 2055
	Wider productivity benefits across Cambridge	Limited employment and more limited transport improvements result in more	High productivity cluster and transport improvement increases the effective	Very high productivity cluster and transport improvement increases the effective	Very high productivity cluster and transport improvement increases the effective

		limited effect across the city.	density of Cambridge and ultimately would result in productivity improvements across the city (but not as high or as quickly as C)	density of Cambridge and ultimately would result in productivity improvements across the city.	density of Cambridge and ultimately would result in productivity improvements across the city. These improvements take longer than in Scenario C due to a slower build out rate.
	Sustainability of growth	More work-related car trips than in A, C or D	Fewer work-related car trips than in A but more than C/D	Fewer work-related car trips than in A or B	
A catalyst for inclusive growth	Construction employment supported	700-1,000	1,400-2,000	1,500 – 2,200	1,300-1,900
	Opportunities entry level jobs	170 entry level jobs	920 entry level jobs	1,300 entry level jobs	
	Jobs for people with Trade Apprenticeships, NVQ2 and below	630 jobs for people with lower level qualifications	4,100 jobs for people with lower level qualifications	5,700 jobs for people with lower level qualifications	
	Opportunities for skills and training	Scope of the Skills Charter / opportunities for intervention will be more limited	Scope of the Skills Charter / opportunities for intervention	Scope of the Skills Charter / opportunities for intervention will be maximised limited	
Providing housing to meet	Total homes	9,500 homes	9,500 homes	12,000 homes	12,000 homes
	Affordable	3,610 homes	3,040 homes	3,840 homes	3,840 homes

the needs of local people	Flat to houses ratio	50%:50% ratio of flats to houses (excl PRS / later living / student)	50%:50% ratio of flats to houses (excl PRS / later living / student)	50%:50% ratio of flats to houses (excl PRS / later living / student)	More heavily flatted (60%:40% ratio of flats to houses) (excl PRS / later living / student)
	Provision of PRS	Provision of 190 PRS homes suit the needs of a younger workforce and / or working households with lower incomes		Provision of 240 PRS homes suit the needs of a younger workforce and / or working households with lower incomes	
	Provision of student	Provision of 475 student units	Provision of 1,900 student units	Provision of 2,400 student units	
	Provision of later living	Provision of 885 later living units to meet the needs of older residents		Provision of 1,080 later living units to meet the needs of older residents	

14 Conclusion

14.1 Cambridge is uniquely important to the UK. The combination of a globally renowned university, highly educated workforce and innovative, high value businesses means it attracts globally significant businesses, research and investment. For much of this activity, the question is not whether to locate in Cambridge or in another city in the UK – the alternatives are international, in Boston or in Silicon Valley.

14.2 Growing the economy of Greater Cambridge is the right thing to do. It is central to delivering Government's objectives of increasing R&D and improving productivity. Cambridge is uniquely important to the UK economy – it can attract people, businesses, research, innovation and investment that will not locate elsewhere in the UK.

14.3 Cambridge's future growth is not guaranteed and should not be take for granted at a local or national level. The scale of growth required is challenging but achievable and sites like Cambridge East can make a significant contribution – and do so in way that is both sustainable and inclusive. There is need for 126,000 additional jobs by 2041 across Cambridge and South Cambridgeshire in its medium scenario. Without significantly improved productivity this rises to 177,000 extra jobs.

14.4 Cambridge East is one of the few locations that can accommodate the scale of growth needed to meet the ambitious economic growth targets and simultaneously contribute to meeting the housing needs of local people.

14.5 The proposed combination of uses – and especially the laboratory and research space – means that Cambridge East can be a high productivity cluster that attracts the high value global occupiers needed to address the productivity challenge. It will also provide space for spinouts and start-ups which grow into the successful businesses that make Cambridge so unique.

14.6 Its location means that Cambridge East is one of, if not the only, location where a new high productivity cluster can form. Market preference has shown the businesses want to be in locations that are well connected to the city centre. The transport investment needed to unlock growth at scale on this site, will not only deliver the benefits associated with the site, it will fix the economic geography of the city by providing connections to existing clusters of employment in the city centre and to the north and south.

14.7 It is also the most sustainable location for growth. Scenario C can help significantly increase the total amount of travel on public transport across Cambridge and South Cambridgeshire and reduce the distance travelled by private car.

14.8 However, economic growth is not all about high value jobs, creating a sustainable community means providing a range of jobs and training opportunities and support that means opportunities are accessible to local people. It means providing the homes to support the needs of local people – this includes traditional affordable homes but also a range of accommodation options to suit the needs of households in different stages of their lives.

14.9 This report has demonstrated that the social and economic benefits of the site would be maximised by Scenario C, with up to 38,000 jobs, 12,000 homes and an annual contribution to GDP of £4.1bn. The combination of uses – and in particular the scale of the research and commercial space and the transport infrastructure – combine to create a quality of place which will attract a high-skilled workforce to live and work and offer major opportunities to existing local residents.

14.10 Scenario D would provide similar benefits to Scenario C, but it would take longer for these benefits to come to fruition. Scenario B would also create a significant and high value cluster which would contribute to Cambridge's success, but it would not maximise the opportunity or the potential of the site. Scenario A is a significant underutilisation of the site resulting in minimal economic benefits relative to the other scenarios.

14.11 The Marshall Group is proud of its history and role in Cambridge and intends Cambridge East to be the next stage of its contribution to the city's social and economic life. In doing so, it wants to maximise the opportunity of the site and ensure that the highest quality and highest impact development comes forward. This report has set out the role that the site, and in particular the scale of development in Scenario C, can play in delivering the high levels of growth in Cambridge that both the city and the country need.