Greater Cambridge Employment Land and Economic Development Evidence Study

South Cambridgeshire District Council and Cambridge City Council

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With

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Final Report

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Appendices

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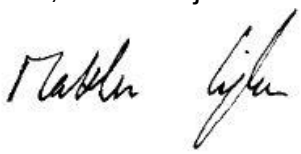

Limitations

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EXECUTIVE SUMMARY

1.1 GL Hearn with SQW Ltd and Cambridge Econometrics and supported by Iceni Projects Ltd and Justin Gardner Consulting was appointed by South Cambridgeshire District Council on behalf of both South Cambridgeshire District Council and Cambridge City Council (represented by the 'Greater Cambridge Shared Planning Service') to review the economic development and employment land needs of South Cambridgeshire District and Cambridge City (the 'Greater Cambridge' area) to 2041.

1.2 The data collection and analysis for this report was largely produced in Autumn / Winter 2019 prior to the COVID-19 pandemic. As a result, the underlying data reflects a position prior to any implications of COVID-19. It is recognized that further updates may be required in due course when the medium-term implications, if any, are clearer in relation to employment land and economic development in the Greater Cambridge area.

1.3 Furthermore, the implications of the change to the Use Class order including Class E are not considered in detail but this new class is recognised as being necessary to include in the Local Plan making process.

1.4 This executive summary considers the key findings and recommendations of the report.

Property Market

Offices

1.5 The latest data from the Valuation Office Agency (VOA) show that Greater Cambridge has approximately 907,000 sqm of office floorspace. Cambridge has 366,000 sqm of floorspace, or 40% of the Greater Cambridge floorspace. South Cambridgeshire has 541,000 sqm of floorspace, or 60% of the Greater Cambridge floorspace.

1.6 Greater Cambridge's office stock saw growth of 41% to 907,000 sqm between 2000/01 and 2018/19. Cambridge experienced a decline of 2% whereas South Cambridgeshire experienced a 107% increase in office stock, much higher than the national and regional rate.

1.7 There are supply pressures for small to mid-sized office occupiers in the city core, particularly between 1,000 to 5,000 sqft (around 100 to 500 sqm). There is also demand for this bracket and larger floorspace in North East Cambridge including the Science Park.

Industrial

1.8 Cambridge has 244,000 sqm of industrial floorspace, or 21% of the Greater Cambridge floorspace. South Cambridgeshire has 901,000 sqm of floorspace, or 79%. Since 2000/01, South Cambridgeshire has experienced a 23% increase in industrial stock whereas Cambridge has experienced a decline of 33%. Losses in the city have therefore been offset by gains elsewhere. Overall, Greater Cambridge has seen a 5% growth in industrial floorspace over the 2000/01 to 2018/19 period.

1.9 In the city, industrial rents have increased considerably in recent years. This was explained by reduced industrial floorspace meaning supply is unable to meet demand. Trade counters are more likely to achieve higher rents compared with smaller industrial occupiers.

Labs

1.10 Across Greater Cambridge, an average of 42,000 sqm of R&D floorspace was transacted annually from 2012-2018, with around 53 deals per annum, mostly in North East Cambridge (29) and South Cambridgeshire (20). Deals in North East Cambridge were concentrated in the lower size bands compared to South Cambridgeshire which included some large floorspace transactions.

1.11 Demand is high for wet labs, as space is highly specific, and companies seek flexible high quality floorspace, although the market is bringing forward more

floorspace. Dry lab space, as with office, sees high demand in the North East Cambridge area with smaller firms taking space outside of the city in response to high city rents.

Clusters in Cambridge

Life Sciences

1.12 Life sciences is a key sector for the study area. Significant concentrations are found at Addenbrooke's Hospital and Cambridge Biomedical Campus on the southern edge of city. Further out, there are major centres across the south and south east of South Cambridgeshire including Babraham Research Campus, Wellcome Trust Genome Campus (Hinxton), Granta Park (Great Abington), Sagentia Research Park (Harston) and Melbourn Science Park. Other key hubs include Cambridge Research Park (Landbeach) to the north of the city, and St John's Innovation Park and Cambridge Science Park at the north east edge of Cambridge.

1.13 Whilst there are benefits of connecting directly or being located close to research centres, there is also evidence of businesses operating successfully in new, accessible locations.

1.14 The sector should continue to see growth. There are some local challenges to keeping up with demand for both wet and dry lab space, albeit there is additional floorspace coming forward including at the Genome Campus (Hinxton), Cambridge Biomedical Campus, Cambridge Science Park and Granta Park (Great Abington). Leases should be encouraged to be more flexible along with floorplate sizes allowing firms to change and grow as they develop through their life cycle.

ICT

1.15 Firms in this sector require office / dry lab space and are distributed either in Cambridge City Centre and near Cambridge Railway Station, or clustered around established business parks, such as Cambridge Business Park and Cambridge

Science Park, Cambridge Research Park (Landbeach) and Cambridge Innovation Park (Waterbeach), St John's Innovation Park, and Cambourne Business Park (to the west of Cambridge).

1.16 ICT businesses are less likely than those in other sectors to have specific locational requirements, notwithstanding the concentration in North East Cambridge, but they do benefit from clustering with other like-minded firms and near the railway stations giving access to London.

1.17 ICT employment has seen positive growth in recent years through the rise of Artificial Intelligence, big data and other e-services. There has been a period of inward investment in Cambridge, particularly at CB1. A general lack of appropriate labour may be a challenge to future growth.

Professional Services

1.18 This sector requires traditional office space and typically follows the same distribution as ICT due to strong linkages with knowledge intensive sectors. Key locations include the area around Cambridge Railway Station, North East Cambridge, Cambridge Research Park (Landbeach) and established research parks across South Cambridgeshire. As with ICT, there are strong growth prospects.

Advanced Manufacturing

1.19 Despite a broader decline in manufacturing, the advanced manufacturing sector in Greater Cambridge has stayed competitive due to connections with research and knowledge intensive sectors. Specific clusters are in Waterbeach, Cottenham and Bar Hill, and additionally Sawston, Hinxton, Duxford and Melbourn.

1.20 Advanced manufacturing is varied and takes many forms. In life cycle terms, it may only require office space at first but will quickly adapt to requiring dry lab / manufacturing floorspace. Advanced manufacturing has greater emphasis on the type of space required and less on a specific location compared to other sectors.

Employment land supply

1.21 Site visits were conducted at 71 employment sites. The purpose of the site visits was to explore the attractiveness to the market, identify available or vacant floorspace and opportunities for development including vacant land and the potential for redevelopment or intensification. Recommendations were provided across the sites. Taking into account these recommendations along with other more recent developments, the 2018/19 monitoring supply position has been updated. Including all permission and allocations (with some future permitted losses), as below.

Table 1: Employment Land Supply

Area	B1	B1a	B1b	B1c	B2	B8	Total
South Cambridgeshire	249,035	89,959	109,444	14,031	-46,874	28,392	443,987
Cambridge	34,673	11,161	167,379	2,201	-29,162	-5,930	180,322
Greater Cambridge	283,708	101,120	276,823	16,232	-76,032	22,462	624,310

Source: Greater Cambridge Planning Service – 2018/19 monitoring data adjusted for further gains / losses

1.22 South Cambridgeshire's supply includes 150,000 sqm of anticipated B1 floorspace (with resolution to grant permission) at the expanded Genome Campus of which a large part is expected to be B1b. In addition, there are proposals to bring forward significant B1 employment floorspace across North East Cambridge through the Area Action Plan although this floorspace is not yet included.

Employment forecasting

1.23 The process of producing long term future jobs forecasts for Greater Cambridge has been complicated. Different methodologies have been investigated and a range of sources of evidence have been considered to try and generate an informed view. This has included working with data used to inform the Cambridgeshire and Peterborough Independent Economic Review[1]. This

[1] Refence to CPIER does not constitute any endorsement by the originators of this data for the analysis contained within this report or the preferred approach to forecasting future employment

demonstrated very fast employment growth since 2011 in the Greater Cambridge area. Whilst this has been exceptional, it is important to recognise that the time series is still short in relation to long term forecasting.

1.24 The preferred approach involved using the East of England Forecasting Model Framework (EEFM) updated for latest data, alongside historic growth rates for specific sectors. Analysis of past trends was compared to future projections generated through EEFM. For most sectors, future growth rates generated by EEFM are reasonably consistent with past rates of growth. For a few sectors, EEFM's modelled estimates of future growth are (much) lower than observed historic growth

1.25 These 'key sectors' align with those identified as Greater Cambridge's most significant local economic clusters (notably Life sciences (comprising Research & Development and Health & care sectors) and Professional Services).

1.26 Modelling was undertaken for these key sectors to consider how a continuation of higher growth rates might affect total employment outcomes. Two scenarios were developed:

- Central scenario – most likely outcome taking into account long term historic patterns of employment.
- Higher scenario – higher outcome placing greater weight on fast growth in the recent past, particularly in key sectors.

1.27 A separate exercise was undertaken using population driven employment growth linked to the government's standard methodology for housing. The reason for considering this scenario was to enable the councils, as part of their consideration of reasonable options for plan-making, to explore the employment supported by the government's standard method for housing, alongside the employment modelling referred to above.

Outputs summary

1.28 The table below provides a summary of the outcomes of the work. It includes:

- EEFM baseline (with the model updated for more recent data in Greater Cambridge by Cambridge Econometrics).
- The population driven standard method employment position.
- Historic annual average jobs change projected forwards, as a sense check, demonstrating the long term and fast recent growth since 2011.
- The recommended lower and upper forecast range (central and higher growth) to be used for Local Plan purposes.

Table 2: Employment forecast by method, Greater Cambridge 2020-41

Method	2020-2041 change	Total at 2041
EEFM forecast baseline	40,100	255,600
Standard Method	45,761	257,600
2001-2017 annual average change	55,300	272,300
2011-2017 annual average change	125,200	352,189
Central Growth (KS2)	**58,400**	**277,000**
Higher Growth (KS3)	78,700	299,100

Source: GL Hearn, Cambridge Econometrics

Employment floorspace needs

1.29 The central, higher and standard method (labour supply) employment growth scenarios were used to generate floorspace requirements to 2041 using assumptions around employment densities. These were compared to historic completion trends projected forward. A recommended future employment floorspace need was derived from the modelling, allowing for a future vacancy margin for churn and choice, and balanced with the supply. In planning positively for growth, it is recommended that the floorspace figure resulting from the 'higher growth' employment scenario is planned for particularly in relation to B1a/b needs, without prejudice to employment outcomes. This ensures a flexible supply, encouraging business growth and inwards investment, and aligns with market feedback and past completions trends.

Table 3: Demand Supply by Use Class, Greater Cambridge (sqm) 2020-2041

Use Class	Need	Inc. vacancy margin 7.5%	Supply	Balance	Comments
B1 *	N/A	-	283,708	+283,708	Includes 150,000 Genome Campus
B1a	103,221	110,963	101,120	-9,861	
B1b	477,902	513,745	276,823	-236,922	Genome Campus likely to include high B1b element
B1c	16,506	17,744	16,232	-1,512	-
B2	-25,074	-25,074 (N/A)	-76,032	-50,958	-
B8	43,659	46,933	22,462	-24,471	-
Total	**616,214**	**664,311**	**624,313**	**-39,998**	**-**

Source: GL Hearn

* Blended B1 is not an output of the demand modelling, whilst the B1 supply represents outline permissions / allocations where the final mix is not yet known.

1.30 **Offices**: The modelling suggests a small undersupply in B1a type provision before taking into account B1 supply contributions. However, in Greater Cambridge there is a more blended market demand between B1b and offices. Combining B1a/b requirements in the above table identifies a significant shortfall. The North East Cambridge Area Action Plan is therefore considered important in providing employment floorspace and job growth in Cambridge as a whole. It should include both B1a office and B1b higher density dry lab provision potentially alongside more limited wet labs.

1.31 **Labs:** Within the B1b category, the modelling points to a shortfall which could be in the order of 50,000 – 100,000 sqm when taking into account the potential contribution of B1 mixed sites. This reflects that much of the future modelled demand in B1b under the higher growth scenario is assumed to be for R&D employment. If the 'higher' growth scenario is achieved over the next two decades, then the current pipeline of supply is likely to be insufficient. This is considered to

be the case for higher density labs, where demand manifests particularly around North East Cambridge, and lower density research labs across Greater Cambridge as a whole. It is recommended that the local planning authorities continue to respond positively to proposals that can be considered on their merits, or through a further allocation. Under the 'central' growth scenario, this additional level of provision is unlikely to be needed.

1.32 **Industrial and Warehousing:** The undersupply reported above suggests suitable locations should be identified for these premises, notable small and mid-sized light industrial, general industrial and distribution units. Light industrial premises are required with anticipated losses in the city requiring reprovision in South Cambridgeshire. Some provision should be made for allocations that support general industrial floorspace in order to facilitate traditional industries as well as supporting advanced industries that require operational activities not suited to residential areas.

Policy matters

1.33 **Villages** in Greater Cambridge play an important role in providing for local employment and for supporting local clusters, particularly industrial floorspace relocating out of the city in accessible locations. Rural building refurbishment can also play a role in supporting smaller enterprises outside of the city.

1.34 **Employment & training and affordable workspace** can be effectively delivered through planning policies. A number of examples, particularly from London Boroughs, provide a useful reference for the policies and their implementation which Greater Cambridge can seek to draw from.

1.35 **Homeworking** trends can affect the requirement for employment floorspace. This varies considerably by sector. Office-based sectors achieve 12-13% of jobs 'typically homeworking' and 20-30% 'occasionally' working from home. Evidence until spring 2020 was limited in suggesting this was likely to increase significantly in

the future – however COVID-19 is likely to see an ongoing move towards home-working, even when the pandemic subsides.

1 INTRODUCTION

1.1. GL Hearn with SQW Ltd and Cambridge Econometrics and supported by Iceni Projects Ltd and Justin Gardner Consulting was appointed by South Cambridgeshire District Council on behalf of both South Cambridgeshire District Council and Cambridge City Council (the 'Greater Cambridge Shared Planning Service') to review the economic development and employment land needs of South Cambridgeshire District and Cambridge City (the 'Greater Cambridge' area) to 2041.

1.2. This report covers the following matters:

- Property market dynamics review for Greater Cambridge
- A review of economic clusters in Greater Cambridge, primarily based on stakeholder engagement
- Land supply assessment of existing employment areas in Greater Cambridge
- Testing of employment forecasting models and a preferred employment figure by sector to 2041
- Employment floorspace requirements emerging from the forecasting models to 2041
- Balance of quantitative and qualitative needs for employment land
- Review of economic development policies

1.3. The data collection and analysis for this report was largely produced in Autumn / Winter 2019 prior to the COVID-19 pandemic. As a result, the underlying data reflects a position prior to any implications of COVID-19. It is recognized that further updates may be required in due course when the medium-term implications, if any, are clearer in relation to employment land and economic development in the Greater Cambridge area.

1.4. Furthermore, ‘Class E’ was introduced on 1st September 2020, shortly before report publication. It is noted that this may need to be reflected in the approach to land use planning in the Local Plan.

1.5. Appendix G sets out how this report complies with the requirements of the National Planning Policy Framework and Planning Practice Guidance.

2 GREATER CAMBRIDGE PROPERTY MARKET

2.1 Greater Cambridge contains several commercial and industrial submarket areas. The analysis (undertaken by GL Hearn in 2019) covers the areas administered by Cambridge City Council and South Cambridgeshire District Council, known as "Cambridge" and "South Cambridgeshire" respectively and when combined known as "Greater Cambridge".

2.2 This analysis also aims to assess the Greater Cambridge market within its geographical and commercial context of neighbouring local authorities as part of the defined Functional Economic Market Area (FEMA)[2]. The six local authorities within the FEMA include:

- Cambridge City Council
- East Cambridgeshire District Council
- Fenland District Council
- Huntingdonshire District Council
- Peterborough City Council
- South Cambridgeshire District Council

2.3 This chapter conducts an analysis for Greater Cambridge compared to the wider FEMA, further comparators[3], and including a more detailed analysis of four key submarkets in Greater Cambridge. The analysis draws upon CoStar and EGi data, commercial property databases with detailed transaction information, and expert local agent consultations to deliver a more nuanced picture of the market in terms of take-up, availability and supply in the office, R&D and industrial markets.

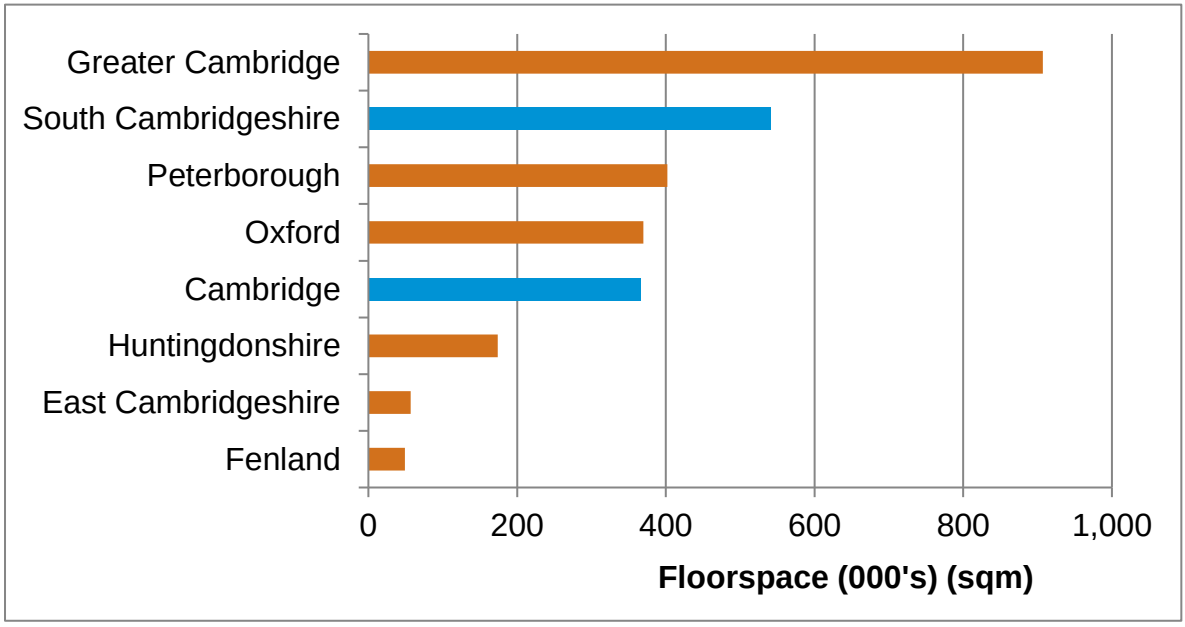
[2] https://www.cambridge.gov.uk/media/3533/devolution-proposal-governance-review.pdf
[3] Oxford City Council has been added for comparison to Cambridge due to its similar nature as a knowledge-based city

Office Analysis

Stock

2.4 The latest data from the Valuation Office Agency (VOA) shows that Greater Cambridge has approximately 907,000 sqm of office floorspace. Cambridge has 366,000 sqm of floorspace, or 40% of the Greater Cambridge floorspace. South Cambridgeshire has 541,000 sqm of floorspace, or 60% of the Greater Cambridge floorspace. Peterborough has a similar amount of floorspace to Cambridge. East Cambridgeshire and Fenland have a very low quantum of office floorspace reflecting their more rural nature. Overall, South Cambridgeshire has the greatest quantum of office floorspace relative to its comparators, as illustrated in the figure below.

Figure 1: Office Stock, Greater Cambridge and Nearby Local Authorities, 2018/19



Source: GLH analysis of VOA data

2.5 Over the past 17 years, Greater Cambridge's office stock has seen strong growth from 634,000 sqm in 2000/01 to 907,000 sqm in 2018/19. This represents a 41% growth over this period and an annual growth rate of 2%.

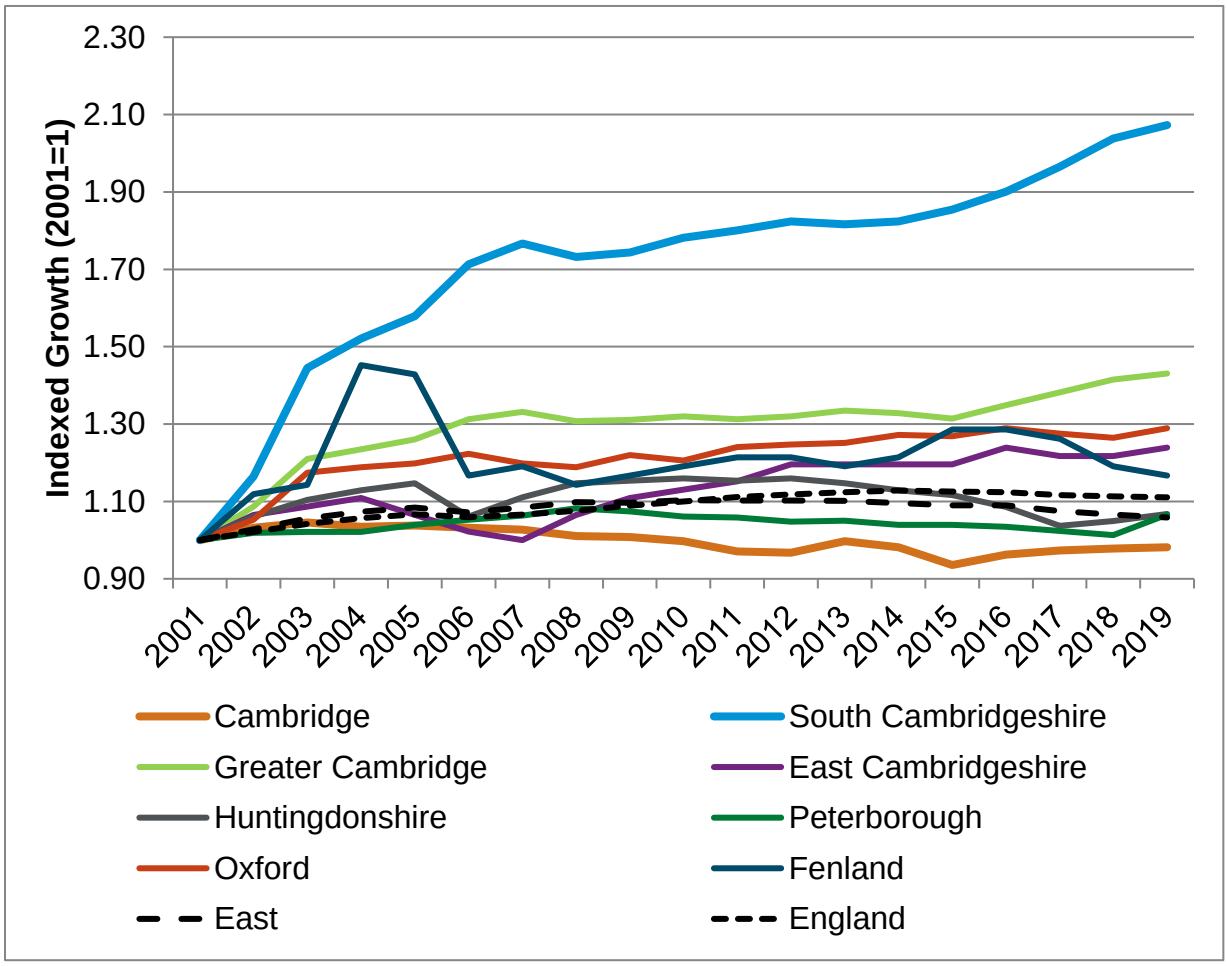
2.6 There are significant differences between Cambridge and South Cambridgeshire. South Cambridgeshire experienced a 107% increase in office stock whereas Cambridge experienced a slight decline by 2%. Thus, office employment floorspace growth had all but stalled within the City but has experienced large gains across South Cambridgeshire. Since 2016, however, recent developments within Cambridge such as CB1 have added to the overall office stock in the city. There was a net gain of 63,133 sqm of office floorspace in 2017/18 in Cambridge, and 14,766 sqm of office floorspace in 2016/17.[4]

2.7 The figure below shows the relative growth of the office stock in the local authorities and Greater Cambridge compared to the East Region and England. South Cambridgeshire experienced a sharp increase in office floorspace from 2000/01 to 2007/8 but more muted growth from 2007/08 to 2015/16 following the recession From 2000/01 to 2004/05, Cambridge also experienced a growth of 5%, but then continued a steady decline of floorspace until 2015, with office construction like the CB1 development contributing to some net gains until 2018/19. Ultimately, Cambridge has 2% less office floorspace than it had in 2000/01.

2.8 Compared to England as a whole, South Cambridgeshire experienced significantly more growth in the past 15 years whereas Cambridge diverged and experienced a decline. South Cambridgeshire has shown the highest increases in floorspace out of all nearby local authorities since 2000/01 and has driven the Greater Cambridge supply. In particular, the rate of growth increased again in South Cambridgeshire since 2014/15 whilst other authorities have had either no growth in floorspace or a slight decrease. Oxford has seen relatively strong office floorspace growth over the period outperforming the study area FEMA with the exception of South Cambridgeshire.

[4] Council-provided data from monitoring of completions of planning permissions.

Figure 2: Office Stock Trend, 2001-18/19



Source: GLH analysis of VOA data

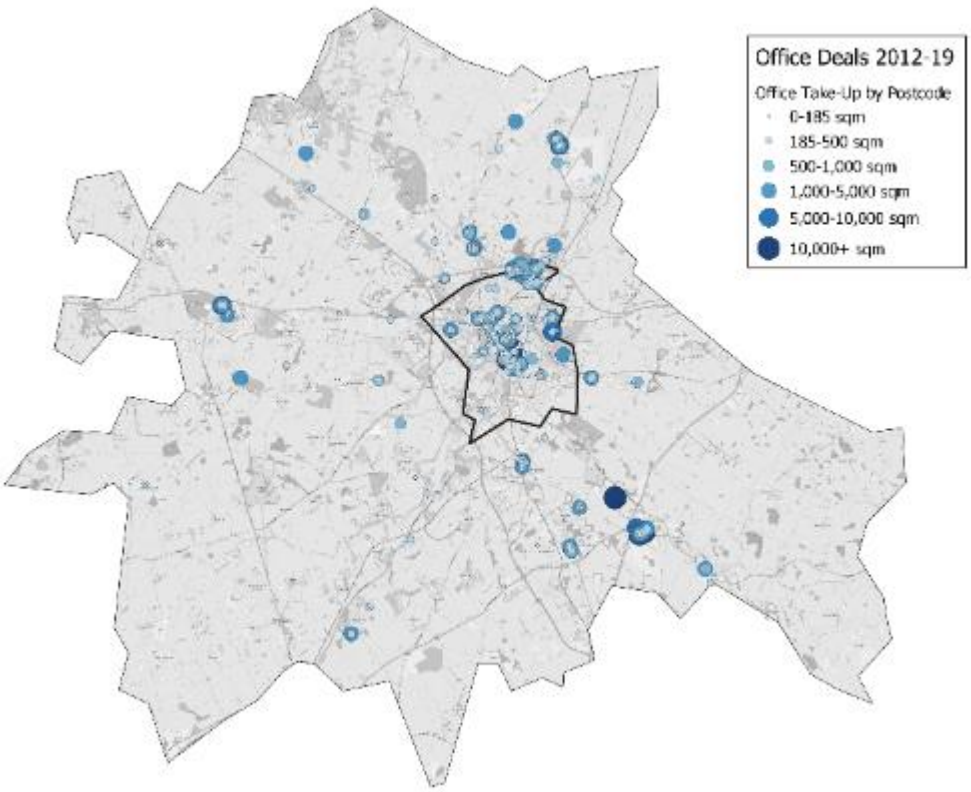
Take-Up

2.9 "Take-up" is defined as lease or owner-occupancy purchase transactions of floorspace, recorded in CoStar or EGi. The data was gathered across Greater Cambridge from 2012 to 2019. Take-up is not the build-out of new office space, but rather the term for a relevant and recorded market transaction on either new or existing stock.

2.10 The figure below shows the office take-up across Greater Cambridge mapped by total take-up per postcode. The size of circle (with a larger circle indicating a greater total quantum of floorspace) depicts the total space taken within a postcode over the period. Often multiple deals will occur in the same postcode, thus the circles according to size band are stacked with larger circles at the bottom.

2.11 The map shows the areas of greatest activity for office uses across the area and clearly shows the focus of activity being Cambridge city centre, North East Cambridge, and along key transport corridors such as the A11, A14 and M11. Larger deals tend to be standalone near motorway junctions as opposed to smaller deals which cluster in urban areas or in industrial parks., particularly in areas such as Granta Park, Cambourne Business Park, Cambridge Research Park (Landbeach) and Vision Park (Histon). Further deals and a more detailed map for individual areas is explored under the detailed submarket analysis.

Figure 3: Office Deals, Greater Cambridge, 2012-19

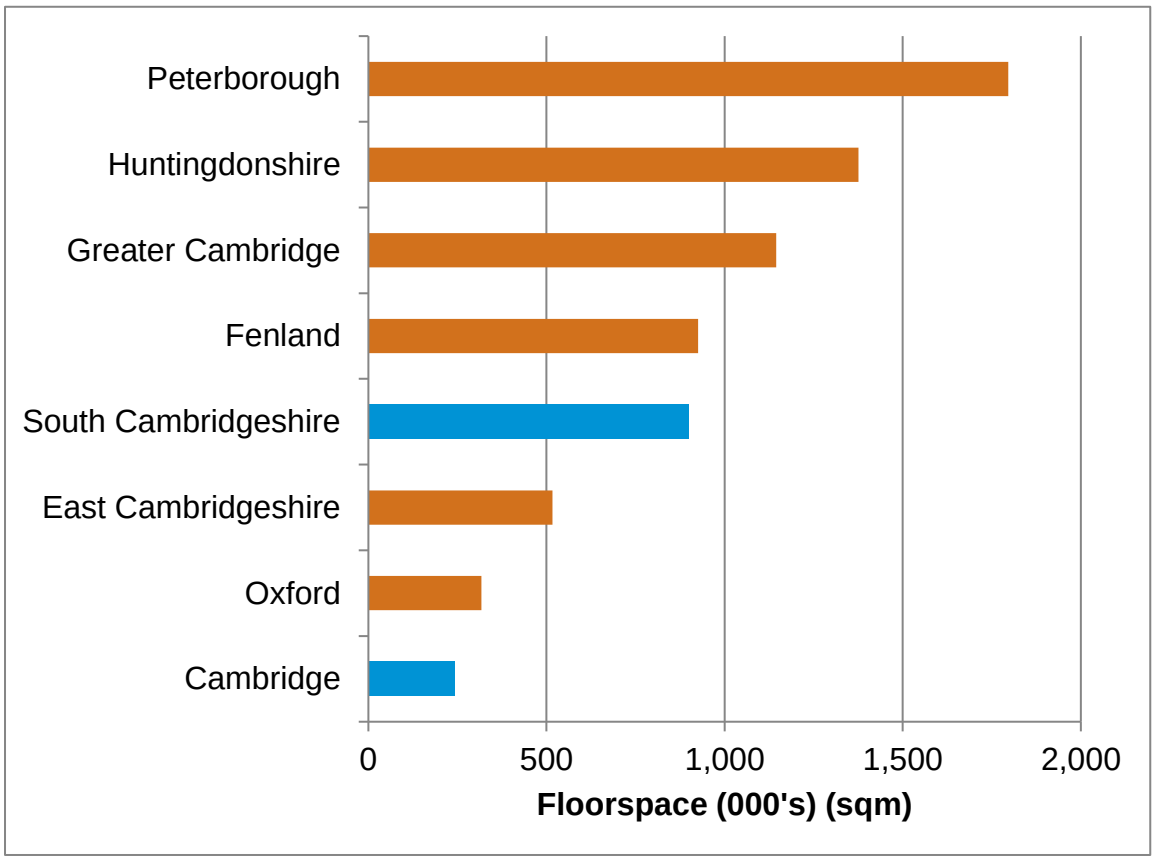


Source: GLH analysis of CoStar data

Industrial Analysis

2.12 The latest data from the Valuation Office Agency (VOA) shows that the Study Area has approximately 1,145,000 sqm of industrial floorspace. Cambridge has 244,000 sqm of floorspace, or 21% of the Greater Cambridge floorspace. South Cambridgeshire has 901,000 sqm of floorspace, or 79%. Compared to the office market, Cambridge and South Cambridgeshire have a lower quantum in terms of overall floorspace compared to nearby local authorities. Peterborough has the highest amount of industrial floorspace. The Cambridgeshire and Peterborough Independent Economic Review (CPIER) 2018 notes that Peterborough has a strong manufacturing history and that Peterborough also has a manufacturing and distribution base on the A1, which has attracted distributors such as Amazon.

Figure 4: Industrial Stock, Greater Cambridge and Nearby Local Authorities, 2018/19



Source: GLH analysis of VOA data

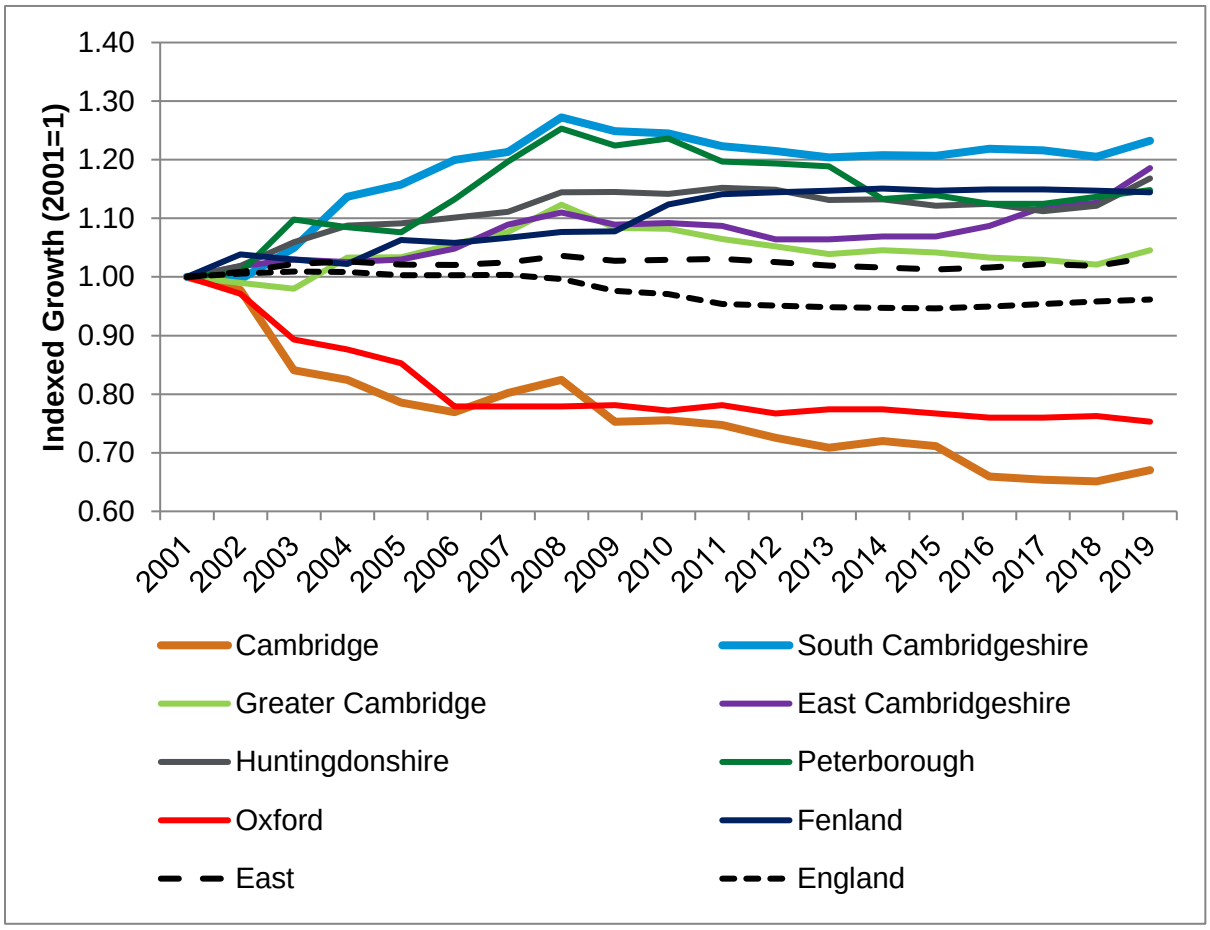
2.13 Over the past 17 years the Greater Cambridge industrial stock has seen slight growth from 1,095,000 sqm in 2000-01 to 1,145,000 sqm in 2018-19. This represents a 5% growth over this period and an annual growth rate of 0.2% per annum.

2.14 South Cambridgeshire experienced a 23% increase in industrial stock whereas Cambridge experienced a significant decline of 33%. Thus, industrial employment floorspace is depleting within Cambridge but has experienced gains across South Cambridgeshire. As a combined Greater Cambridge area, losses in Cambridge are counteracted by gains in South Cambridgeshire, which are larger in absolute

terms, leading to a Greater Cambridge industrial floorspace growth of 5% over the 2000/01-2018/19 period.

2.15 The figure below shows the relative growth of the industrial stock in the local authorities compared to England. South Cambridgeshire experienced a sharp increase in industrial floorspace from 2000/01 to 2007/08 but then lost some floorspace from 2007/08 to 2014/15 post recession, a trend which has now levelled off. From 2015/16 floorspace began to increase again. From 2000/01 to 2005, Cambridge experienced a decline of 20% in industrial floorspace, rebounding until 2007/8, where it then continued to lose floorspace. Overall, Cambridge has 33% less industrial floorspace than in 2000/01. Compared to England as a whole, which lost about 5% of its industrial floorspace since 2000/01, South Cambridgeshire experienced significantly more growth whereas Cambridge diverged and experienced a steep decline. Cambridge was also the only district in the FEMA to have such a decline in floorspace whereas Oxford has seen a similar level of industrial floorspace contraction.

Figure 5: Industrial Stock Trends, 2000-18/19



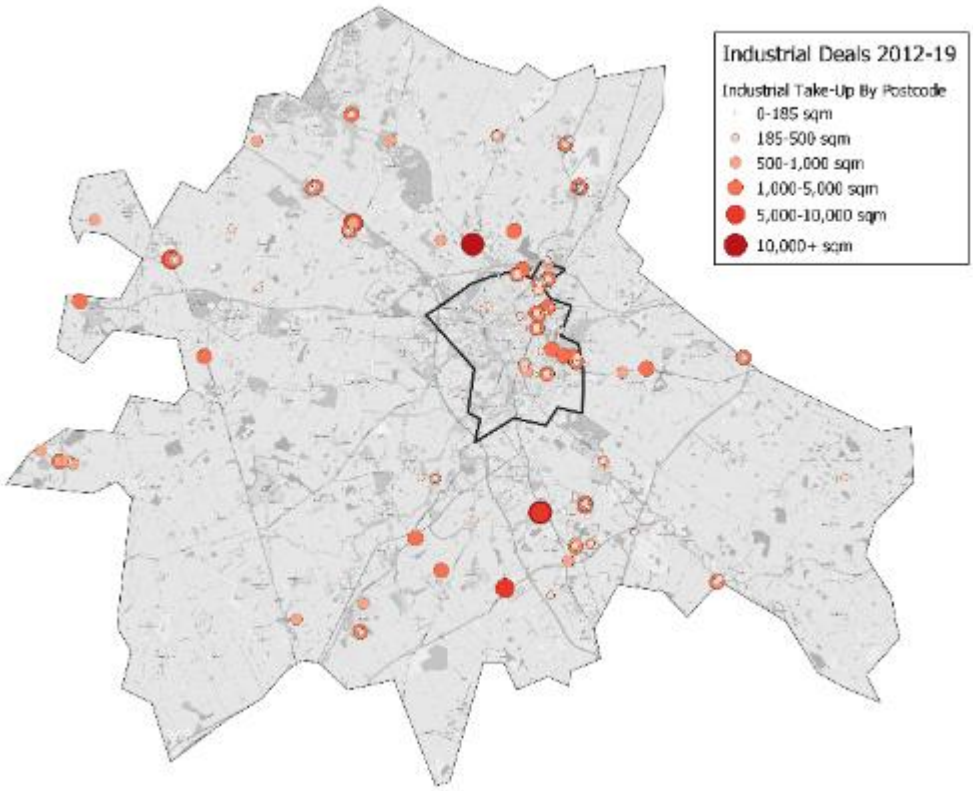
Source: GLH analysis of VOA data

2.16 The figure below shows the industrial take-up across Greater Cambridge mapped by total take-up per postcode. The size of circle (with a larger circle indicating a greater total quantum of floorspace) depicts the total space taken within a postcode over the period. Often multiple deals will occur in the same postcode, thus the circles according to size band are stacked with larger circles at the bottom.

2.17 The map shows the areas of greatest activity for industrial uses. While office activity was focused more with small deals in Cambridge city centre and with larger deals in out-of-town office parks along key roads, industrial deals are primarily further away from the city centre and along key transport corridors such as the

A11, A14 and M11. Industrial deals within Cambridge are concentrated mostly in the North and East such as at Cowley Road and Nuffield Road Industrial Estates near Cambridge North Station. Larger deals tend to be more prevalent in specific parks in South Cambridgeshire, particularly in areas such as Cambridge Research Park (Landbeach), The Chivers Factory in Histon, Bar Hill, Buckingway Business Park (Swavesey) and Duxford Airfield.

Figure 6: Industrial Deals, Greater Cambridge, 2012-19



Source: GLH analysis of CoStar data

2.18 Further examples of industrial deals and analysis are undertaken in the detailed submarket analysis.

R&D Analysis

2.19 For the purposes of the study, Research and Development floorspace comprises floorspace classified as B1b in the EGi database (this is not recorded in CoStar).

2.20 The figure below shows the R&D take-up across Greater Cambridge mapped by total take-up per postcode. The map shows the areas of greatest activity for R&D uses across the area. R&D has the highest concentrations in specific parks such as:

- Cambridge Science Park
- Cambridge Business Park
- St Johns Innovation Park
- Peterhouse Technology Park
- Capital Business Park, Fulbourn
- Vison Park / Chivers Way (Histon)
- Cambridge Research Park (Landbeach)
- Cambourne Business Park
- Granta Park
- Castle Park

2.21 Deals classified within EGi as B1b tend to not be scattered, and agent consultation revealed that R&D tends to congregate with other like-minded businesses in established parks with specific R&D clauses.

2.22 R&D floorspace requirements are noted to be split into three types inside a Science Park. The first type involves activities that are typically more technology, design, and artificial-intelligence orientated. Sometimes these uses fall under general office activities and there can be a blurring between these classifications in the data.

2.23 Business requirements are very similar to office spaces in Cambridge. Typically, this means that floorspace densities are between 80 (7.4) to 100 sqft (9.2 sqm) per person, which includes facilities like meeting rooms and breakout spaces. 80 sqft (7.4 sqm) requirements come from companies with a lot of hot desking and less meeting rooms, whereas 100 sqft (9.2 sqm) is for companies that require individual desks.

2.24 These types of companies typically congregate around the city centre and Science Park, as their labour force requirements for public transport and connections to London via the train are paramount.

2.25 The second type of R&D activities have a more extensive dry lab space. Their desk requirements are like the former group, but also include the addition of an additional shared storage space or workshop. Thus, space requirements tend to be around 120 sqft (11.1 sqm) per person but can be higher.

2.26 The third type of R&D floorspace is the wet lab (a type of laboratory where it is necessary to handle various types of chemicals and potential "wet" hazards). Historically, wet lab space was separate from the desk. Such an example could be an office in Cambridge Science Park taking on an additional lab space outside of the park. Analysis of local data indicates that wet labs maintain higher densities at around 25-30 sqm per employee.

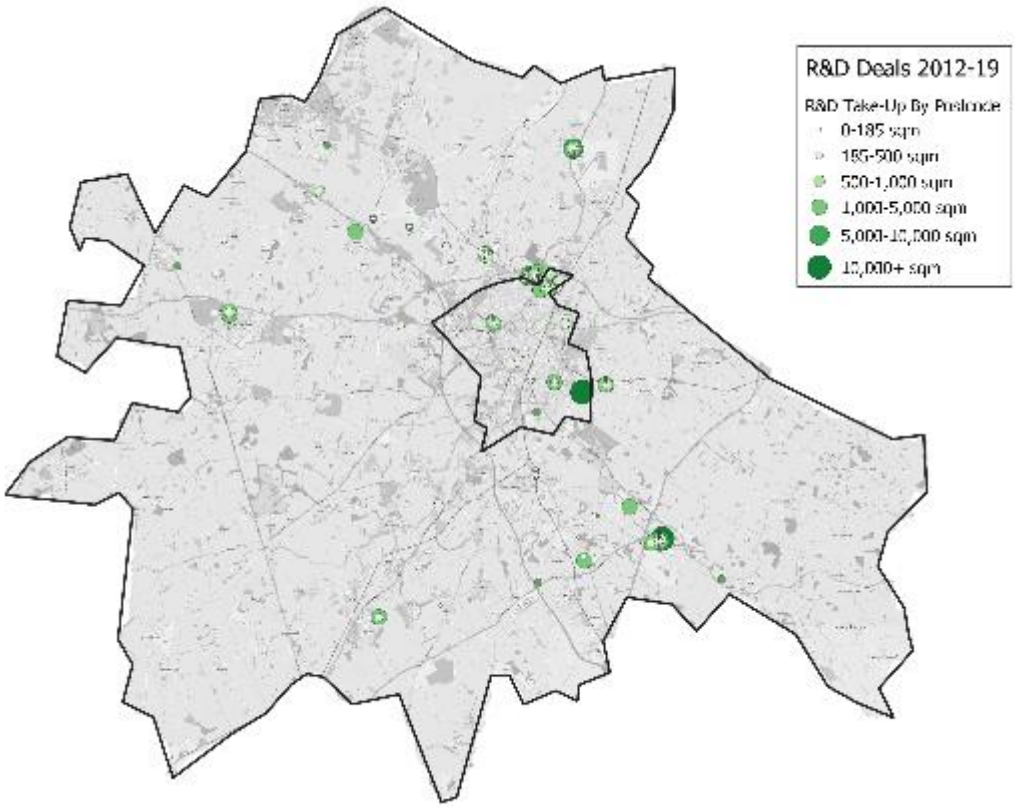
2.27 In terms of locational requirements, lab occupiers prefer high profile parks such as Cambridge Science Park, but areas such as Granta Park are less expensive in terms of rents and suitable for companies looking for more value, according to agents.

2.28 Recently, however, agents noted that more companies are utilising lab space on the ground floor with a mezzanine, warehousing, or first floor office addition. Examples of this type include Cambridge Research Park (Enterprise) and the Evolution Business Park in Impington, where various types of floorspace are mixed

in one unit. If there is mixing of floorspace on one site, space requirements could go up to 140 sqft (13 sqm) per person or more.

2.29 The figure below shows the R&D take-up across Greater Cambridge mapped by total take-up per postcode. As is the case for the maps shown for industrial and commercial office floorspace, the relative size of each green circle (with a larger circle indicating a greater total quantum of floorspace) shows the total space taken within a postcode over the period. Multiple deals sometimes occur in the same postcode, thus the circles according to size band are stacked with larger circles at the bottom. R&D Deals as presented in the map below tend to congregate in existing research parks across South Cambridgeshire and in North East Cambridge.

Figure 7: R&D Deals, Greater Cambridge, 2012-19



Source: GLH analysis of EGi data

2.30 Further examples of R&D deals and analysis will be undertaken in the detailed submarket analysis, but the map of Greater Cambridge helps to reveal broad distributions of activity for the two local authorities.

Submarket Analysis

2.31 CoStar, as part of their data gathering and analysis, reports geographic regions as “markets”. Markets are defined in CoStar through metropolitan area definitions, which broadly equate to county or district boundaries. Submarkets are often classified through local authority districts.

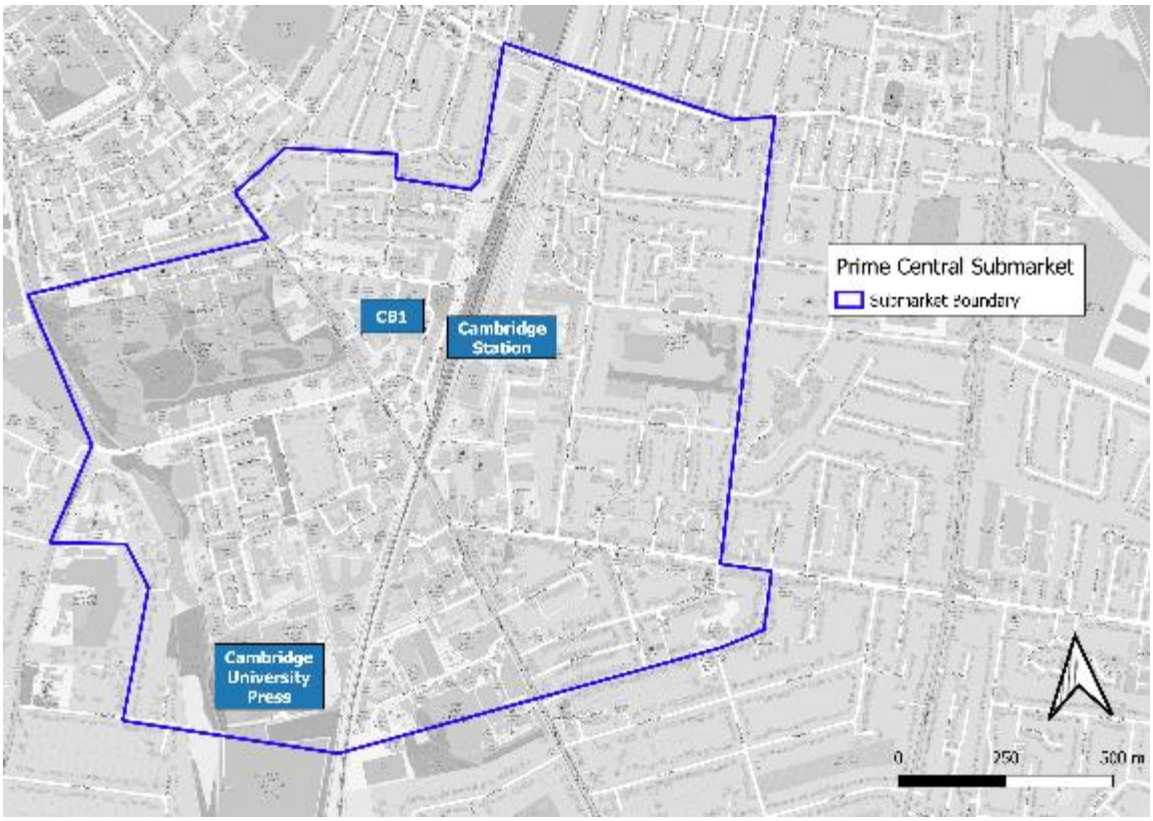
2.32 Smaller submarkets however are noted by CoStar to be more specialised, and CoStar has worked alongside “key agents” within the markets to search for commonly agreed submarkets within larger cities such as London, Birmingham and Cambridge.

2.33 CoStar identified four office submarkets within the Greater Cambridge Market. They are: “Prime Central”, “City Centre Periphery”, “Northern Cluster”, and “South Cambridgeshire”.

2.34 In response to agent and stakeholder consultation, these submarkets remain useful for analysis, but have been amended in some instance for ease of analysis.

2.35 ‘Prime Central’ lies in the centre of the Cambridge City local authority area. Its borders have been unchanged from the CoStar boundaries.

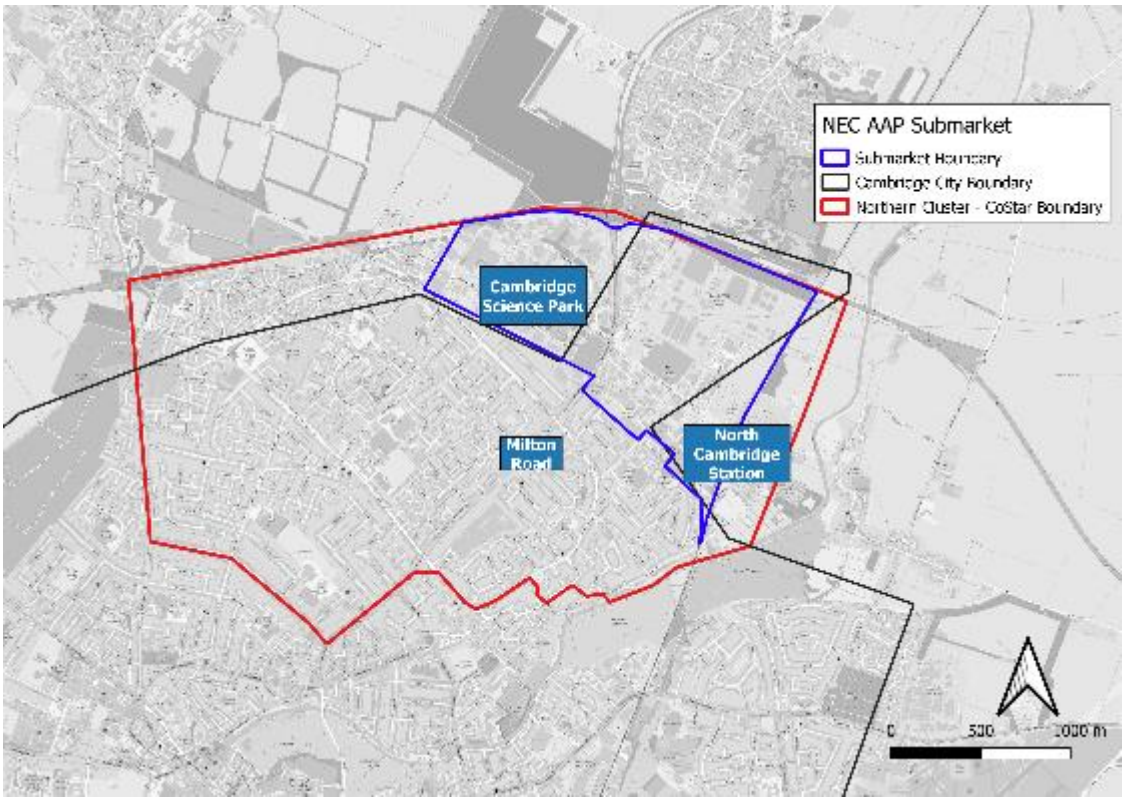
Figure 8: Prime Central Boundary Map



Source: CoStar and GLH Analysis

2.36 CoStar identified an area in the general vicinity of the North East Cambridge Area Action Plan (AAP) area, which includes areas further south and east of the AAP area (in red below). In this instance the CoStar submarket boundary has been confined to the boundary of the NEC AAP to better understand the transactions occurring directly in line with that area (in blue).

Figure 9: North East Cambridge Area Action Plan Boundary Map

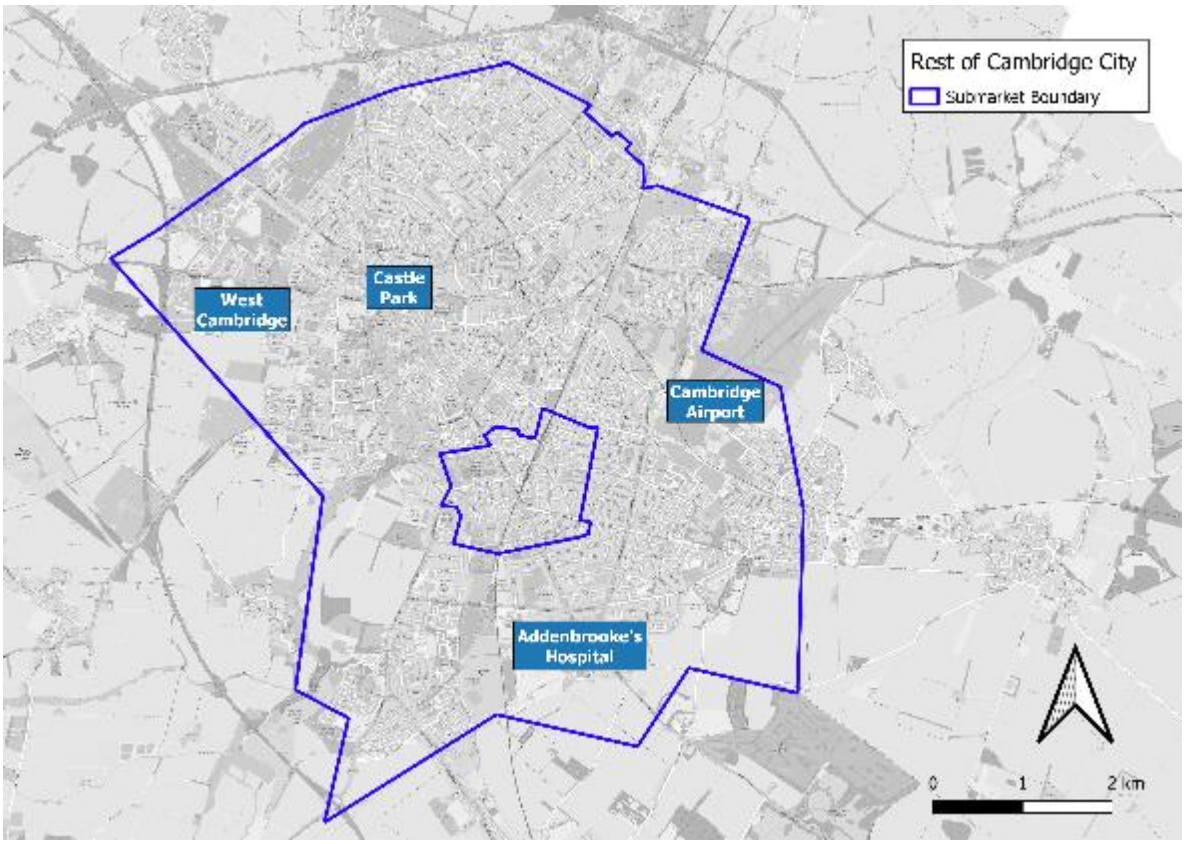


Source: CoStar and GLH Analysis

*Note that Local Authority Boundaries are generalised and for reference

2.37 The 'Rest of Cambridge City' boundary broadly reflects the boundaries of Cambridge, with the removal of the Prime Central and the North East Cambridge AAP areas.

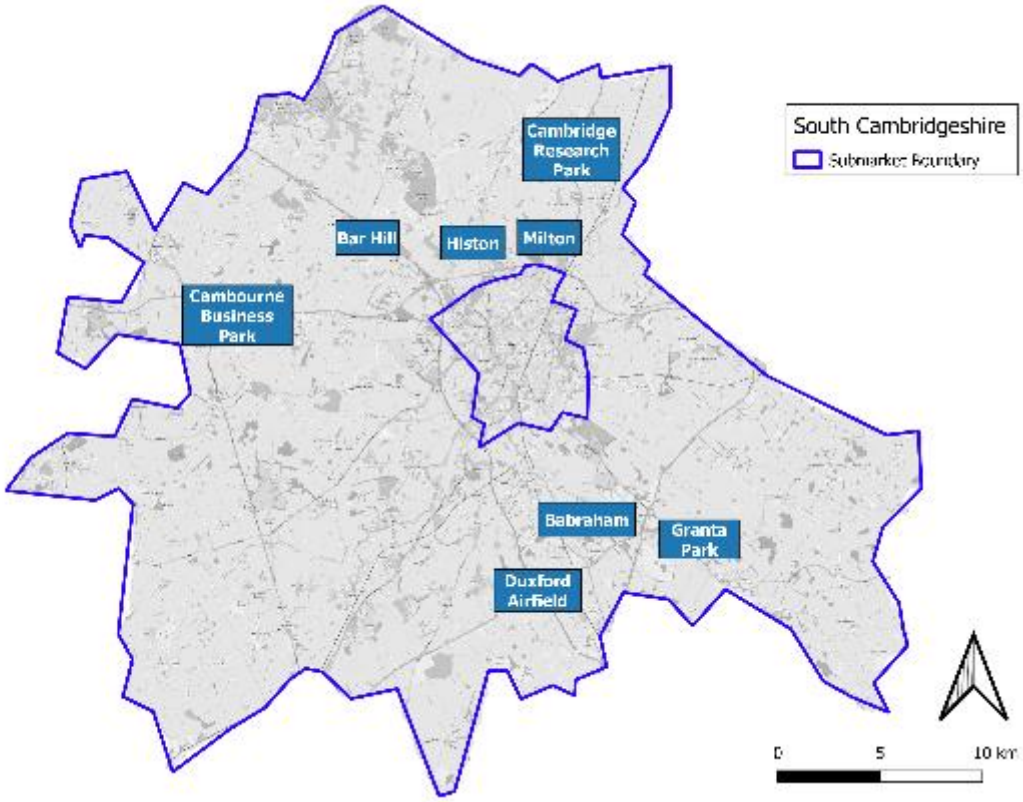
Figure 10: Rest of Cambridge City Boundary Map



Source: CoStar and GLH Analysis

2.38 The South Cambridgeshire District boundary reflects the South Cambridgeshire submarket boundary, with the notable exception of Cambridge Science Park and St. John's House being included in the North East Cambridge AAP area as opposed to South Cambridgeshire.

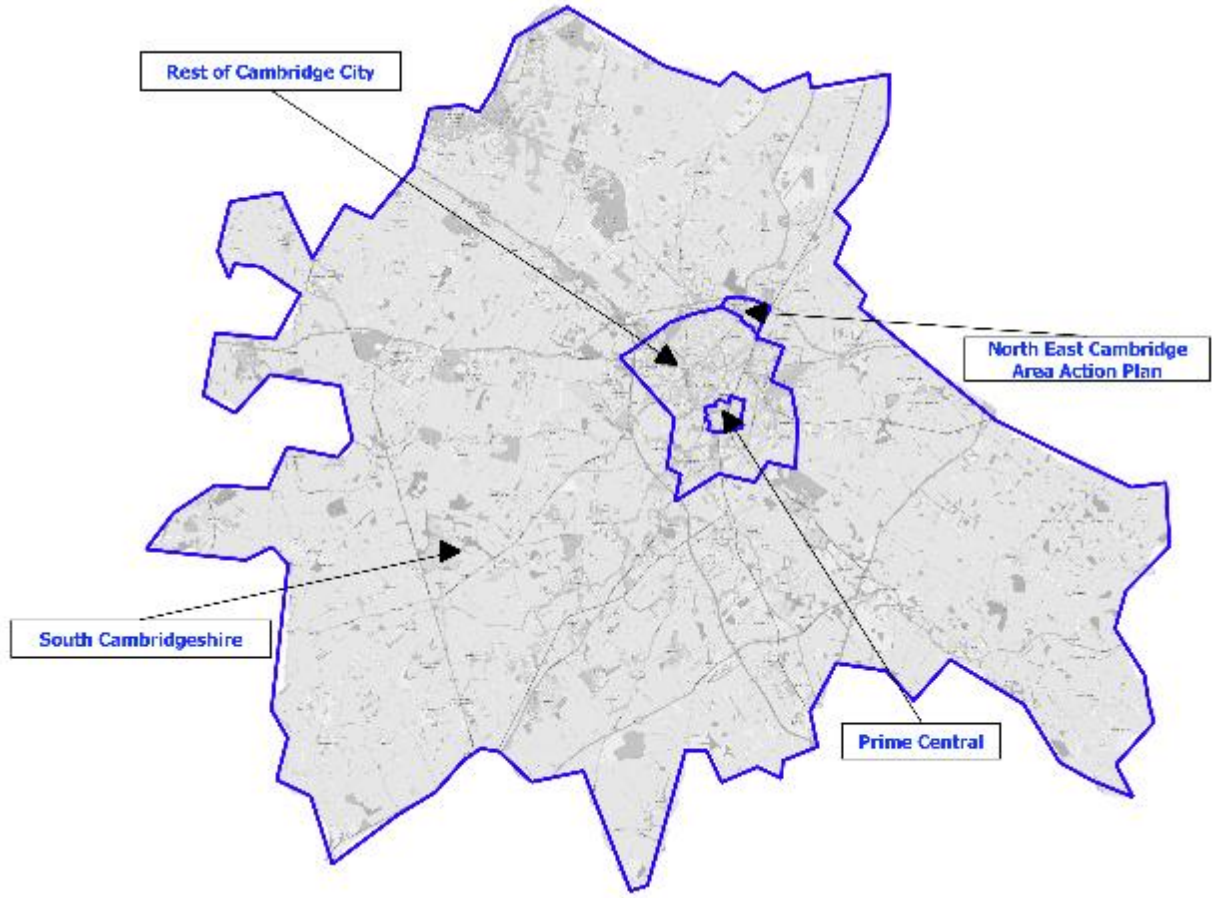
Figure 11: South Cambridgeshire Submarket Boundary Map



Source: CoStar and GLH Analysis

2.39 The boundaries of these submarkets for this study have been mapped as shown in the figure below.

Figure 12: Submarkets Map – Greater Cambridge



Source: GLH, 2019

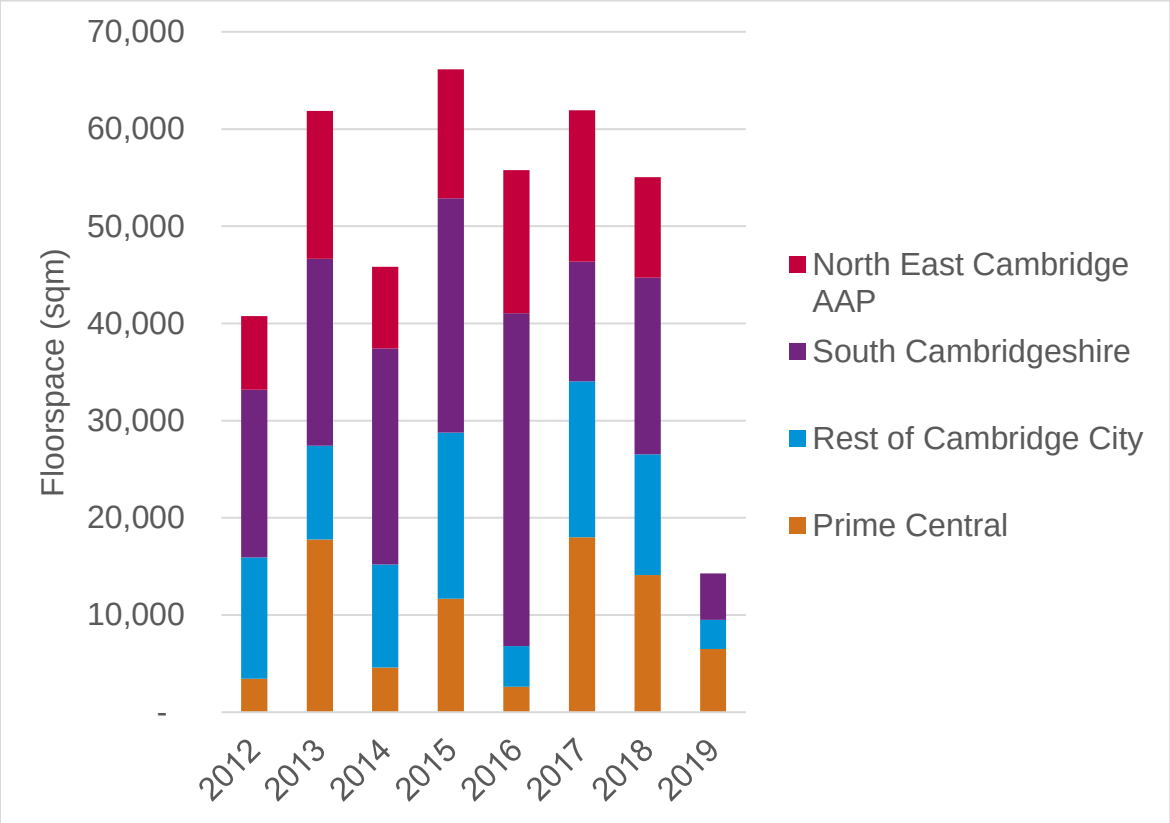
2.40 Firstly, the office, industrial and R&D markets were analysed in terms of floorspace take-up, availability and supply. Subsequently, agent analysis and coverage of key deals and supply pressures were used to help to underscore the key market differences in each submarket. For the sake of comparison, consistent submarket boundaries were used.

Office Market – Submarket Analysis

2.41 Across the four submarkets, an average of 55,000 sqm of office floorspace was transacted per annum from 2012-2018 (as 2019 is not a complete year). In

comparing the various submarkets, South Cambridgeshire sees the greatest overall amount of take up as compared to the other submarkets. An average of 21,000 sqm of floorspace is transacted per annum.

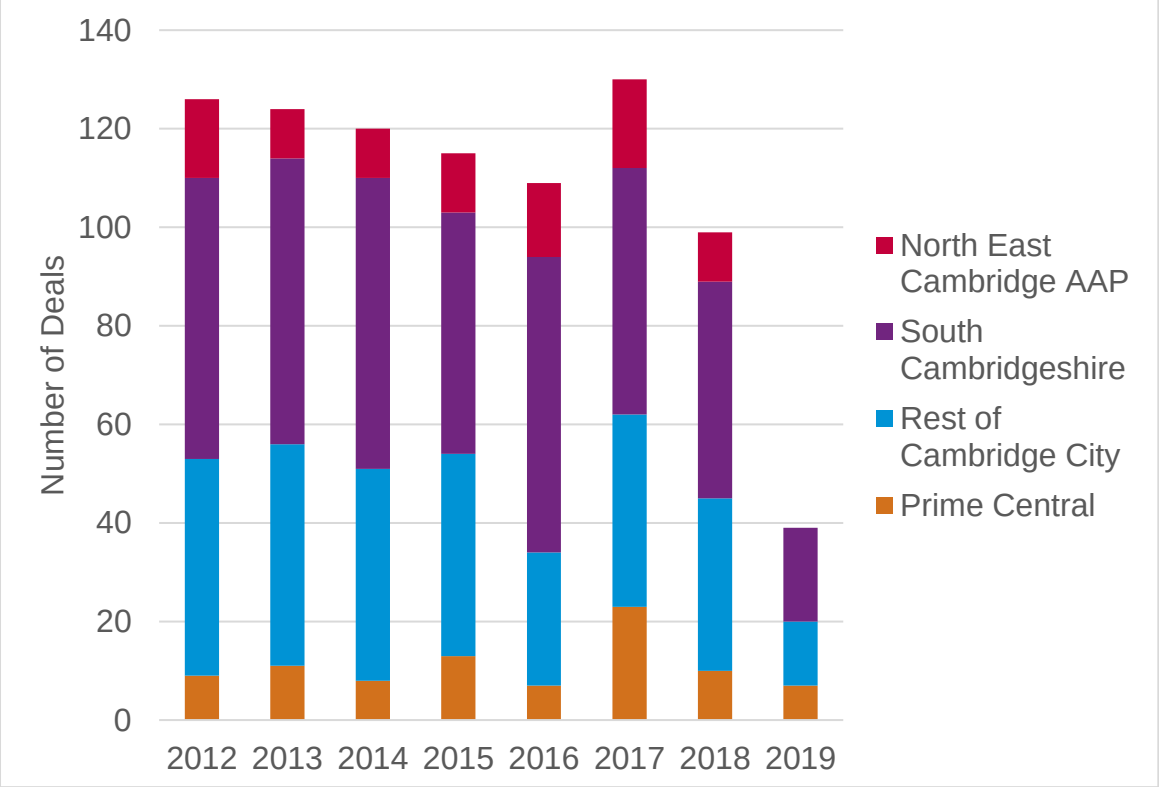
Figure 13: Office Take-up by Submarket (sqm)



Source: CoStar with GLH Analysis (2019 data incomplete)

2.42 Across the four submarkets, an average of 118 deals per annum between 2012 and 2018 took place for offices, with South Cambridgeshire having the highest average of 54 deals per annum, however these deals were highly concentrated in the lower size bands.

Figure 14: Office Take-up by Submarket by Number of Deals



Source: CoStar with GLH Analysis (2019 data incomplete)

2.43 As noted in the table below, deals tend to be much more evenly distributed across various size bands in both Prime Central and North East Cambridge, although overall deal counts were much lower. Typical occupiers in the Prime Central include high tech and other high-value businesses that require large prime floorspace. In North East Cambridge, the typical occupier centres more around research and development. The examples of deals occurring in these two submarkets will be covered under more detailed analysis further in the report.

Table 4: Office Take-Up by Size Band by Submarket, 2012-19

Size Band	North East Cambridge AAP	Prime Central	Rest of Cambridge	South Cambridgeshire
0-185 sqm	18%	23%	56%	62%
185-500 sqm	29%	28%	30%	22%
500-1,000 sqm	26%	25%	10%	9%
1,000-5,000 sqm	25%	22%	3%	6%
5,000-10,000 sqm	2%	2%	0%	1%
10,000+ sqm	0%	0%	0%	0%

Source: GLH analysis of CoStar data

2.44 An analysis of Year's supply or notional supply, based on a snapshot of availability on CoStar in August 2019, helps to understand how these various submarkets differ in terms of supply and demand.

2.45 Years supply is a calculation whereby the total amount of floorspace advertised as available on CoStar is divided by average annual take-up recorded on CoStar for the same area. This differs from *committed supply* as determined by planning authority monitoring data where allocations are not yet available to businesses as not built nor having planning permission. The formula for notional supply is represented as such below:

$$\text{Years Notional Supply} = \frac{\text{Current Availability}}{\text{Average Annual Floorspace Take-up}}$$

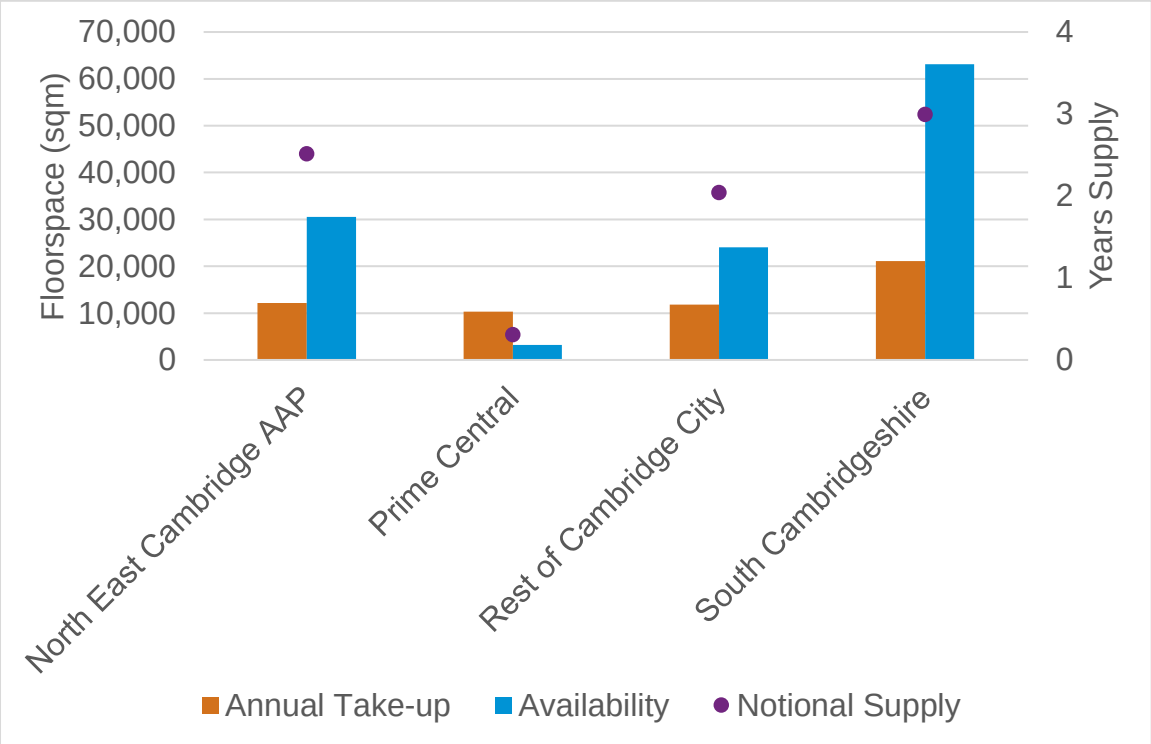
The calculation of notional available supply in years for South Cambridgeshire is articulated as:

$$\text{Years Supply} = \frac{63{,}094}{21{,}074}$$

$$\text{Years Supply} = 2.99$$

2.46 As evidenced below, the Prime Central Submarket faces the most severe supply pressures in Greater Cambridge. There is only a notional available supply of 0.31 years in Prime Central as compared to 2.99 years in South Cambridgeshire. This first indicator suggests that other areas of Greater Cambridge have the capacity to meet some of this demand occurring in more compressed markets. Other key availabilities include nearly 10,000 sqm of advertised office floorspace in South Cambridgeshire at the Babraham Research Campus and 5,800 sqm of office floorspace advertised for The Works at the Unity Campus on London Road Sawston in South Cambridgeshire.

Figure 15: Notional Years Available Supply by Submarket (Office)



Source: GLH analysis of CoStar data

2.47 Agent consultations also determined rental values between the various submarkets. These values were given in square feet as is standard in the industry.

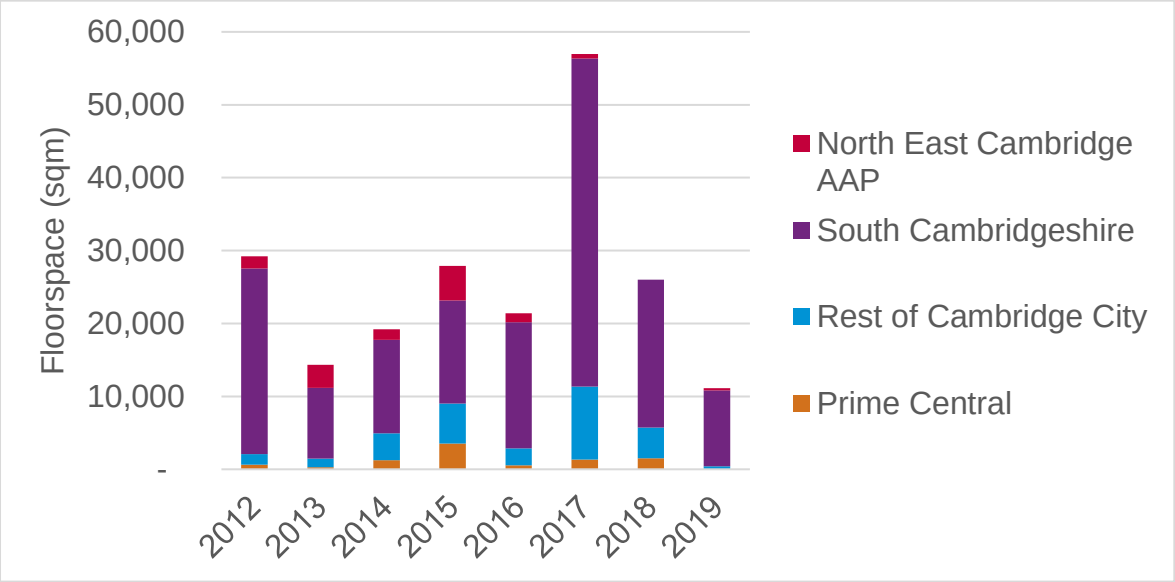
2.48 The Prime Central sees rents at around £35 per square foot (psf) or £375 per square metre (psm) for new office stock, offices in the North East Cambridge submarket typically see rents of about £30-£35 psf (£320 - £375 psm).

2.49 Further away from the Prime Central and North East Cambridge areas, rents are lower. For example, office space in parks and in the rest of South Cambridgeshire typically see headline rents around £25-£28 psf (£270 - £300 psm).

Industrial Market – Submarket Analysis

2.50 Across the four submarkets, an average of 28,000 sqm of industrial floorspace was transacted per annum between 2012 and 2018. South Cambridgeshire's proportion is significantly higher than the other submarkets, where an average of 21,000 sqm of floorspace per annum is transacted.

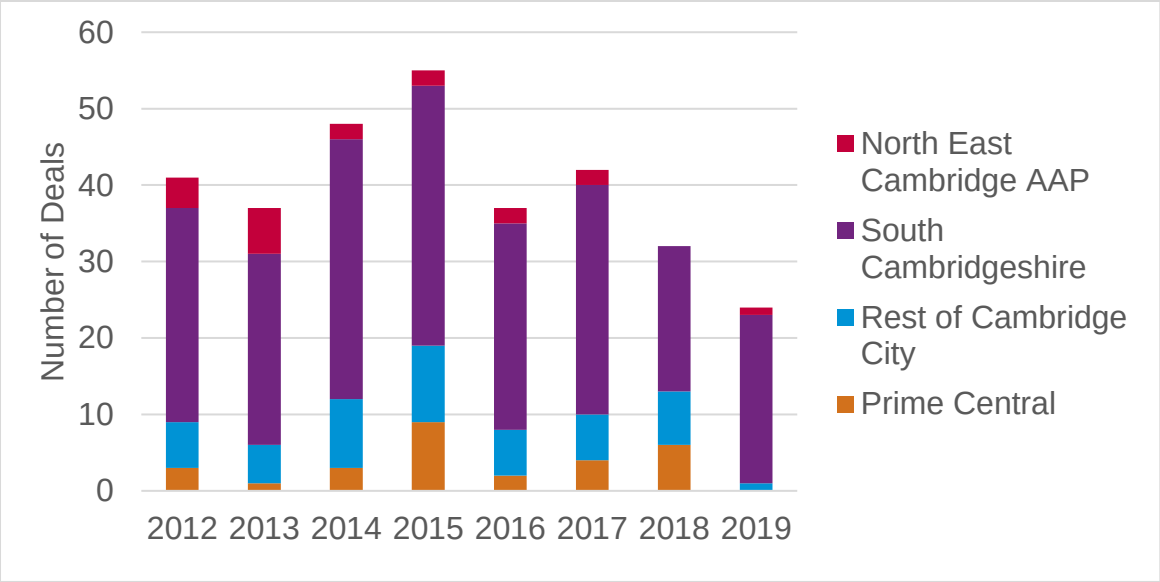
Figure 16: Industrial Take-up by Submarket (sqm)



Source: CoStar with GLH Analysis

2.51 In terms of the number of deals, South Cambridgeshire saw 30 deals on average per annum between 2012 and 2018, while the Rest of Cambridge saw 7 deals transacted on average per annum. The combined submarkets see a total of 43 deals per annum, meaning that by deal counts, North East Cambridge and the Prime Central see very little activity relative to their comparators.

Figure 17: Industrial Take-Up by Submarket by Number of Deals



Source: CoStar with GLH Analysis

2.52 In terms of deal counts, the Rest of Cambridge and North East Cambridge have distinctively greater representation in the higher size bands – inverse to the analysis of office floorspace.

Table 5: Industrial Take-Up by Size Band by Submarket, 2012-19

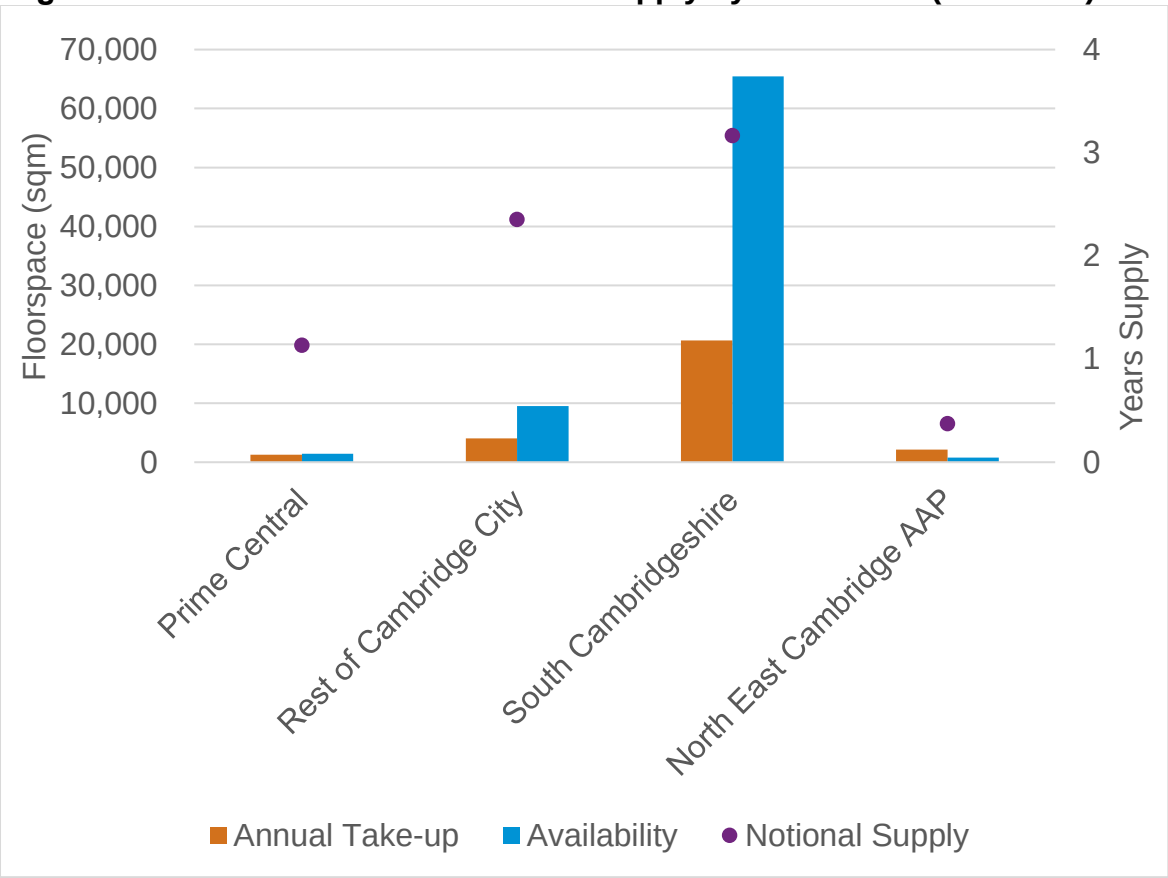
Size Band	North East Cambridge AAP	Prime Central	Rest of Cambridge	South Cambridgeshire
0-185 sqm	21%	7%	32%	34%
185-500 sqm	53%	75%	44%	29%
500-1,000 sqm	11%	18%	6%	22%
1,000-5,000 sqm	16%	0%	18%	14%
5,000-10,000 sqm	0%	0%	0%	0%
10,000+ sqm	0%	0%	0%	0%

Source: GLH analysis of CoStar data

2.53 Compared to the office market, the industrial market has a healthier average supply than the office market when looking at the advertised space on CoStar as of August 2019. However, the type of supply should be analysed further to determine if this supply is appropriate for meeting future need. 31,659 sqm of floorspace, almost one quarter of all availability, is due to advertised space for the former Spicers Site in Sawston, Cambridge. Full planning permission for development of part of the site by Huawei was granted on 14 August 2020[5]. There is limited industrial availability in North East Cambridge, with a combined 803 sqm listed in the Nuffield Road Industrial Estate.

[5] S/0158/20/FL

Figure 18: Notional Years Available Supply by Submarket (Industrial)

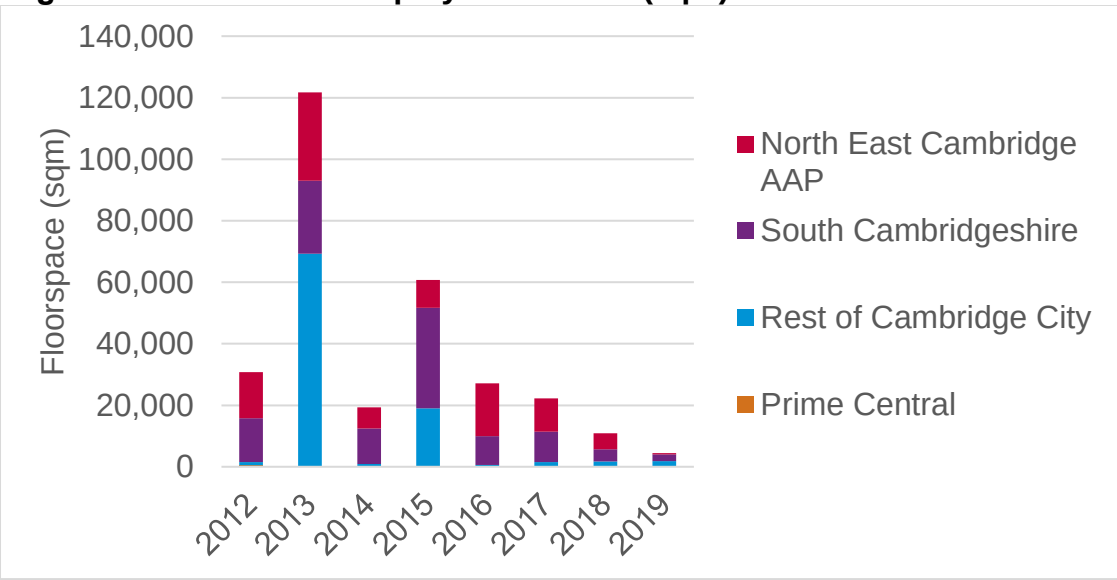


Source: GLH analysis of CoStar data

R&D Market – Submarket Analysis

2.54 Across the four submarkets, an average of 42,000 sqm of B1b floorspace was transacted per annum between 2012 and 2018. In comparing the various submarkets, South Cambridgeshire sees the greatest overall amount of take up per annum as compared to the other submarkets. An average of 15,000 sqm of floorspace is transacted per year, followed by the North East Cambridge AAP area, an area that is geographically much smaller than South Cambridgeshire but sees an average annual floorspace take-up of 13,000 sqm.

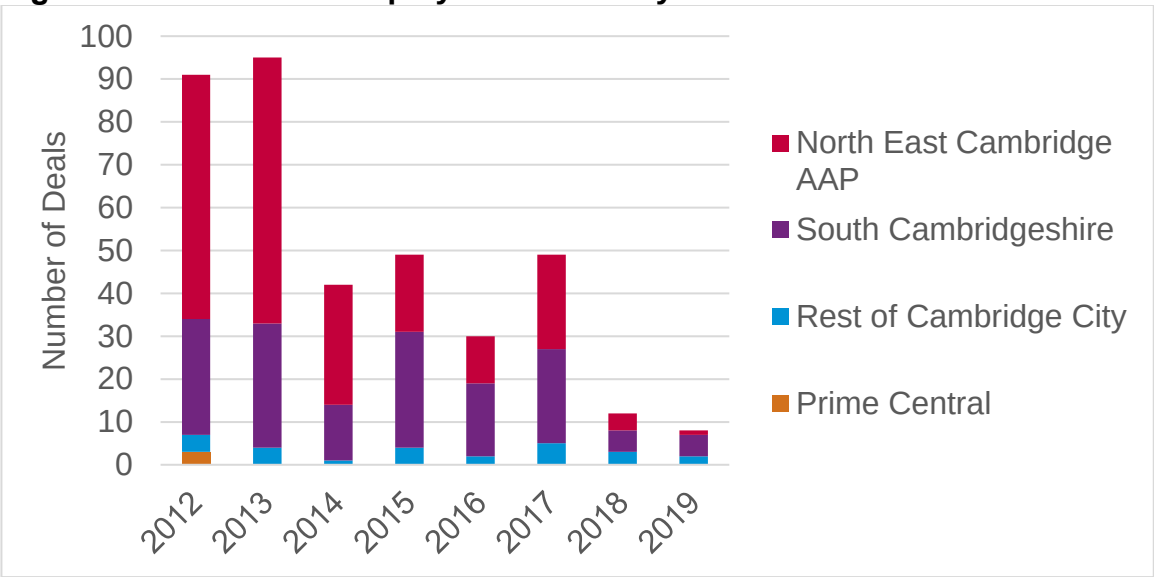
Figure 19: R&D Take-up by Submarket (sqm)



Source: CoStar with GLH Analysis (2019 data incomplete)

2.55 Across the four submarkets, an average of 53 deals per annum took place for R&D spaces, with North East Cambridge having the highest with an average of 29 deals per annum and South Cambridgeshire having 20 deals per annum. However, deals in North East Cambridge were highly concentrated in the lower size bands as compared to South Cambridgeshire.

Figure 20: R&D Take-up by Submarket by Number of Deals



Source: CoStar with GLH Analysis (2019 data incomplete)

2.56 As noted in the table below, deals tend to be much more evenly distributed across various size bands in both South Cambridgeshire and the Rest of Cambridge as compared to Prime Central, where deals tend to transact a smaller amount of floorspace.

Table 6: R&D Take-Up by Size Band by Submarket, 2012-19

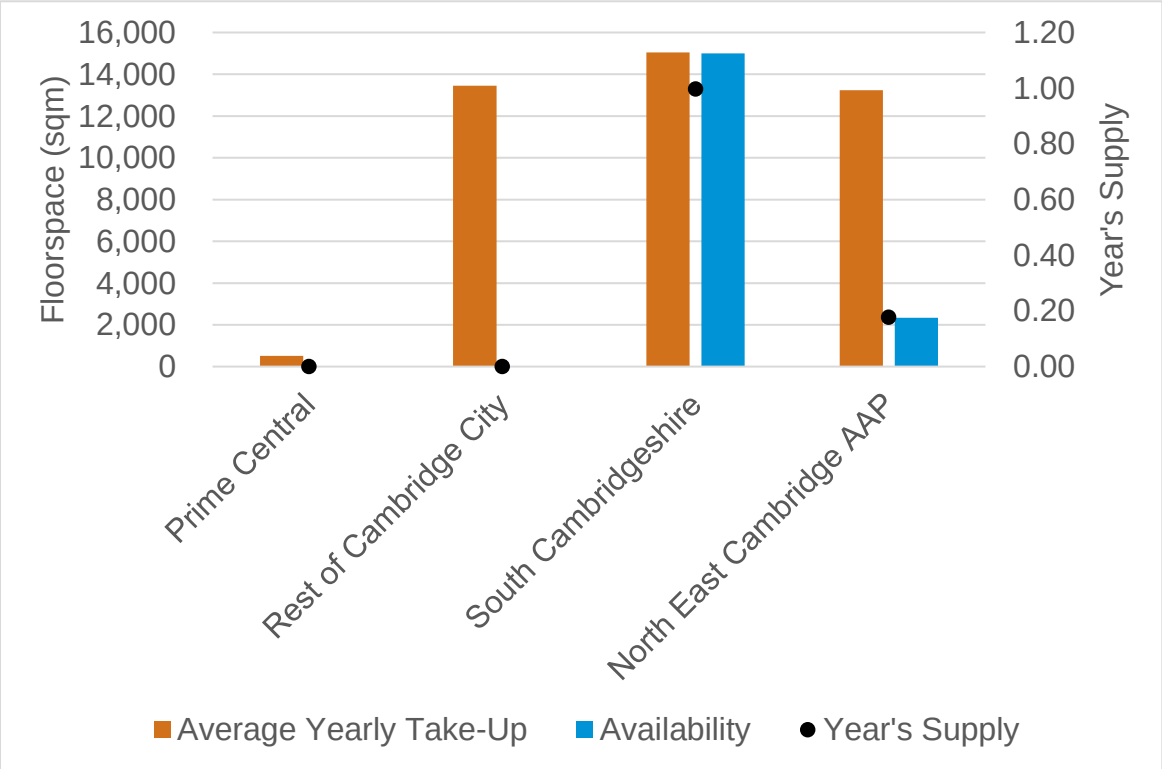
Size Band	Prime Central	North East Cambridge AAP	South Cambridgeshire	Rest of Cambridge
0-185 sqm	67%	64%	39%	20%
185-500 sqm	33%	12%	32%	48%
500-1,000 sqm	0%	11%	11%	12%
1,000-5,000 sqm	0%	11%	16%	12%
5,000-10,000 sqm	0%	1%	1%	0%
10,000+ sqm	0%	0%	1%	8%

Source: GLH analysis of CoStar data

2.57 An analysis of Year's supply, based on a snapshot of availability on EGi in October 2019, helps to understand how these various submarkets differ in terms of supply and demand. As evidenced in the chart below, almost all submarkets are noted to have high supply pressures as indicated by EGi availability.

2.58 Only South Cambridgeshire achieves a notional supply of 1 year whereas North East Cambridge, Prime Central, and the Rest of Cambridge have very little or no advertised R&D floorspace. Low notional supply could indicate several possibilities. For one, there could be high demand for available space and thus listings are taken down quickly. In addition, a lack of suitable floorspace could mean that very little space is available to be advertised. Finally, the spaces may not be advertised on EGi.

Figure 21: Notional Years Available Supply by Submarket (R&D)



Source: GLH analysis of CoStar data

2.59 Agent consultations also determined rental values between the various submarkets. These values were given in square feet as is standard in the industry.

2.60 For R&D lab space it is typically £45-£50 psf (£480 - £540 psm) to account for high requirements for wet and dry lab space, especially in areas close to the city centre. Offices in the North East Cambridge submarket typically see rents of about £30-£39 psf (£325 - £380 psm) for flexible R&D space.

2.61 Demand is extremely high for wet labs now, as space is highly specific, and companies are finding difficulty getting flexible high quality floorspace. There is an acute need for wet labs as their space needs are higher compared to dry labs.

2.62 The bio-medical sector is clustered to the south of Cambridge, in places like Granta Park. Further north, Cambridge Science Park does not have much wet lab space. For wet lab requirements, agents noted that requirements vary greatly by discipline and by occupier, thus it is difficult to generalise the requirements of R&D.

2.63 For instance, wet labs require infrastructure like drainage and thus require around double the floorspace per employee as compared to a dry lab.

2.64 Rents in a “prime” science park are roughly from £30-£39 psf (£325 - £420 psm). In a less prime research park (further away from the city centre), rents are around £23-£30 psf (£250 - £325 psm) for a combination of wet and dry lab requirements.

2.65 As said before, demand is extremely high in prime parks. Local agents report that there is typically a long list of occupiers, for example companies like Illumina (which is building a head office in Granta Park), that are on long waiting lists of over a year.

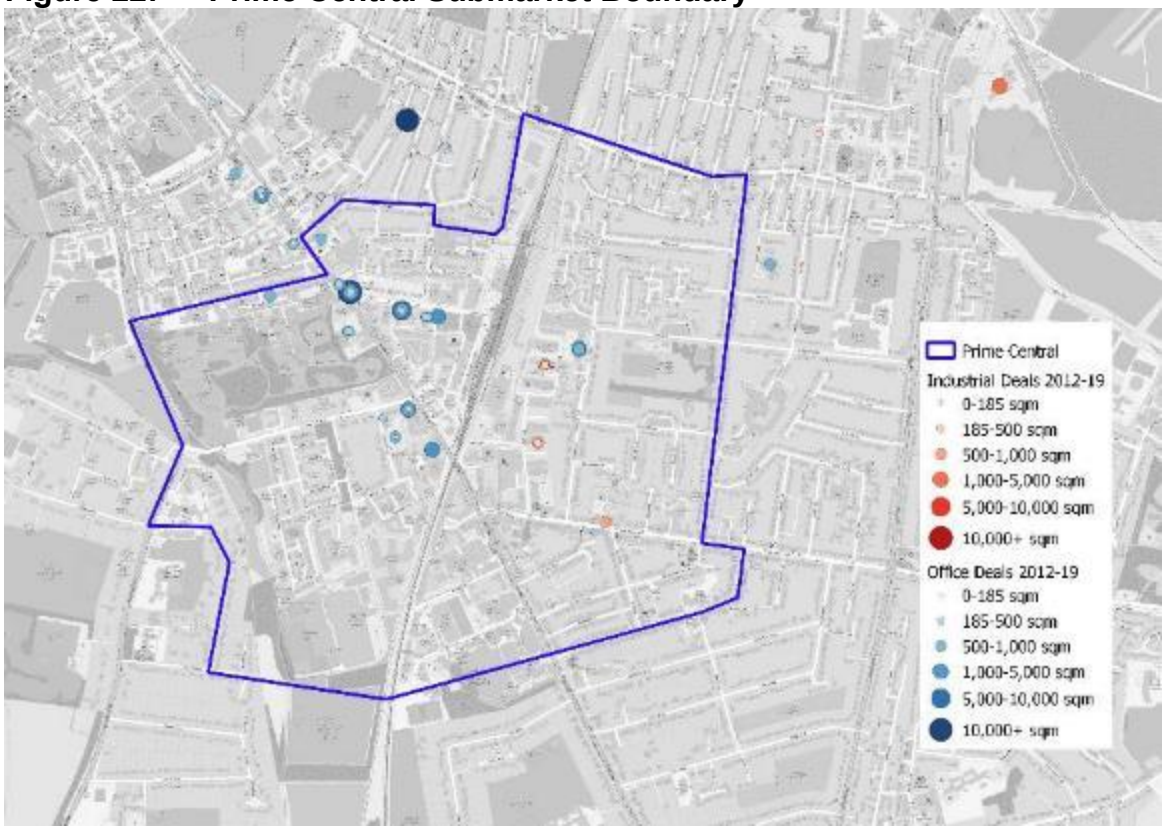
Prime Central Submarket

2.66 The Prime Central submarket comprises office floorspace within walking distance of Cambridge rail station, reaching Kings Cross within 50 minutes. Key office

occupiers in this area include Cambridge Microsoft (leasing 83,961 sqft or 7,800 sqm in 2013), Amazon (73,000 sqft or 6,782 sqm in 2017) and WeWork (40,000 sqft or 3,716 sqm in May 2019).

2.67 Prime office is the key type of industry in this submarket, with high concentrations of speculative development for said type of floorspace along Station Road.

Figure 22: Prime Central Submarket Boundary



Source: CoStar with GLH Analysis, 2019

Office

2.68 There have been several new construction office developments, including 50 and 60 Station Road. These form part of a new development from Aviva Investors as part of the CB1 development by Brookgate. Part of the space was leased to WeWork with a CoStar estimated rent of £34-£42 psf (£370-£450 psm).

2.69 According to CoStar, office inventory grew by nearly 40% in the submarket over the past five years, but vacancy has stayed mostly under 6% with two notable spikes in 2013 and 2017 as new prime office floorspace construction released stock into the market and then absorbed.

2.70 Commercial consultations noted that this area attracts workers looking for an easy commute from London, and that many workers rely on train travel, cycling or walking as a means of transportation. The CB1 scheme also has a mixture of student housing, retail and residential, which helps to achieve a level of dynamism needed to attract firms such as WeWork, Microsoft and Amazon.

2.71 Average asking rent for Prime Central office is around £33 psf (£450 psm), which is far higher than the surrounding submarkets and is £10 higher psf (£100 psm higher) than the surrounding Centre Periphery Submarket.

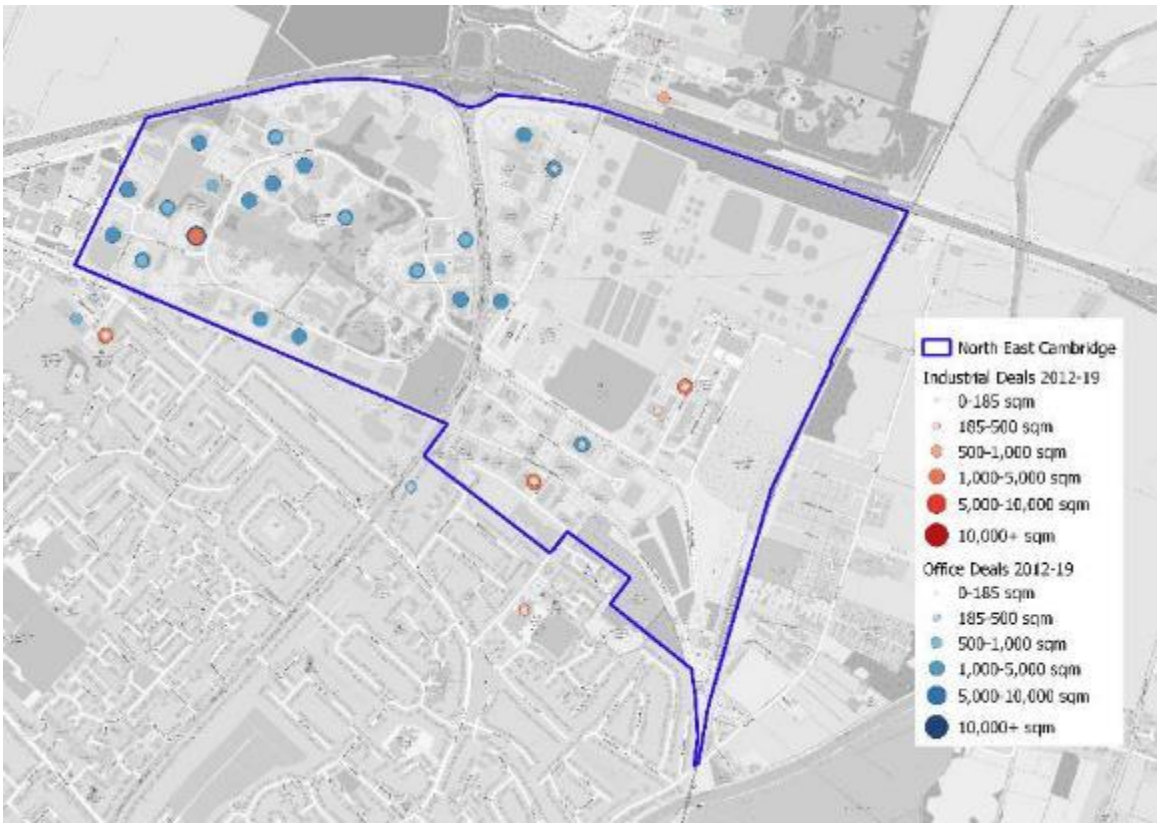
2.72 There are two more components to be built as part of the CB1 development, comprising 10/20 Station Road of 132,000 sqft (12,263 sqm), which is subject to planning permission, and 79,000 sqft (7,339 sqm) at 30 Station Road which is currently under construction. Past delivery and take-up on the site means that these buildings will be completed and leased quickly. The former Murdoch House will contain 767 sqm B1 as well as residential, a retail space, and a café.

2.73 Agents have noted that there are severe supply pressures for small to mid-sized office occupiers in the city core, particularly between 1,000 to 5,000 sqft (around 100 to 500 sqm). They noted that new large tenants with flexible working spaces like WeWork will be the only beneficiaries of these acute supply pressures.

North East Cambridge Area Action Plan Submarket

2.74 As noted previously, CoStar had a defined “Northern Cluster” boundary that has been adjusted to reflect the boundary of the North East Cambridge Area Action Plan (AAP).

Figure 23: North East Cambridge AAP Submarket Boundary



Source: CoStar and GLH Analysis

2.75 Key deals in this submarket in recent years include Takeda Pharmaceuticals taking up 48,000 sqft (4,459 sqm) in Cambridge Science Park. Agents also noted that technology firms typically prefer to be in this area if not in the City centre. 60,000 sqft (5,574 sqm) of tech was recently taken up in Cambridge Business Park.

Office

2.76 Agents noted that office space is desirable in the North East Cambridge cluster due to a presence of other “high-value” tech companies and R&D facilities. Key areas for offices include Cambridge Business Park and St. John’s Innovation Park.

2.77 As noted in the office analysis, floorspace take-up and availability remains highly concentrated in larger size-bands (above 500 sqm) in relation to other areas,

however agents noted that this is not due to low demand for smaller size bands, but rather a lack of viable supply. Agents noted that smaller office floorplates of high quality were not typically available in and around parks like Cambridge Business Park, which typically only houses HQ's of large businesses.

R&D

2.78 Consultation confirmed that this submarket is key for R&D due to Cambridge Science Park. The park has an R&D clause in its design and requirements, thus clustering development. There has been a shift in the past two years where some occupiers are taking space at Cambridge Bio-medical Campus adjacent to Addenbrookes Hospital on the southern edge of Cambridge.

2.79 R&D companies are focused on Cambridge Science Park and Cambridge Business Park within the North East Cambridge AAP area, but recently they are noted to be taking space around the Cambridge North train station. Agents explained that the recent opening of Cambridge North station in 2017 will continue to create more development opportunities, and thus many other high-value companies have now started looking to Cambridge North for easy transport links. Agents also stated that these "high value tenants" would also further exasperate the rental values for existing tenants in the area, similar to what has occurred close to Cambridge Station.

2.80 Agents, as they remarked similarly for office, noted that smaller R&D floorplates of high quality were not available in parks like Cambridge Science Park or St. John's Innovation Centre..

Industrial

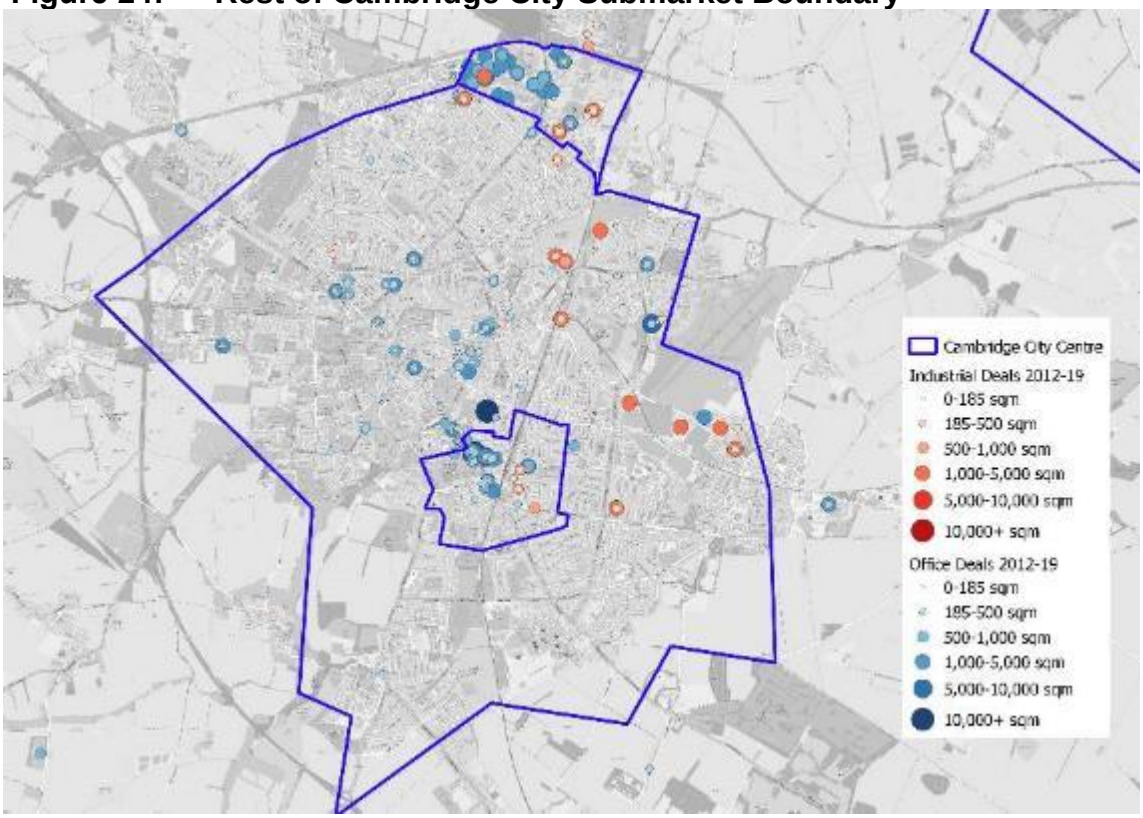
2.81 Agents noted that there is very low industrial vacancy in North East Cambridge, and that trade counter rents typically start at around £12 psf (£130) but can be greater. Rents have increased considerably in recent years reportedly due to reduced industrial floorspace across Cambridge and increasing local land use pressures through the new station opening. There are a mixture of occupiers in

North East Cambridge ranging from trade counter, building merchant, small light industrial to some heavy industry users such as the concrete batching plant.

2.82 In the context of intensification under the AAP, there is a broad agreement that the Cowley Road and Nuffield Road Industrial Estates occupiers are in some instances suited to relocation, depending on their requirements. For example, a group of businesses operate as trade counters, and could be suitable to relocate to areas further out such as Waterbeach. However, they are attracted to North East Cambridge due to locational proximity to the population mass of the city. Relocation could diminish trade but sufficient demand could see them survive in other suitably accessible locations outside the city. Other possible locations suggested by agents include villages such as Landbeach, Milton and Histon. Whilst some trade counters and local industrial uses could move elsewhere, in reality there continues to be low vacancy of a suitable type of units in these areas.

Rest of Cambridge City

Figure 24: Rest of Cambridge City Submarket Boundary



Source: CoStar and GLH Analysis

2.83 The Rest of the Cambridge City is also known as the “City centre Periphery” on CoStar. Vacancy for all types of commercial units has remained low because of a lack of new supply. Both CoStar and several local agents have confirmed that older and less prime office stock, which could have been utilised for SME’s, has been lost to alternative uses like student flats through permitted development.

Office

2.84 Residential values are much higher in this submarket compared to office use. Agents noted that developers have therefore been keen to maximise opportunities for residential space on the land, which exacerbates supply in the area that would have been suitable for SME’s.

2.85 At the smaller end of the industrial and commercial office market there are limited floorspace opportunities. One can find a prime office space for 15,000-20,000 sqft (around 1,400 to 1,800 sqm), but there is demand for smaller floorplates. There is now considered to be a shortage of office floorspace in the submarket.

R&D

2.86 R&D floorspace has a strong offer in other submarkets such as North East Cambridge, due to the established Cambridge Science Park with an explicit R&D clause, or in South Cambridgeshire with parks such as Cambridge Research Park (Landbeach), which have ample advertised floorspace for tenants. This submarket, despite the draw for R&D in other submarkets, is viewed to be attractive due to the proximity of the University West Cambridge Campus and other large institutional centres.

2.87 The submarket thus features key clusters of R&D employment sites around the city centre, University of Cambridge and Addenbrooke's Hospital, which also features the Cambridge Biomedical Campus.

Industrial

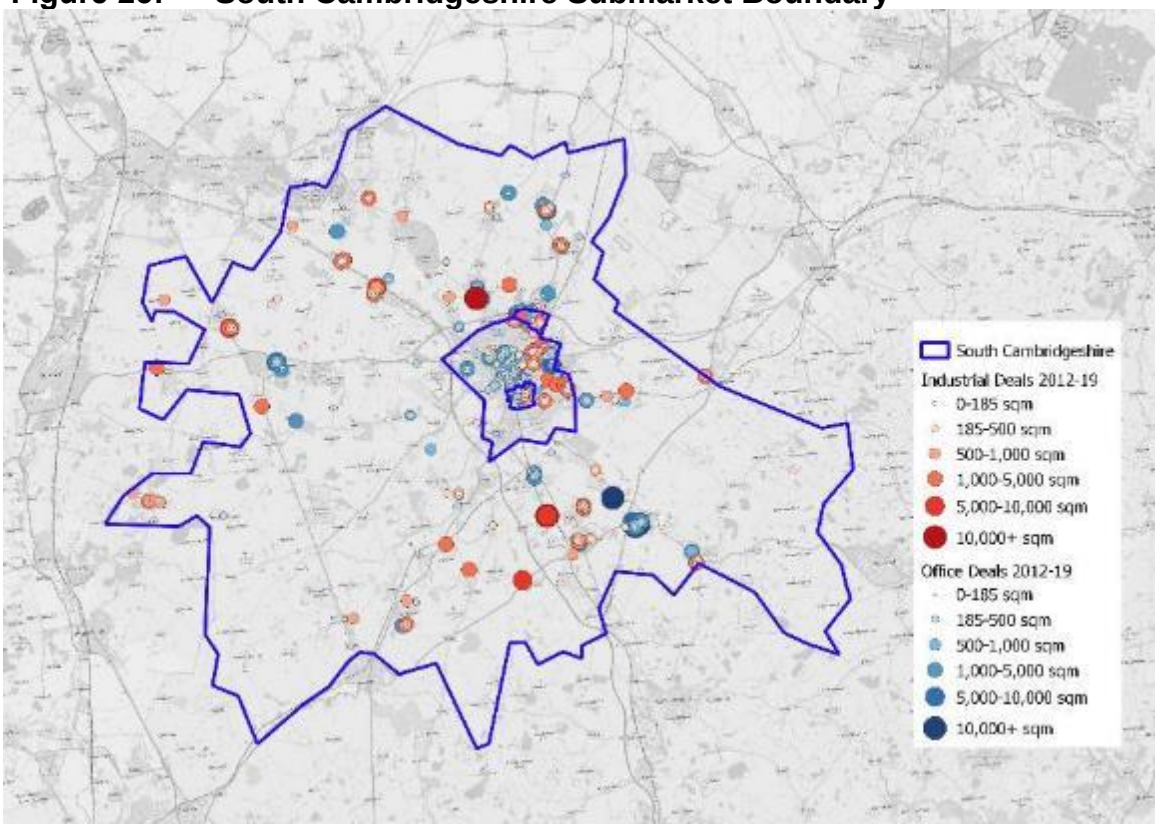
2.88 The industrial stock is dominated by estates of a single trade, such as accounts occupiers, and they have a strong interest in being located around the centre of Cambridge. Such tenants include the likes of Travis Perkins and Huws Gray Ridgeons. Agents noted that these occupiers are willing to pay strong headline rents against their smaller more local competitors.

2.89 In the industrial market, trade counters are typically popular in this submarket, and tenants are looking for 3,000-6,000 sqft (around 250 to 650 sqm) in size but are having difficulty finding affordable rents in recent years. Some supply could, according to agents, come from the Travis Perkins site which is up for redevelopment on Devonshire Road, but most of the time space is not available at a reasonable price in the submarket for typical small sheds.

2.90 The typical price point for trade counters and other sheds, as determined by agents, is £15.00-£15.50 psf (£160-£165 psm) in industrial parks around the Rest of Cambridge City such as the Coral Park Trading Estate along Newmarket Road, but more secondary areas are Coldham's Road, and Kings Court have rents of £12.00-£13.50 psf (£130-£145 psm). In terms of additional supply of industrial floorspace, standalone units in the Rest of Cambridge City of 25,000 sqft (2,300 sqm), trade counters and other self-storage occupiers would be taken up very quickly if brought to market.

South Cambridgeshire

Figure 25: South Cambridgeshire Submarket Boundary



Source: CoStar and GLH Analysis

2.91 The South Cambridgeshire submarket has the same boundary as the South Cambridgeshire authority, with the notable exception of the Cambridge Science

Park and St. John's House, which for the study is part of the North East Cambridge submarket. The South Cambridgeshire submarket surrounds the Prime Central, North East Cambridge and Rest of Cambridge Submarkets.

2.92 The areas within this submarket include the peripheral areas of the A14 comprising Girton, Histon, and Milton, along with other key employment areas including Babraham, Granta Park, Duxford, Melbourn, Cambourne, Bar Hill, and Waterbeach. The largest office parks include Granta Park and Cambourne Business Park.

2.93 According to agents, there is very little vacancy of a suitable type across both industrial or office markets. Overall for the submarket, agents noted that lower rents make it attractive in some sense, but that transport and clustering of "innovative" firms, along with attracting a highly skilled workforce mean that the South Cambridgeshire submarket will have challenges establishing these parks, such as Cambourne, in relation to those closer to rail stations or with an institutional tie.

2.94 Agents noted that small scale industrial uses being priced out of areas closer to central Cambridge and the North East Cambridge AAP area could find additional capacity in small areas in Histon and Milton but were not able to identify specific sites.

Office

2.95 Examples of office occupiers in this submarket include Nokia Networks UK and Vinci Construction in Cambourne Business Park, and Medimmune, Illumina and Gilead Sciences in Granta Park.

2.96 At the smaller end of the office market, occupiers are being pushed out from Cambridge Centre, according to agents. For example, one can find an office for 15,000-20,000 sqft (1,400-1,850 sqm), but often these floorplates do not support new small to medium enterprises that want smaller floorplates.

2.97 As noted in other submarkets, office workers are very sensitive to transport connections to the out of Cambridge business parks. Thus, many occupiers prefer their prime offices in either the Prime Central submarket or North East Cambridge submarket. Enhanced transport connections would help to change this perception.

R&D

2.98 In terms of R&D, agents noted a requirement for mechanical and electrical (M&E) specifications, meaning that this type of occupier requires very specific spaces with provisions for wet and dry labs.

2.99 North East Cambridge and the area around the university have, according to agents, the most “on offer”, however South Cambridgeshire research parks are noted to be becoming more attractive for those looking to congregate with other research groups.

2.100 For example, Cambridge Research Park (Landbeach) is becoming more attractive to science and research tenants. The challenge for this park, as it was noted for other South Cambridgeshire parks, is a question on how people get to the location. Many tech workers were noted as preferring not to drive and thus difficult to convince them to commute beyond the major train stations.

2.101 Transport links are improving but at a slow rate, however this is to be caveated that improvements to the A10, and public transport improvements such as the Waterbeach Station move (which includes cycling infrastructure), are proposed in the Local Transport Plan in South Cambridgeshire.

Industrial

2.102 Older industrial areas are changing and thus are affecting distribution of small-unit industrial sheds in Greater Cambridge. According to agents, industrial occupiers were paying £4-£5 psf (£45-£55 psm) for sheds historically for many years. Supply pressures recently, however, mean that floorplates of 2,000-10,000 sqft (185-930 sqm) have suddenly experienced an increase of rents to up to £10 psf (£110 psm).

2.103 This affordability issue could price certain small floorplate industrial units out of Cambridge and into Landbeach, Waterbeach and other peripheral villages. Converted farm buildings could provide some supply for small industrial uses. The alternative for small industrial sheds looking to relocate in South Cambridgeshire would be to go to another area such as Milton or Histon, however agents cited traffic issues and lack of available space as impediments for relocation.

2.104 Although the logistics market is much stronger in places such as Peterborough, there is still a market for “last mile” logistics companies in South Cambridgeshire. For example, Hermes, DHL tend to have warehouses away from the centre of Cambridge. One example is the DHL and Supply Plus warehouses in Papworth Business Park, where rents are lower than in the city centre but where occupiers can still deliver to customers in Greater Cambridge quickly and efficiently.

2.105 Demand for parcel deliveries from customers and the corresponding business need for warehouse space has steadily increased over the past five years. For example, one agent cited that one non-disclosed company recently bought a warehouse right on the edge of Cambridge, where someone will deliver via bicycles as opposed to lorries.

2.106 Agents also noted that there has been a “big appetite” recently for owner-occupied buildings. Logistics occupiers were cited to have been waiting for a “certain product” to come to the market but often have not been able to find suitable floorspace.

2.107 Rents in areas across South Cambridgeshire for trade counters was noted to be increasing in the past few years. Agents noted that these trade counters typically require being within 3 miles of the city centre. Areas such as Bar Hill and Waterbeach, for example, were noted to have rents rise to around £8-9 psf (£85-£100 psm) for suitable trade counters. Finally, prime trade counter stock in this

submarket is within the range of £15.50 psf (£170 psm), which would only be afforded by national chains.

Conclusions

2.108 Greater Cambridge currently has a strong office market, which has experienced floorspace gains. Over the past 17 years, Greater Cambridge's office stock has seen moderate growth from 634,000 sqm in 2000/01 to 907,000 sqm in 2018/19. This represents a 41% growth over this period and an annual growth rate of 2%. It is to be noted, however, that most office floorspace growth is occurring in South Cambridgeshire.

2.109 Over the past 17 years, Greater Cambridge industrial stock has grown from 1,095,000 sqm in 2000/01 to 1,145,000 sqm in 2018/19. This represents a 5% growth over this period and an annual growth rate of 0.2% per annum. However, Cambridge has lost nearly a third of its industrial floorspace over the same period while South Cambridgeshire achieved larger gains in absolute terms.

2.110 Deals for both office and industrial tend to cluster in the city around North East Cambridge and along key transport corridors and hubs in South Cambridgeshire.

2.111 In terms of submarkets, office floorspace transactions tend to be in higher size bands in the submarkets of Prime Central and North East Cambridge. Backed by agent commentary, the evidence shows that there is limited supply in these two submarkets, especially for smaller occupiers looking for quality space. One of the reasons for this lack of supply is permitted development along with high residential values results in these buildings being converted to student housing or other residential uses.

2.112 For the industrial markets, the greatest amount of floorspace transacted in both number of deals and floorspace were in the South Cambridgeshire and Rest of Cambridge City submarkets. According to agents, there is some capacity subject to

availability for smaller industrial units to move from areas within North East Cambridge to surrounding peripheral market towns and large villages within a 10 mile-drive of Cambridge.

2.113 R&D deals almost exclusively transacted in parks with a clustering or R&D clause. Deals tend to be much more evenly distributed across various size bands in both South Cambridgeshire and the Rest of Cambridge as compared to Prime Central and North East Cambridge, where deals tend to be in smaller size bands. There are acute availability pressures across the various submarkets for R&D, with consultations revealing that there is a shortage of good quality and available space for occupiers.

3 ECONOMIC CLUSTERS IN GREATER CAMBRIDGE

Introduction

3.1 This section considers the challenges and opportunities faced by different sectors and clusters in the Greater Cambridge area, including locational and workspace requirements for businesses of different sizes and, broadly, different lifecycle "stages". The principal purpose of the review is to inform the development of future planning policy.

3.2 The information presented has largely been gathered through engagement with a range of stakeholders from the private, public and third sector operating in or with interest in Greater Cambridge. These include:

- Babraham Research Campus
- Cambourne Business Park
- Cambridge Ahead
- Cambridgeshire Chambers of Commerce
- Cambridgeshire and Peterborough Combined Authority
- Cambridge Science Park
- East Cambridgeshire District Council
- Federation of Small Businesses
- Greater Cambridge Partnership
- Huntingdonshire District Council
- Institute for Manufacturing
- Make UK
- One Nucleus
- Opportunity Peterborough
- The Cambridge Network
- University of Cambridge Enterprise

- University of Cambridge Centre for Business Research

3.3 Cambridge Ahead's Cluster Insights resources (available at www.cambridgeahead.co.uk) have also been considered.

3.4 The narrative relating to the growth of the Greater Cambridge economy has been well documented for decades – from the original study of the Cambridge Phenomenon in 1985 to the study of the "Cambridge Cluster at 50" in 2011, to more recent work including the evidence base surrounding the Cambridgeshire and Peterborough Local Industrial Strategy (LIS). Consistent with these publications, this cluster review focuses on:

- Life Sciences (including healthcare, biotechnology and biomedical activities)
- Information Technology and Communications (ICT) including digital technology and artificial intelligence
- High Tech Manufacturing (the making of physical products, often a critical feeder service to other sectors)
- Professional services and knowledge intensive services (including traditional business services and knowledge activities related to research and development not captured otherwise)

3.5 Activities within these clusters do not fit neatly into standard industrial classification (SIC) codes – not least because it is the overlaps between them that frequently provide the focus for innovation and growth. The groupings are more closely aligned to the Cambridge Ahead research undertaken by the Centre for Business Research which classifies Cambridge companies based on their Companies House registration and economic activities. Detailed methodological descriptions are available on the Cambridge Ahead website[6]. These definitions also align with the sector strengths set out in the Cambridgeshire and Peterborough Local Industrial Strategy (LIS) and the Cambridgeshire and Peterborough Independent Economic Review (CPIER).

[6] https://www.cambridgeahead.co.uk/cambridge-cluster-insights/cambridge-cluster-insights-for-researchers/

3.6 Both the LIS and CPIER report also identify agri-tech[7] as a sector of focus across the Cambridgeshire and Peterborough area. Engagement with stakeholders suggested that in the immediate area around Greater Cambridge, the other four clusters ought to be the principal focus. However, agri-tech is not unimportant and we do therefore consider it in the pages that follow.

Spatial Distribution of Clusters

3.7 Greater Cambridge has a range of key employment locations providing for the sectors referred to above. These include the city centre and the CB1 area around the main railway station, as well as business and science parks typically in campus style accommodation.

Life Sciences

3.8 Life sciences (including healthcare, biotechnology and biomedical activities) are strongly research intensive and require B1b wet lab or B1a/b wet/dry floorspace with supporting offices. A wet lab, or experimental lab, is a type of laboratory where it is necessary to handle various types of chemicals and potential "wet" hazards, so the room has to be carefully designed, constructed, and controlled to avoid spillage and contamination. A dry lab might have large experimental equipment but minimal chemicals, or instruments for analysing data produced elsewhere.

3.9 Greater Cambridge's global significance in these sectors links directly to its underlying research strengths. Many small firms in the cluster have direct or indirect links to major research centres, whether formally part of the University of Cambridge or linked more directly to the major charities (like CR-UK) and funding councils (e.g. Medical Research Council or MRC). Some have specialist property requirements (e.g. in relation to wet lab space) and some require proximity to

[7] The use of technology in agriculture, horticulture or aquaculture with the aim of improving yield, efficiency and profitability.

clinical medicine. In addition, particularly since the opening of the Francis Crick Institute near St Pancras, the importance of links with London is growing.

3.10 Within this context, there are a number of notable concentrations. Most significant are Addenbrooke's Hospital and Cambridge Biomedical Campus on the southern edge of city; here, the prospect of a Cambridge South railway station is likely to be important in relation to future growth. Further out, there are major centres across the south and south east of South Cambridgeshire including Babraham Research Campus, Wellcome Trust Genome Campus (Hinxton), Granta Park (Great Abington), Sagentia Research Park (Harston) and – further south – Melbourn Science Park. Other key hubs include Cambridge Research Park (Landbeach) to the north of the city, and St John's Innovation Park and Cambridge Science Park at the north east edge of Cambridge.

3.11 According to Cambridge Ahead there are around 350 life sciences businesses operating in Greater Cambridge. These vary considerably in employment size. A large proportion of businesses employ between 10 and 50 people. A small number of businesses employ less than 10 people which are mostly spin-outs and around 20 businesses employ over 150 people[8].

ICT and Professional Services

3.12 ICT and Professional Services floorspace needs are typically B1a offices or B1a/b dry lab with offices. They are considered together here given the similarity in their accommodation needs. Professional services typically focus on B1a offices at densities of around 9 sqm in Cambridge including NEC but rising up to 12 sqm in office park locations where space is less of a premium. ICT services are similar however their dry lab B1b space might include a range from computer hardware development testing to gaming and virtual reality screen rooms. Agent feedback indicates that such spaces are comparable to office densities but can in some instances be higher.

[8] www.cambridgeahead.co.uk

3.13 The high concentration of jobs locating in and around the city itself reflects the historic role of Cambridge as a regional employment and services centre and the related agglomeration benefits. This has been reinforced by recent development patterns: the city centre, Station Road and Hills Road have seen the delivery of major new office buildings, catering to the accommodation needs of businesses particularly in ICT and Professional Services.

3.14 These sectors also have a presence outside the city centre. Well-established locations include most prominently Cambridge Science Park in north east Cambridge which whilst hosting a range of life sciences firms also has a very significant presence of ICT businesses including Toshiba and Huawei. Further locations include Cambridge Research Park (Landbeach) and Cambridge Innovation Park (Waterbeach) to the north of Cambridge, St John's Innovation Park, Cambridge Business Park and Cambourne Business Park to the west of Cambridge.

3.15 The Cambridge Compass Enterprise Zone includes land at Northstowe, part of Cambourne Business Park and Cambridge Research Park (Landbeach), as well as Lancaster Way, Ely and Haverhill Research Park outside Greater Cambridge. Stakeholder feedback has suggested that the Enterprise Zone designation is having some success in stimulating growth of businesses in out of centre locations.

3.16 A number of locations accommodate the office floorspace needs of businesses in ICT and Professional Services alongside floorspace for a mix of other land use types. For instance, Vision Park is a well-established employment site in Histon with office floorspace and industrial floorspace.

Advanced Manufacturing

3.17 Consistent with national patterns, there has been a long-term decline in traditional manufacturing in Greater Cambridge with more activity occurring overseas or in areas with lower land values and cheaper labour. Greater Cambridge has seen

general manufacturing businesses relocating to locations including the Midlands and Peterborough. High tech manufacturers locating in Greater Cambridge tend to benefit from supply chain requirements of other knowledge services including life sciences and ICT / digital. However, there are also very long-established advanced manufacturing businesses in the area, and there is also a strong link to research strengths, both within the University of Cambridge and more generally. Cambridge Ahead considers there to be some 700 Advanced Manufacturing firms across the area.

3.18 Across Greater Cambridge, there are a number of locations hosting advanced manufacturing businesses with specialisms in electronics, aerospace, robotics, printing technologies, etc.:

- In the north of Greater Cambridge, there are concentrations of advanced manufacturing within some of the villages - notably Waterbeach, Cottenham and Bar Hill. Businesses located in this concentration include Aquasium Technology Ltd which designs and manufactures electron beam welding and vacuum furnace equipment serving markets in the automotive, electronics and medical industries, and Xaar, manufacturers of inkjet technologies.
- In the east, there is advanced manufacturing at the Marshall Group site with Proquest European Holdings occupying floorspace alongside the aerospace engineering and defence activity at the Marshall site – albeit with Marshall Group announcing in 2019 the intention to relocate to Cranfield, Duxford or Wyton before 2030.
- In the south, there are concentrations of advanced manufacturers at Sawston, Hinxton, Duxford and Melbourn. Hexcel, an advanced manufacturer of composite materials for aerospace, defence and industrial markets, is located in Duxford and a significant employer in advanced manufacturing in Greater Cambridge with around 500 employees. Melbourn Science Park accommodates advanced manufacturing businesses such as TTP Labtech

which manufactures science and pharmaceutical equipment, and Tonejet which is developing new printing/packaging solutions.

- There is a small cluster in the west including Carl Zeiss Microscopy Ltd in Cambourne.

Stages in the Business Lifecycle

3.19 Stakeholder discussions considered stages in the business lifecycle to further understand growth dynamics and the implications for commercial property. However, it is worth noting that business models vary substantially both within and between different clusters, and conventional thinking in terms of a linear "lifecycle" may not always be helpful.

Life Sciences

3.20 New businesses in the Life Science sector typically have long incubation and pre-revenue periods; and in practice, many are acquired before they become revenue generating. In this context, early stage businesses typically occupy around 500 sq. ft for dry laboratory floorspace and around 1,000 to 1,500 sq. ft for wet laboratory floorspace. They often seek short term lets given the level of uncertainty and risk involved.

3.21 Established campuses such as Wellcome Genome Campus (Hinxton), Cambridge Science Park and Babraham Research Campus offer laboratory floorspace. Importantly, they provide space for early stage ventures on short term lets. Babraham is particularly focused on start up and grow up space offering small lab and office space with a mission of being the best place in Europe to start-up and scale-up a life science business[9]. The Wellcome Genome Campus offers start up dry lab space such as the BioData Innovation Centre, an incubator-style building housing genomics and biodata businesses of a range of sizes and stages of development.

[9] https://www.babraham.com/campus/

3.22 Some businesses then transition to the scale-up stage where they start to commercialise ideas and are in a position to grow and employ more staff (although many are either acquired or simply run out of cash). At this point, they may seek to relocate to larger premises. For businesses occupying dry laboratories, they may seek to expand up to around 20,000 sq. ft and for wet laboratories, typical scale-up floorspace requirements range between 1,500 to 3,000 sq. ft. A study commissioned by Cambridge Ahead in 2017[10] provides a useful overview of the requirements and specifications of life sciences start up accommodation.

3.23 Granta Park (Great Abington) is primarily designed for larger well-established businesses that occupy wet and dry laboratory space with floorplates ranging from 50,000 sq. ft to 97,500 sq. ft. In comparison, Cambridge Science Park has a wider range of units for each stage of the business cycle and there is scope to accommodate businesses on floorplates of up to 50,000 sq. ft. For the most part, the larger life sciences companies in Greater Cambridge are the result of acquisitions and most of the major global pharmaceuticals businesses have a sizeable presence in the Cambridge area as a result.

ICT and Professional Services

3.24 ICT and professional services firms are similar insofar as both essentially rely on B1 office space to meet their accommodation needs. Beyond that, however, there are differences both within and between them and an "average" business life cycle is impossible to describe. Some ICT firms have strong links to the research base (although many do not), and professional services firms in Greater Cambridge may or may not have a strong link into the local market. Increasingly, links with London are important, and developments at CB1 have helped to facilitate these due to the proximity to Cambridge Railway Station.

3.25 Early stage businesses typically seek flexible office floorspace often on short term let arrangements. Requirements include office buildings that offer a choice of

[10] 'Review of Wet Lab Space and Incubator Space for the Life Sciences in the Cambridge Area', Cambridge Real Estate Research Centre, University of Cambridge, 2017

private offices, work space that is shared with other businesses and hot desks; equally though, if businesses do start to grow, the scope for *in situ* expansion is often welcomed. Spaces that are typically required at this stage are floorspace densities of less than 1 employee per 100 sq ft. The typical floorspace requirements of start-up businesses can be just a few desks within a hot desking environment that has a range of supporting facilities and community spaces for interaction, knowledge sharing and business support.

3.26 In both ICT and professional services, the relationship between floorspace and growth are increasingly indirect. Through remote and home working, effective densities are increasing quickly and business models are evolving to be more virtual in character; many businesses will see growth without a commensurate increase in floorspace. Equally though, within these sectors, some businesses may grow very quickly – and games companies may be a case in point. In these circumstances, it is important that appropriate office space is available so a supply of flexible offices or managed workspaces in the marketplace is needed.

3.27 There are many locations across Greater Cambridge that provide office floorspace for early stages in the business cycle. One example is St John's Innovation Centre where there are around 95 units designed to accommodate from two to 40 people. At St John's Innovation Centre, there is a central reception and shared common areas which support knowledge sharing and collaboration. Cambridge Business Lounge provides a central CB1 location for co working and hot desking. Outside of the city centre, Cambridge Business Park, St John's Innovation Park, Cambridge Innovation Park (Waterbeach)provide incubator space. At Cambridge Innovation Park, Stirling House provides for start-up and small businesses in a co-working office layout. This space predominately hosts businesses in high-tech, IT and professional services and occupiers benefit from the collaborative environment. At Cambourne Business Park, Regus provides flexible floorspace and offers short

term let arrangements. Businesses in IT, telecommunications, research and development and professional services occupy space at Regus.

3.28 Larger scale office accommodation – consistent with the needs of substantial ICT and professional service firms – is available at (for example) Capital Park (Fulbourn), Cambridge Business Park and Cambourne Business Park. Cambridge Science Park provides various sizes of office floorspace – including multi-occupier buildings at around 40,000 sq. ft or floors ranging from 10,000 sq. ft. to 17,000 sq. ft. CB1 in Cambridge city centre is made up of six new office buildings ranging in total floorspace supply. For instance, One Station Square provides 129,000 sq. ft, accommodating Amazon, Deloitte and Carter Jonas; while 22 Station Road provides a total of 64,800 sq. ft hosting businesses such as Mott MacDonald, Slater and Gordon, Stace and Birketts.

Advanced Manufacturing

3.29 Advanced manufacturing businesses assume many different forms, and their property requirements are equally variable. Some may not have a physical product initially, although many will need to accommodate at least small scale manufacturing from the outset. As a result, they are variable in the type of space they require – this may include light industrial floorspace, but also office space and, in some cases, laboratory space. More generally, there is a need for multi-purpose buildings - sometimes with either industrial, laboratory or storage floorspace on the ground floor and office floorspace used for administration on the floor above.

3.30 Some locations such as industrial estates in Histon and Impington, Sawston, Melbourn Science Park, and Cambridge Research Park respond to the floorspace needs of advanced manufacturers. For instance, manufacturers at Melbourn Science Park such as TTP Labtech and AstraZeneca design, make and package technologies to support the life science applications on site. Floorspace at Melbourn Science Park has flexible buildings that are adaptive for general purpose laboratories and manufacturing space. Across Greater Cambridge, there are

examples of advanced manufacturers graduating from specialist to more generic space as they grow. One example mentioned during our consultations was Kaizen Technology. It started in Melbourn Science Park ten years ago and has grown to 40 employees; it has outgrown the laboratory/industrial floorspace at the park and relocated to an industrial estate on the south of Melbourn village.

Locational Factors

3.31 There are various factors influencing the spatial distribution of key sectors in Greater Cambridge. Some relate intrinsically to the nature of business models and others are driven more straightforwardly by cost considerations. Factors mentioned by stakeholder consultees are considered in outline below.

Clustering and Agglomeration

3.32 Clustering and agglomeration benefits are well documented in economic literature – see “Cambridge Cluster at 50” amongst others. Clustering benefits occur at the site specific (exchange of ideas, information, resources) and wider area level (pool of labour, concentration of businesses). Clusters termed in this report are typically identified at the Greater Cambridge level.

3.33 Clustering and agglomeration benefits are most obviously applicable to the life sciences. This reflects close links to the research institutions and – in some cases – the need for proximity to clinical medicine. It may also be in part a consequence of very specialist requirements in relation to property. The Cambridge Biomedical Campus which is located alongside Addenbrooke’s Hospital is important in these terms where there are tangible proximity benefits. The Wellcome Genome Campus (Hinxton) is also a major research-intensive hub; it now has a very significant expansion plan with a planning committee resolution to grant planning permission. These instances have benefits from site-specific exchange of ideas and materials. However the development of other campus / business parks across the study area – not least Granta Park - demonstrates the ability of life sciences companies to grow around Greater Cambridge – recognising the footprint of the specialist labour

market and the fact that not every life sciences business requires adjacency to a research centre or hospital.

3.34 Businesses in the other sectors under consideration generally have less of a requirement for proximity – although across Greater Cambridge's knowledge-based economy, there are benefits associated with knowledge spill-overs, access to specialist finance, and a very distinctive local labour market. These may well not be fully codified, but they are important nevertheless and they are a more general expression of clustering and agglomeration. The concentration of ICT businesses in Cambridge Science Park / Business Park and surrounds is recognised as the most desirable location for office / dry lab R&D premises although perhaps the critical mass and proximity to Cambridge as a labour pool more important than the proximity to other businesses.

3.35 Clustering proximity requirements and benefits vary on a sector to sector and business to business level. Skill specific labour availability is a key driver for Cambridge clusters, linked to the historic research institutes. Location specific growth allows for a concentration of activity and sharing of amenities – such as the Wellcome Genome Campus (Hinxton). However many individual locations have physical growth constraints requiring alternative but reasonably accessible development opportunities. Whilst there are initial start up costs to this, examples across the area demonstrate that new concentrations can be developed given investment and suitable access.

Affordability of Floorspace

3.36 Office rents are around £40 per sq. ft. for Grade A floorspace in the city centre. Businesses in the ICT sector including in particular software development and the gaming sector typically prefer city centre locations where there is the strongest competition for floorspace. Google, Microsoft and Apple occupy floorspace near to the station (in part because of the access it provides to London).

3.37 In out of centre locations, rental values are around £25 to £28 for prime floorspace and around £22 per sq. ft. for secondary floorspace. The rental value in some out of centre office parks can carry a premium as the park provides amenities. For example, Cambridge Research Park (Landbeach) and Cambridge Innovation Park (Waterbeach) have on site fitness training facilities, food retail options and open space.

3.38 The rental value of wet laboratories is generally consistent across Greater Cambridge at around £60-£65 per sq. ft which includes service charges and business rates. Given the rental values are fairly consistent across the study area, stakeholders identified that rather than affordability, the issue is more about finding available floorspace in campuses with flexible tenancies.

3.39 As land values and rents continue to increase, existing industrial users are moving to established estates on the fringe of villages. In the Advanced Manufacturing sector, businesses tend to locate in established industrial estates in out of centre locations. They tend to have larger floorspace needs and are not dependent on the benefits offered by more central locations with higher costs. Rental values for the industrial floorspace businesses in this sector occupy reach around £16 per sq. ft but can vary considerably and these companies may be likely to seek owner occupied stock. This value is greater than general industrial rents which are achieving around £12.50 per sq. ft. for prime industrial stock.

Access to Public Transport

3.40 The city itself is relatively well connected in terms of public transport and sustainable modes of movement. However, out of centre locations are largely car dependent. Access to a Cambridge railway station is a common requirement for the ICT and Professional Services sector as businesses rely on access to markets and a large labour pool, including people residing in London. In particular, businesses located in the CB1 area are reported to recruit staff from London (who commute daily). Access to the station is also increasingly important in relation to

life sciences, particularly since the opening of the Francis Crick Institute at St Pancras.

3.41 Across the board therefore, access to international transport hubs (including St Pancras station, Heathrow, Luton andStansted airports is a factor for many businesses; in Cambridge, many operate on a multi-national basis even when they are small and new (through international collaborations and the like).

3.42 The Guided Busway provides a link from Huntingdon/St Ives, firstly going through Swavesey and onto Northstowe, Histon and North East Cambridge. This is a benefit to businesses in North East Cambridge, heightening access to a wider labour pool catchment and connections to Cambridge and London beyond. It is also likely to increase the viability and sustainability of future residential development at connected locations.

3.43 Cambridge North Station has been identified as a catalyst for further economic development. Occupiers across the ICT sector have indicated that land in proximity to the station would be a desirable location for Grade A (or prime) office floorspace with flexible floorspace and incubator space. Cambridge North's improved accessibility occurs in a location where there is pent up demand for further commercial space – North East Cambridge.

3.44 There are a number of further infrastructure proposals such as East West Rail, Cambridge South station and Cambridgeshire Autonomous Metro (CAM). There is potential for these to enhance economic growth and agglomeration through improved labour mobility. However it is not automatically the case that new accessibility nodes facilitate commercial investment in untested commercial locations. Ashford's commercial quarter following HS1's completion has not attracted investment out of London, for example, with the agglomeration benefits of the city preferred to the trade off of lower rents elsewhere.

Access to a Labour Force

3.45 Access to appropriately skilled labour was consistently identified as a critical factor across all the key sectors. In this context, reference was frequently made to the affordability of housing and the challenges presented through it.

3.46 Stakeholders emphasised that there is a skills gap in Greater Cambridge caused by house price affordability; this was identified specifically in relation to technicians employed by life sciences businesses, but it is a more general challenge. Whilst there is a strong pool of scientists with higher qualifications (and salaries), technicians are in demand and filling these positions is currently a challenge.

3.47 The expansion of the Wellcome Genome Campus (Hinxton) incorporates both employment and housing (around 1,500 homes of which 30% to be affordable). Alongside a new school, a nursery and community facilities, this demonstrates one approach to ensuring a localised workforce with supporting facilities.

Access to Amenities

3.48 Access to amenities tends to be a secondary consideration but is increasingly important. Both city and out-of-centre sites offer amenities of varying quality. City office locations offer competitive health and wellbeing benefits such as access to public transport, gyms, social and retail amenities. At out-of-centre locations, amenities are more variable. In most cases, there is open space and a selection of on-site retail and recreation options[11]. Amenities in the out-of-centre research

[11] For example, amenities at Granta Park (Great Abington) include a fitness and wellbeing centre, a nursery, restaurant and a sports club. Babraham Research Campus offers a nursery on site and a sports club. Cambridge Research Park (Landbeach) offers fitness classes, a café and dry-cleaning services. In the second phase of development, Cambridge Innovation Park (Waterbeach) is exploring opportunities to deliver a nursery. Currently, Cambridge Innovation Park has a gym, bar, beauty salon and café. There are

campuses can include a service charge in annual rents for upkeep of campus facilities such as a gym and nursery.

3.49 Access to amenities is an important locational factor for some businesses. For example, stakeholders suggested that the gaming sub-sector is leading the trend with some businesses investing in quality floorplan finishes and on-site amenities to retain employees and attract new labour. Ensuring employees have access to quality amenities is critical for small to medium sized businesses in this sector as they are competing with what multinational corporations such as Microsoft, Amazon and Apple can provide.

3.50 The innovation district concept, explored in the North East Cambridge Area Action Plan Issues and Options 2019 Consultation, provides a more integrated and supporting environment for employment clusters where all the key amenities drive knowledge intensive activity.

Challenges and Opportunities

Life Sciences

3.51 The sector is continuing to grow. The global and UK macro economic outlook is strong and investment opportunities remain positive for sector development, including the inter relationship between big data and genetics and, solutions for global health challenges. Major anticipated growth at the Wellcome Trust Genome Campus (Hinxton), that has a planning committee resolution to grant planning permission, as well as growth at Addenbrooke's and Granta Park (Great Abington), demonstrates confidence in the sector. Cambridge's prestigious position on the global map in terms of research indicates a positive local outlook. Whilst the life science sector shows some maturity in Greater Cambridge in terms of its depth

limited amenities at Capital Park (Fulbourn) and compared to other out of centre locations, amenities are also limited at Cambourne Business Park at present.

and breadth, strong growth is anticipated to continue for the medium term given the factors noted. In the longer term constraints such as labour availability are likely to become increasingly acute.

3.52 Local challenges are reported to include the provision of wet laboratory floorspace which is struggling to keep up with demand. There is some wet and dry laboratory floorspace in the pipeline, with new developments including phase two land at the Cambridge Biomedical Campus, Building 420 at Cambridge Science Park and phase two land at Granta Park (Great Abington).

3.53 Businesses in this sector need flexible floorspace. There is currently a reported lack of flexibility in floorspace arrangements as most existing buildings are purpose-built fitouts. There is a need for future laboratory buildings to provide space for start-ups and grow-on space. Businesses based in established campuses or business parks often prefer to remain there, hence the importance of ensuring an ongoing supply across a balance of floorspace sizes. From our stakeholder consultations, there were some examples of creative responses. For example, Kymab has increased from 6 to 100 employees in six years and Babraham Research Campus has been able to continue to accommodate the growing floorspace needs of this business as other tenants have moved to other spaces on the Campus.

3.54 Another challenge is the lack of flexibility in length of leases for businesses that find it difficult to forecast rates of growth. Commercial developers of laboratory floorspace prefer long-term lease arrangements which are too risky for small, early stage, businesses.

ICT and Professional Services

3.55 The global and UK macro-economic outlook for the ICT sector is positive. The ‘Internet of Things’, development of artificial intelligence, big data analytics, online retailing, online gaming, blockchain, robotics, social media and advanced

technology and computing are continually redefining the frontiers of computing capability and insight. In recent years, Cambridge has become a major employment centre for ICT taking advantage of academic research – industry collaboration and the knowledge intensive skill set. The CB1 development has created a new central premium 'home' for the ICT sector and local growth is anticipated to remain positive. There are 'dry lab' crossover requirements between ICT and advanced manufacturing for research and development purposes. However, the primary need is in traditional and flexible office space. Wider professional services are considered more of a linked function to the growth in both the ICT and life sciences as well as in their own right.

3.56 Growth in the sector is not anticipated at the rate of the life sciences. In part, this is because Cambridge competes on the global stage with Silicon Valley and other locations that are central to the evolution of ICT.

3.57 A challenge for start-ups and small businesses in this sector is finding flexible quality floorspace. Stakeholders identified that a number of start-up and small businesses particularly in software and gaming are taking up floorspace in the city centre. Stakeholders also reported demand for flexible floorspace or incubator space in out of centre locations for start-ups and small businesses. Affordable floorspace in proximity to where employees live away from traffic congestion in the city centre is considered to be in demand.

3.58 Another challenge this sector faces is salary competition. Major corporations such as Microsoft have the capacity to pay larger salaries and therefore attract data scientists and other technology-based employees. Smaller scale businesses and start-ups cannot compete. For University of Cambridge, the challenge is finding staff to teach the next generation of the tech labour force as they are competing with the salaries Microsoft and Apple pay. In part the competition is a result of a general lack of local labour to meet requirements, hence the importance of access to wider labour markets – not least London.

3.59 Equally there have been cases of large tech firms acquiring tech-start-ups that have originated in Greater Cambridge. For instance, VocalIQ is a speech technology start-up that was acquired by Apple in 2015 and transformed into a local Siri development centre. This demonstrates the dynamism in the Cambridge ICT sector and the ability of small businesses to innovate despite existing challenges.

Advanced Manufacturing

3.60 The global outlook for advanced manufacturing is reasonably strong. However, in terms of UK macro economics whilst it is an important sector, employment growth is expected to be limited overall. The outlook for advanced manufacturing in Greater Cambridge is more variable compared to ICT and life sciences. However, it is a growth sector and often a linked sector to life sciences and ICT in terms of supply chain and product development, from supporting medical devices to high grade materials for computing, automation testing and big data processing. There are clear regional and national aspirations in advanced manufacturing. However, Cambridge's competitive advantage is less defined than in the other sectors. The potential for growth is considered to be lower than for ICT and life sciences but still important both as a supply chain provider and in its own right.

3.61 Whilst no accommodation-specific challenges have been identified, it is of note that there is a limited pipeline of future new high spec industrial stock, perhaps other than at Bourn Airfield or Cambridge Research Park. There is however dry lab / ICT space including at Cambridge Science Park which is likely to suit early phase advanced manufacturing businesses.

Agri-tech

3.62 As noted above, whilst there are agri-tech strengths across the wider region, the concentration is less distinctive in Greater Cambridge and clustering is less apparent compared to other sectors above.

3.63 It is useful to refer to the inspector's findings for a refused appeal (APP/W0530/W/18/3210008) against an application for a dedicated agritech park (S/4099/17/OL). This reports that there is an established presence of agri-tech businesses in and around Cambridge. These include some large multinational Agri- tech operators, including Bayer Crop Sciences, Monsanto, Syngenta and Certis. Agri-tech businesses and institutions are distributed around South Cambridgeshire and the surrounding area.

3.64 It is considered and accepted in the above appeal that agri-tech businesses occupy a range of existing business parks or locations and the cluster is dispersed throughout the area, which is not dependent on, nor does it require, co-location on a single site.

3.65 Employment in agri-tech is broad as it spans a number of sectors from manufacturing to agriculture. In the agri-tech sector, the relevant sub-sectors with a strong presence in Greater Cambridge include the growing of seeds, grains, plant breeding, agriculture and horticulture, agrochemicals, food processing and research centres. Businesses in this sector undertake a diverse range of activities.

3.66 In the north of Greater Cambridge, the agricultural element of the agri-tech sector has a presence in Swavesey, north of Landbeach and land between Girton and Impington (NIAB innovation farm). In the south, agri-tech businesses are at Cherry Hinton, Thriplow and west of Junction 9/M11. The technology facing element of the sector is inter dispersed with other technology based businesses at existing business parks.

3.67 Artificial Intelligence and data analytics is one of many sub sectors of the emerging Agri-tech sector and has been recognised by the World Economics Forum as being key to achieving sustainability goals (both environmental and food). For instance, intelligent algorithms applied to data on atmospheric conditions and soil moisture are dramatically reducing the amount of water needed for agriculture. New Agri-

tech companies in Greater Cambridge such as Agrilnsight, Herdsy, KisnaHub, Agrimetrics and Dogtooth Technologies are working towards achieving food sustainability. For example, Herdsy is a business specialising in farming technology that provides tags to measure biomedical data and track the location and movement of animals. The data is automatically transferred into the cloud-based Herdsy account. For Greater Cambridge, this shows the attraction and inter relationships between traditional and ICT sector capabilities with broader clustering of the two sectors across a labour pool generating world class innovation. It also reinforces the ability of the clusters to operate across a larger spatial area.

3.68 A challenge for this sector is finding land that permits 24-hour operations, particularly the growing orientated operational elements. Stakeholders identified the absence of large-scale sites that support 24-hour operations as problematic. Businesses which are growing and testing produce on this basis are currently located on the edge of villages. For example, an algae growing farm operating on the edge of Fenland found site selection a challenge in the Greater Cambridge market.

Conclusions

3.69 This chapter analysed key sectors in terms of their spatial distribution and clustering, stages of the business life cycle, occupier locational factors, and their challenges and opportunities.

Life Sciences

3.70 This sector requires wet and dry lab floorspace. Significant clusters exist in established research parks where there are specific R&D clauses (Cambridge Science Park) or health-related specialisations. These parks are spread across Greater Cambridge. Whilst proximity to major research institutes/clinical centres is essential for some life science businesses, many others have demonstrated that it is possible to thrive elsewhere in the Greater Cambridge area.

3.71 The sector will continue to see growth. There are some local challenges to keeping up with demand for both wet and dry lab space, albeit there is additional floorspace coming forward at the Cambridge Biomedical Campus, Cambridge Science Park and Granta Park (Great Abington). Leases should be encouraged to be more flexible along with floorplates allowing firms to change and grow as they develop through their life cycle.

Information Technology and Communications (ICT)

3.72 Firms in this sector are distributed across Cambridge City Centre and clustered near Cambridge Railway Station and at established business parks particularly Cambridge Science Park in north east Cambridge, along with parks such as Cambridge Research Park (Landbeach); Cambridge Innovation Park; St John's Innovation Park, Cambridge Business Park; and Cambourne Business Park to the west of Cambridge.

3.73 Early on, ICT firms have small floorplate requirements such as hot desks. As these firms grow, requirements increase but the imperatives around flexible floorspace often continue. Spaces like St. John's Innovation Centre and Central Business Lounge within Cambridge offer this kind of space. Out of town space can be provided in Cambridge Innovation Park (Waterbeach) and Cambourne Business Park. Examples of larger office-style floorplates are at CB1, Capital Park (Fulbourn), Cambridge Business Park and Cambourne Business Park.

3.74 ICT will continue to grow and has seen positive growth in recent years due to the rise of Artificial Intelligence, big data and other e-services. There has been a rapid period of inward investment in Cambridge, particularly at CB1. A general lack of appropriate labour may be a continuing challenge to growth.

Advanced Manufacturing

3.75 Advanced manufacturing in Greater Cambridge has stayed competitive due to connections with research and knowledge intensive sectors. Specific clusters are

in Waterbeach, Cottenham and Bar Hill and additionally Sawston, Hinxton, Duxford and Melbourn.

3.76 Advanced manufacturing is varied and takes many forms and may only require office space at first but will quickly adapt to requiring laboratory and dry lab / manufacturing floorspace.

3.77 There has been a long-term decline in traditional manufacturing. But there is expected to be sustained incremental advanced manufacturing growth as it is linked to supplying other growth sectors, notably life sciences. It is likely there will be a decline in the overall number of employees as productivity becomes greater, but likely there will be an increased need for floorspace.

Professional Services

3.78 This sector typically follows the same distribution as ICT due to strong linkages with knowledge intensive sectors. Key areas include the area around Cambridge Station, Cambridge Research Park (Landbeach) and established business parks across South Cambridgeshire.

3.79 Professional services may not be as directly connected to the Cambridge research market as, say, ICT. Early stage businesses seek flexible floorspace and floorplates. As with ICT, there are strong growth prospects due to connections with other knowledge intensive sectors.

4 GREATER CAMBRIDGE EMPLOYMENT LAND SUPPLY ASSESSMENT

Introduction

4.1 An assessment of current employment land supply in Greater Cambridge has been undertaken to identify available land that could accommodate employment floorspace in the future.

Assessment of Sites

4.2 To identify current employment land supply, an assessment of existing employment sites has been undertaken. This includes existing employment locations, allocated sites, vacant sites and sites benefiting from extant permission for employment use.

Methodology

4.3 The Cambridge City and South Cambridgeshire Employment Land Review (2008) was used as a base in identifying the list of employment sites in Greater Cambridge. Given the date of the study, the Councils' commitments and completions data was used alongside the Local Plan (2018) allocations to confirm sites for assessment.

4.4 A 1.0 Ha minimum threshold was applied to discount small-scale employment uses. However, in some circumstances sites below this size threshold were included if identified as an allocated employment site.

4.5 This generated a list of 71 employment sites across Greater Cambridge. As outlined above, the list includes existing and allocated employment sites across brownfield and greenfield locations.

4.6 Site visits were conducted to the 71 employment sites. The purpose of the site visits was to explore the attractiveness to the market, identify available or vacant

floorspace and opportunities for development including vacant land and the potential for redevelopment or intensification.

4.7 A template was used to assess each employment site. Firstly, the site was assessed based on its characteristics including nature of the use, access to the strategic road network and public transport, proximity to local services, amenity issues, quality of the building stock, quality of the environment, occupiers and surrounding land uses.

4.8 Secondly, the site assessment template was used to identify specific opportunities for intensification of floorspace. This part of the assessment looked at the availability of land and considered the suitability, potential future uses, market attractiveness and deliverability of employment floorspace. Planning status and relevant policy was taken into account in the assessment.

Summary of Findings

4.9 The site assessment exercise identified the current employment land supply in Greater Cambridge taking into account availability, suitability and deliverability. As part of the assessment, vacant land was recorded which has informed the quantum of land available within the existing supply for future employment development.

4.10 Availability was determined by looking at vacant land on existing employment sites or greenfield land with an employment allocation or employment planning permission. Vacant land within existing employment sites refers to undeveloped plots in established industrial estates, business parks or campuses. This includes a mix of sites not recognised in local policy alongside those protected or allocated for future employment use both greenfield and brownfield.

4.11 The table in Appendix H of this report, shows a summary of assessed sites including total supply for each.

4.12 March 2019 employment land supply monitoring data was provided by the Councils, which included completions from previous years, outstanding permissions (including detailing those under construction) and outstanding allocations (no planning permission). Since March 2019, some sites have been subject to changes in employment floorspace, both gains and losses, with the information in this section of the report updating the position (as of autumn 2019). Vacant land on existing employment areas is also identified where applicable.

4.13 Policy recommendations are provided for each site. These consider a 'retain, release, protect' approach. Retaining sites assumes that the existing policy framework will suffice, whereas sites requiring protection may have a further policy designation.

Summary of Supply

4.14 The Councils' monitoring data to March 2019 has been used to provide a starting point for a supply assessment, including data on non-assessed sites across completions and commitments. The tables below provide a summary of employment land supply in Greater Cambridge as at March 2019, and also with the following amendments made to take account of the recommendations and updated information as set out within the table above:

- removal of allocated sites where Appendix H recommends considering their removal – sites at 1 & 7-11 Hills Road, Cambridge (site 1), 82-90 Hills Road & 57-63 Bateman Street, Cambridge (site 3), north of Hattons Road, Longstanton (site 28), and west of London Road, Pampisford (site 59);

- removal of remainder of extant outline planning permission at Wellcome Genome Campus (site 52) as this planning permission has lapsed, and inclusion of the land for the new Wellcome Genome Campus expansion (site 52) with resolution to grant planning permission; and

- amended anticipated floorspace and land for B uses at Northstowe (site 29) and Bourn Airfield New Village (site 61) to reflect updated information.

4.15 Incorporating the above provides a quantitative assessment of the full supply position.

Table 7: Summary of Employment Supply in Cambridge City (sqm) 2019

Employment supply type	B1	B1a	B1b	B1c	B2	B8	Total
Outline Permission	0	230	154,170	0	0	0	154,400
Detailed Permission - Under Construction	17,245	-1,820	-1,089	40	0	0	14,376
Detailed Permission – Not Started	18,025	1,472	3,214	2,586	-1,121	-1,439	22,737
Allocated	-597	11,279[12]	11,084	-425	-28,041	-4,491	-11,191
Total	34,673	11,161	167,379	2,201	-29,162	-5,930	180,322

Table 8: Summary of Employment Supply in South Cambridgeshire (sqm) 2019

Employment supply type	B1	B1a	B1b	B1c	B2	B8	Total
Outline Permission	54,480[13]	13,918	41,290[14]	0	-45,539[15]	1,439[16]	65,589
Detailed Permission -	207	8,986	2,078	380	-6,073	5,908	11,487

[12] This change in floorspace is as a result of the removal of anticipated floorspace to be gained and lost on allocations at 1 & 7 - 11 Hills Road, Cambridge (site 1) and 82 - 90 Hills Road & 57 - 63 Bateman Street, Cambridge (site 3).
[13] This change in floorspace is a result of the amended anticipated floorspace provision at Northstowe (site 29).
[14] This change in floorspace is a result of the removal of the extant outline planning permission at Wellcome Genome Campus (site 52) that has lapsed.
[15] This change in floorspace is a result of the amended anticipated floorspace provision at Northstowe (site 29).
[16] This change in floorspace is a result of the amended anticipated floorspace provision at Northstowe (site 29).

Employment supply type	B1	B1a	B1b	B1c	B2	B8	Total
Under Construction							
Detailed Permission – Not Started	18,448	29,155	26,212	2,649	3,567[17]	11,196	91,227
Allocated	25,900[18]	37,900	39,864[19]	11,002[20]	1,170[21]	9,849[22]	125,685
Genome Campus expansion	150,000	0	0	0	0	0	150,000
Total	249,035	89,959	109,444	14,031	-46,874	28,392	443,987

Table 9: Summary of Employment Supply in Greater Cambridge (sqm) 2019

Employment supply type	B1	B1a	B1b	B1c	B2	B8	Total
Outline Permission	54,480	14,148	195,460	0	-45,539	1,439	219,989
Detailed Permission - Under Construction	17,452	7,166	989	420	-6,073	5,908	25,863
Detailed Permission – Not Started	36,473	30,627	29,426	5,235	2,446	9,757	113,965

[17] This change in floorspace is a result of the amended anticipated floorspace provision at Bourn Airfield New Village (site 61), where it is anticipated that an alternative proposal to the extant full planning permission will be implemented, and therefore the floorspace provision is included in the 'allocated' figures.
[18] This change in floorspace is a result of the removal of anticipated floorspace to be gained at west of London Road, Pampisford (site 59), and the amended anticipated floorspace provision at Northstowe (site 29) and Bourn Airfield New Village (site 61).
[19] This change in floorspace is a result of the removal of anticipated floorspace to be gained at north of Hattons Road, Longstanton (site 28), and the amended anticipated floorspace provision at Bourn Airfield New Village (site 61).
[20] This change in floorspace is a result of the amended anticipated floorspace provision at Bourn Airfield New Village (site 61).
[21] This change in floorspace is a result of the amended anticipated floorspace provision at Northstowe (site 29).
[22] This change in floorspace is a result of the amended anticipated floorspace provision at Northstowe (site 29) and Bourn Airfield New Village (site 61).

Employment supply type	B1	B1a	B1b	B1c	B2	B8	Total
Allocated	25,303	49,179	50,948	10,577	-26,871	5,358	114,494
Genome Campus expansion	150,000	0	0	0	0	0	150,000
Total	283,708	101,120	276,823	16,232	-76,032	22,462	624,310

Approaches to selected sites with capacity

4.16 Assessing each employment site in Greater Cambridge has led to a spatial understanding of where the allocations, planning permissions and vacant land is and what the capacity of each site is in potentially accommodating future employment floorspace. There are a number of substantial greenfield and existing employment sites that contribute to overall employment land supply in Greater Cambridge. These are experiencing varying degrees of demand with some under current development or recent completions, but others which have been long term allocations. Drawing on lessons from the Cambourne development experience, commentary is provided in terms of how individual sites might respond to meeting growth needs and what measures might be considered in bringing them forward. The sites considered are:

- Waterbeach New Town
- Cambourne Business Park
- Cambourne West
- Bourn Airfield
- Northstowe

4.17 There are a number of issues relevant to delivering employment space in new settlements which are useful to consider in the round. These include (excluding direct policy levers):

- Placemaking
- Proximity to existing employment areas or clusters
- Maturity of settlements

- Demand and supply across wider property markets
- Accessibility
- Institutional investment

4.18 **Placemaking –** modern workers increasingly value amenities at or near to the workplace. City and town centres are attractive with a diverse range of leisure and retail activities. They also facilitate interactions with other professionals and businesses. Out of town employment parks are in many instances seeking to invest in a greater level of amenity and diversifying uses, for example providing restaurants, creches, gyms and quality open spaces. A challenge for new settlements (in general as well as for employment) is to ensure a quality placemaking strategy that attracts both residents and businesses. This can be particularly difficult in the early stages of development.

4.19 **Proximity to existing employment areas or clusters –** in simplistic terms, Greater Cambridge's employment areas are concentrated in the city centre, city fringe and south east quadrant which emphasises the biotech cluster. These locations have differing benefits ranging from 'postcode desirability' to proximity to existing businesses and knowledge spillovers, in classic agglomeration terms. The new settlements are located in the west and north of South Cambridgeshire and therefore have to work harder to be seen as natural locations for business to locate. Waterbeach has an advantage in terms of its proximity to two existing successful locations at the Cambridge Innovation Park in Waterbeach and Cambridge Research Park in Landbeach.

4.20 **Maturity of settlements -** as settlements mature they achieve a critical mass in population and labour supply. At a certain level there becomes a need for general industrial space for car repairs, building supplies and so forth. There also becomes a logical decision making process for businesses to minimise worker commutes and take advantage of employment land, if available. Business parks or urban centres in new settlements typically have a longer lead in for occupancy than retail centres which local populations see as essential from the outset.

4.21 **Demand and supply across wider property markets –** existing established employment locations with vacancies are largely more attractive than new locations for the points noted above. Therefore if supply is maintained to meet demand, a particularly attractive proposition is needed at a new location which might involve lower rents, good amenities, better accessibility, purpose built workspace etc. Planned supply at existing employment areas in Greater Cambridge will have an effect on the ability of out of town locations to absorb take up – agents for out of town locations report a direct relationship between supply constraints in the city core and take up out of town.

4.22 **Accessibility –** whilst historic patterns of employment development can cause anomalies in the accessibility of locations, future provision must be accessible to attract occupiers. For out of town locations vehicle access is essential, however there are some efforts to improve both cycling and public transport links between Cambridge and areas like Waterbeach and Cambourne. Areas like Northstowe already have a guided busway which makes the option more accessible.

4.23 **Institutional investment –** public or private institutional investment is often a catalyst for further occupation. For major private sector investors this can generate a local supply chain or agglomeration of industry type. South Cambridgeshire District Council's offices at Cambourne is an example of adding to the critical mass at Cambourne.

Waterbeach New Town, Cambridge Research Park (Landbeach) and Cambridge Innovation Park (Waterbeach)

4.24 Waterbeach is north / north east of the city and benefits from a rail station and the A10. It also has Cambridge Research Park (part of which with Enterprise Zone status) at Landbeach, Cambridge Innovation Park and Convent Drive employment area adjacent to the New Town designated area.

4.25 The Waterbeach New Town Supplementary Planning Document (SPD) refers to a range of employment at the new town including offices, light industrial and R&D.

An outline application has been permitted for 6,500 new homes with 15,000 sqm of business floorspace. A further application has been submitted for the remainder of the new town including 5,500 new homes and up to a further 25,000 sqm of business floorspace.

4.26 Whilst there will be inevitable competition between space for housing and employment, with housing land attracting a premium, there is a logic to allowing employment growth adjacent to existing locations at Cambridge Research Park and Cambridge Innovation Park (notwithstanding any strategies in place in the existing SPD and applications). Seeking to include employment at Waterbeach railway station is positive in the sense of connectivity but may lead to competition for occupiers between existing employment areas around Waterbeach.

4.27 Cambridge Research Park (Landbeach) has Enterprise Zone status and already has a critical mass in biotech and professional services occupation. The Park is working hard to provide good amenities including organised exercise sessions and food markets along with buses from the station. Whilst planning permission has lapsed for a hotel and other employment, a revised planning application is now under consideration for B Class uses and café. Market feedback suggests that the Park will move towards full development over the next 10 years on a plot phased basis, benefitting from A10 improvements and the Waterbeach New Town residential development offer.

4.28 Cambridge Research Park (Landbeach) and Cambridge Innovation Park provide a strong local concentration of employment activity that is likely to help Waterbeach New Town become successful in the longer term in employment terms and crosses the ICT / professional services and biotech sectors. There may be potential for a specific accommodation strategy in the longer term following the recent development at both of the existing employment areas. The timescales for the relocation of the railway station are anticipated to have a bearing on the station district’s ability to attract employment – the current journey to/from the existing

station is not supportive of the intensification of the existing or any new employment areas.

Cambourne / Cambourne West

4.29 Cambourne Business Park has taken some time to work towards being an established employment location having opened in 1999. It arguably suffered from some stigma in its association with Cambourne as a residential orientated development and the business park has a very low-density layout which feels disconnected from local amenities.

4.30 The Cambridge Compass Enterprise Zone includes part of the Cambourne Business Park site. Constructed buildings do now have a good level of occupancy with a mix of professional services and ICT companies and low levels of vacancy. Floorplates tend to be large and corporate HQ orientated with the exception of Regus which offers more flexible floorspace and co working space. Regus has been well received and had no availability at autumn 2019. This indicates that a more competitively priced flexible model out of city can attract demand.

4.31 Planning permission has been granted for building 4010 for a further 50,000 sq. ft which was at the time anticipated to be orientated towards a HQ office occupier.

4.32 The vacant land south of the Business Park Road is being promoted for a mixed-use development, incorporating around 240 dwellings and 4,400 sqm of B1.

4.33 It is considered that Cambourne Business Park would benefit from an amenity hub, this could offer gym, restaurant or similar. Such a development would enhance the existing design pattern and provide some focus. Granta Park (Great Abington), for example, has a gym, restaurant, nursery and cricket pitch amongst other offers and is a higher density development with walkability. Cambourne Business Park is both too near and too far from the village centre.

4.34 Outline planning permission for Cambourne West (S/2903/14/OL) was granted on 29 December 2017 for 'offices/light industry, use class B1 (up to 6.3ha)'. Employment areas targeted at small to medium sized operators will be provided in two locations: to the north east of the site - extending from the existing area of employment along Sheepfold Lane into the main site - and by Caxton Gibbet to the north west.

Bourn Airfield

4.35 The Bourn Airfield New Village Supplementary Planning Document was adopted in October 2019 and guides the strategic direction for employment land on the site. The policy outlines that the employment land component of the residential led development should retain the current employment land which is the plot occupied by DB Group/Diageo, north east of the site.

4.36 The Council has received a planning application (not determined at the time of writing) at Bourn Airfield for a mixed-use village comprising of 3,500 dwellings and supporting uses including 1,500 sqm of employment floorspace. In addition, planning permission was granted in 2013 for 17,723 sqm of industrial floorspace on land now owned by Diageo Pension Fund, north east of the site. A hybrid planning application was submitted in June 2020 for up to 26,757 sqm of commercial floorspace (B1c, B1b, B8, A3, D1 & D2) and is undetermined at time of writing. If permitted, this hybrid planning application will be implemented instead of the extant planning permission.

4.37 It is understood that the landowner's vision for the site is to deliver employment floorspace in a range of industrial unit sizes. The site has good access to the strategic road network. The A428 provides east-west connections to regional markets and links to the M11 and M1. The north east part of the site is in a strong position to attract demand for logistics and industrial floorspace responding to constraints in the city market in particular. It is expected that the market will achieve take up within 5 years of delivery.

Northstowe

4.38 Northstowe is a major new town of 10,000 homes north west of the city benefitting from the guided busway and Enterprise Zone status (for the Phase 1 employment area). As of August 2019, approximately 400 homes in Northstowe were occupied, with construction ongoing. The development framework identifies a series of employment area parcels across the phases of development in association with the town centre and local centres. The Development Framework references Ely and St Ives as examples of town layouts including employment. However, a closer examination of these locations identifies edge of town employment locations with a mix of unit types and plot sizes. Similarly Melbourn with two employment areas finds these concentrated at the edge of town, as does Histon. Employment ancillary to town or local centres is typical in small towns but it is unique to find this at the scale proposed at Northstowe.

4.39 Northstowe has a challenge in bringing forward employment under the current strategy. There are a number of other employment locations either established or seeking market position including Cambourne and Waterbeach, the latter benefitting from the existing research park. However Northstowe benefits from the guided busway accessibility which means it provides a rapid route into the existing Cambridge Science Park. Whilst this development may encourage continued commuting into Cambridge, it may also enable overspill for those seeking cheaper flexible premises closer to home as well as more land hungry B1c / B8 requirements.

4.40 Northstowe's employment approach may benefit from a revision orientated more towards the Cambridge Research Park model (including industrial zone) or Histon. This would concentrate employment provision in a single area to generate some critical mass and encourage a good level of densification but not dispersal. Demand for employment is anticipated to be long term (post 10 years) taking into account road access. This should not be at the cost of local flexible workspace

provision across a range of unit types provided in phases throughout the development of the new town – bringing some forward speculatively should support market stimulation.

5 EMPLOYMENT FORECASTS TO 2041

5.1 Forecasts provide a point in time perspective on future employment change. They represent scenarios and they cannot fully anticipate change in a particular year or unforeseen economic shocks. Instead they provide a long-term view that tends to be heavily influenced by past (relative and absolute) performance.

5.2 The process of producing long term future jobs forecasts for Greater Cambridge has been complicated. It has involved exploring a number of different techniques, drawing on a range of evidence sources and seeking to ensure as rounded and informed a view of future employment growth as possible. The key steps undertaken in the process were:

- Considering estimates of historic data: different sources have differing views on the aggregate and sector performance of the South Cambridgeshire and Cambridge City economies over different periods. Given the importance of understanding historic change in forecasting future performance, the first step was to establish a preferred dataset to work from.
- Testing a range of modelling approaches: initial modelling work was developed using the East of England Forecasting Model and using data provided by the Centre for Business Research at Cambridge University. Further work was then developed using long term historic data. Appendix A sets out the approaches considered and provides the technical workings in relation to the preferred methodology.

5.3 A summary of the work and outcomes is as follows.

Estimates of historic employment

5.4 An understanding of past performance is essential in determining future employment outcomes. However, there are several estimates of past employment across Greater Cambridge. These are:

- The Business Register and Employment Survey (BRES), generated by the Office for National Statistics (ONS).

- The methodology developed by the team from the Centre for Business Research (CBR) drawing on the complete Companies House database where all companies have to register, dating back to 2011.
- A CBR team developed CBR-BRES "blended" solution taking into account that the different methodologies above each have strengths and weaknesses.
- The East of England Forecasting Model (EEFM). This is a model that uses in-region estimates for the East of England to develop economic, demographic and housing trends in a consistent fashion, relying substantially on BRES but including estimates for the full range of self-employment jobs.
- Cambridge Econometrics' own estimates, similar to those underpinning EEFM with some adjustments made, notably through the inclusion of improved R&D estimates.

5.5 Although the above datasets have broadly similar views on the level of employment at 2017, the count and therefore rate of change dating back to 2011 differed substantially, making future forecasting problematic. This became evident during the use of the various datasets and influenced the preferred methodology.

Estimates of historic employment

5.6 The various methods used in forecasting future employment using the above historic datasets explored are summarised below.

EEFM and updates

5.7 The East of England Forecasting model (EEFM) provides a set of economic baseline forecasts prepared by Cambridge Econometrics (CE). It is an integrated model for economic, demographic and housing trends. It provides a starting point for considering economic change but can fail to recognise where sectors are likely to perform significantly above the regional rate - or where population above forecast could lead to a greater level of demand in some sectors, driving further economic growth.

5.8 The 2018 adopted Local Plans for Cambridge City and South Cambridgeshire drew upon the EEFM data available at the time, which assumed 44,100 jobs to be created 2011-31. However, 35,800 jobs or 81% of this total were created between 2011-17 according to EEFM data updated by CE, suggesting that EEFM forecasts may be underestimating economic growth potential in Greater Cambridge.

5.9 At the time of the modelling work undertaken for this report (2019), the latest EEFM version was that published in 2017, drawing on historic data from 2015. CE undertook a light touch update to EEFM for Greater Cambridge using BRES (Business Register and Employment Survey) data (2017) and two different population variables (EEFM / sub national population projections (SNPP)).

5.10 However the outputs were still considered to underestimate future growth in Greater Cambridge as the future jobs trajectory was modest and well below that observed over the recent and longer term past, with the differences being most pronounced in a number of specific sectors.

CBR and CPIER

5.11 The Cambridgeshire and Peterborough Independent Economic Review (CPIER) was undertaken for the Cambridgeshire and Peterborough Combined Authority. The CPIER futures modelling work to 2050 drew on total economy change rates provided by CBR but did not consider individual sector performance. This is necessary for Local Plan making particularly when considering employment land needs for sectors and clusters[23].

5.12 The CBR / CPIER team shared CBR-BRES hybrid data with the GL Hearn led consultancy team, however the CBR/CPIER team were not involved in developing the preferred approach to forecasting future employment and have not endorsed the analysis of findings of this report. The GL Hearn team sought to use the CBR-BRES hybrid data for modelling in a number of ways, using the data provided

[23] Planning Practice Guidance on Housing and economic needs assessment suggests that sectoral and employment forecasts should be considered, Paragraph: 027 Reference ID: 2a-027-20190220

alone and then attempting to integrate it with other datasets. The relatively short run nature of the data and the lack of alignment with wider EEFM / CE data made it difficult to generate credible outcomes. However, this process did again emphasise the pace of recent jobs growth.

5.13 A proxy for CPIER outcomes for aggregate future employment at a district level was developed. This used CPIER growth rates for the whole Cambridgeshire and Peterborough area applied at district level to 2017 CE data as a start point. This was developed as a reference point to compare CPIER approximate outcomes rather than for employment purposes as it contained no sector information. The CPIER proxy was not endorsed by the CPIER team.

Growth modelling from historic data

5.14 In seeking to address the above challenges an alternative approach was developed. This introduced the potential for a range of plausible outcomes rather than a single figure. The approach relied on assessing historical (dating back to 2001 and then 1991) growth rates (compound annual growth rates drawing on average annual percentage change) in different sectors. The use of compound growth rates differs from average annual absolute change although the latter was used to test the plausibility of outcomes. The EEFM data (as updated by CE) was the only consistent dataset going back to 2001 and prior, therefore being the preferred dataset to use for extrapolating growth rates forwards. The historic growth rates were compared to the modelled future estimates generated by EEFM. This confirmed again that the period from 2010 has been one of unprecedented employment growth. Beyond that, it suggested that:

- for most sectors, future growth rates generated by EEFM are reasonably consistent with past rates of growth.
- for a few sectors, EEFM's modelled estimates of future growth are far lower than observed historic growth both in the recent past (2010-17) and long term (from 1991). These 'key sectors' align with those identified as Greater Cambridge's

most significant local economic clusters (e.g. Life sciences cluster (Research & Development and Health & care sectors) and Professional Services as reported in chapter 3).

5.15 Research was undertaken with local stakeholders to explore Greater Cambridge's clusters (see chapter 3 of this report). The work identified strong growth potential aligned with planned development, particularly for Life sciences, supporting the data modelling. ICT is also considered to be a key local sector; however the modelled growth rate (through EEFM) did not appear dissimilar to the historic rate since 2001.

5.16 Given the above findings, modelling was undertaken for the key sectors to consider how a continuation of higher growth rates might affect total employment outcomes.

5.17 Simply extrapolating forward those key sectors on the basis of the compound growth rate observed between 2001-17 led to job numbers that were implausible in absolute terms, with the average annual future number of jobs created being over 5,000, around double the observed rate since 2001 of 2,600. As an economic base grows the compound growth rate should necessarily fall in percentage terms to avoid such implausible outcomes. Therefore, two scenarios were developed which recognised lower compound growth rates for key sectors than in the past, but ones higher than the baseline EEFM position. These were tested against historic absolute year on year change and sense checked against the capacity of known development sites that could come forward.

- **Central growth scenario: considered the most likely outcome taking into account long term patterns of employment.** For key sectors, the growth rate to 2041 was assumed as the lower quartile between the (low) EEFM baseline and the (high) historic growth rate between 2001-17, generating higher outcomes than the EEFM baseline. This overall led to aggregate absolute year on year growth comparable with that between 2001 - 2017 (and 1991 - 2017).

- **Higher growth scenario: a higher outcome placing greater weight on fast growth in the recent past.** For key sectors, the growth rate to 2041 was assumed as the mid-point between the (low) EEFM baseline and the (high) historic growth rate between 2001-17, generating higher outcomes for key sectors than the central scenario. This overall led to aggregate absolute year on year growth higher than that seen between 2001-17 and 1991-17, but lower than the 'fast growth' period of 2010-17.

Population driven growth: standard method

5.18 A final exercise was undertaken using population driven growth linked to the government's standard methodology, which government sets out as the minimum level of housing required to be planned for by local authorities. The reason for considering this scenario was to enable the councils, as part of their consideration of reasonable options for plan-making, to explore, in a consistent way, the employment supported by the government's standard method for housing, alongside considering potential for higher employment forecasts, as described in this chapter, and the housing that would be required to support this. This model considered the homes, population and associated jobs likely to be created through the standard method which created a population above that of the EEFM or SNPP. The additional population was then converted into an employment forecast by sector by CE. The employment outcomes were higher than the EEFM forecasts but again failed to reflect the potential performance of key sectors compared to the past. Given that the government sets its standard methodology as a minimum housing requirement to plan for, the employment outcomes for this reflect a minimum position. However, the population outcomes would not support the preferred forecast employment levels.

Outputs summary

5.19 The initial modelling work used the 2017-2040 period and was later updated to 2020-41 (modelling was undertaken in 2019 and no account at all was taken of the COVID-19 pandemic or the recession that it precipitated). Each data modelling method

therefore makes different assumptions about the 2017-20 period given that no actual data were available for that period at the time.

5.20 The table below provides a summary of the outcomes of the work. It includes:

- The EEFM baseline (with the model updated for recent data in Greater Cambridge by CE).
- The population driven standard method employment position.
- CPIER proxy generated by CE (but not endorsed by CPIER), using CPIER total economy rates for Cambridgeshire & Peterborough area applied to 2017 CE data for the districts.
- Historic annual average jobs change projected forwards, as a sense check, demonstrating the long term and fast recent growth since 2011.
- The recommended upper and lower forecasts (higher and central growth) to be used for Local Plan purposes.

Table 10:Employment forecast by method, Greater Cambridge 2020-41

Forecast	Total at 2041	2020-2041 change
EEFM / CE forecast baseline (E1)	255,600	40,100
Standard Method (SM)	257,600	45,761
CPIER proxy (CP)	314,000	92,100
2001-2017 annual average change	272,300	55,300
2011-2017 annual average change	352,189	125,200
Central Growth (KS2)	**277,000**	**58,400**
Higher Growth (KS3)	299,100	78,700

Source: GL Hearn, Cambridge Econometrics

Conclusions

5.21 The Greater Cambridge economy is dynamic and does not readily align with national or regional forecasts for jobs growth. It has a world-renowned life sciences cluster which has the potential to drive growth beyond typical regional or national

rates. A number of major developments and expansions are already planned as set out in chapter 4 which will deliver significant associated job creation. The performance of the selected high growth sectors will have the greatest effect on the overall employment outcomes to 2041. Since 2011 the Greater Cambridge economy has grown faster than any time in the last three decades, driven by some key sectors.

5.22 A range of modelling techniques were explored in considering future employment change in Greater Cambridge, tested against historic performance. A preferred range between a central and higher growth scenario is recommended. If the recent annual jobs change rate were to continue it would lead to higher outcomes than in the preferred recommended range. However, all economies experience peaks and troughs, with the position at 2017 (last historic data point used for this study) considered to be peak or near peak. As a result the most realistic position by 2041 is one which sees outcomes fall back towards the longer term historic year on year absolute change, whilst remaining higher than this historic annual rate given the expanded capability and potential of its local growth sectors.

6 EMPLOYMENT FLOORSPACE REQUIREMENTS

6.1 In this section we consider demand for employment land and floorspace over the period from 2020-41. This is considered for the central and higher growth scenarios referred to in chapter 5 as well as the standard methodology labour supply position. The section reports on requirements for employment land in the B1, B2 and B8 use classes.

6.2 Shortly before the finalisation of this report, Class E uses were introduced. It is recognised that in the future B1abc will fall under Class E. Amalgamation of B1abc would be representative of Class E.

6.3 The analysis is of 'demand' for employment land and does not take account of any supply-side factors such as existing employment land allocations or commitments.

6.4 When considering the scale of future needs the Planning Practice Guidance (PPG, 2019) requires consideration of:

- sectoral and employment forecasts and projections (labour demand)
- demographically derived assessments of future employment needs (labour supply techniques)
- analysis based on the past take-up of employment land and property and/or future property market requirements

6.5 There are relative benefits of each approach. Econometric forecasts take account of differences in expected overall economic performance moving forward relative to the past, with regard to the sectoral composition of growth. However, a detailed model is required to relate net forecasts to use classes and to estimate gross floorspace and land requirements.

6.6 Labour supply modelling is based on economically active persons derived from modelling future population changes associated with housing growth and changes in demographic structure. This relies on an understanding of future housing

delivery and the relationship between labour supply and demand. This is converted to floorspace needs through a modelling exercise as with labour demand.

6.7 In contrast, past take-up is based on actual delivery of employment development; but does not take account of the implications of growth in labour supply associated with housing growth nor any potential differences in economic performance relative to the past. It is also potentially influenced by past land supply policies.

6.8 The quantitative evidence is supplemented by the wider analysis of market and economic dynamics.

Labour Demand

6.9 Modelling of future labour demand has considered a number of scenarios and inputs as set out in chapter 5.

6.10 This section takes forward the preferred economic growth model employment outputs and considers the floorspace requirements associated with two of the scenarios.

Labour Demand Methods

6.11 Method KS2 (higher scenario) identifies an increase of 78,700 jobs[24] (2020-41) in Greater Cambridge whereas KS3 (central scenario) reports 58,400. As set out earlier in this chapter, these draw on the underlying East of England Forecasting Model (EEFM) 2017 with adjustments for more recent BRES data and changes to key sectors based on analysis of past trends.

6.12 GL Hearn has converted the forecasts for total employment by sector into forecasts for Full-Time Equivalent (FTE) employment by sector through analysis of the proportion of full- and part-time jobs in the area on a sector by sector basis and for

[24] Chapter 5 notes in the inclusion of a 'cap' on R&D jobs and introduces an alternate multiplier effect in other endogenous sectors. Chapter 6 does not assume a distribution of the multiplier effect jobs nor floorspace requirements given sector uncertainties, but retains the R&D cap in line with the KS2 model.

each authority. The percentage of full-time workers for each sector is set out in Appendix D. This is used in relating the forecasts for total employment to expected growth in Full-Time Equivalent (FTE) employment which is used in calculating employment floorspace and land requirements.

6.13 This provides a figure for net change in the number of FTE jobs in each sector over the plan period. The forecasts for KS2 (higher) show a net jobs growth of 25,113 FTE jobs over the period 2020-41 in Greater Cambridge and KS3 (central) reports 19,378.

6.14 GL Hearn have considered the proportion of employment in each of these sectors which is likely to take place in office and R&D floorspace (Use Classes B1a and B1b), light industrial floorspace (Use Classes B1c), general industrial floorspace (Use Class B2), and warehouse / distribution floorspace (Use Class B8).

6.15 To do this, we have calibrated our standard model which relates sectors and use classes for the Greater Cambridge economy through interrogation of the current composition of employment in key sectors at 2-digit SIC level. This calibration provides an estimate of the proportion of FTE jobs in each sub-sector, which are currently located on each type of employment land (or other use class). This has been reviewed against the East of England Forecasting Model assumptions in the associated land use model as well as the 2012 Employment Land Review for Cambridge City and South Cambridgeshire (and 2013 update). The assumptions are set out in Appendix E. The modelling assumes that this proportion will hold true moving forwards to 2041, which in reality would not necessarily be the case.

6.16 This approach has been used to derive the forecasts of net growth in FTE employment by use class over the plan period with a total of 25,113 additional B class jobs to 2041 as below under the higher scenario and 19,378 under the central.

Table 11:Labour Demand Scenario KS2 Higher – FTE Job Growth by B-Class Sector, 2020-41, Cambridge City

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	800	818	848	859	174	3,499
B1b	742	749	761	767	155	3,173
B1c	-11	-1	-1	-3	-1	-18
B2	-77	-60	-51	-54	-10	-251
B8	80	40	36	33	6	194
Total B-Class	**1,534**	**1,547**	**1,592**	**1,602**	**324**	**6,598**

Source: Cambridge Econometrics / GL Hearn (numbers may not sum due to rounding)

Table 12:Labour Demand Scenario KS2 Higher – FTE Job Growth by B-Class Sector, 2020-41, South Cambridgeshire

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	1,402	1,385	1,394	1,417	286	5,885
B1b	3,307	3,303	3,307	3,314	664	13,895
B1c	-149	-101	-76	-61	-12	-400
B2	-404	-277	-221	-186	-37	-1,127
B8	98	59	50	47	9	263
Total B-Class	**4,253**	**4,369**	**4,453**	**4,531**	**910**	**18,515**

Source: Cambridge Econometrics / GL Hearn (numbers may not sum due to rounding)

Table 13:Labour Demand Scenario KS2 Higher – FTE Job Growth by B-Class Sector, 2020-41, Greater Cambridge

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	2,202	2,204	2,242	2,276	460	9,384
B1b	4,049	4,052	4,068	4,081	818	17,068
B1c	-160	-102	-78	-65	-13	-418
B2	-481	-337	-272	-240	-47	-1,378
B8	178	99	85	80	15	457
Total B-Class	**5,786**	**5,916**	**6,045**	**6,132**	**1,233**	**25,113**

Source: Cambridge Econometrics / GL Hearn (numbers may not sum due to rounding)

Table 14:Labour Demand Scenario KS3 Central – FTE Job Growth by B-Class Sector, 2020-41, Cambridge City

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	563	568	583	578	116	2,409
B1b	389	403	423	437	90	1,742
B1c	-11	-1	-1	-3	-1	-18
B2	-77	-60	-51	-54	-10	-251
B8	80	40	36	33	6	194
Total B-Class	944	952	989	991	201	4,076

Source: Cambridge Econometrics / GL Hearn (numbers may not sum due to rounding)

Table 15:Labour Demand Scenario KS3 Central – FTE Job Growth by B-Class Sector, 2020-41, South Cambridgeshire

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	1,011	1,079	1,189	1,332	286	4,897
B1b	2,107	2,468	2,906	3,430	757	11,669
B1c	-149	-101	-76	-61	-12	-400
B2	-404	-277	-221	-186	-37	-1,127
B8	98	59	50	47	9	263
Total B-Class	**2,662**	**3,227**	**3,847**	**4,562**	**1,003**	**15,302**

Source: Cambridge Econometrics / GL Hearn (numbers may not sum due to rounding)

Table 16:Labour Demand Scenario KS3 Central – FTE Job Growth by B-Class Sector, 2020-41, Greater Cambridge

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	1,574	1,647	1,772	1,910	402	7,306
B1b	2,496	2,871	3,329	3,867	847	13,411
B1c	-160	-102	-77	-64	-13	-418
B2	-481	-337	-272	-240	-47	-1,378
B8	178	99	86	80	15	457

Total B-Class	**3,606**	**4,179**	**4,836**	**5,553**	**1,204**	**19,378**

Source: Cambridge Econometrics / GL Hearn (numbers may not sum due to rounding)

Floorspace

6.17 To these figures we have applied employment densities taking account of the HCA Employment Densities Guide: 3rd Edition (Drivers Jonas Deloitte, 2015) alongside local evidence gathered through stakeholder and property market consultations.

6.18 Market evidence suggests typical office (B1a) as well as dry lab employment density in the centre of Cambridge is around 8 sqm per employee and only slightly higher out of town. A blended average of 9 sqm per employee is therefore considered to be the most robust benchmark across business park, serviced office and general office floorspace across Greater Cambridge. This includes any influence of flexible working trends (see discussion in chapter 8).

6.19 For R&D (B1b) GL Hearn has worked with planning officers to review information from planning permissions to determine the ratio between forecast jobs (as proposed by applicants) and floorspace. This involved examination of application information by use class type and employment type at several research park locations including West Cambridge and Genome Campus. This reports an average of 28 sqm per employee which is used herein and is line with the East of England forecasting model. It is recognised that based on market feedback, 28 sqm per FTE is a wet lab floorspace figure and not for dry labs, which are closer to office densities. However in acknowledging that dry labs play an important role in R&D activities, the model which allocates sectors to use classes (Appendix E) assumes that 20% of R&D takes place in B1a density floorspace (with a further sensitivity assuming 40% in lower density floor space premises).

6.20 We have converted employment figures to provide employment densities for gross external floor areas (GEA) on the following basis:

- Office (B1a): an average of 9 sqm NIA and 11 sqm GEA per employee based on a blend between business park, serviced office and general office floorspace and assuming that the GEA of buildings is on average 20% higher than the net internal area;
- R&D (B1b): an average of 28 sqm GEA per employee based on local data;
- Light Industrial (B1c): an average of 47 sqm GIA and 49 sqm GEA per employee, assuming that the gross external area of buildings is on average 5% higher than the net internal area;
- General Industrial (B2): an average of 38 sqm GEA per employee, assuming that the gross external area of buildings is on average 5% higher than the gross internal area;
- Warehouse/ Distribution (B8): an average of 70 sqm GEA per employee. This is the lower of the range of employment densities for B8 activities, reflecting the type of warehousing in the area more typified to final mile than regional / national distribution.

6.21 Applying these employment densities to the forecasts of net growth in jobs in B-class activities derives forecasts for net changes in employment floorspace. The breakdown by use class is shown below. A total requirement of 541,655 sqm is reported for KS2 (higher scenario) and 416,392 under KS3 (central scenario).

Table 17: Labour Demand Scenario KS2 (higher) –Floorspace Growth by B-Class Use, 2020-41 (sqm) Cambridge City

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	8,797	9,003	9,327	9,449	1,915	38,491
B1b	20,776	20,976	21,300	21,474	4,326	88,852
B1c	-540	-33	-72	-165	-66	-875
B2	-2,841	-2,217	-1,888	-1,983	-356	-9,284

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B8	5,576	2,815	2,488	2,283	427	13,590
Total B-Class	**31,768**	**30,544**	**31,155**	**31,058**	**6,247**	**130,773**

Source: GL Hearn based on Cambridge Econometrics data

Table 18: Labour Demand Scenario KS2 (higher) –Floorspace Growth by B-Class Use, 2020-41 (sqm) South Cambridgeshire

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	15,421	15,237	15,339	15,587	3,147	64,730
B1b	92,585	92,487	92,601	92,796	18,580	389,050
B1c	-7,324	-4,945	-3,744	-2,998	-585	-19,596
B2	-14,955	-10,260	-8,193	-6,896	-1,380	-41,685
B8	6,849	4,118	3,473	3,301	642	18,383
Total B-Class	**92,576**	**96,636**	**99,476**	**101,790**	**20,404**	**410,882**

Source: GL Hearn based on Cambridge Econometrics data

Table 19: Labour Demand Scenario KS2 (higher) –Floorspace Growth by B-Class Use, 2020-41 (sqm) Greater Cambridge

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	24,218	24,240	24,666	25,036	5,061	103,221
B1b	113,361	113,463	113,901	114,270	22,907	477,902
B1c	-7,864	-4,978	-3,816	-3,162	-651	-20,471
B2	-17,796	-12,477	-10,080	-8,879	-1,736	-50,969
B8	12,425	6,933	5,961	5,584	1,069	31,973
Total B-Class	**124,344**	**127,181**	**130,632**	**132,848**	**26,651**	**541,655**

Source: GL Hearn based on Cambridge Econometrics data

Table 20: Labour Demand Scenario KS3 (central) – Floorspace Growth by B-Class Use, 2020-41 (sqm) Cambridge City

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	6,197	6,253	6,415	6,360	1,274	26,499
B1b	10,884	11,296	11,840	12,242	2,508	48,770
B1c	-540	-33	-72	-165	-66	-875

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B2	-2,841	-2,217	-1,888	-1,983	-356	-9,284
B8	5,576	2,815	2,488	2,283	427	13,590
Total B-Class	**19,276**	**18,115**	**18,783**	**18,737**	**3,788**	**78,699**

Source: GL Hearn based on Cambridge Econometrics data

Table 21: Labour Demand Scenario KS3 (central) –Floorspace Growth by B-Class Use, 2020-41 (sqm) South Cambridgeshire

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	11,126	11,864	13,076	14,655	3,143	53,863
B1b	58,992	69,109	81,381	96,046	21,200	326,728
B1c	-7,324	-4,945	-3,744	-2,998	-585	-19,596
B2	-14,955	-10,260	-8,193	-6,896	-1,380	-41,685
B8	6,849	4,118	3,473	3,301	642	18,383
Total B-Class	**54,688**	**69,886**	**85,993**	**104,107**	**23,020**	**337,693**

Source: GL Hearn based on Cambridge Econometrics data

Table 22: Labour Demand Scenario KS3 (central) –Floorspace Growth by B-Class Use, 2020-41 (sqm) Greater Cambridge

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	17,322	18,117	19,491	21,015	4,417	80,362
B1b	69,876	80,405	93,221	108,287	23,708	375,497
B1c	-7,864	-4,978	-3,816	-3,162	-651	-20,471
B2	-17,796	-12,477	-10,080	-8,879	-1,736	-50,969
B8	12,425	6,933	5,961	5,584	1,069	31,973
Total B-Class	**73,963**	**88,000**	**104,776**	**122,845**	**26,807**	**416,392**

Source: GL Hearn based on Cambridge Econometrics data Labour Supply (standard method)

6.22 The labour supply scenario considers the quantum of employment land required to support the population and resulting employment associated with the standard

methodology housing requirement. This is termed SM in the forecasts tables. Growth under this scenario is 45,765 jobs for 2020-41.

6.23 Using the same modelling assumptions as for the labour demand scenarios, GL Hearn has converted the forecasts for total employment by sector into forecasts for Full-Time Equivalent (FTE) employment by sector being 10,210 B Class jobs.

Table 23:Labour Supply Scenario – FTE Job Growth by B-Class Sector, 2020-41 Cambridge City

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	186	279	344	404	74	1,287
B1b	194	233	260	292	55	1,034
B1c	-27	-8	-2	3	-1	-35
B2	-99	-67	-54	-45	-9	-274
B8	7	13	11	10	1	42
Total B-Class	**261**	**450**	**559**	**664**	**120**	**2,054**

Source: Cambridge Econometrics / GL Hearn (numbers may not sum due to rounding)

Table 24:Labour Supply Scenario – FTE Job Growth by B-Class Sector, 2020-41 South Cambridgeshire

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	1,086	938	776	746	149	3,696
B1b	1,189	1,080	913	880	179	4,240
B1c	-35	-26	-39	-31	-6	-137
B2	-162	-121	-140	-120	-23	-565
B8	309	219	175	182	37	922
Total B-Class	**2,386**	**2,090**	**1,686**	**1,656**	**337**	**8,156**

Source: Cambridge Econometrics / GL Hearn (numbers may not sum due to rounding)

Table 25:Labour Supply Scenario – FTE Job Growth by B-Class Sector, 2020-41 Greater Cambridge

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	1,272	1,217	1,120	1,150	223	4,983
B1b	1,383	1,313	1,173	1,172	234	5,274
B1c	-62	-34	-41	-28	-7	-172
B2	-261	-188	-194	-165	-32	-839
B8	316	232	186	192	38	964
Total B-Class	**2,647**	**2,540**	**2,245**	**2,320**	**457**	**10,210**

Source: Cambridge Econometrics / GL Hearn (numbers may not sum due to rounding)

6.24 Applying the employment densities to the forecasts of net growth in jobs in B-class activities, we can derive forecasts for net changes in employment floorspace. The floorspace requirements are significantly lower than the labour demand scenarios.

Table 26:Labour Supply Scenario –Floorspace Growth by B-Class Use, 2020-41 (sqm) Cambridge City

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	2,044	3,074	3,784	4,443	810	14,154
B1b	5,429	6,531	7,281	8,168	1,547	28,955
B1c	-1,321	-384	-117	150	-33	-1,706
B2	-3,671	-2,490	-1,986	-1,649	-351	-10,147
B8	495	887	773	709	97	2,961
Total B-Class	**2,975**	**7,618**	**9,735**	**11,820**	**2,069**	**34,217**

Source: GL Hearn based on Cambridge Econometrics data

Table 27:Labour Supply Scenario –Floorspace Growth by B-Class Use, 2020-41 (sqm) South Cambridgeshire

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	11,947	10,319	8,540	8,202	1,644	40,653
B1b	33,282	30,245	25,565	24,636	5,005	118,734
B1c	-1,733	-1,280	-1,902	-1,534	-287	-6,736
B2	-5,994	-4,469	-5,180	-4,432	-840	-20,915
B8	21,600	15,330	12,268	12,740	2,623	64,560

Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
Total B-Class	**59,102**	**50,146**	**39,292**	**39,611**	**8,146**	**196,296**

Source: GL Hearn based on Cambridge Econometrics data

Table 28:Labour Supply Scenario –Floorspace Growth by B-Class Use, 2020-41 (sqm) Greater Cambridge

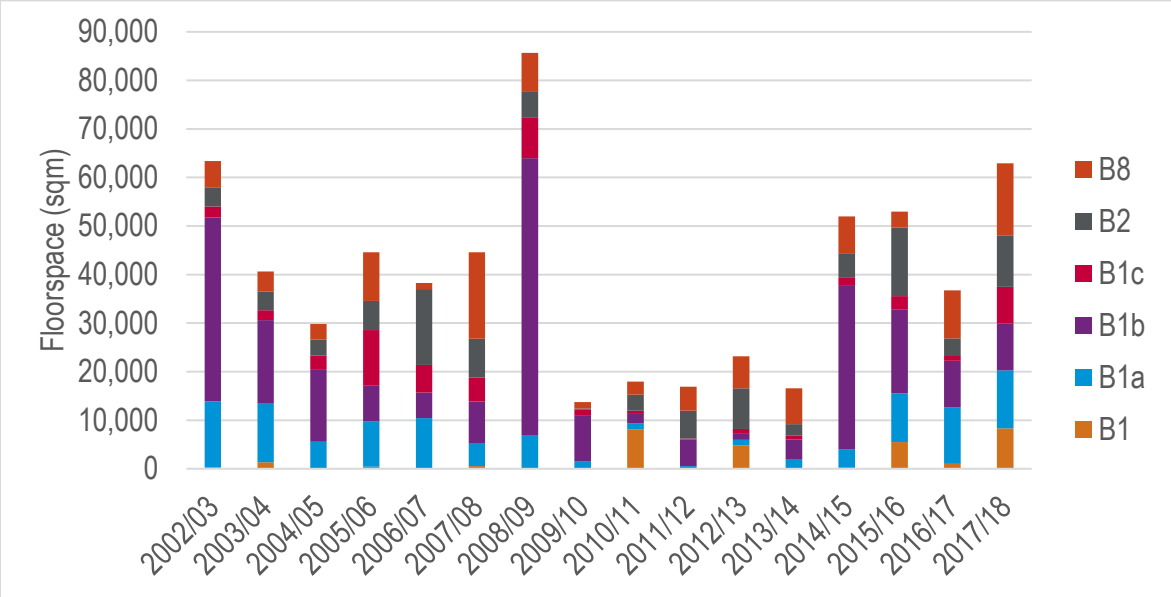
Use Class	2020-2025	2025-2030	2030-2035	2035-2040	2040-2041	Total
B1a	13,990	13,394	12,324	12,645	2,454	54,807
B1b	38,711	36,776	32,846	32,803	6,552	147,689
B1c	-3,054	-1,664	-2,019	-1,384	-320	-8,442
B2	-9,665	-6,958	-7,166	-6,081	-1,191	-31,062
B8	22,095	16,217	13,041	13,449	2,720	67,521
Total B-Class	**62,076**	**57,764**	**49,027**	**51,431**	**10,215**	**230,513**

Source: GL Hearn based on Cambridge Econometrics data

Past Completions Trend

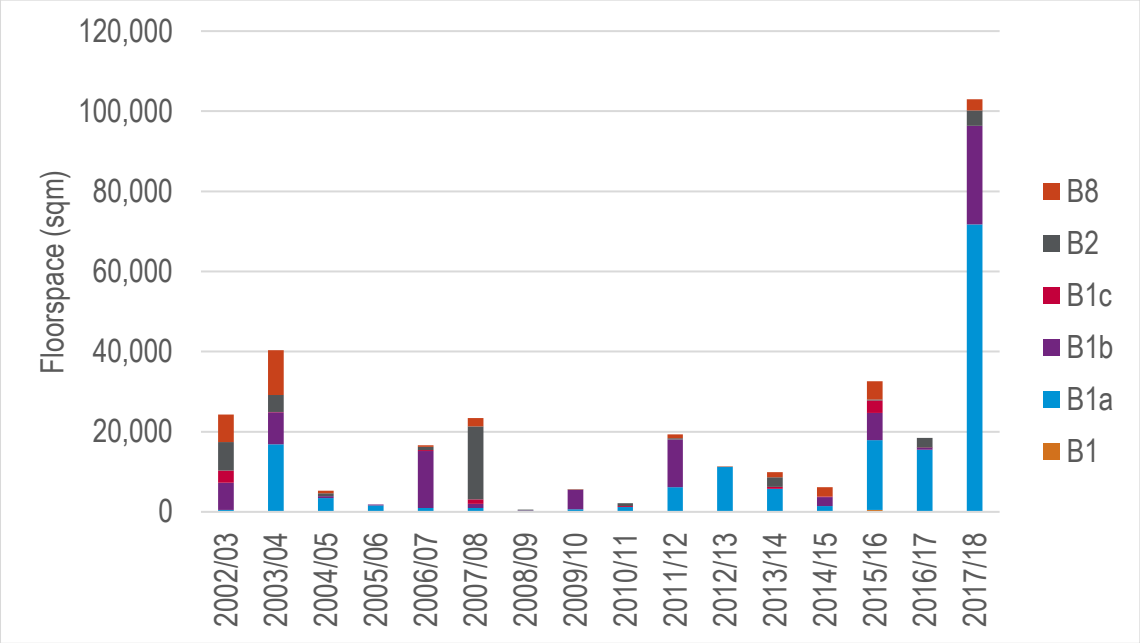
6.25 GL Hearn has reviewed data for completions of B class floorspace for Cambridge City and South Cambridgeshire over the period from 1 April 2002 to 31 March 2018 based on the development data in the Cambridge and South Cambridgeshire Authority Monitoring Reports and published on Cambridgeshire Insight. Gross completions are reported in the charts below and exclude any B class floorspace lost.

Figure 26: Gross Completions 2002-18: South Cambridgeshire (sqm)



Source: South Cambridgeshire District Council

Figure 27: Gross Completions 2002-18: Cambridge City (sqm)



Source*:* Cambridge City Council

6.26 The data identifies that in South Cambridgeshire 5% of gains were in B1, 17% in B1a, 38% in B1b, 24% in B1c/B2 and 17% in B8. There was some slow down in 2009/10 to 2013/14. A particularly large B1b gain was in 2009 being new buildings at NAPP Pharmaceuticals on the Cambridge Science Park.

6.27 The data identifies that in Cambridge City 0.2% of gross gains were in B1, 48% in B1a, 25% in B1b, 16% in B1c/B2 and 10% in B8. A particularly large B1a gain was the replacement of the Edinburgh Building next to Cambridge University Press in 2018.

6.28 The table below also includes losses data (including redevelopments of employment to B Class and other uses), providing an overall net change.

Table 29:Past Floorspace Completions, 2002-18, Greater Cambridge

Year	Gains B1, B1a, B1b	Gains B1c / B2	Gains B8	Losses B1, B1a, B1b	Losses B1c / B2	Losses B8	Net B1, B1a, B1b	Gains B1, B1a, B1b	Gains B1c / B2
2002/03	59,020	16,357	12,353	-10,189	-39,899	-6,746	48,831	-23,542	5,607
2003/04	55,451	10,190	15,374	-26,224	-15,076	-13,691	29,227	-4,886	1,683
2004/05	24,418	6,840	3,827	-34,638	-9,284	-4,193	-10,220	-2,444	-366
2005/06	18,942	17,436	10,027	-11,598	-13,316	-1,226	7,344	4,120	8,801
2006/07	30,890	22,291	1,658	-9,893	-10,408	-5,240	20,997	11,883	-3,582
2007/08	15,856	32,282	19,887	-11,086	-6,262	-5,674	4,770	26,020	14,213
2008/09	64,327	13,924	8,024	-10,682	-9,636	-1,817	53,645	4,288	6,207
2009/10	16,427	1,558	1,470	-9,541	-49,412	-2,500	6,886	-47,854	-1,030
2010/11	12,456	4,907	2,706	-21,208	-15,083	-7,981	-8,752	-10,176	-5,275
2011/12	24,063	6,287	5,912	-18,501	-17,689	-2,000	5,562	-11,402	3,912
2012/13	18,525	9,298	6,562	-11,966	-16,427	-4,100	6,559	-7,129	2,462
2013/14	11,787	6,014	8,716	-30,501	-30,858	-7,326	-18,714	-24,844	1,390
2014/15	41,352	6,722	10,024	-20,522	-8,922	-13,127	20,830	-2,200	-3,103
2015/16	57,538	20,177	7,865	-19,104	-3,097	-13,688	38,434	17,080	-5,823
2016/17	38,342	6,926	9,936	-12,718	-1,699	-4,406	25,624	5,227	5,530

Year	Gains B1, B1a, B1b	Gains B1c / B2	Gains B8	Losses B1, B1a, B1b	Losses B1c / B2	Losses B8	Net B1, B1a, B1b	Gains B1, B1a, B1b	Gains B1c / B2
2017/18	126,289	21,946	17,624	-21,477	-7,168	-7,441	104,812	14,778	10,183
TOT 2002-18	**615,683**	**203,155**	**141,965**	**-279,848**	**-254,236**	**-101,156**	**335,835**	**-51,081**	**40,809**
Avg	38,480	12,697	8,873	-17,490	-15,890	-6,322	20,990	-3,193	2,551

Source: Cambridge City Council & South Cambridgeshire District Council

6.29 The analysis of floorspace type as an annual average is set out below. These figures have been rolled forward across the length of the Plan period. This was first calculated on a Cambridge City and South Cambridgeshire level, and subsequently combined to a Greater Cambridge level.

Table 30: Annual and Projected Floorspace Requirements, Cambridge City (sqm) (2002-18 data)

Use Class	Gross Completions (Annual Average)	Net Completions (Annual Average)	Gross Completions Projected 20'-41'	Net Completions Projected 20'-41'
B1	47	-390	987	-8,190
B1a	9,716	759	204,036	15,939
B1b	5,091	3,731	106,911	78,351
B1c	552	-1,991	11,592	-41,811
B2	2,573	-290	54,033	-6,090
B8	2,075	-1,805	43,575	-37,905
Total	**20,054**	**15**	**421,134**	**315**

Source: Cambridge City Council & South Cambridgeshire District Council

Table 31: Annual and Projected Floorspace Requirements, South Cambridgeshire (sqm) (2002-18 data)

Use Class	Gross Completions (Annual Average)	Net Completions (Annual Average)	Gross Completions Projected 20'-41'	Net Completions Projected 20'-41'
B1	1,938	1,815	40,698	38,115
B1a	6,623	4,208	139,083	88,368
B1b	15,066	10,866	316,386	228,186

Use Class	Gross Completions (Annual Average)	Net Completions (Annual Average)	Gross Completions Projected 20'-41'	Net Completions Projected 20'-41'
B1c	3,386	1,010	71,106	21,210
B2	6,185	-1,922	129,885	-40,362
B8	6,798	4,356	142,758	91,476
Total	**39,996**	**20,333**	**839,916**	**426,993**

Source: Cambridge City Council & South Cambridgeshire District Council

Table 32: Annual and Projected Floorspace Requirements, Greater Cambridge (sqm) (2002-18 data)

Use Class	Gross Completions (Annual Average)	Net Completions (Annual Average)	Gross Completions Projected 20'-41'	Net Completions Projected 20'-41'
B1	1,984	1,425	41,664	29,925
B1a	16,339	4,968	343,119	104,328
B1b	20,157	14,596	423,297	306,516
B1c	3,939	-981	82,719	-20,601
B2	8,759	-2,211	183,939	-46,431
B8	8,873	2,551	186,333	53,571
Total	**60,050**	**20,348**	**1,261,050**	**427,308**

Source: Cambridge City Council & South Cambridgeshire District Council

6.30 As a sensitivity, a second analysis of completions trends has been undertaken for a more recent period for 2011-12 onwards taking into account activity in the post-recession period. Broadly this has seen faster growth in Cambridge City and slower growth (until 2015) in South Cambridgeshire leading to a slightly higher overall projection. There has also been a more recent emphasis on B1a accommodation.

Table 33: Annual and Projected Floorspace Requirements, Cambridge City (sqm) (2011-18 data)

Use Class	Gross Completions (Annual Average)	Net Completions (Annual Average)	Gross Completions Projected 20'-41'	Net Completions Projected 20'-41'
B1	85	-912	1,785	-19,152

Use Class	Gross Completions (Annual Average)	Net Completions (Annual Average)	Gross Completions Projected 20'-41'	Net Completions Projected 20'-41'
B1a	18,449	8,974	387,429	188,454
B1b	6,566	5,539	137,886	116,319
B1c	544	-805	11,424	-16,905
B2	1,318	-347	27,678	-7,287
B8	1,698	-2,390	35,658	-50,190
Total	**28,660**	**10,058**	**601,860**	**211,218**

Source: Cambridge City Council & South Cambridgeshire District Council

Table 34: Annual and Projected Floorspace Requirements, South Cambridgeshire (sqm) (2011-18 data)

Use Class	Gross Completions (Annual Average)	Net Completions (Annual Average)	Gross Completions Projected 20'-41'	Net Completions Projected 20'-41'
B1	2,879	2,720	60,459	57,120
B1a	5,812	1,658	122,052	34,818
B1b	11,623	8,180	244,083	171,780
B1c	2,118	786	44,478	16,506
B2	7,074	-847	148,554	-17,787
B8	7,822	4,469	164,262	93,849
Total	**37,327**	**16,966**	**783,867**	**356,286**

Source: Cambridge City Council & South Cambridgeshire District Council

Table 35: Annual and Projected Floorspace Requirements, Greater Cambridge (sqm) (2011-18 data)

Use Class	Gross Completions (Annual Average)	Net Completions (Annual Average)	Gross Completions Projected 20'-41'	Net Completions Projected 20'-41'
B1	2,964	1,808	62,244	37,968
B1a	24,260	10,632	509,460	223,272
B1b	18,189	13,719	381,969	288,099
B1c	2,661	-19	55,881	-399
B2	8,391	-1,194	176,211	-25,074
B8	9,520	2,079	199,920	43,659
Total	65,986	27,024	1,385,706	567,504

Source: Cambridge City Council & South Cambridgeshire District Council

Summary of Floorspace Needs and Discussion

6.31 The tables below bring together and summarise the range of models considered.

Table 36: Scenario Floorspace Requirements, Cambridge City (sqm)

Use Class	Labour Demand Scenario KS2 Higher	Labour Demand Scenario KS2 Central	SM Labour Supply scenario	Net Completions Projected ('02-'18 data)	Net Completions Projected ('11-'18 data)
B1				-8,190	-19,152
B1a	38,491	26,499	14,154	15,939	188,454
B1b	88,852	48,770	28,955	78,351	116,319
B1c	-875	-875	-1,706	-41,811	-16,905
B2	-9,284	-9,284	-10,147	-6,090	-7,287
B8	13,590	13,590	2,961	-37,905	-50,190
Total	**130,773**	**78,699**	**34,217**	**315**	**211,218**

Source: GL Hearn

Table 37: Scenario Floorspace Requirements, South Cambridgeshire (sqm)

Use Class	Labour Demand Scenario KS2 Higher	Labour Demand Scenario KS2 Central	SM Labour Supply scenario	Net Completions Projected ('02-'18 data)	Net Completions Projected ('12-'18 data)
B1				38,115	57,120
B1a	64,730	53,863	40,653	88,368	34,818
B1b	389,050	326,728	118,734	228,186	171,780
B1c	-19,596	-19,596	-6,736	21,210	16,506
B2	-41,685	-41,685	-20,915	-40,362	-17,787
B8	18,383	18,383	64,560	91,476	93,849
Total	**410,882**	**337,693**	**196,296**	**426,993**	**356,286**

Source: GL Hearn

Table 38: Scenario Floorspace Requirements, Greater Cambridge (sqm)

Use Class	Labour Demand Scenario KS2 Higher	Labour Demand Scenario KS2 Central	SM Labour Supply scenario	Net Completions Projected ('03-'18 data)	Net Completions Projected ('12-'18 data)
B1				29,925	37,968
B1a	103,221	80,362	40,653	104,328	223,272
B1b	477,902	375,497	118,734	306,516	288,099
B1c	-20,471	-20,471	-6,736	-20,601	-399
B2	-50,969	-50,969	-20,915	-46,431	-25,074
B8	31,973	31,973	64,560	53,571	43,659
Total	**541,655**	**416,392**	**196,296**	**427,308**	**567,504**

Source: GL Hearn

6.32 For the Greater Cambridge area, the labour demand model KS2 (higher) sits just below the recent net completions trend data overall, although the B1a/b forecasts are higher, but not significantly so. The KS3 (central) scenario falls below the recent and long term trends. This suggests in the first instance that the floorspace forecasts are realistic and deliverable within their historic context.

6.33 It is recommended that in planning positively for growth, the KS2 Higher Scenario is planned for regarding B1a/b floorspace, without making any implied assumptions regarding jobs growth. This is recommended to ensure a flexible employment land supply encouraging growth in existing businesses and attracting inward investment. It also broadly aligns with completions trends and market feedback.

6.34 Going forwards more development is expected in South Cambridgeshire and less in Cambridge than has been the case in the past, which is realistic given physical constraints in Cambridge City itself and major developments planned in South Cambridgeshire including the North East Cambridge Area Action Plan and Genome Campus.

6.35 Both labour demand models forecast a greater rate of B1b floorspace than has been the case in recent years. The labour demand model ratio of B1b to B1a more

closely reflects long term historic trends however given crossovers between B1a and dry labs this should be viewed cautiously. A greater manifestation of R&D jobs requiring B1a density premises would reduce the overall need and rebalance towards B1a[25].

6.36 The labour demand forecasts for B1c/B2 floorspace should be viewed cautiously. Recent completions trends show a slow down in light / heavy industrial floorspace loss as the manufacturing and related sector of the economy stabilises after a period of decline. Market feedback suggests demand for light industrial floorspace which is reflected in gains in South Cambridgeshire and market pressure in Cambridge. It is recommended that industrial floorspace losses are limited in the city to avoid constraining business and industrial activity. In reality there may be some further losses in Cambridge, which should be minimised, but gains in South Cambridgeshire are expected regardless.

6.37 Similarly, with B8 warehousing needs, the completions trends show a higher level of floorspace than the labour demand model with losses in Cambridge and gains in South Cambridgeshire. The logistics sector is experiencing a high level of change due to increases in e-commerce and greater levels of automation particularly in larger units. This may change the relationship between labour requirements and floorspace needs. Given delivery has been steady in South Cambridgeshire across the tested completion periods whilst losses have increased in Cambridge and are likely to continue, it is recommended that the recent net trends are planned for.

[25] As per paragraph 6.19, the reported outcome assumes 80% of R&D employment occurs in 28sqm per FTE labs and 20% in B1a premises. If 60% of R&D employment is in 28sqm per FTE labs and 40% in lower density premises, the KS2 requirements would be 370,000 sqm for B1b and 145,336 sqm for B1a or a fall of 65,000 sqm overall for B1a/b to 2041.

Table 39:Recommended Floorspace Requirements, Greater Cambridge (sqm)

Use Class	Cambridge	South Cambridgeshire	Greater Cambridge	Source
B1a	38,491	64,730	103,221	Labour Demand KS2 (Higher)
B1b	88,852	389,050	477,902	Labour Demand KS2 (Higher)
B1c	-16,905	16,506	-399*	Net completions ’12-‘18
B2	-7,287	-17,787	-25,074	Net completions ’12-‘18
B8	-50,190	93,849	43,659	Net completions ’12-‘18
Total	**52,961**	**546,348**	**599,309**	**-**

Source: GL Hearn

* reflects net position but planning for growth in SC is recommended

6.38 It is of note that the above summary of needs provides a net aggregated position across the two authorities. In the case most notably of warehousing, these reflect past trends which include losses notably in the city, the relocation of which to South Cambridgeshire will be reflected in higher completions. If losses in the city are stemmed, which is expected not only from a policy perspective but as there are limited industrial sites available for redevelopment, the future need in South Cambridgeshire would be closer to the Greater Cambridge net position (43,659 sqm). For light industrial B1c it would be misleading to plan for the Greater Cambridge aggregated net position given the market requirements and the 16,506 sqm should be considered as required regardless of future losses.

7 BALANCE OF FLOORSPACE NEEDS

7.1 This section draws together and makes recommendations on the balance of future floorspace needs drawing on previous sections.

7.2 Based on the 2019 monitoring data of supply, with updates as set out in chapter 4, and the 2020-41 recommended needs under higher growth, the following balance is shown. This includes the proposal for the Wellcome Genome Campus (Hinxton) expansion with a planning committee resolution-n to grant planning permission.

7.3 GL Hearn recommend planning for a margin of vacancy in future needs at 7.5%, which helps to enable churn and choice for businesses. This is included below.

Table 40:Demand Supply by Use Class, Greater Cambridge (sqm) 2020-2041

Use Class	Need	Inc. vacancy margin 7.5%	Supply	Balance	Comments
B1 *	N/A	-	283,708	+283,708	Includes 150,000 Genome Campus
B1a	103,221	110,963	101,120	-9,861	-
B1b	477,902	513,745	276,823	-236,922	Genome Campus likely to include high B1b element
B1c	16,506	17,744	16,232	-1,512	Need reflects positive approach for South Cambs
B2	-25,074	-25,074 (N/A)	-76,032	-50,958	-
B8	43,659	46,933	22,462	-24,471	Shortfall identified
NEC	-	-	TBC - AAP	-	-
Total	**616,214**	**664,311**	**624,313**	**-39,998**	**-**

Source: GL Hearn

* Blended B1 is not an output of the demand modelling, whilst the B1 supply represents outline permissions / allocations where the final mix is not yet known.

7.4 The use classes are amalgamated below for ease.

Table 41:Demand Supply by Summarised Use Class, Greater Cambridge (sqm)) 2020-2041

Use Class	Need	Inc. vacancy margin 7.5%	Supply	Balance
B1	-	-	283,708	+283,708
B1a/b	581,123	624,707	377,943	-246,764
B1c/B2	-8,568	-7,330	-59,800	-52,470
B8	43,659	46,933	22,462	-24,471
NEC	-	-	TBC through AAP	-
Total	**616,214**	**664,311**	**624,313**	**-39,998**

Source: GL Hearn

7.5 At the present time the mix within the Wellcome Genome Campus expansion is not known but this is expected to play an important role in significantly contributing to the future longer term undersupply in R&D B1b requirements. The main components of the B1 supply include:

- Wellcome Genome Campus;
- Northstowe;
- Cambourne West;
- Land at Station Road (Cambridge Station);
- Peterhouse Technology park expansion; and
- Permissions at Cambridge Science Park.

7.6 Regardless of the above there is still expected to be a shortfall in B1a/b provision under the KS2 Higher scenario in the region of 50,000 to 100,000 sqm. Furthermore, notwithstanding the apparent quantitative balance of B1a provision, given the commonalities between B1a and B1b dry labs, the market feedback is that further accommodation of this type is lacking in the city and around North East Cambridge.

7.7 GL Hearn recommends that further allocations are made to accommodate both office and wet/dry lab needs in Greater Cambridge. The role and mix therefore of North East Cambridge Area Action Plan in providing a growth overspill function is

essential. It is important that this area provides a mix of B1a/b although given the location it is acknowledged to emphasise B1a office and B1b dry labs with a smaller wet lab proportion.

7.8 As reported earlier it is recommended that the higher growth scenario (KS2) floorspace need is planned for. The central scenario (KS3) would see a relative fall of around 120,000 in B1a/b needs compared to the higher growth scenario and therefore is largely balanced in the current demand and supply, nullifying in quantitative terms significant employment growth needs for example at North East Cambridge. However given the level of demand in Cambridge and particularly around the Science Park, the central scenario for floorspace would be counter intuitive to market signals.

7.9 Further commentary on the qualitative position of the use classes is provided below, drawing on the property market feedback, quantitative need and supply.

Offices

7.10 The office market across Greater Cambridge is mixed and highly locational within the submarkets. Large scale B1a office footprint take up outside of Cambridge, notably at Cambourne, has proven to be a protracted process (albeit improved recently in the buoyant market) and as recommended elsewhere in this report requires a mix of localised amenities to prove more competitive. In parallel, the draw of the City Centre and Cambridge Science Park has proved relentless with rents continuing to rise.

7.11 There is considered to be a strong corporate office market demand looking forwards for the Cambridge Science Park and future development of North East Cambridge. The Cambridge North Station's accessibility is a particular local driver for demand. Notwithstanding the quantitative modelling results for B1a specifically, which indicate only a limited undersupply compared to future demand to 2041, market feedback suggests a much greater supply will be sought by the market

around the north of the city. The amalgamation of B1a/b needs and balance (ie significant shortfall before counting the mixed B1 contribution) is considered to more realistically represent the future requirements. This reflects the 'blurring' of what is described as 'dry lab' space and office space, the former focused on computer development or mathematical analysis rather than traditional office functions.

7.12 The overall balance of need will be clearer when the type of provision at the Wellcome Genome Campus (Hinxton) and other B1 mixed supply is determined. The role of North East Cambridge Area Action Plan is evidently important in providing employment floorspace and job growth in Cambridge as a whole. One risk that might occur with enhanced supply in the city is that there is a return to a slow down in demand for out of centre offices, such as Cambourne or Cambridge Research Park (Landbeach). However these have different offers and different rental price points accordingly.

7.13 As set out both in the property market review, whilst there is a reasonable offer in terms of flexible and managed workspace, this remains in high demand to the degree it is considered to constrain business opportunity. As a result, further intervention is recommended to improve the offer.

Laboratories

7.14 'Wet lab' research capacity and capabilities are one of Greater Cambridge's most renowned assets. Granta Park (Great Abington) has helped to fulfil the needs of mid sized and larger labs for corporate occupation however demand remains reportedly high with fast take up the norm and availability very low. There will be commercial lab components to the lab development at West Cambridge that will help to fulfil medium and long term needs, as will the Wellcome Genome Campus (Hinxton) and Cambridge Biomedical Campus ongoing expansion. Restrictions on occupancy / tenancy type at these locations would be problematic in facilitating wider growth. Where possible owners should avoid designating labs solely for

either institutional research or open market commercial research labs to maximise flexibility.

7.15 Feedback and evidence on the sufficiency of supply for smaller start up labs generally points to significant constraints and there are viability challenges in the provision of these. The expansion of the Wellcome Genome Campus (Hinxton) and West Cambridge is likely to help alleviate this in the medium term and there has been some increase in supply in very recent years.

7.16 It is acknowledged that without the Wellcome Genome Campus application then a clear shortfall in B1 (and B1b in particular) in the future would have been identified. The planning authority's positive response to sector needs has helped to mitigate the shortfall. However within the B1b category specifically there is an apparent quantitative shortfall which could be in the order of 50,000 – 100,000 sqm dependent on B1 supply. If the higher growth is achieved over the next two decades then the current pipeline of supply specifically regarding lower density research labs is likely to be insufficient, subject to the mix of B1 floorspace coming forward at North East Cambridge. This should be monitored through the Plan period and the planning authority should continue to respond positively to proposals that can be considered on their merits or through a further allocation or allocations.

Industrial and Warehousing

7.17 Both completions data and VOA records indicate that South Cambridgeshire has been gaining industrial stock almost at a parallel rate to Cambridge's losses (the VOA category combines industrial and warehousing floorspace). The quantitative analysis very much reflects the property market feedback, with an ongoing decline in traditional heavy manufacturing premises being replaced by warehousing and to a lesser degree light industrial requirements. This includes the need for 'trade park' type premises such as Travis Perkins type builder's merchants as well as more retail-esque 'Screwfix' and 'Wickes' units.

7.18 As reported elsewhere, the demand for residential and other uses has pressurised land values and reduced the industrial supply in Cambridge, leading to rental increases for industrial units. There is a land use efficiency logic to removing these lower value activities from the City. However, at a certain point this becomes inefficient with customers and employees having to travel too far (or not travelling at all) to businesses outside of the city. As a result some industrial locations should be protected in the city to support the economic needs and diversity of employment opportunities. Release of these sites should be assessed on a site by site basis however in reality there are a limited number of industrial areas remaining. It is equally important that new units are available in South Cambridgeshire and where these have been brought forward in accessible locations they have proven popular. The drive in e-commerce will further increase the need for smaller scale warehousing opportunities (final mile centres).

7.19 The under supply reported quantitatively of around 20,000 sqm B8 again suggests suitable locations should be identified for small and mid sized light industrial and distribution units. Trade counters will prefer edge of city locations. In town, smaller and mid sizes B8 requirements will assist in fulfilling last mile delivery needs. Further out of town the Bourn Quarter proposals provide a good example of a modern offer where more industrial units sit alongside mid tech B1b as part of an integrated offer in an accessible location. These should be located in proximity to the strategic road network and also ideally on the fringe of urban areas serving customers and providing localised labour.

7.20 Although contraction in B2 is occurring at a faster rate than anticipated in the model, changing working practices indicate that the strong supply in B1 general accommodation (drawing in B1c) for example at Northstowe and Cambourne West will in part be providing for employment needs rather than requiring replacement of extensive B2 losses. Equally this highlights the importance of ensuring both existing B1 allocations and traditional industrial sites are retained to enable choice

for business accommodation. However given the scale of undersupply in B2 requirements which exceeds 50,000 sqm, some provision should be made for allocations that support this floorspace both in order to facilitate traditional industries as well as supporting advanced industries that require operational activities not suited to residential areas. Future reprovision should be of at least 25,000 sqm, which would be the residual requirement under the labour demand model, whereas planning for a greater recommended rate of up to 50,000 sqm would align with the recent completions trends and better offset losses in both the city and South Cambridgeshire. Preferred locations would be both in reasonable proximity to the city itself as well, enabling commuting and potential access to customers, as well as in the wider city hinterland, with good accessibility.

8 REVIEW OF ECONOMIC DEVELOPMENT POLICIES AND ISSUES

Role of Villages and Rural Locations

8.1 The economic landscape of Greater Cambridge is made up of a number of villages distributed in the South Cambridgeshire local authority area. As employment in Cambridge City and South Cambridgeshire continues to experience growth, the role of employment in villages and rural areas in accommodating floorspace demand has ongoing importance.

8.2 South Cambridgeshire District Council recognise the role of these areas and the South Cambridgeshire Local Plan (adopted 2018) sets out the vision and objectives for the development needs for South Cambridgeshire to 2031.

8.3 **Policy E/4 Allocations for Class B1 Employment Uses** allocates 6.7 Ha of B1 employment development at North of Hattons Road in the village of Longstanton and 1.9 Ha at West of Eastern Counties Leather, London Road in the village of Pampisford. **Policy E/5 Allocations for B1, B2 and B8 Employment Uses** allocates B1, B2 and B8 employment land development in the villages of Over (1.7 Ha) and Papworth Everard (2.5 Ha).

8.4 As set out elsewhere in this report, it is suggested the Longstanton allocation be reconsidered. Whilst Papworth Everard is completed. Allocations remain at Over and Pampisford has permitted development.

8.5 **Policy E/12 New Employment Development in Villages** sets out that planning permission will be granted for new employment development (B1, B2 and B8 uses) or expansion of existing premises within development framework villages, provided that the scale of development is in keeping with the scale of the village. This policy is based on the grounds that sensitive small-scale employment development can assist in sustaining the rural economy and reduce the need to travel.

8.6 **Policy E/13 New Employment Development on the Edges of Villages** focuses on small scale employment development in supporting the rural economy. The policy states that new sites adjoining or very close to the development frameworks of villages will be considered where, inter alia, there are no suitable sites or buildings nearby, the development considers previously developed land first, the proposal is justified by a business case, the proposal is in keeping with the scale of the village, and the proposal can be accessed on foot or cycle.

8.7 The Local Plan notes that employment sites in villages in South Cambridgeshire are a scarce resource. In order to retain them, **Policy E/14 Loss of Employment Land to Non Employment Uses** sets out that the conversion, change of use or redevelopment of existing employment sites to non-employment uses within or on the edge of development framework will be resisted unless the site can demonstrate that there is no market demand, the community benefit outweighs the employment opportunities and the existing use causes environmental problems.

8.8 The above policy suite is considered to form a tight framework for enabling development at village locations and restricting loss of employment land. Ad hoc applications for employment elsewhere would be considered in line with NPPF and Local Plan policies at large.

Current and future development

8.9 There are a number of successful villages that are well functioning places for residents and employment. In the north of Greater Cambridge these include, amongst others, Over (Norman Way Industrial Estate), Cottenham (Broad Lane Industrial state and Brookfield Business Centre), Waterbeach (Pembroke Avenue Industrial Estate) and Cambridge Innovation Park and Histon (Vision Park) are well-functioning villages with active employment sites located on the edge of villages. These villages are well connected to Cambridge city, have good access to major roads and present opportunities for more sustainable growth.

8.10 In the south of Greater Cambridge, Melbourn (Melbourn Science Park), Pampisford (West of London Road, on the edge of Sawston), Linton (The Grip Industrial Estate) and Sawston (Former Spicers site) successfully host employment sites which retain the village character and provide a mix of floorspace. Dales Manor Business Park in Sawston is allocated under Policy H/1 for mixed use development, however there is still demand for industrial floorspace at this site with recent industrial floorspace delivered and landowner intent to develop.

8.11 In the west of Greater Cambridge, Bar Hill (Trafalgar Way), Papworth (Papworth Everard Industrial Estate) and Comberton (Horizon Park), are well performing villages with good access to the strategic road network and growth opportunities for future floorspace growth.

8.12 The majority of these employment locations are orientated towards light industrial provision, with some general industrial and distribution uses. Histon, on the city fringe, has Vision Park, Melbourn has Saxon Way, and Cambourne has its Business Park, which are all office orientated and there are a number of more detached out of town business parks.

8.13 The land constraints and costs in and on the edge of Cambridge City make rural and village locations attractive in employment development terms. They allow, subject to planning policy and environmental issues, for expansion that cannot be achieved in the City. Given the ongoing contraction of industrial employment floorspace in the city and expansion in South Cambridgeshire, as demonstrated by the VOA records, the villages are able to play an ongoing role in ensuring viable and available industrial floorspace to meet the needs of the city and wider Greater Cambridge area. Industrial demand for those locations with good connectivity and / or proximity to Cambridge is anticipated to remain moderately strong in the medium term, with examples of new units including Buckingway Business Park (Swavesey) or anticipated demand at Bourn Airfield. Whilst office parks can and

frequently do exist in isolation from settlements, industrial estates tend to locate on village peripheries utilising local services.

Role of Neighbourhood Plans in bringing forward employment land

8.14 There are currently no made (adopted) Neighbourhood Plans in Cambridge. In South Cambridgeshire, the Great Abington Former Land Settlement Association Estate Neighbourhood Plan was made in February 2019 and primarily focuses on residential development with no guidance on employment land. The Cottenham and Histon & Impington Neighbourhood Plans have both been agreed for referendum, and both plans include employment policies and sites protected for employment uses. Foxton Neighbourhood Plan has reached submission consultation stage and the plan includes an employment policy and a site allocated for employment uses. Pre-submission consultation on the Waterbeach Neighbourhood Plan has been undertaken and the plan includes a policy for Denny End Industrial Estate. Pre-submission consultation on the Gamlingay Neighbourhood Plan has recently been undertaken and the plan includes an employment policy and a new employment allocation. South Cambridgeshire District Council has a further 13 Neighbourhood Areas designated and Cambridge City Council has a Neighbourhood Area designated and Neighbourhood Plans are being prepared for these areas.

8.15 Neighbourhood Plans enable communities to take charge in deciding the future of the places where they live and work. They can be used as a tool to help identify suitable sites for employment land. The development of Neighbourhood Plans in Greater Cambridge provides an opportunity for the designated Neighbourhood Areas to include policies and allocations for employment land. There are numerous examples of adopted Neighbourhood Plans across the country that do this. This would typically be expected to protect or support local business providing services or employment particular to that area. From experience, GL Hearn is also of the view that Neighbourhood Plans can in some instances seek to release employment land particularly where this enables housing development that might otherwise

occur on greenfield sites. Overall, the contribution of Neighbourhood Plans to the employment land process is expected to be modest.

Re-use of Farm Building in employment uses

8.16 There are examples of former farm building locations being used for general employment uses. Oakington Business Park is one such case where the building footprints, if not the buildings themselves, have been converted from agriculture to a suite of smaller office units. This creates a land use efficiency by recycling sites and refurbishments are typically lower than new build (but not significantly so). Such conversions should be encouraged to diversify rural employment activity.

Protecting Employment Land

8.17 Both Cambridge and South Cambridgeshire Local Plans set out clear policies for protecting employment land.

8.18 In the Cambridge Local Plan (2018), **Policy 41 Protection of Business Space** outlines that development will not be permitted on protected industrial sites which would result in a loss of floorspace or land within use class B or sui generis research institutes.

8.19 This policy was informed by the Employment Land Review (updated in 2012) which found a significant loss of industrial floorspace in Cambridge and some office space.

8.20 Under the policy, a loss of employment floorspace or land will be permitted if the loss of floorspace would facilitate the redevelopment (including the potential for modernisation) and continuation of employment uses, the site has been realistically marketed for a period of 12 months for employment uses and other employment uses do not prove possible on the site.

8.21 Increasing residential land values and the scarcity of developable land in Cambridge means that there is expected to be continued pressure on employment

floorspace for the development of other uses. Whilst some ad hoc employment sites in Cambridge would benefit from intensification as set out in the supply review, the market feedback is that losses of sites have led to business constraints and rising rents. This should encourage site improvement and investment where business activities are protected. As a result, this policy is considered appropriate.

8.22 In the South Cambridgeshire Local Plan (2018), **Policy E/14, Loss of Employment Land to Non-Employment Uses** resists the conversion, change of use or redevelopment of existing employment sites unless it is demonstrated that the site is inappropriate for any employment use to continue having regard to market demand (12 months marketing), the overall benefit to the community outweighs any adverse effect on employment opportunities and the existing use is generating environmental problems such as noise, pollution or traffic levels. Viability evidence is required to demonstrate why an employment element cannot be provided as part of a scheme.

8.23 Again, this policy provides a reasonable level of protection for employment sites including the need for 12 months marketing as a minimum. Elements relating to community benefit and environmental problems might be considered superfluous in any future Local Plan review given the qualitative nature of community benefit and agent of change principle issues related to environmental effects, in so far as new development (i.e. residential) should not lead to a prejudicing of existing employment activities.

Supporting Employment and Training opportunities through Planning Policy

8.24 Employment and training of the local population supports economic growth across Greater Cambridge and can be particularly beneficial in higher deprivation areas. This supports the Cambridge Anti-Poverty Strategy which aims to improve the standard of living and daily lives of those residents in Cambridge who are currently experiencing poverty; and to help alleviate issues that can lead households on low

incomes to experience financial pressures. The Strategy includes the following activities:

- Supporting people into higher paid employment: to ensure more inclusive growth, the council are working closely with local voluntary and community organisations and public sector bodies which provide employment and skills support for residents on low incomes. Examples include, Signpost2Skills and Apprenticeship Brokerage service.
- Raising skills, attainment and life chances: through working with schools and further education colleges Cambridge City Council have the ability to support additional projects which aim to raise skills and aspirations for young people.

8.25 Planning policy can be applied to new developments where there are opportunities to provide apprenticeships or training thus raising skills and attainment and supporting people into higher paid employment, potentially connecting employers and employment opportunities to local schools, colleges, training organisations and voluntary services.

8.26 There are a number of authorities in London and the South East that have effective adopted example policies. Lambeth, Reading and Barnet have set out a policy requirement (as part of Section 106 planning obligation) to access employment opportunities created by the development. This includes creating apprenticeships, using local labour supply and providing training for young people – and where initiatives could not be met in developments, a financial contribution would be considered.

8.27 Each Council has created a supplementary planning document (SPD) outlining the context and justification of the requirement. The SPD requirements are outlined below.

London Borough of Lambeth

8.28 In order to address Lambeth's high out-of-work benefits, skills shortages and high youth unemployment, Lambeth Borough Council's Employment and Skills Planning Obligations SPD sets out the planning obligations which will be sought from developers:

- Provision of apprenticeships for Lambeth residents aged under 25, with the expectation that one new apprentice would be capable of being generated by every 1,000 sqm of development or every 10 residential units provided,
- Provision of employment opportunities in the end-user phase which have appropriate support to make them suitable for long-term unemployed Lambeth resident(s),
- Provision for notification of job vacancies, arising from both construction and end-use occupation, to the council or any other agency nominated by the council;
- Provision for delivery of bespoke pre-employment and skills training for Lambeth residents that will provide them with the skills to access the jobs that are being created.

Reading Borough Council

8.29 Reading Borough Council's Employment Skills and Training SPD recognises that the skills and education of the labour force is crucial to the economic viability, flexibility and competitiveness of the local economy. The Council has a requirement for S106 planning obligations to develop a site-specific Employment and Skills Plan (ESP).

8.30 The ESP's should cover the following outcomes (both construction and end use phase):

- Number of apprenticeships,
- Employment and training initiatives,

- Training and work experience for younger people, including those who are not in employment, training or education,
- Best endeavours to maximise local labour;
- Local procurement agreement - potential for local businesses to be included in tender list.

London Borough of Barnet

8.31 Barnet's 'Delivering Skills, Employment, Enterprise and Training from Development through S106' SPD establishes the use of Local Employment Agreements (LEA) as a mechanism to deliver employment opportunities generated by construction and end uses jobs.

8.32 In the LEA, the developer is expected to set out its approach to forecasting job opportunities, notification of job vacancies, local labour target, jobs brokerage and skills training, apprenticeships and work experience, use of local suppliers and delivery of specific LEA targets.

Provision of Affordable Business Space through Planning Policy

Challenges for small business space

8.33 The market analysis and business engagement undertaken by GL Hearn has identified a floorspace affordability issue in the office and employment market in Greater Cambridge. The issue is more apparent and increases further towards the city centre. Common issues include tenants being priced out of the market, long-waiting lists for new space and paying high rents. As a result, the workspace market in Greater Cambridge can be difficult for micro-enterprise and SME's to enter. It is noted that in summer 2020 Cambridge Research Park launched their Plug and Play space designed for smaller start-up businesses or as additional flexi-space for more established companies.

8.34 This is supported by a report commissioned by South Cambridgeshire District Council ('Managed Workspace on Cambridge Compass Enterprise Zone sites' by

Building Partnership Ltd with Nautilus Associates and Cheffins, 2019). This identified high occupancy rates in most cases with good demand for a range of different products across the spectrum of Innovation Centre, Enterprise Centre, Business Incubator and Co-working hub.

8.35 The commissioned report found 24 managed workspace facilities in Cambridge City and South Cambridgeshire District – Appendix F lists providers in full. Findings of the report include:

- Prices of office space per month ranged from £40 per month at Mill Lane in the city to £4,000 per month at The Officer's Mess (Duxford).
- Operators consulted indicated extremely high occupancy levels with many reporting their existing facilities are currently fully occupied, all without doing any formal advertising.
- They reported that it is difficult for smaller co-working spaces to thrive in Cambridge with commercial property prices being high, and space in high demand.
- Business rates also have a considerable impact on the cost-effective operation of co-working space, with many operators offering all-inclusive rents, fees or subscriptions.
- Graduate tenants reported difficulties in finding suitable grow-on space.
- Key locational considerations made by operators were the accessibility of work spaces, with town centres sites identified as being suited to the tech companies looking to attract a young workforce, whilst out-of-town provision had to provide amenities to draw users out of the city centre.

Planning Policy and Affordable Workspace

8.36 Affordable Workspace can be defined as workspace that has a rental value below the market rate (generally, 80% of the market rate or less). The lower rates mean that occupation tends to be feasible for small or start up enterprises. Therefore, by providing affordable workspace it can help local entrepreneurs and firms to have security and to be protected from rising rents and displacement.

8.37 London authorities and the GLA provide good examples of planning policies that seek to secure affordable workspace. These use Section 106 agreements in order to deliver affordable workspace. Examples are outlined below.

Intent to Publish London Plan (2019)

8.38 The Intend to Publish (ItP) London Plan includes policies to provide new affordable workspace based on evidence that the city is running short of industrial and lower-cost office space and disproportionately affecting micro firms and other SMEs.

8.39 Draft Policy E2 addresses this by securing a supply of 'low cost' office space "to meet the needs of micro, small and medium-sized enterprises and to support firms wishing to start-up or expand". For larger commercial proposals above 2,500 sqm, the policy seeks SME workspace provision as part of the proposed development.

8.40 Draft Policy E3 has an explicit focus on affordable workspace, which is specifically meant for social, cultural or economic development purposes. The draft policy (section B(2)) suggests that consideration by the Boroughs should be given to drafting affordable workspace policy where "cost pressures could lead to the loss of affordable workspace for micro, small and medium-sized enterprise".

Islington Local Plan Strategic and development management policies (2019)

8.41 The provision of affordable workspaces in Islington is secured through the Section 106 agreements. The Council's evidence has shown that the affordable workspace market has failed in Islington. Their intervention has reportedly secured 4,000 sqm of office and workshop space in commercial development now being let to local entrepreneurs and starts-ups at genuinely affordable rents.

8.42 Policy B4: Affordable workspace provides area specific guidance on where 10% of affordable workspace must be included for employment developments over 1,000 sqm, leased to the council for a peppercorn rent for 20 years and managed by a council approved Workspace Provider. Rental values for end occupiers will

ultimately depend on the quality of space and its location. All proposals which provide affordable workspace must prepare an Affordable Workspace Statement.

Tower Hamlets Local Plan (2020)

8.43 The impact of permitted development rights and the general shortage of industrial property in the borough has disproportionality affected the 'affordable' end of the property market; including being attractive to local SME firms. Without explicit policy it is thought that it would be unlikely the borough could secure space below the market rent.

8.44 The local plan details in policy D.EMP2 that "4. Within major commercial and mixed-use development schemes, at least 10% of new employment floorspace should be provided as affordable workspace."

Potential alternate funding sources

8.45 In the case of the above examples of affordable workspace secured through policy, viability testing has established the ability of development to provide the space in question. Should this not be the case, alternative funding would be required. Outside of privately operated managed workspace, the Cambridgeshire and Peterborough Combined Authority have a secured a total of £146.7m Growth Funding from Central Government through the three rounds of LGF to date which is designed to support business growth in the area. As of summer 2020 around £50m is left to allocate.

Homeworking Trends

8.46 This report drafting and data gathering was principally undertaken prior to the COVID-19 pandemic. However final editing in summer 2020 occurs during the effects of COVID-19 pandemic. It is recognised that a very significant increase in homeworking has occurred as a result and is likely to be maintained beyond the pandemic period. The commentary below was completed prior to the COVID-19 effects.

8.47 The Homes and Communities Employment Densities Guide 2015 reports that technology is increasing employment densities particularly in offices, enabling agile working. As a result whilst densities of those in an office might not increase, the density relative to those requiring office space as a whole will increase The Guide outlines that within the UK, 14% of the workforce works from home some of the time and this has increased from 11% in 1998. The analysis also suggests that homeworkers tend to be higher skilled with approximately two thirds self-employed. Lifestyle choices, technology and higher rents for offices influence increases in flexible working.

8.48 The Guide acknowledges that different office-based sectors have different requirements ranging from 8-13 sqm per person in offices. These densities build in an assumption that a proportion of the workforce will be working flexibly.

8.49 In 2018 the British Council for Offices published 'Office Occupancy: Density and Utilisation'.

8.50 The study drew on a sample of 6.6 million sq. ft of occupied office space, spread across 84 occupiers and 314 sites. The study shows average value for workplace density is 9.6 sqm compared with 9.9 sqm in 2013. This broadly reinforces the 2015 HCA Guide findings perhaps with a slight decrease in overall densities.

Labour Force Survey (LFS) data 2018

8.51 According to the LFS, nationally 5.1% of workers mainly work from home. However those working at home at some point in the week prior indicates a high volume of occasional home workers.

Table 42: Number of employees who work from home by region (2019)

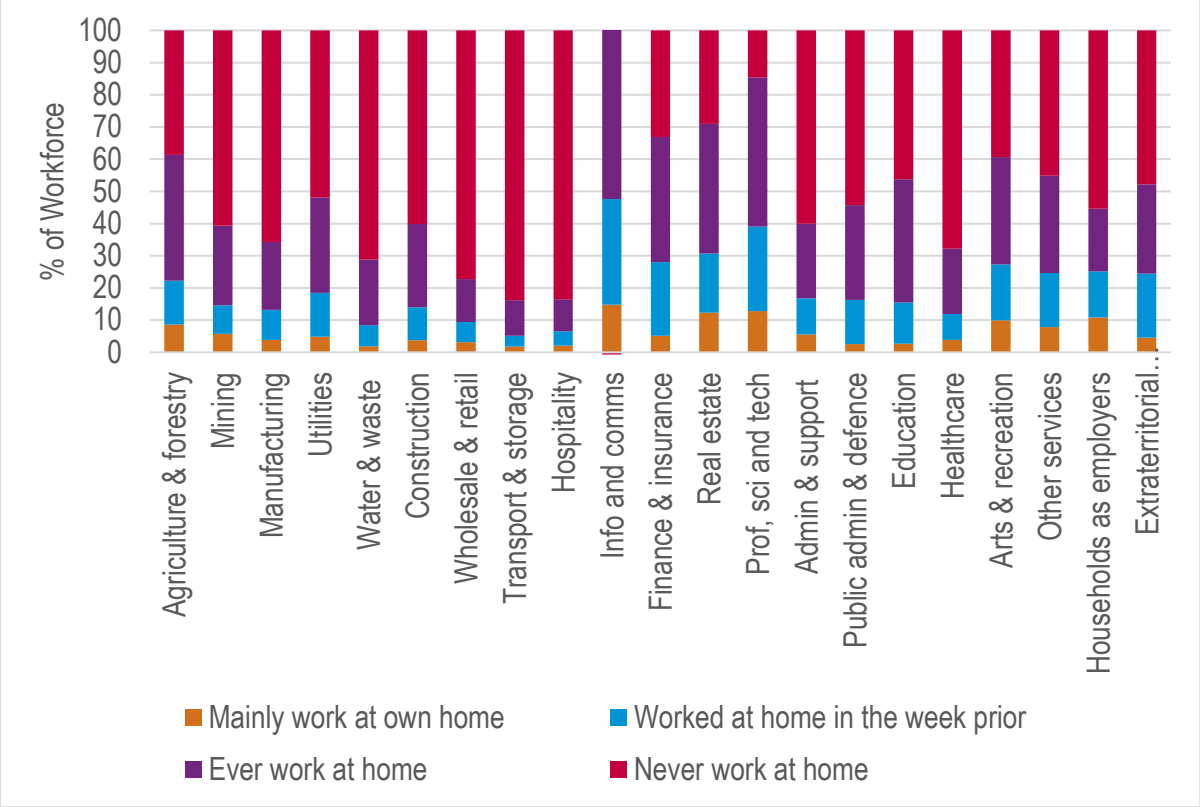
Region	Number	% workforce mainly WaH	% workforce Week Prior
North East	45,000	3.5	8.2
North East	45,000	3.5	8.2
North West	168,000	4.2	10
Yorkshire & the Humber	166,000	4.6	10.4

Region	Number	% workforce mainly WaH	% workforce Week Prior
East Midlands	125,000	4.4	11.3
West Midlands	158,000	4.3	9.4
East	172,000	5.5	12.5
London	217,000	5.5	16.4
South East	292,000	6.8	17.6
South West	188,000	6.4	14.2
Wales	61,000	4.4	9.9
Scotland	106,000	4	8.3
Northern Ireland	22,000	3.8	7.7
UK	1,722,000	5.1	12.4

Source: ONS Labour Force Survey 2019

8.52 2019 data on homeworking by sector (as set out below) indicates that up to 15% of the ICT sector mainly work at home while other office based sectors achieve 12-13%. However when looking at 'worked at home in the week prior' data, between 18-33% of largely office based sectors do so, although admin & support is lower at 10%. This suggests the occasional working at home is highly prevalent.

Figure 28: Extent to which people can and do work from home by sector



Source: ONS Labour Force Survey 2018 Q4

Chartered Institute for Professional Development Publications

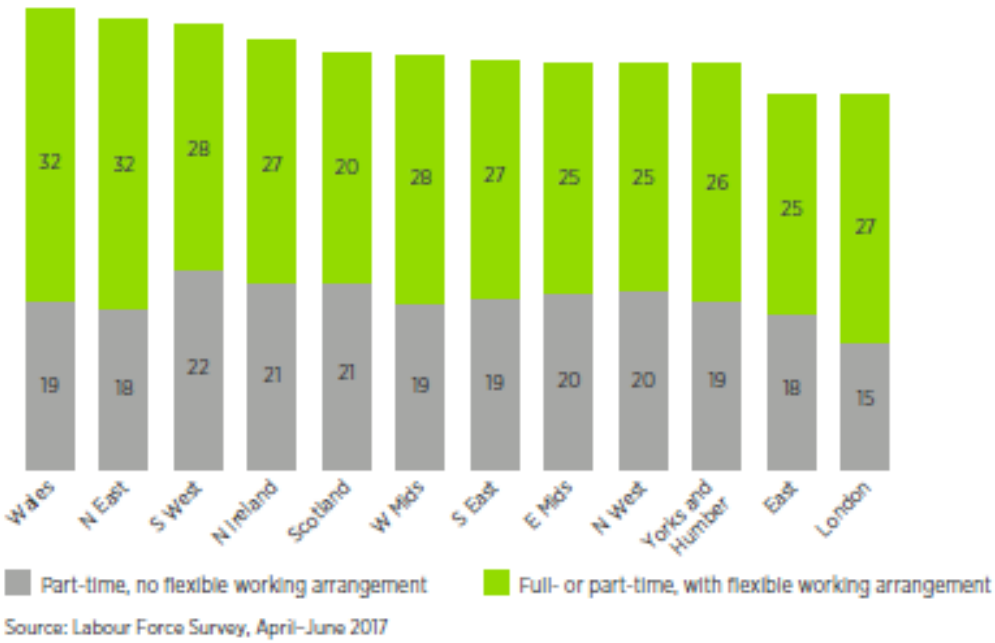
8.53 The Chartered Institute for Professional Development (CIPD) in January 2019 published "Mega trends Flexible working"[26]. This report defines flexible working as flexi-time, working part-time hours and working from home. The report differentiates the availability (employers permissiveness) and take up (employees pursuance) of flexible working.

8.54 The report suggests that differences across the English regions and the devolved administrations are not significant, although part-time employment is least

[26] Available at https://www.cipd.co.uk/Images/megatrends-report-flexible-working-1_tcm18-52769.pdf

commonly available among employees who live in London and East of England. In the East of England, 25% of employees have or can have a flexible working arrangement, according to the Labour Force Survey April-June 2017. This data on access to flexible working should not be confused with the rate of take up. It can also represent part time rather than home working.

Figure 13: Employees with flexible working arrangements, by region/country, 2017 (%)
(UK, not seasonally adjusted, % of employees)



Source: Labour Force Survey, April–June 2017

Sourced from: CIPD ‘Mega trends Flexible working’ 2019

8.55 Overall, whilst home working and flexible working are prevalent particularly in office based sectors, there is no evidence to indicate that office densities are decreasing below 9-10 sqm per employee (as assumed in the density models in this report). The evidence suggests that workforces and particularly those office based do take opportunities to work from home on a regular basis but that having an office base with sufficient capacity remains businesses preferred way of working for the foreseeable future.

Employment Land in adjoining authorities

8.56 We have reviewed the employment land provision of Cambridge's adjoining authorities of Peterborough, Huntingdonshire, East Cambridge and Fenland. Each show positive employment and growth positions.

Peterborough Local Plan 2016 to 2036

8.57 The Peterborough Local Plan adopted in 2019, identifies the requirement of 76ha of employment land between 2015 and 2036. This is to help the growth in forecasted new jobs of 17,600 over the plan period.

8.58 There are 12 general employment areas in Peterborough where planning permission will be granted for development within Use Classes B1, B2 and B8. There are three business parks where planning permission will be granted for development within Use Class B1.

8.59 Policy LP46, allocates 18.38ha of new employment land on four sites for development primarily for use classes B1, B2 and B8. There is 3.35ha allocated for development primarily for use within Class B1.

Huntingdonshire Local Plan to 2036

8.60 The Huntingdonshire Employment Land Study (2014), identified the sectors of chemicals, pharmaceuticals, metals manufacturing, electronics, waste and remediation, telecoms, computer-related activity, and research & development as the target growth areas.

8.61 The employment land study also showed that by 2036 there will be a requirement for 42-46ha. The study also highlighted the importance of ensuring a range of additional small to medium size (up to 1,000 sqm) high-quality industrial units on new development sites for small and growing businesses.

8.62 The Huntingdonshire Local Plan allocates approximately 51ha of employment land, comprising of at least 13ha on previously developed land and 38ha on greenfield land.

East Cambridgeshire Local Plan 2015 to 2031

8.63 Policy 1 of the East Cambridgeshire Local Plan sets out the goal to maximise opportunities for jobs growth in the district to provide 9,200 additional jobs in 2011 to 2031, 460 per annum. To achieve this, it is proposed that at least 69.6ha of employment land is provided for B1/B2/B8 use.

8.64 Combining the 69.6ha of new employment land with the outstanding commitments of 40.3 ha and allocations of 69.8 ha identified in the core strategy, totals 179.7ha for B1/B2/B8 uses of employment land in East Cambridgeshire.

Fenland Local Plan Adopted 2014

8.65 Between 2011 and 2031 Fenland District Council have the aim (Policy LP6) of delivering 7,200 net additional jobs. This equates to a total of between 30ha and 45ha of employment land.

8.66 The employment evidence states that in order to compensate for the predicted annual loss to other use at a rate of 2ha, an additional 40ha of employment land is also required.

8.67 In total, the Fenland Local Plan (2014) allocates 85ha of employment land for business, industrial and distribution uses distributed between settlements.

Conclusions

8.68 **The role of villages:** There are a number of successful villages that are well functioning places for residents and employment. The land constraints and costs in and on the edge of Cambridge City make rural and village locations attractive in employment development terms. Given the ongoing contraction of industrial employment floorspace in the city and expansion in South Cambridgeshire, as

demonstrated by the VOA records, the villages are able to play an ongoing role in ensuring viable and available industrial floorspace to meet the needs of the city and wider Greater Cambridge area. Industrial demand for those locations with good connectivity and / or proximity to Cambridge is anticipated to remain moderately strong in the medium term.

8.69 **Protecting employment land:** Increasing residential land values and the scarcity of developable land in Cambridge means that there is expected to be continued pressure on employment floorspace for the development of other uses. Whilst some ad hoc employment sites in Cambridge would benefit from intensification as set out in the supply review, the market feedback is that losses of sites have led to business constraints and rising rents. This should encourage site improvement and investment where business activities are protected. As a result this policy is considered appropriate.

8.70 **Supporting employment and training opportunities through planning policy:** Planning policy can be applied to new developments where there are opportunities to provide apprenticeships or training thus raising skills and attainment and supporting people into higher paid employment, potentially connecting employers and employment opportunities to local schools, colleges, training organisations and voluntary services. There are a number of authorities in London and the South East that have effective adopted example policies which can be considered for Greater Cambridge. Lambeth, Reading and Barnet have set out a policy requirement (as part of Section 106 planning obligation) to access employment opportunities created by the development and each council has created a supplementary planning document (SPD) outlining the context and justification of the requirement.

8.71 **Provision of affordable business space through planning policy:** The market analysis and business engagement undertaken by GL Hearn has identified a floorspace affordability issue in the office and employment market in Greater

Cambridge. As a result, the workspace market in Greater Cambridge can be difficult for micro-enterprise and SME's to enter. London authorities and the GLA provide good examples of planning policies that seek to secure affordable workspace. These use Section 106 agreements in order to deliver affordable workspace.

8.72 **Homeworking trends:** According to the LFS, nationally 5.1% of workers mainly work from home. 2019 data on homeworking by sector indicates that up to 15% of the ICT sector mainly work at home while other office based sectors achieve 12-13%. However when looking at 'worked at home in the week prior' data, between 18-33% of largely office based sectors do so. This suggests the occasional working at home is highly prevalent.

8.73 This report's data gathering was principally undertaken prior to the COVID-19 pandemic and it is recognised that a very significant increase in homeworking has occurred as a result and is likely to be maintained beyond the pandemic period. This may increase homeworking and therefore reduce requirements on future floorspace needs despite growth in employment in some sectors.

APPENDIX A: Employment forecasting models

9.1 This appendix provides further detail on the context to employment forecasting, including:

- Context: in terms of historical data
- Range of methods explored: including traditional econometric forecasting and experimental approaches (some of which were abandoned)
- Detailed narrative around the preferred methodology

Estimates of past and current employment

9.2 In recent years Cambridgeshire has invested heavily in the development of a wider economic evidence base, as demonstrated by the completion of the Cambridge and Peterborough Independent Economic Review (CPIER) in 2018. CPIER was a major undertaking, chaired by Dame Kate Barker, and supported by various groups. It relied on evidence submitted by partners from across Cambridgeshire and Peterborough. In addition, it drew on some new modelling and data analysis. Two elements are especially important in relation to the evidence base for the new Greater Cambridge Local Plan in respect of future employment provision:

- the development of a new methodology for estimating employment numbers across Cambridgeshire and Peterborough which was devised by the Centre for Business Research (CBR) at Judge Business School, University of Cambridge
- the creation of a new spatial equilibrium model – developed by the Department of Architecture at Cambridge University – which considered the consequences of specific levels of employment growth under different spatial scenarios.

Estimates of past and current employment

9.3 Factoring in the contribution of the CBR team, there are currently at least five different estimates of total employment across Greater Cambridge. It is important to understand the similarities and differences between these.

9.4 Across most local planning authorities, the principal source of evidence on employment has long been the **Business Register and Employment Survey (BRES)**, generated by the Office for National Statistics (ONS). BRES is a business survey. It therefore has all the issues linked to survey-based methodologies. For small geographical areas, sample sizes – particularly in relation to smaller businesses – are modest (with implications for confidence intervals). It relies hugely on how businesses define themselves within the Inter-Departmental Business Register (IDBR) which is the government list of UK businesses, in terms of Standard Industrial Classification (SIC) codes (and this is imprecise and inconsistent). It is completed annually and there is (roughly) an 18-month delay before data are published. It does not count jobs that are not organised through registered businesses (so it does not capture many self employment jobs). In short, there are known issues in relation to it. Yet it does generate data that are granular – both spatially and sectorally – and in generating an evidence base for Local Plans, it is widely used, at least as a starting point.

9.5 A second source is the methodology developed by the team from the **Centre for Business Research (CBR)** was different. It relied on the complete Companies House database where all companies have to register. Recognising that not all employment linked to registered addresses is local, it sought to estimate "Cambridge content", relying on survey-based data from larger employers to calibrate its estimates. For "Cambridge active" businesses (registered elsewhere but with some activity locally), it drew on local sources of information. It also made adjustments to deal with very small companies (that file very little information) and also the relationships between parent and subsidiary businesses[27].

9.6 Having completed what was a substantial piece of work – and following a dialogue with ONS – the CBR team however took the view that the different methodologies each had strengths and weaknesses. It therefore proposed a **CBR-BRES**

[27] A full account of the methodology is set out in "CBR database methodology – companies in the Cambridge Region" paper produced by CBR

"blended" solution. This forms a third source of data which was shared by the CBR / CPIER team with the GL Hearn led consultancy team in summer 2019 [28]. The CBR team considered that this hybrid provided the best estimate of local employment, and this was carried forward in the main CPIER final report (p45).

9.7 There is a fourth source of data. This derives from the **East of England Forecasting Model** (EEFM). This is a model that uses in-region estimates for the East of England to develop economic, demographic and housing trends in a consistent fashion. Historic baseline data for EEFM rely substantially on BRES (to 2015). However, estimates are also made for the full range of self employment jobs – so the estimate of total jobs is (generally) higher than from BRES alone.

9.8 In addition, a fifth source derives from **Cambridge Econometrics'** own estimates. These are similar to those underpinning EEFM although some adjustments have been made, notably to update for latest BRES data to 2017 and through the inclusion of improved R&D estimates (compared to the EEFM 2017 figures)[29] occurring to compensate for differences in the number of sectors normally modelled by CE (45) and the EEFM sectors (31).

[28] The Councils engaged early in the process of developing the ELR with the CBR/CPIER team, in particular to confirm understanding of their historic employment data and methodology. Discussion was also held regarding exploratory approaches for how that data could be used in future forecasting, but these discussions did not reach a conclusion. There was no further engagement with the CBR/CPIER team as the preferred approach to forecasting future employment was developed. For clarity, engagement with the CBR/CPIER team does not constitute any endorsement by them for the analysis contained within the ELR, or the preferred approach to forecasting future employment.

[29] In EEFM, CE's regional 45 sector data are converted to EEFM's 31 sectors. UK level shares from more detailed sector data are used to inform the sectoral allocations. However this means that R&D employment (in Cambridge and South Cambridge) is under-counted. Therefore, instead of using UK shares, CE has used regional shares from BRES. The new estimates of R&D employment are therefore higher than in the previous EEFM estimates.

Comparing the different estimates

For the total economy

9.9 The table below compares the five different estimates of total employment in the years from 2011 to 2017, the latest data available at the time of the modelling work. It shows some differences between them in relation to both estimates of total employment and the implied pace of growth. It reports on the compound annual growth rate (CAGR) which is the annual change over time in percentage terms and a commonly used measure of long term growth and change in economies or investments, smoothing out short term change whilst assuming a steady growth rate.

Table 43:Estimates of total employment, 2011-2017[30]

Cambridge	2011	2012	2013	2014	2015	2016	2017	Growth 11-17	CAGR 11-17
CBR	54,553	55,905	58,979	62,323	64,753	68,173	72,617	18,064	4.9%
BRES	90,500	91,500	96,500	101,500	102,000	102,500	105,500	15,000	2.6%
CBR-BRES blended (CPIER)	93,907	92,672	99,785	103,149	104,771	106,330	110,992	17,085	2.8%
EEFM 2017	94,177	98,262	102,101	107,661	107,317	110,091	111,390	17,213	2.8%
CE estimates	94,448	98,939	102,372	108,653	108,565	108,174	112,952	18,504	3.0%
South Cambs	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**Growth 11-17**	**CAGR 11-17**
CBR	45,383	48,378	51,234	53,675	58,490	63,745	67,479	22,096	6.8%
BRES	71,000	69,000	69,000	76,500	79,500	82,500	87,500	16,500	3.5%
CBR-BRES blended (CPIER)	66,654	66,478	69,441	76,096	78,479	82,342	85,915	19,261	4.3%
EEFM 2017	79,429	78,736	74,072	82,330	84,463	86,264	86,804	7,375	1.5%
CE estimates	78,860	79,671	76,848	85,307	88,018	89,863	96,129	17,269	3.4%
Greater Cambridge	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**Growth 11-17**	**CAGR 11-17**
CBR	99,936	104,283	110,213	115,998	123,243	131,918	140,096	40,160	5.8%
BRES	161,500	160,500	165,500	178,000	181,500	185,000	193,000	31,500	3.0%

[30] At the time of modelling, 2017 was the latest year available

CBR-BRES blended (CPIER)[31]	159,596	159,344	169,041	179,755	182,270	188,737	197,337	37,741	3.6%
EEFM 2017	173,606	176,998	176,173	189,990	191,781	196,355	198,194	24,588	2.2%
CE estimates	173,308	178,611	179,220	193,960	196,583	198,037	209,081	35,772	3.2%

Source: CE, EEFM and CBR/CPIER. Note that EEFM estimates for 2016 and 2017 are modelled data

Implications

9.10 Estimating employment is intrinsically difficult – and it is, arguably, becoming ever harder as forms and patterns of employment and the locations in which "work" takes place evolve. There is no unambiguously "right" answer, but the data presented above are important for several reasons.

9.11 The Local Plans that were adopted in 2018 had targets of 22,100 net additional jobs for Cambridge City and 22,000 for South Cambridgeshire District over the period 2011-2031. Drawing on the table above, it is apparent that:

- According to the hybrid CBR/BRES data, **South Cambridgeshire** had delivered 88% of the overall jobs target over the first seven years of the (20 year) Plan. Conversely the EEFM 2017 estimate implied that South Cambridgeshire had produced about a third of the jobs target (suggesting that the target was "about right").
- The differences were limited for **Cambridge** and in the opposite direction – on hybrid CBR/BRES data, it had delivered 77% of the twenty-year target while on EEFM 2017 data, it had achieved about 78%.

Comparisons at the level of individuals sectors

9.12 Differences in job estimates at the level of the total economy are also apparent at the level of some individual sectors. After converting CBR/BRES data to 3 digit SIC

[31] Note that the data for Greater Cambridge shown here are actually the sum of the figures for Cambridge and South Cambridgeshire provided by CBR. They are (very) slightly different from those that were provided by CBR for Greater Cambridge

codes required for modelling, substantial differences were found compared to EEFM. For 2017, these included higher numbers of jobs in research & development and electronics, and lower numbers in professional services and construction.

9.13 The sectoral analysis is useful if only insofar as it illustrates just how much variance exists - both across estimates from different sources and on a year-on-year basis (demonstrating particularly the care that is needed in using data which are ultimately survey-based). For some sectors that are especially important for the economy of Greater Cambridge – perhaps most especially the R&D sector, these differences are quite challenging given the requirements of the plan-making process.

Employment projections for Greater Cambridge

9.14 It is, clearly, difficult to agree exactly how much employment growth Greater Cambridge has seen in the recent past. However, the new Local Plans need to look forward not back. This process requires a view on patterns of past growth as a starting point: in practice, with a sufficiently long time series, the past is often a reasonable guide in determining what the future might look like, particularly in relative terms. Without a consistent view on the past, the challenges of developing an appropriate set of employment projections are not trivial.

Developing projections

9.15 In order to move the discussion forward, a number of different methods were identified as possible routes to developing alternative employment projections by the consultancy team; these drew on detailed discussions with the Officers from the Greater Cambridge Planning Service, the County Council Research Group and also with the CBR/CPIER team. These all drew on the data in Table 43, but in different ways. They also adopted different approaches to the development of forward projections.

9.16 Three initial methods were used by the GL Hearn led team to attempt to model future employment outcomes using the CBR/BRES hybrid data. Various issues were encountered with these models due to the short run nature of the data and difficulties integrating it with the BRES / EEFM datasets which provided a longer historical data series. The variation in sector composition compared to BRES / EEFM also caused difficulties in developing a long run forecast. As a result ultimately these experimental attempts were abandoned.

9.17 A further method was developed by CE which sought to provide a proxy for the CPIER outcomes at the local level (titled CPIER proxy or CP for ease). This derived future broad aggregate employment approximations for the two local districts by applying the CPIER growth rate, for the Cambridgeshire and Peterborough Combined Authority area as a whole, at district level to CE's 2017 district level employment estimates. Outcomes were a reference point but not suitable to be used for the wider study work as sector components were not available which are necessary for employment land modelling. It was also recognised as being a proxy only and the CPIER team was not involved in its development nor did they acknowledge the outcomes.

9.18 Method E1 was an econometric projection, based on the East of England Forecasting Model.

- Method E1 uses population assumptions from ONS Mid-Year Population Estimates to 2013 and from 2014-2017 the projected population as set out in the 2014-based Sub National Population Projections, and the population growth rates from EEFM 2017 thereafter. It updates EEFM for latest 2017 BRES inputs and made some adjustments to the R&D outlook to better account for the local / regional strengths compared to the UK (see also paragraph 9.9).

9.19 Separately, a method titled SM was introduced as a labour supply led economic model. This uses population assumptions from the Standard Methodology housing outputs. GL Hearn working with Justin Gardner and CE determined using a series of assumptions the effect on employment of increasing the population in line with the standard method requirement for the two districts. This generated a national

policy-led baseline as opposed to an econometrically modelled baseline from method E1.

Greater Cambridge – the case for a different approach

9.20 In generating forecasts – as opposed to projections – for a local economy, the usual approach is to rely substantially on econometric modelling. The employment numbers underpinning the adopted Local Plans across Greater Cambridge were generated in this way; and across local planning authorities nationally, this is the usual approach (or at least a core part of it) in responding to the requirements for evidence surrounding the NPPF. The inference therefore is that for Greater Cambridge, EEFM E1 (as described above) would usually prevail.

9.21 However, the out-turn from EEFM E1 appeared cautious for the economy as a whole; 0.8% per annum from 2021-41. In practice, this is quite similar to regional and national averages (for example, CE's regional forecast suggests a growth rate in employment across the East of England of 0.6% per annum over the decade from 2021). The question that follows is whether, in forecasting terms, it is appropriate to treat Greater Cambridge as an "average" local economy within the East of England region as we plan for employment growth through to the 2040s, or whether there are reasons for suggesting a different approach.

9.22 With regard to the knowledge economy, there is much evidence for suggesting that Greater Cambridge is far from 'average' (see Box 1).

Box 1: Greater Cambridge and the regional knowledge economy: Insights from the East of England Science and Innovation Audit

The East of England Science and Innovation Audit – which was prepared in 2017 – examined scientific assets and innovation capabilities across the region. Greater Cambridge dominated the evidence and the narrative. This Audit, sponsored by BEIS and published in September 2017, was led by four Local

Enterprise Partnerships (those for Hertfordshire, New Anglia, Greater Cambridge-Greater Peterborough, and the South East (i.e. Essex, Kent and East Sussex)).

The Audit observed that the University of Cambridge was (by far) the largest higher education institution, dominating the regional profile on most indicators. Data from Higher Education Statistics Agency were used to estimate the combined income from collaborative research (involving public funding) from eight higher education institutions across the region; of this, the University of Cambridge accounted for 88%, University of East Anglia for 7% and the University of Essex for 3%. In addition – and aside from the University of Cambridge – the following "research active" organisations were all identified as being within the "regional top 20" and all are located in Greater Cambridge: Babraham Institute in Cambridge; NERC British Antarctic Survey; European Bioinformatics Institute; TWI Ltd; National Institute of Agricultural Botany; MRC Laboratory of Molecular Biology; Microsoft Research Ltd; Toshiba Research Europe Ltd; and Schlumberger Cambridge Research.

The Audit went on to investigate scientific assets and innovation capabilities focused on four key sectors. In each case – albeit to varying degrees – there was evidence that Greater Cambridge accounted for the lion's share of the regional asset base

9.23 However, these observations are not new: most of the associated asset base is well established and has substantially been in place for decades. To the extent that it is causing Greater Cambridge to generate employment at an accelerated rate, it ought already to be factored into historic patterns of growth which drive the econometric approaches underpinning Method E1. Yet we have seen that future growth rates derived through these econometric routes are actually quite modest.

9.24 In terms of deriving a perspective on future growth, the more important question is whether there is anything to suggest that business might NOT be “as usual” looking ahead. In this context, the issue is not whether policy is likely to change (and hence whether we are considering “alternative” scenarios), but whether there is anything to suggest that the underlying growth prospects of the Greater Cambridge economy might be changing (given its asset base) and in a manner that is not seen across the rest of the region.

9.25 Overall, there does appear to have been a notable increase in R&D floorspace over recent years – as evidenced through different parts of the wider study. Although some of the provision might be expensive, it is unlikely that early-stage, knowledge intensive, businesses would be disincentivised to remain in Greater Cambridge as a result. And with the scale of investment into key local sectors, Greater Cambridge ought to be set for accelerated employment growth. There are a substantial number of proposals in terms of planning permissions, allocations and business proposals with published associated job numbers which strongly indicate continued fast growth in R&D related employment. These include West Cambridge, Wellcome Trust, North West Cambridge, former Spicers Site Sawston, Cambridge Biomedical Campus, Granta Park and potential further capacity to be released through the North East Cambridge Area Action Plan.

9.26 Reflecting on the evidence, our conclusion is that the modelled estimates of employment growth derived econometrically (i.e. through Method E1) appear very cautious: they are at odds with the scale of past growth, and there are good reasons to suggest that regional forecasts are not a proxy for the situation in Greater Cambridge. This in turn raises questions about relying too heavily on an econometric model which constrains local potential within parameters which are defined regionally.

9.27 Given the above, further modelling approaches were developed to take into account exceptional sectors in Greater Cambridge.

Developing alternative approaches: The role of key sectors (KS)

9.28 Methods KS1, KS2 and KS3 explore an alternative approach to modelling future growth. This entailed:

- Using Method E1 as a baseline for endogenous population-driven sectors
- Using a different approach for sectors which have been driven by exogenous factors and which have performed much more strongly than the regional average; these need to be considered 'outside' EEFM.

Identifying key sectors

9.29 Comparing EEFM E1 with the CBR/BRES hybrid data for the period 2010-17, there is a strong correlation between faster growth sectors, albeit with higher growth rates reported by CBR data.

9.30 The sectors with high growth in both datasets, either by volume or growth rate, are:

- Health and care
- Hotel and restaurants
- Research and development
- Professional services
- Computer related

9.31 These sectors show broad alignment with the clusters review (in Chapter 3), which considers: life sciences; ICT; and professional services (along with advanced manufacturing).

9.32 CE data for the 2010-17 period does not reveal rates equal to the CBR/BRES data. However, the evidence suggests that the recent period – notably from 2012/13 - has been one of exceptionally fast growth with an acceleration after 2010 compared with growth rates from 2006 and before. The aggregate growth rate 2006-17 of 1.5%, which broadly reflects the long run rate back to 1991, accelerates

to 2.5% according to CE or 3.5% according to CBR. This highlights the risk of using short-run data for long term planning. The growth rates of the 'key sectors' are reported below.

Table 44:'High growth' sectors: Comparing recent historic data (Greater Cambridge)

Sector	Cambridge (CE data) 2006-17 (peak) (No)	Cambridge (CE data) 2006-17 (peak) (pa)	South Cambridgeshire (CE data) 2006-17 (peak to peak) (No)	South Cambridgeshire (CE data) 2006-17 (peak to peak) % (pa)	Greater Cambridge (CE data) 2006-17 (peak to peak) (No)	Greater Cambridge (CE data) 2006-17 (peak to peak) (%pa)	Greater Cambridge (CE data) 2010-17 (recent) (No)	Greater Cambridge (CE data) 2010-17 (recent) (%pa)	Greater Cambridge CBR/BRES 2010-17 (recent) (No)	Greater Cambridge CBR/BRES 2010-17 (recent) (%pa)
Health and care	5,800	4.00%	4,400	4.50%	10,300	4.20%	9,600	6.10%	7,500	5.00%
Hotels and restaurants	4,800	5.90%	330	0.80%	5,100	4.20%	6,000	8.20%	5,900	8.30%
Computer related	-270	-0.40%	1,200	1.90%	950	0.70%	3,600	5.10%	6,500	10%
Research & development	1,650	3.20%	5,800	6.20%	7,500	5.10%	4,800	4.60%	5,300	4.30%
Professional services	3,500	3.90%	2,700	3.00%	6,200	3.40%	4,900	4.00%	6,500	7.40%
Total (all sectors)	14,600	1.30%	16,300	1.70%	30,100	1.50%	33,600	2.50%	42,700	3.50%

Source: EEFM, BRES, CE, CBR

Future growth rates

9.33 For the majority of sectors to 2040 (the initial modelling period), Method E1 (which is equivalent to the updated 2015 EEFM position using local BRES data to 2017) is considered appropriate for modelling future employment outcomes; it enables a correlation with population and employment that is consistent across the region and links to the national outlook. This is corroborated by similar results if the 2001-2017 local sector growth rates or other longer term historic data periods are applied going forwards (see Appendix B). Where this is not the case, further consideration has been given, as explained below.

9.34 For the exogenous key sectors identified in table 44, growth rates relating to the 2001-17 period were used as a starting point. This is considered to be a sufficiently long run period for the Greater Cambridge economy to provide a consistent picture of performance taking into account peaks and troughs of economic growth. This incorporates a full economic cycle taking into account the 2007/08 financial crisis and takes a 'peak to peak' assessment. These are tested against the 1991-2017, 2006-2017 and CBR/BRES data for sensitivity. It is of note that EEFM – incorporating CE updates for latest population and BRES data (referred to as E1 above) - was necessarily used for the underlying modelling as it was the only up to date dataset that provided consistent data back to 2001 and prior.

9.35 Three sensitivities were developed for the key sectors, these are summarised below.

Table 45: Methods for developing employment projections across Greater Cambridge

Overview	Reference	Growth rate assumption
Continue past growth rate	KS1	Assumes projecting forward the 2001-2017 growth rate for key sectors and other sectors perform as EEFM (E1)
Mid point of past growth rate and baseline	KS2	Uses the mid-point of the outcome between E1 and KS1 for key sectors, essentially halving the growth rate, otherwise other sectors perform as EEFM (E1)
Lower quartile of past growth rate and baseline	KS3	Uses the lower quartile of the outcome between E1 and KS1 for key sectors, otherwise other sectors perform as EEFM (E1)

9.36 The reduction in growth rates is important to consider as it allows for the rate of growth in percentage terms to slow as the sectors expand, avoiding unrealistic absolute year-on-year changes in the sectors as they get larger. This is explored further following the results of the exercise. The outcomes are then tested against the aggregate growth rates and absolute year on year change as a sense check.

Having identified quantitatively the 'key sectors' a brief qualitative perspective is provided, which links to the more detailed cluster review reporting chapter 3.

Health and care

9.37 The Health and care sector has consistently seen fast growth in Greater Cambridge. Typically this is an endogenous sector reflecting local population needs. In Greater Cambridge the relationship with life sciences is causing it to perform exogenously in part and therefore driving growth beyond the regional rate, which in itself is growing driven in particular by an ageing population.

9.38 Analysis of 2017 BRES data at 5 digit SIC code for Health and Care subsectors indicates that 58% of the sector employment in Greater Cambridge is in the subsector 'Hospital activities' whereas the equivalent is 36% at the regional level. The other sub sectors are not considered to be related to exogenous growth

activities (GPs, dental, social work etc). Addenbrooke's Hospital in particular is directly connected to research activities and the life sciences sector, it has expanded recently and has further planned expansion. The higher proportion of the 'Hospital activities' sub sector is assumed to have historically achieved a higher rate of growth above that of other endogenous sub sectors to lead to a rate of high growth overall for the health and care sector.

Hotels and restaurants

9.39 Cambridge has seen recent fast growth in hotels and restaurants as reported in table 44. Appendix C highlights that 2017 was an exceptional year in the City and there was a larger than normal number of developments. When this single year of data is removed (taking 2016 as an end point rather than 2017), the growth trend from 2001 or 2006 falls back to being in line with the regional / EEFM rate in the future. This highlights issues with short run data sets and as a result this sector is not modelled as a growth sector going forwards.

Computer related

9.40 The Computer related sector has seen very recent fast growth particularly in South Cambridgeshire as reported in Appendix B. It is also considered a key cluster in the local economy. However, sector employment has fluctuated considerably since 2001 after the rapid growth through the 1990s dot com boom. Despite the short run (2014-17) fast growth in South Cambridgeshire, testing growth rates from 2001 onwards does not suggest justification for modelling growth above the regional rate.

Research and development

9.41 Research and development has seen consistent fast growth particularly in South Cambridgeshire since around 1999. This is a key employment sector relating to life sciences (including biotech, natural science and engineering) and linked to recent and planned growth across the various campuses including Granta Park, Babraham and Wellcome Genome Campus, as a result fast growth is expected to

continue. Of note is that the sector has grown from a relatively low base of 7,600 jobs in 2001 to 17,700 jobs by 2017. This suggests that whilst the sector may continue to expand rapidly in absolute terms, in percentage terms it will slow down as it expands.

Professional services

9.42 Professional services is also a key sector in Greater Cambridge and both districts have seen ongoing growth albeit with significant fluctuation. The 2001 peak is considered an appropriate start point for modelling. Detailed analysis of BRES data indicates the sub-category of 'Engineering activities and related technical consultancy' is higher in both districts than it is in the region.

9.43 This section provides a detailed narrative on the modelling techniques for the preferred central and higher growth scenarios.

Testing growth rates: Cambridge

9.44 The table below explores the results for the City of continued growth rates for key sectors and the economy overall using a number of sources.

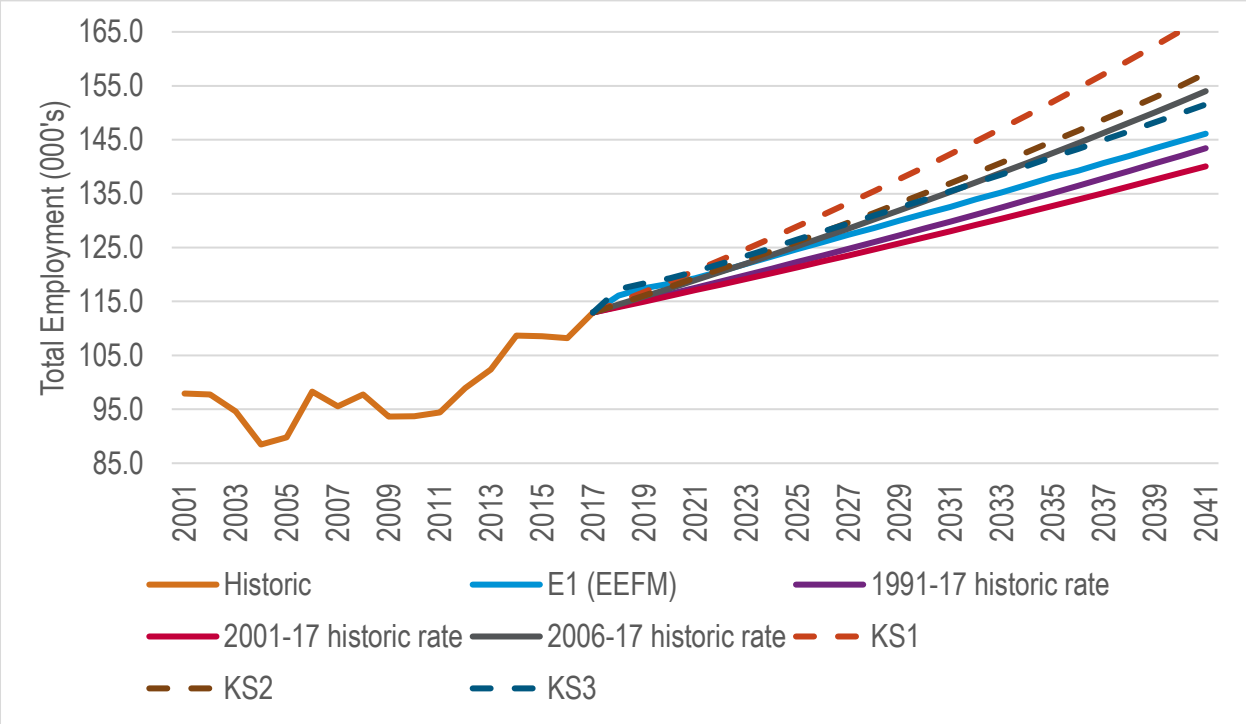
Table 46: Application of Growth Rates to 2017 data, Selected Sectors, Cambridge City, 2040 outcomes

Data source	No / %pa	Professional services	Research & development	Health & care	Total (all sectors)
2017 employment	No	10,260	5,630	16,770	**112,950**
1991-17 rate	%pa	1.8%	5.1%	2.8%	**1.0%**
2001-17 rate	%pa	2.0%	2.4%	3.3%	**0.9%**
2006-17 rate	%pa	3.9%	3.2%	4%	**1.3%**
E1 - EEFM	No	11,100	6,400	23,400	**144,800**
E1 - EEFM	%pa	0.3%	0.5%	1.5%	**1.1%**
KS1 (CC)	**No**	**16,300**	**9,800**	**35,200**	**165,100**
KS1 (CC)	**%pa**	**2.0%**	**2.4%**	**3.3%**	**1.7%**
KS2 (CC)	**No**	**13,700**	**8,100**	**29,300**	**155,000**
KS2 (CC)	**%pa**	**1.3%**	**1.7%**	**2.5%**	**1.4%**
KS3 (CC)	**No**	**12,400**	**7,200**	**26,300**	**149,900**
KS3 (CC)	**%pa**	**0.8%**	**1.1%**	**2.0%**	**1.2%**

Source: Base inputs EEFM, CE; modelling GL Hearn

9.45 The data is presented in the chart below.

Figure 29: Application of Growth Rates to 2017 data, Selected Sectors, Cambridge City, 2040 outcomes



Source: Base inputs EEFM, CE; KS modelling GL Hearn. Historic growth rates are projected for comparison.

9.46 The EEFM model itself draws on a series of interactions and forecasts at the regional and local level to produce a future average growth rate of 1.1%. The historic rates for the City according to EEFM range from 0.9 to 1.3% per annum. This is plausible and most comparable to KS3 which has a similar outcome but with greater emphasis on the Key Sectors.

9.47 Method KS1 in table 46 draws on the 2001-2017 growth for the key sectors identified and draws on E1 for all other sectors. This increases total employment to 20,400 by 2040 within the City in comparison to the baseline model Method E1.

9.48 The rate and level of growth for the City under method KS1 appears unrealistic in the context of historic performance and given the physical constraints of the urban fabric and tight boundaries of the City, increasingly relying on intensification of sites to achieve and accommodate growth – the CB1 development being a good example.

9.49 Therefore, to avoid an unrealistically high level of growth, KS2 and KS3 provide a balanced position between method E1 and KS1. The absolute numbers and growth rates for key sectors therefore move closer to E1. KS2 still leads to an overall position where the total economy growth rate is above its recent historic performance. Jobs growth overall is 42,050 by 2040 under Method KS2 compared with 31,850 for Method E1 being around 24% higher.

9.50 Method KS3 uses a lower quartile outcome between method KS1 and E1. The overall rate here is 1.2% which is slightly above the long-term average but lower than the recent growth rate. Jobs growth above baseline E1 is 5,100 by 2040.

Testing growth rates: South Cambridgeshire

9.51 Table 47 reports the growth rate and outcome testing for South Cambridge.

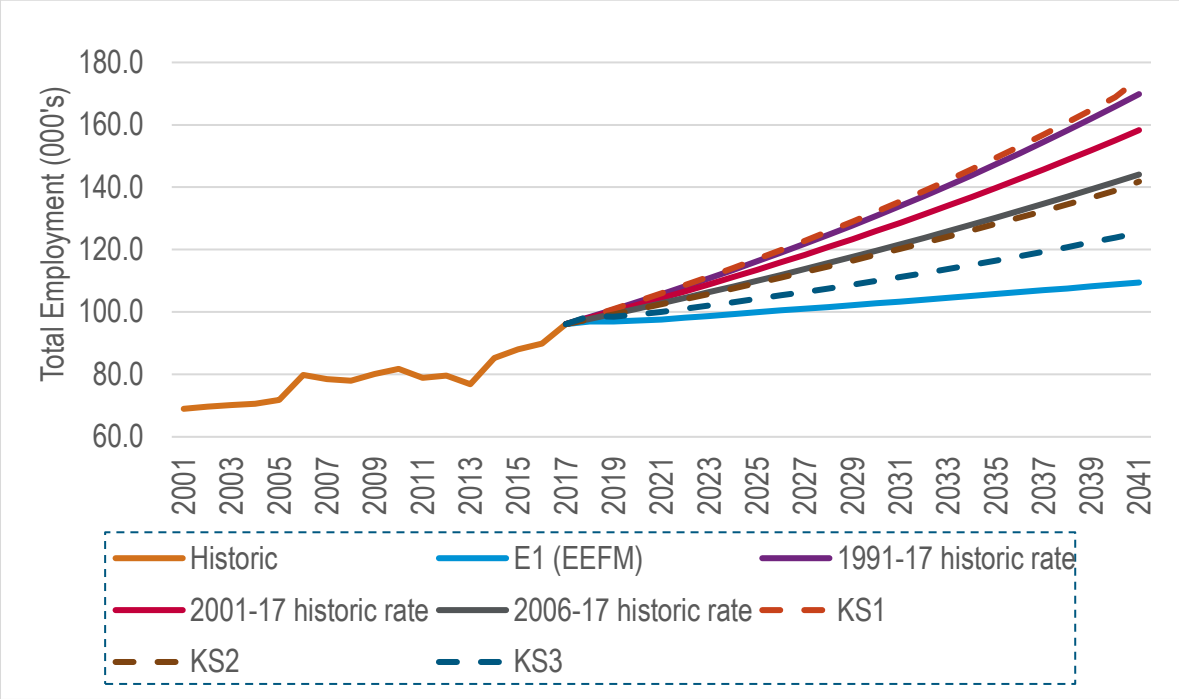
Table 47: Application of Growth Rates to 2017 data, South Cambs, 2040 outcomes

Sector	No/% pa	Professional services	Research & development	Health & care	Total (all sectors)
2017 count	No	10,000	12,110	11,550	**96,130**
1991-17 rate	%pa	3.4%	9.4%	3.3%	2.4%
2001-17 rate	%pa	1.5%	7.5%	2.8%	2.1%
2006-17 rate	%pa	2.9%	6.2%	4.5%	1.7%
E1 - EEFM	No	10,800	14,600	14,000	**108,900**
E1 - EEFM	%pa	0.3%	0.8%	0.8%	**0.5%**
KS1 (SC)	**No**	**14,000**	**63,700**	**21,800**	**168,900**
KS1 (SC)	**%pa**	**1.5%**	**7.5%**	**2.8%**	**2.5%**
KS2 (SC)	**No**	**12,400**	**39,100**	**17,900**	**138,900**
KS2 (SC)	**%pa**	**0.9%**	**5.2%**	**1.9%**	**1.6%**
KS3 (SC)	**No**	**11,600**	**26,900**	**15,900**	**123,900**
KS3 (SC)	**%pa**	**0.7%**	**3.5%**	**1.4%**	**1.1%**

Source: Base inputs EEFM, CE; modelling GL Hearn

9.52 The same approach is applied to the figure below.

Figure 30: Application of Growth Rates to 2017 data, Selected Sectors, South Cambridgeshire, 2040 outcomes



Source: Base inputs EEFM, CE; KS modelling GL Hearn. Historic growth rates are projected for comparison.

9.53 Table 47 for South Cambridgeshire sees very low sector and aggregate growth rates forecast under E1 whereas KS1 reports 60,000 additional jobs by 2040 compared with E1. This is driven in particular by Healthcare and R&D, the latter growing to five times the size of the 2017 position and Health & Care almost doubling. Neither of these outcomes are considered realistic. Historically in R&D, the sector from 2001 to 2017 grew quickly from a low base (see Appendix B & C) resulting in a fast growth rate which will inevitably fall as the sector becomes larger.

9.54 At the aggregate level for South Cambridgeshire, total employment growth rates have historically exceeded method KS2 and KS3. However, it can be seen that total employment growth has steadily fallen from the 90s as overall employment

has expanded, which is to be expected. This suggests such an outcome as method KS2 reports would be a high rate of growth, requiring a greater rate of year on year absolute change than seen historically, but not is not implausible. On this basis method KS3 is considered reasonable but could underestimate growth potential.

Testing growth rates: Greater Cambridge

9.55 Turning to Greater Cambridge as a whole, table 48 reports the aggregated results.

Table 48: Application of Growth Rates to 2017 data, Greater Cambridge, 2040 (aggregated)

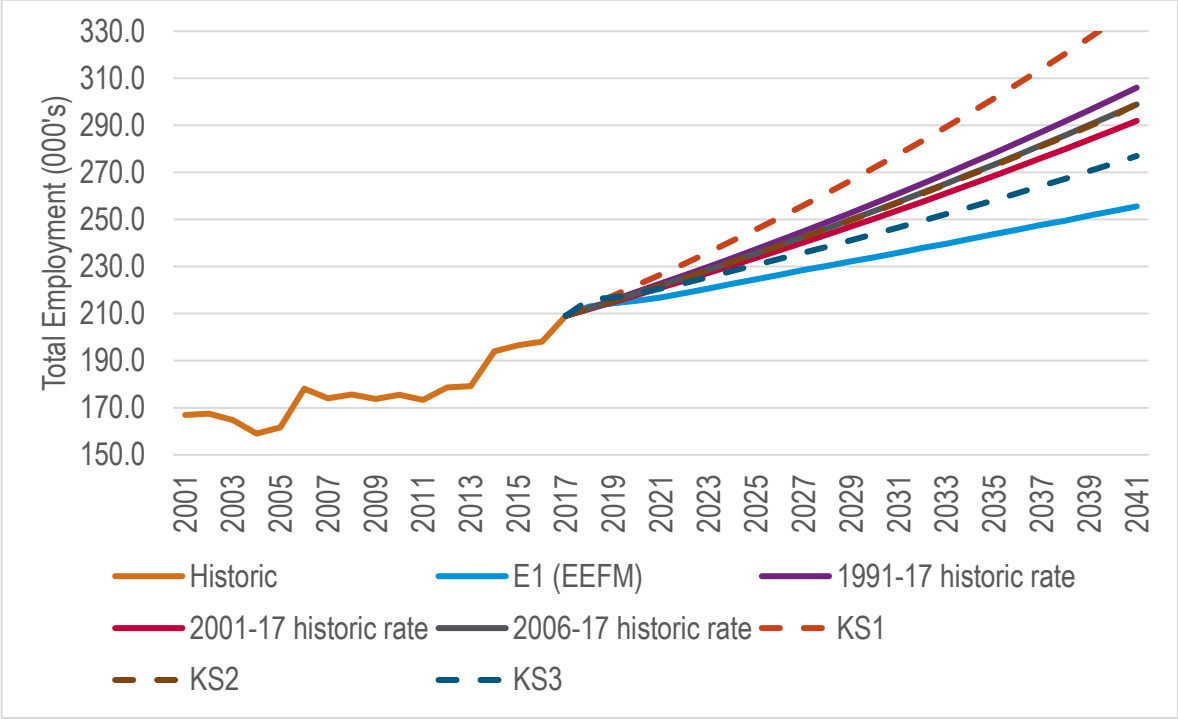
Sector		Professional services	Research & development	Health & care	Total (all sectors)
2017 count	No	20,270	17,730	28,320	**209,100**
1991-17 rate	%pa	2.5%	7.5%	3.0%	**1.6%**
2001-17 rate	%pa	1.8%	5.4%	3.1%	**1.4%**
2006-17 rate	%pa	3.4%	5.1%	4.2%	**1.5%**
E1 - EEFM	No	21,900	21,000	37,400	**253,600**
E1 - EEFM	%pa	0.3%	0.7%	1.2%	**0.8%**
KS1 (GC)	**No***	**30,300**	**73,500**	**57,000**	**334,000**
KS1 (GC)	**%pa**	**1.8%**	**6.4%**	**3.1%**	**2.1%**
KS2 (GC)	**No***	**26,100**	**47,200**	**47,200**	**293,900**
KS2 (GC)	**%pa**	**1.1%**	**4.4%**	**2.2%**	**1.5%**
KS3 (GC)	**No***	**24,000**	**34,100**	**42,300**	**273,800**
KS3 (GC)	**%pa**	**0.7%**	**2.9%**	**1.8%**	**1.2%**

Source: Base inputs EEFM, CE; modelling GL Hearn

* aggregated from authorities, Greater Cambridge historic rates derived at Greater Cambridge level data, accounting for differences

9.56 This is charted below.

Figure 31: Application of Growth Rates to 2017 data, Selected Sectors, Greater Cambridge, 2040 (aggregated)



Source: Base inputs EEFM, CE; KS modelling GL Hearn. Historic growth rates are projected for comparison.

9.57 The additional jobs for KS1 for Greater Cambridge at 2040 compared with E1 is 80,400 with a total of 334,000. This aggregate figure also exceeds CE's estimate of the CPIER growth model for the two authorities of 309,010 to 2040 (growth rate of 1.7%).

9.58 The growth rate for KS1 is 2.1% which exceeds historic rates - this is due to high long-term average annual growth rates for growing individual sectors leading to disproportionate absolute change. This rate or level of growth should not be considered realistic given the population, development and environmental implications.

9.59 Method KS2 identifies the mid-point of the outcomes between KS1 and E1 for the key sectors whilst KS3 reports a lower quartile.

9.60 For Greater Cambridge KS2 reports an outcome as a whole comparable to historic rates of growth. Two sectors in particular drive growth, Health & care and R&D, which are discussed further.

9.61 In the case of Health & care, as noted, this is traditionally an endogenous sector typically linked to population growth. For the sector to double to 2040 (KS1) non endogenous elements i.e. 'hospital activities' employment would need to reach around 40,000 jobs, assuming the remainder of the sub sectors grew at the population driven rate (E1). The scale of labour, skills and demand for such growth is considered unrealistic.

9.62 As a sense check, between 2001-17 this sector added an average 680 jobs per year. To achieve KS2 Health & care growth would require an extra 820 jobs per year which should be considered as the upper most level of growth. A continuation of the historic absolute annual change (the 680 jobs) would see 43,300 jobs in Health & care rather than 47,200 under Method KS2 and 42,300 under Method KS3. The range of these outcomes is therefore considered plausible, taking into account population growth and the ongoing expansion of Addenbrooke's Hospital.

9.63 R&D jobs growth has come from a low base in the districts over the last two decades (see Appendix C) leading to high percentage growth rates. As a sense check, year on year averages across Greater Cambridge have seen 630 extra jobs per year from 2001-17 with sizeable fluctuations. Disregarding KS1, method KS2 requires an increase to an average of 1,300 jobs each year. Whilst this might be achievable in occasional years (and is comparable to the 2011-17 average, with a further 2,000 jobs reported by BRES in 2018, published after the primary modelling work was undertaken), such a consistent rise over 20 years lacks evidence. It would entail a very strong supply of highly skilled labour being drawn perhaps from university graduates but also from in-migration both domestically and internationally. Equally though, a continuation of the 630 jobs absolute change seen over the last two decades could be considered an underestimation of growth

given the sector and Greater Cambridge cluster potential. Method KS3 sees growth of 16,400 jobs or an average of 710 jobs per annum. Whilst this remains a significant number, it is considered to be a minimum to plan for, given it is only slightly above the annual historic absolute change which occurred from a smaller base. Information within planning applications provided by the applicants as of spring 2020 reports an anticipated employment capacity direct growth of over 13,000 B1b related jobs in the proposal area including West Cambridge, Wellcome Genome Campus, North West Cambridge and former Spicers Site at Sawston, before considering Addenbrooke's, Granta Park and the North East Cambridge Area Action Plan capacity (and further developments coming forward over of the 2020-41 period).

9.64 For Professional services, the E1 outcomes appear very low in relation to past growth rates whilst methods KS2 and KS3 are more realistic outcomes. Year on year average change has been around 300 jobs since 2001, which would lead to around 7,000 additional jobs by 2040 if continued, close to KS2 outcomes. However this sector is more mature than for example R&D, so the KS2 – KS3 range is considered appropriate.

9.65 Overall, Methods KS2 and KS3 are considered to act as a more realistic range than other projections. They allow for an outcome where the key growth sectors continue to grow quickly over the next two decades, however their rate of growth slows to reflect stabilisation in the absolute year on year change. Method KS2 totals 293,900 jobs by 2040 or 1.5% p.a. and is comparable with the rate of growth seen over the 2001-17 period overall. Method KS3 totals 273,800 or 1.2% allowing for a deflation in the growth rate as the total employment base grows.

Considering multipliers

9.66 Method KS2 is considered to overestimate R&D jobs, as the average year on year absolute change would have to remain around double its historic rate. To avoid an over estimation of R&D jobs creation, as a sense check it is assumed that the

midpoint of annual job change growth between the historic rate and KS2 rate is created, being a 'cap' of 960 jobs per annum (still above the KS3 rate) or 39,700 overall.

9.67 However, given that the aggregate economy growth rate under KS2 is within the range of historic rates, consideration has been given as to how other non-key (endogenous) sectors might perform as total jobs and population increase.

9.68 In-economy multiplier effects relate to those generated through additional population growth (induced) and through business supply chains (indirect). The GLA estimate that every 1,000 additional residents generates around 171 jobs[32] whilst CE estimate 178. A rise of 30,000 residents (Greater Cambridge Housing and Employment Relationships Report, September 2020) therefore generates over 5,000 population related jobs particularly in retail and education. Further indirect job creation will occur outside of the key sectors in a range of other sectors.

9.69 Whilst multiplier jobs have not been modelled in full, the difference between the 960 jobs per annum in R&D 'cap' and the 'uncapped' R&D job growth (1,300) under KS2 is considered a useful estimate of multiplier effects for the economic growth as a whole under this scenario as it rises proportionately over time once the capped rate has been exceeded. These additional multiplier jobs are assumed to occur across endogenous (non key) sectors.

Implications in terms of employment forecasts

9.70 Reflecting on the evidence and arguments set out in this report – and taking on board the important work initiated by Cambridge Ahead and then CPIER which has been completed over recent years – our conclusion is that the modelled estimates of employment growth derived econometrically (i.e. through EEFM) appear cautious. They are at odds with the scale of past growth, and Greater Cambridge is

[32] GLA Economics Working Paper 71 - More residents, more jobs? 2015 update - The relationship between population, employment and accessibility in London

far from an “average” economy – yet the effect of the econometric model is to constrain its potential within parameters which are defined regionally.

9.71 On the other hand, the forward extrapolation of employment estimates based on the sector growth rates observed through hybrid CBR/CPIER-BRES data from 2010-17 generates outcomes that are implausibly high. Attempts to use this data to arrive at more reasonable outcomes were unsuccessful.

9.72 This then leaves modelling effects of selected key sectors. Whilst we have no reason to assume that sectors driven largely by population growth behave differently in Greater Cambridge from the rest of the region, there is evidence that adjustments should be made to account for sectors with a very different growth dynamic. This refers specifically to the knowledge intensive sectors (or in the case of Health & care a related sector) which are underpinned by Greater Cambridge’s outstanding scientific assets and innovation capabilities. These attributes are unique and “off model” adjustments ought to be made to reflect them.

9.73 There is a broad correlation in the key sectors to be treated as exogenous across the data sources analysed. Examined historically (from 1991 or 2001 to 2017), local employment growth is exceptional (compared to the regional performance) in Professional services, Research & Development and Health & Care.

9.74 Simply using the 2001-2017 annual average growth rate for the key growth sectors results in an employment count by 2040 (KS1) which is unrealistic in the increments of job change that could occur year on year.

9.75 Lower ranges (KS2 and KS3) use the mid-point and lower quartile of outcomes for the baseline and 2001-2017 rate applied to key sectors. More detailed examination of year on year growth indicates that for R&D it is unlikely that even KS2 rates can be achieved.

9.76 The headline results are reported below. Methods KS2 and KS3 compound growth rates of 1.2%-1.5% are with the range of historic growth rates being 1.4% to 1.6% so are both considered achievable and suitable for employment testing.

Table 49:Employment by method, Greater Cambridge 2017-40

Method	2017	E1 (EEFM)	KS1	KS2	KS3	CP (CPIER proxy)
Growth rate from 2017		0.8	2.1	1.5	1.2	1.7
Change from 2017		44,500	124,900	84,800	64,700	99,900
Total	209,100	253,600	334,000	293,900	273,800	309,000

Source: GLH analysis of previous modelling results (tables 46-48 outputs)

9.77 Following the initial modelling exercise 2017-2040, the Local Plan Period was confirmed for 2020-41. This period results in the following outputs which include the standard method model which was only tested for the Local Plan period.

Table 50:Employment by method, Greater Cambridge 2020-41*

Method	E1 (EEFM)	KS1	KS2	KS3	SM (standard method)	CP (CPIER proxy)
Growth rate from 2020	0.8	2.1	1.5	1.1	0.9	1.7
Change from 2020	40,100	120,800	78,700	58,400	45,800	92,100
Total	**255,600**	**342,900**	**299,100**	**277,000**	**257,600**	**314,000**

Source: GLH analysis of previous modelling results (tables 46-48 outputs)

* base historic data is 2017, therefore modelling commences 2017. As a result 2020 data start is different in each method.

9.78 Finally as a sense check, the preferred forecasts (KS2 and KS3) have been tested against the aggregate historical absolute jobs year on year average change figures as below.

Table 51:Year on year absolute employment change projections ('000s jobs) to 2041

Area	1991 - 2017 (pa)	1991-2017 Proj'd 2020-41	2001-2017 (pa)	2001-2017 Proj'd 2020-41	2011-2017 (pa)	2011-2017 Proj'd 2020-41	KS2 (pa)	KS2 Proj'd 2020-41	KS3 (pa)	KS3 Proj'd 2020-41
Cambridge City	1.0	21.4	0.9	19.7	3.1	64.8	1.8	37.2	1.5	32.2
South Cambridgeshire	1.7	36.0	1.7	35.6	2.9	60.4	2.0	41.6	1.2	26.2
Greater Cambridge	**2.7**	**57.4**	**2.6**	**55.3**	**6.0**	**125.2**	**3.8**	**78.7**	**2.7**	**58.4**

Source: GLH analysis of previous modelling results (tables 46-48 outputs)

9.79 The results above confirm that the recent period has been one of fast growth. It is reasonable to expect that whilst the economy can perform at this higher rate for a period, over time this falls back towards longer run absolute change that is constrained by macro economic, population and environmental factors. It is of note that in KS2 and KS3 there is a greater emphasis on growth in Cambridge rather than South Cambridgeshire compared to the past. This is due to the underlying endogenous sectors in EEFM anticipating greater population and related jobs growth - which may in fact manifest in South Cambridgeshire given the area's physical capacity for growth (such as North East Cambridge or Welcome Trust Genome Campus).

9.80 Method KS3 has alignment with past absolute change and as a result reflects a 'business as usual' or **central growth** scenario which is the most likely outcome as it takes into account overall historic patterns including the fast growth recent past.

9.81 Method KS2 outcomes sits broadly in the middle of the longer term historic (1991 or 2001 - 2017) and recent historic (2011-17) absolute change. This is considered as a **higher growth** scenario, which places greater weight on the on fast growth in the recent past, particularly in key sectors. Recommended growth employment rage for Greater Cambridge to 2041

Growth rate	KS2 (Higher Growth)	KS3 (Central Growth)
Growth rate from 2020	1.5	1.1
Change from 2020 CC	39.6	32.2
Change from 2020 SC	40.1	26.2
Change from 2020 GC	**78,700**	**58,400**
Total	**299,100**	**277,000**

Source: GLH analysis of previous modelling results (tables 46-48 outputs)

APPENDIX B: Employment Rates – South Cambridgeshire and Cambridge City

The following tables set out the sector by sector comparison of the outcomes of different historic rates applied to 2017 data.

Cambridge City Jobs Growth by 2040 (000s)

Industry	2017	Meth E1	CC 1991-17 rte	CC 2001-17 rte	CC 2006-17 rte
Agriculture & fishing	0.05	0.0	0.0	0.1	0.0
Mining & quarrying	0.00	0.0	0.0	0.0	0.0
Food manufacturing	0.14	0.1	0.0	0.1	0.5
General manufacturing	0.50	0.3	0.1	0.0	0.1
Chemicals excluding pharmaceuticals	0.16	0.1	0.1	0.0	0.2
Pharmaceuticals	0.01	0.0	0.0	0.0	0.0
Metals manufacturing	0.10	0.1	0.0	0.0	0.0
Transport equipment, machinery	0.14	0.1	0.1	0.3	0.1
Electronics	1.01	0.8	0.5	0.7	1.4
Utilities	0.65	0.7	1.4	3.6	2.4
Waste & remediation	0.26	0.3	1.8	0.4	0.2
Construction	2.09	2.3	1.1	1.5	1.4
Wholesale	2.62	3.1	2.0	1.4	1.6
Retail	9.32	13.2	9.5	10.4	9.3
Land transport	1.66	1.7	1.3	1.2	1.6
Water & air transport	0.03	0.0	0.0	0.0	0.0
Hotels & restaurants	10.24	19.0	22.7	16.3*	38.3
Publishing & broadcasting	3.19	3.1	3.3	3.0	3.2
Telecoms	0.81	0.9	0.8	1.0	0.6
Computer related activities	5.60	5.8	12.9	6.0	5.1
Finance	1.30	1.1	0.6	0.4	0.7
Real estate	1.79	2.1	3.0	3.8	4.7
Professional services excluding R&D activity	10.26	11.1	15.5	16.3	24.7
Research & development	5.63	6.4	17.7	9.8	11.6
Business services excluding employment activity	2.87	3.2	4.3	2.9	3.8
Employment activities	2.88	3.2	3.0	4.5	2.6
Public administration	2.14	2.7	1.0	1.0	0.5
Education	24.14	30.8	31.9	27.5	26.7
Health & care	16.77	23.4	31.4	35.2	41.0
Arts & entertainment	2.98	4.4	5.8	8.0	6.0
Other services	3.60	4.8	6.0	9.2	9.8
Total (sum)	112.95	144.8	177.9	164.6	197.8

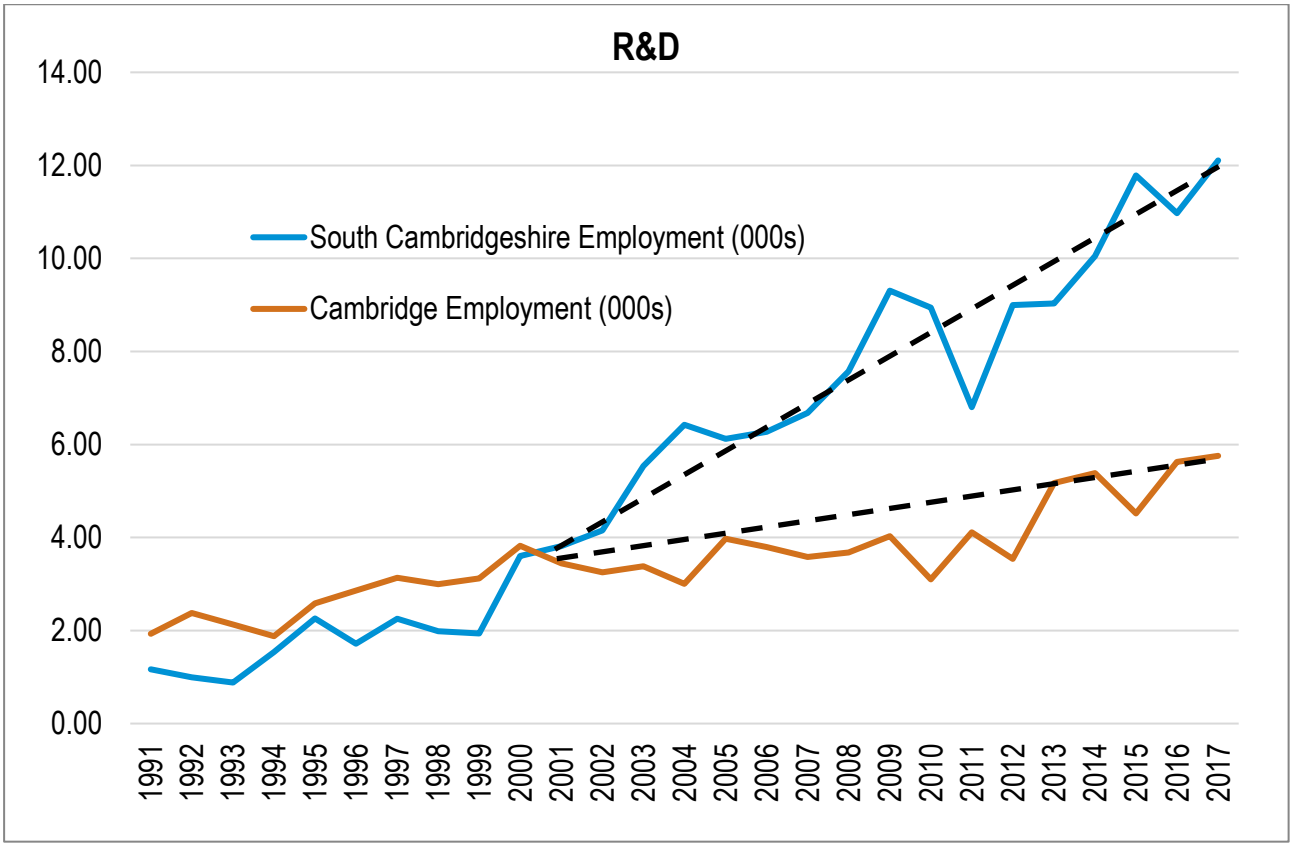
*Adjusted to 2016 rather than 2017

South Cambridgeshire Jobs Growth by 2040 (000s)

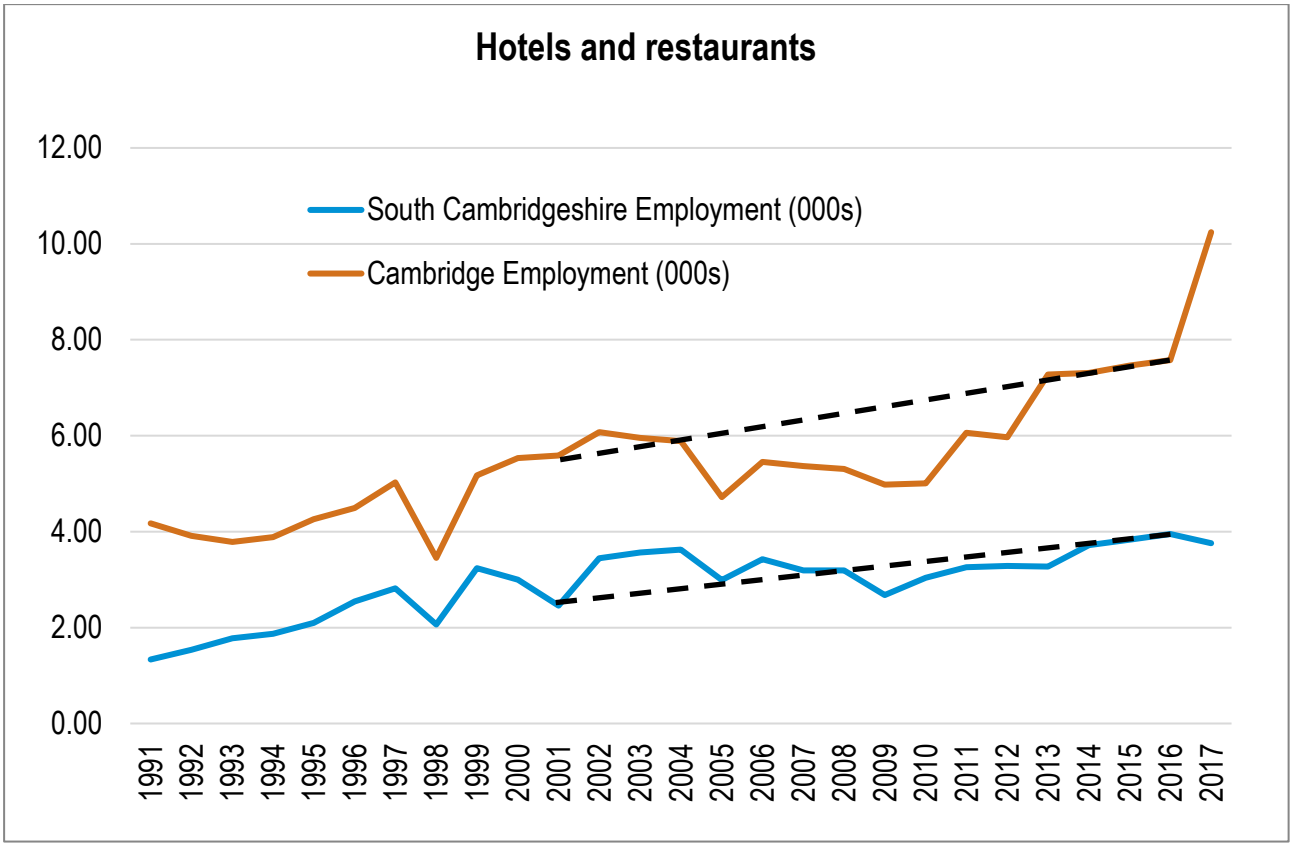
Industry	2017	Meth E1	SC 1991-17 rte	SC 2001-17 rte	SC 2006-17 rte
Agriculture & fishing	1.28	0.8	0.9	2.0	0.7
Mining & quarrying	0.05	0.0	0.0	0.1	0.0
Food manufacturing	1.07	1.1	0.8	1.1	1.0
General manufacturing	2.19	1.3	1.4	0.9	1.4
Chemicals excluding pharmaceuticals	1.32	0.9	0.6	0.4	0.9
Pharmaceuticals	0.56	0.6	0.3	2.0	0.2
Metals manufacturing	0.63	0.6	0.5	0.3	0.3
Transport equipment, machinery	3.88	3.8	6.9	5.1	6.4
Electronics	1.69	1.3	3.0	1.5	2.9
Utilities	0.12	0.1	0.0	0.0	0.0
Waste & remediation	0.39	0.5	0.3	0.9	1.0
Construction	7.38	9.6	10.4	18.3	12.6
Wholesale	5.28	5.8	7.8	6.4	7.3
Retail	4.23	5.1	4.8	9.2	5.5
Land transport	1.63	1.6	1.7	1.8	1.6
Water & air transport	0.03	0.0	0.0	0.0	0.0
Hotels & restaurants	3.76	5.9	9.4	6.9	4.6
Publishing & broadcasting	1.00	1.0	4.1	0.6	0.4
Telecoms	0.53	0.6	4.6	0.3	2.2
Computer related activities	6.60	7.0	14.4	6.9	10.1
Finance	0.90	0.9	1.4	1.8	0.7
Real estate	0.75	1.0	2.3	1.0	0.7
Prof services excl R&D activity	10.00	10.8	21.8	14.0	19.2
Research & development	12.11	14.6	95.7	63.7	47.9
Business services excluding employment activity	3.58	4.4	12.1	8.6	3.9
Employment activities	1.24	1.5	2.0	8.3	12.3
Public administration	1.09	1.2	2.0	1.5	0.4
Education	7.49	8.2	16.7	23.9	7.9
Health & care	11.55	14.0	24.1	21.8	31.5
Arts & entertainment	1.24	1.5	2.3	1.4	1.1
Other services	2.57	3.0	4.3	3.8	1.6
Total (sum)	96.13	**108.9**	**256.7**	**214.4**	**186.4**

APPENDIX C: Growth sectors 1991-2017

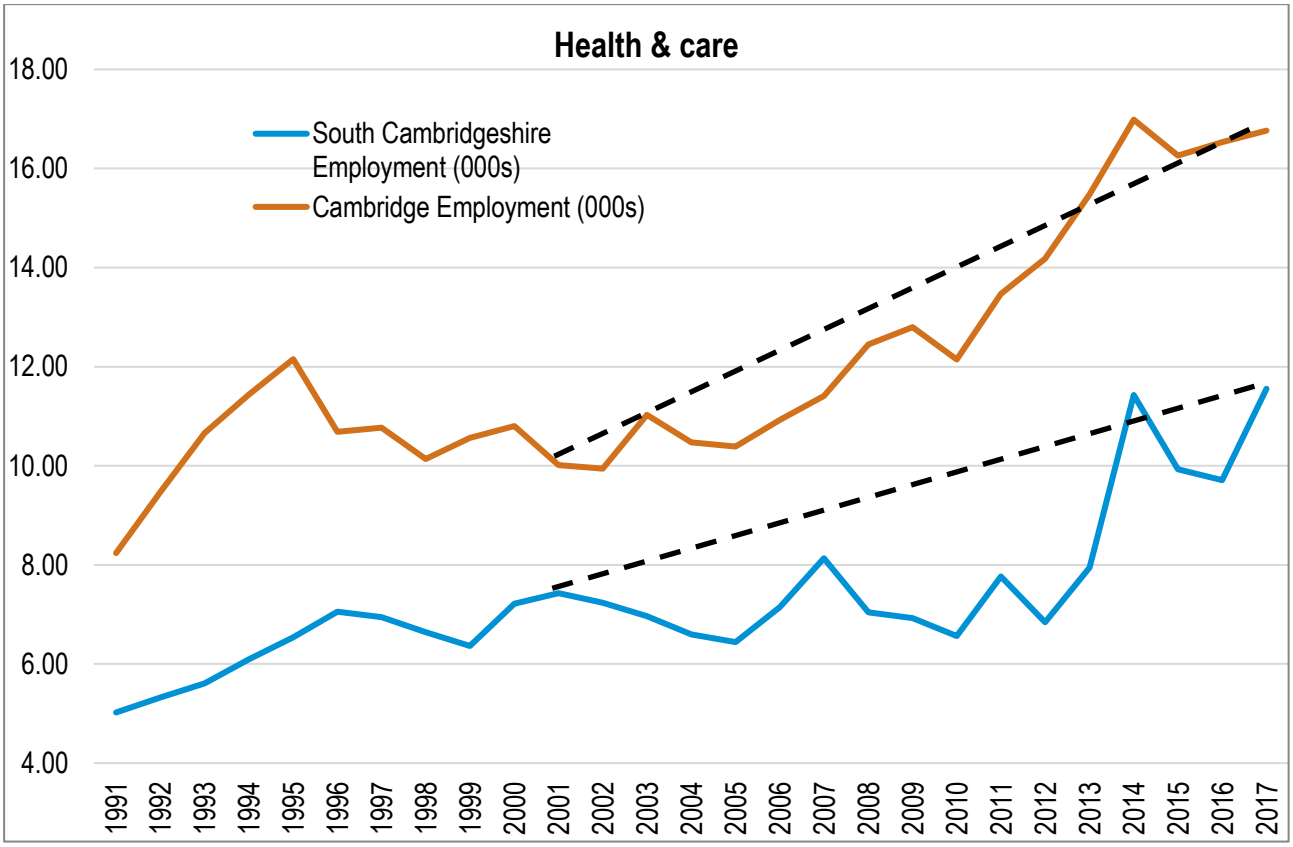
The following charts set out the employment change since 1991 and average rate since 2001



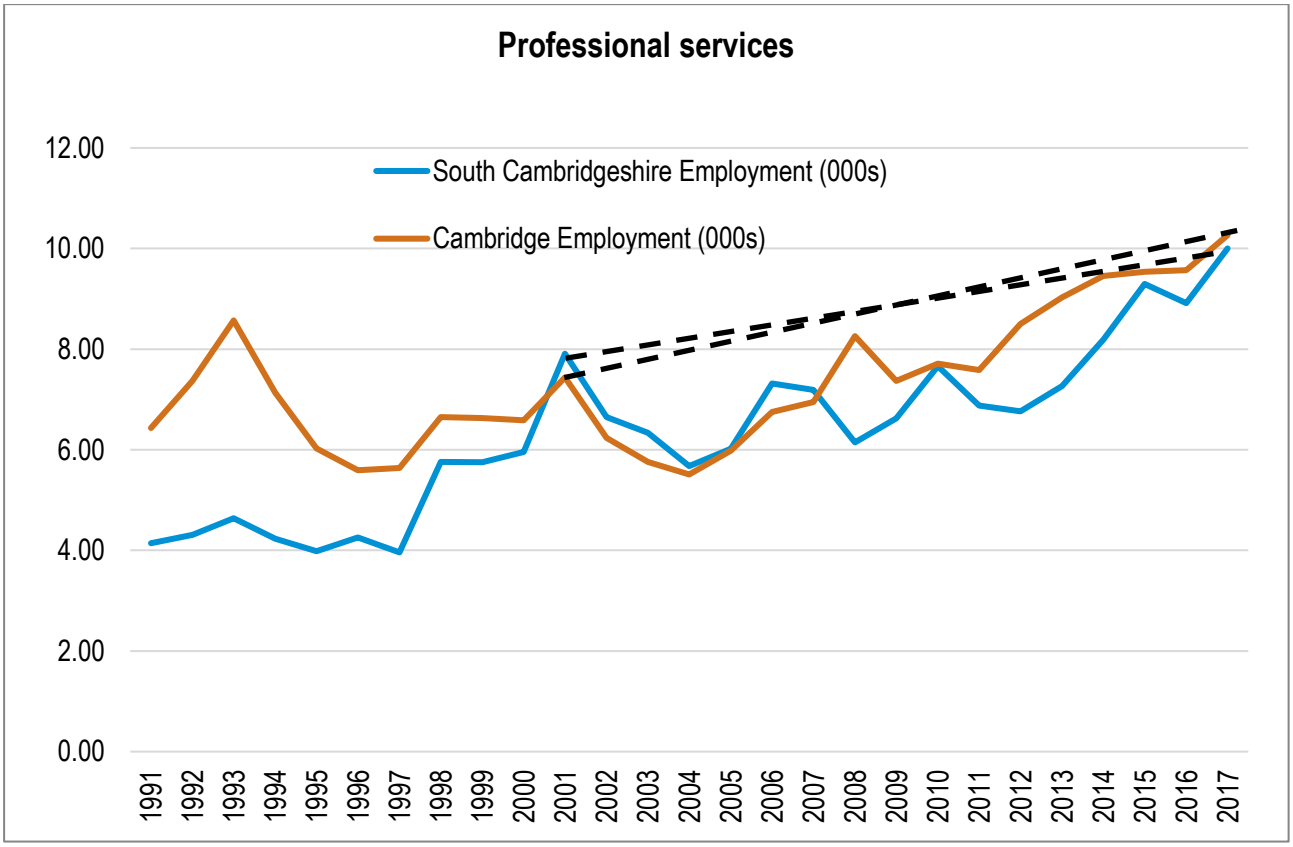
Source: EEFM updated to 2017 BRES data by Cambridge Econometrics



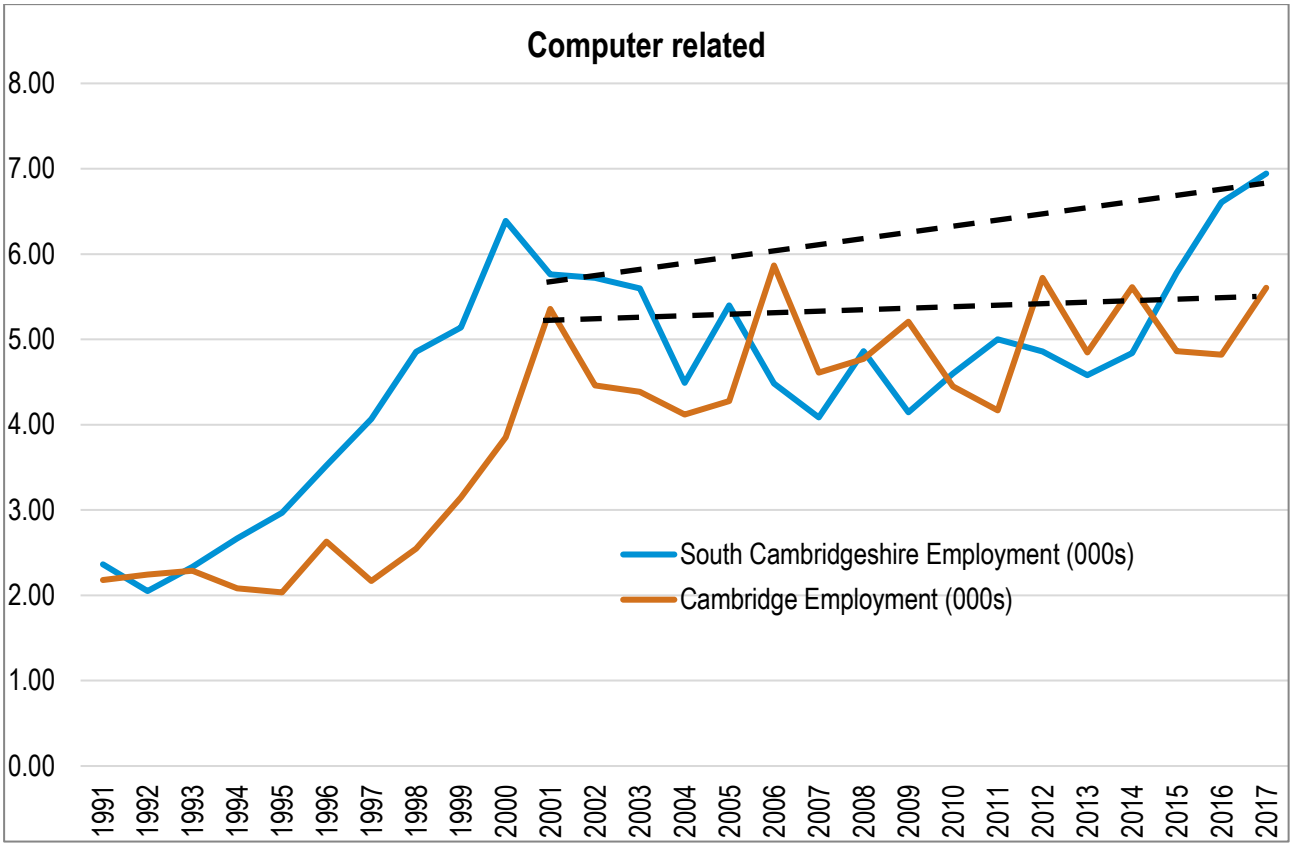
Source: EEFM updated to 2017 BRES data by Cambridge Econometrics



Source: EEFM updated to 2017 BRES data by Cambridge Econometrics



Source: EEFM updated to 2017 BRES data by Cambridge Econometrics



Source: EEFM updated to 2017 BRES data by Cambridge Econometrics

APPENDIX D: Full Time Equivalent conversion

The following tables set out how FTEs required for floorspace density are converted to employment outcomes, derived from BRES 2017 ratios, held consistent going forward 2017-41

Full Time Equivalent conversion (Cambridge City)

Sector	**FTE %**
Agriculture	96%
Mining & quarrying	100%
Manufacturing - food	94%
Manufacturing - general	92%
Manufacturing - chemicals only	92%
Manufacturing - pharmaceuticals	100%
Manufacturing - metals	98%
Manufacturing - transport equipment	100%
Manufacturing - electronics	97%
Utilities	98%
Waste & remediation	97%
Construction	93%
Wholesale	94%
Retail	72%
Land transport	95%
Water & air transport	92%
Accommodation & food services	73%
Publishing & broadcasting	93%
Telecoms	95%
Computer related activity	94%
Finance	92%
Real estate	88%
Professional services	93%
Research & development	94%
Business services	83%
Employment activities	79%
Public administration	89%
Education	83%
Health & care	86%
Arts & entertainment	80%
Other services	84%

Full Time Equivalent conversion (South Cambridgeshire)

Sector	FTE %
Agriculture	96%
Mining & quarrying	100%
Manufacturing - food	98%
Manufacturing - general	93%
Manufacturing - chemicals only	93%
Manufacturing - pharmaceuticals	97%
Manufacturing - metals	98%
Manufacturing - transport equipment	97%
Manufacturing - electronics	95%
Utilities	100%
Waste & remediation	99%
Construction	93%
Wholesale	94%
Retail	72%
Land transport	95%
Water & air transport	75%
Accommodation & food services	72%
Publishing & broadcasting	92%
Telecoms	92%
Computer related activity	94%
Finance	95%
Real estate	86%
Professional services	90%
Research & development	96%
Business services	84%
Employment activities	84%
Public administration	85%
Education	75%
Health & care	76%
Arts & entertainment	78%
Other services	82%

APPENDIX E: Land Use Classification of Sectors

The following table sets out the assumptions in converting jobs to floorspace requirements.

Sector	B1a	B1b	B1c	B2	B8	Other
Agriculture & fishing						100%
Mining & quarrying						100%
Food manufacturing			20%	80%		0%
General manufacturing			20%	80%		0%
Chemicals excl. pharmaceuticals			20%	80%		0%
Pharmaceuticals			20%	80%		0%
Metals manufacturing			20%	80%		0%
Transport equipment, machinery & equipment, etc			50%	50%		0%
Electronics		25%	25%	50%		0%
Utilities						100%
Waste & remediation				20%		80%
Construction						100%
Wholesale				10%	70%	20%
Retail						100%
Land transport				20%	20%	60%
Water & air transport					20%	80%
Hotels & restaurants						100%
Publishing & broadcasting	50%		40%	5%	5%	0%
Telecoms	80%				20%	0%
Computer related activities	70%	30%				0%
Finance	80%					20%
Real estate	60%					40%
Professional services excl. R&D activities	70%	25%				5%
Research & development	20%	80%				0%
Business services excl. employment activities	40%	20%				40%
Employment activities	14%	6%	6%	6%	8%	60%
Public administration	61%					39%
Education						100%
Health & care						100%
Arts & entertainment						100%
Other services						100%

APPENDIX F: Providers of flexible workspace in Greater Cambridge

Site	Heading	Workspace	Floor-space	Occupier by Industry	Cost PCM
Cambridge Science Park	The Bradfield Centre	Innovation Centre/Business Accelerator/Co-working Hub	40,000	Tech Sector	£150-£450
The Hauser Forum	ideasSpace	Co-working Hub	n/a	University of Cambridge	£80-£250
Madingley Road	Aurora Innovation Centre	Innovation Centre/Co-Working Hub	n/a	Environmental	£250
King Hedges Road	Future Business centre	Innovation Centre/Business incubator. Co-working Hub	41,000	Social and Environmental	£50-£180
Station Road	50-60 Station Road	Co-Working Hub	n/a	n/a	n/a
Station Road	CB1	Business Incubator/Co-Working Hub	n/a	Variety of Businesses	£45-£700
Royston Road, Duxford	The Officers' Mess	Serviced Offices/ Co-working Hib	12,000	Variety of Businesses	£45-£4,000
Milton Road	St John's Innovation Centre	Innovation Centre	65,000	IT, Communications. Digital printing, clean tech & electronics	£700
Wellington House, Cambridge Services and Cambourne Business Park	Regus Centres	Serviced Offices/ Co-working Hub	54,541	Variety of Firms	£450-£670
Grange Road	Cambridge Space	Co-working hub	n/a	Variety of Businesses	£60-£195
Mill Lane	Makespace	Co-working hub	n/a	Manufacturing and engineering	£40
Chesterton Road	Cambridge Incubator	Business Incubator/Business	n/a	Artificial Intelligence and machine learning	£99-£349

Site	Heading	Workspace	Floor-space	Occupier by Industry	Cost PCM
		Accelerator/Co-working Hib			
Cherry Hinton	Cambridge Maker Space	Business Incubator/Business Accelerator/Co-Working Hub	n/a	Variety of Businesses	n/a
Ely Road	Milton Hall	Serviced Offices	n/a	Variety of Businesses	£2,200
Sheraton House, Castle Park	Citibase Cambridge	Serviced Offices	10,000	Variety of Businesses	£350-£450 per day
Cambridge Innovation Park, Denny End Road	Incubyte	Business Incubator/Co-working hub	3,000	Technology sectors	£125-£500
Cambridge Innovation Park, Denny End Road	Cambridge Innovation Park	Business Incubator/ Serviced Officers	75,000	Variety of businesses	n/a

Source: South Cambridgeshire District Council

APPENDIX G: NPPF and PPG requirements

This document in part responds to Paragraph 26 of the PPG (Reference ID: 2a-026-20190220) which requires local authorities to assess:

Reference	Report Section
the best fit functional economic market area	Chapter 4 (see Cambridgeshire and Peterborough Authorities' Statutory Governance Review)
the existing stock of land for employment uses within the area	Chapter 2 & 4
the recent pattern of employment land supply and loss – for example based on extant planning permissions and planning applications (or losses to permitted development)	Chapter 4 & 6
evidence of market demand (including the locational and premises requirements of particular types of business) – sourced from local data and market intelligence, such as recent surveys of business needs, discussions with developers and property agents and engagement with business and economic forums	Chapter 2 & 3
wider market signals relating to economic growth, diversification and innovation; and	Chapter 3 & 5
any evidence of market failure – such as physical or ownership constraints that prevent the employment site being used effectively.	Chapter 2 & 4

Paragraph 27 of the PPG (2a-027-20190220) also requires local authorities to develop an idea of future needs based on a range of data which is current and robust, such as:

Reference	Report Section
sectoral and employment forecasts and projections which take account of likely changes in skills needed (labour demand)	Chapter 5
demographically derived assessments of current and future local labour supply (labour supply techniques)	Chapter 6
analysis based on the past take-up of employment land and property and/or future property market requirements	Chapter 6
consultation with relevant organisations, studies of business trends, an understanding of innovative and changing business models, particularly those which make use of online platforms to respond to consumer demand and monitoring of business, economic and employment statistics.	Chapter 3

Paragraphs 016, 017, 018, 019, 020, 021 and 022 PPG (Reference ID: 3-016-20190722 through to Reference ID: 3-022-20190722) provide guidance on how local authorities should assess locations for development. In particular, this includes the suitability, availability and achievability of sites. This is set out in part 2 of the report (site assessments) and summarised in chapter 4.

APPENDIX H: Summary of Land Availability in Greater Cambridge

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
1	1 & 7 - 11 Hills Road, Cambridge	1.4	Fully developed employment site	-	-	-	-	-	The site is fully developed, and the focus should be on maintaining existing floorspace. It falls in the Cambridge Local Plan 2018 Hills Road Opportunity Area (Policy 25) and is allocated as site E5. There may be long-term intensification opportunities through increased density.	Consider removing allocation given level of development already on site.
2	379 - 381 Milton Road, Cambridge	0.53	Fully developed employment site	-	-	-	-	-	The site is identified for mixed use in the Cambridge Local Plan 2018 (Site M1). This site is proposed to be included within the North East Cambridge AAP in the July 2020 draft plan. It is currently a low density active employment site. Given its location mixed-use development may be appropriate and should consider intensification of employment floorspace.	Retain allocation.
3	82 - 90 Hills Road & 57 - 63 Bateman Street, Cambridge	0.5	Fully developed employment site	-	-	-	-	-	This is a fully developed, active employment site providing flexible floorspace. It falls in the Cambridge Local Plan 2018 Hills Road Opportunity Area (Policy 25) and is allocated as site M5. Any intensification would be through renewal of existing buildings.	Consider removing allocation given level of development already on site.
4	Addenbrooke's Hospital and Biomedical Campus, Cambridge / South Cambridgeshire	80.0	Developed employment site, with vacant allocated land	-	30,685 sqm approx (8.9 ha)	-	105,517 sqm (8.0 ha.)	136,202 sqm (16.9ha.)	The site is identified as an area of Major Change (Policy 17). Phase 2 has permission for over 100,000 sqm of development. Following the completion of phase 2 development, there is around 8.9 Ha of greenfield land on the southern boundary allocated in the South Cambridgeshire Local Plan 2018 for employment development as an extension to the Campus.	Retain allocation for additional phase (South Cambridgeshire).
5	Cambridge Technopark, Newmarket Road, Cambridge	1.0	Fully developed employment site	-	-	-	-	-	The site is fully developed with limited intensification opportunities.	Consider employment designation.
6	Cambridge University Press, Cambridge	11.1	Fully developed employment site	-	-	-	-	-	This is a well-established site with research and office floorspace. There may be long term opportunities to intensify the functional printing element and associated parking on the southern boundary.	Retain via existing policy framework or a possible employment designation.
7	Cheddars Lane, Cambridge	1.9	Fully developed employment site	-	-	-700 sqm (0.4 ha)	-	-700 sqm (0.4 ha)	There is no vacant land for development, yet the stock is in part dated. Current residential permissions granted for loss of 700 sqm B Class uses.	Mixed use development is appropriate given the residential location and stock quality.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
8	Clifton Road Area, Cambridge	5	Fully developed employment site	-	-	-21,000 sqm (-5 ha)	9,192 sqm (1.35 ha)	-11,808 sqm (-3.65 ha)	The site is an Area of Major Change. Cambridge Local Plan 2018 Policy 21 / Site M2 details capacity for c. 2 Ha of B1(a) and B1(b) and up to 550 dwellings. Existing industrial, office and leisure uses will be lost to enable residential development. Planning permission has not yet been sought.	Retain allocation, seek to maximise B1 employment floorspace given city centre location and requirements for office space. The existing Clifton Road Industrial Estate continues to perform well.
9	Beadle Industrial Estate, Ditton Walk, Cambridge	1.5	Developed employment site	-	-	-	-	-	The site is a Protected Industrial Estate in the Cambridge Local Plan 2018. There is 0.6 Ha of brownfield land on the eastern boundary which is allocated for housing as site R5 in Local Plan 2018.	Maintain policy protection for existing employment floorspace.
10	Henley Road, Cambridge	18.4	Fully developed employment site	-	-	-	-	-	The site is located in the wider Newmarket Road employment land corridor providing bulky good retail, trade counter and local light industrial floorspace. Part of the site in the north west falls in the Policy 23 Eastern Gate Opportunity Area.	B Class uses outside the Opportunity Area should be retained through the existing policy framework. An employment designation could be considered to protect the industrial activities.
11	Marshall of Cambridge	364.0 (Operational Airfield) of which c16 ha employment north of A1303 (wing)	Airfield and related operations (south A1303), fully developed employment site (north A1303).	-		-36,000 sqm (-10.2 ha) north of A1303 (wing)	1,975 sqm (0.5 ha) north of A1303 (wing)	-34,025 sqm (9.7 ha), north of A1303 (wing)	This area is subject to Cambridge East Area Plan and the amount of developable land is dependent on the relocation of Cambridge Airport. The airport site was safeguarded for development in the Cambridge and South Cambridgeshire 2018 local plans should it become available. Future airport development is anticipated to be residential led with an element of employment. This has the potential to form an employment cluster of high and lower value industries, potentially including opportunities for lost light industrial floorspace from inner city employment areas and alongside office / R&D. The permitted Wing residential development north of the airport site (north of A1303) includes provision for 1600 sqm of employment space in the Park Pavilion and opportunity for further B1 uses in the flexible mixed use units following redevelopment of existing industrial area.	Seek to ensure the inclusion of a range of employment floorspace through any future redevelopment of the airport, for higher density and lower density uses..
12	Mercers Row Industrial Estate (including Swanns Road), Cambridge	6.0	Fully developed employment site	-	-	-	-	-	The site is a Protected Industrial Estate in the Cambridge Local Plan 2018 serving the needs of the local market. Intensification opportunities are limited.	Maintain policy protection for existing employment floorspace.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
13	North of Coldham's Lane, Cambridge	5.0	Fully developed employment site	-	-	-	-	-	The site is active and fully developed. Part of the site is subject to Cambridge Local Plan 2018 Policy 41 Protected Business Space. Any intensification opportunities may be presented through redevelopment of existing plots.	Maintain policy protection for existing employment floorspace.
14	South of Coldham's Lane, Cambridge	67.0	Developed employment site, with vacant land	7.9 ha	-	-	-	7.9 ha	The site is a Cambridge Local Plan 2018 Protected Business Space (Policy 41) and an Area of Major Change under Policy 16. The undeveloped part to the north east could accommodate employment development in the short to medium term and could be a mix of employment uses.	Provide for light industrial and potentially a wider mix of employment uses that may be displaced from other city employment sites. Retain designation.
15	Station Road, Cambridge	4.0	Partially developed employment site	-	-	-12,346 sqm (-0.7 ha)	27,038 sqm (0.7 ha)	14,692 sqm	The site is a Cambridge Local Plan 2018 Opportunity Area (Policy 25) and Area of Major Change (Policy 21). The site is well established, providing quality office floorspace and should be retained through the existing policy framework.	Retain existing policy designation given site is not yet fully developed.
16	Barnwell Business Park, Cambridge	0.6	Fully developed employment site	-	-	-	-	-	The site is a Cambridge Local Plan 2018 Protected Business Space (Policy 41). It is a fully developed and active site with limited opportunities for intensification. Any form of intensification would require redevelopment of the existing structures for increased density.	Maintain policy protection for existing employment floorspace.
17	The Quorum, Barnwell Road, Cambridge	1.0	Fully developed employment site	-	-	-	-	-	The site benefits from access to Cambridge city centre and regional markets. It is functioning as an office floorspace site and there are no opportunities for intensification.	This site should be retained as an employment site through the existing policy framework.
18	Kings Hedges Road, Kirkwood Road/Kilmaine Estate, Cambridge	2.7	Fully developed employment site	-	-	-	-	-	The site is positioned south of Cambridge Science Park providing light industrial and mixed employment. It benefits from proximity to strategic roads and public transport connecting to Cambridge city centre. Opportunities for growth are limited.	Retain for local industrial floorspace through the existing policy framework.
19	Ronald Rolph Court, Ditton Walk, Cambridge	0.6	Fully developed employment site	-	-	-	-	-	This is a protected employment site under Cambridge Local Plan 2018 Policy 41. The site performs well as a local population serving estate, meeting the needs of the local market. Site is not appropriately located to accommodate intensification.	Maintain policy protection for existing employment floorspace.
20	Broad Lane Industrial Estate, Cottenham	2.3	Fully developed employment site	-	-	-	-	-	The site is fully developed and functions as a local light industrial estate meeting the needs of the local population.	The site should be retained through the existing policy framework..

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
21	Brookfields Business Estate, Cottenham	3.7	Developed employment site, with vacant land	-	-	-	-	-	The site is recognised as an Established Employment Area (Policy E/15) in the South Cambridgeshire Local Plan 2018, and caters for the accommodation needs of the local light industrial needs. Around 0.6 Ha of land is allocated for Minerals and Waste and could come forward in the medium to long term if the County Council deem it is not required. The Proposed submission Minerals and Waste Plan 2019 no longer allocates it. This would likely attract demand for local light industrial floorspace.	Potential allocation of additional 0.6 ha land outside current employment site to be considered.
22	Buckingway Business Park, Swavesey	15.0	Developed employment site, with vacant land	-	-	-	-	-	The site is an Established Employment Area (Policy E/15) in the South Cambridgeshire Local Plan 2018. The site has experienced recent development delivering a mix of new office and industrial floorspace.	The site should be retained as an established employment area.
23	Cambridge Innovation Park, Waterbeach	8.2	Developed employment site, with vacant land	1.5		-	-	7,500 sqm (est.) (1.5 ha)	The site is located south of the area covered by the Waterbeach New Town SPD. It provides office based start-up and flexible floorspace. There is around 1.5 Ha of greenfield land on the site.	Key employment area, consider designation.
24	Cambridge Research Park, Landbeach	29.0	Fully developed employment site, with vacant land	7.2 ha	-	-	1.4 ha	7.2 ha	This is a distinct employment site accommodating Bioscience, Professional Services and Information and Technology sectors. The site is recognised as an Established Employment Area (Policy E/15) in the South Cambridgeshire Local Plan 2018. There is 7.2 Ha of land available for new office and research and development floorspace, of which 1.4 ha on plot Y has planning permission. The remainder of the land had outline planning permission, which has now lapsed. A new outline planning application is being considered (for the remainder of the land and the extant land in plot Y) for up to 28,000 sqm.	Maintain designation as established employment area.
25	Cave Industrial Estate Fen Road Cambridge	9.8	Fully developed employment site	-	-	-	-	-	The site contains local light industrial units in need of investment. It presents long-term opportunities for mixed use development with either office, laboratory or industrial employment floorspace, however accessibility is a significant challenge and any development is reliant on investment in access improvements.	Consider for long term release subject to improved accessibility.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
26	Vision Park, Histon	12.0	Developed employment site, with vacant land	-	-	-265 sqm	150 sqm	115 sqm	The site is fully developed and active. It contains a mix of office floorspace at Vision Park and industrial uses along Chivers Way, benefiting from the busway. Station Road Garage to the south east received permission for housing in in September 2019 including 4 live work units delivering 150 sqm B1a, with loss of 265 sqm B1c from the garage, which is near to Vision Park.	Important employment area, consider designation.
27	Convent Drive, Waterbeach	8.3	Fully developed employment site	-	-	-	-	-	The site is recognised as an Established Employment Area (Policy E/15) in the South Cambridgeshire Local Plan 2018. It is an active industrial employment site meeting the needs of local and strategic industrial markets. Planning has been received for the delivery of 552 sqm (0.1 Ha) industrial floorspace. It is fully developed, and future intensification requires redevelopment of existing buildings.	Retain as an established employment area.
28	North of Hattons Road, Longstanton	6.7	Greenfield	-	6.7 ha	-		6.7 ha	This greenfield site is allocated employment land (Policy E/4). Permission was granted in 2004, now lapsed, nothing has been implemented. The site has the potential to attract industrial floorspace in the medium to long-term.	Given the relative isolation and length of inactivity consideration should be given to removing the allocation.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
29	Northstowe	7.05	Greenfield and Brownfield (former barracks)	-	0.95 ha	-	6.1 ha	7.05ha	The New Town of Northstowe will eventually include up to 10,000 dwellings and a range of other uses. The site is subject to the Northstowe Area Action Plan and South Cambridgeshire Local Plan 2018 Policy NS/8 Northstowe Extension. Phase 1 has outline planning permission including mixed use employment land. Phase 2 has outline planning permission including the town centre, and mixed B1 uses. Outline planning applications for Phase 3 are being considered which include further employment provision. No employment floorspace has yet been completed within the new settlement which is in early phases of development. Demand is anticipated to be long term. The Economic Development Strategy submitted with the phase 3 planning applications suggests that phase 1 will provide 14,560 sqm on 3.7 ha of B uses employment (B1, B2, B8 and pumping station), phase 2 will provide 16,200 sqm on 2.4 ha of B uses employment (B1, B1a, B1c), phase 3a will provide 5,882 sqm on 0.9 ha of B uses (B1, B1c), and phase 3b will provide 330 sqm on 0.05 ha of B uses employment (office type uses).	Support a flexible approach to employment provision within the new town, supporting potential for development in the longer term to meet demand.
30	Winship Estate and Cambridge Road, Milton	7.0	Fully developed employment site	-	-	-	-	-	It is strategically located at Junction 33 on A14 and located north of North East Cambridge Area Action Plan. The site is completely developed, however, some of the structures are quite dated. Opportunities for growth could be achieved through intensification. The site could accommodate relocation of industrial uses displaced from other inner-city sites.	Consider designating as an employment area to support intensification.
31	Oakington Business Park, Dry Drayton Road, Oakington	1.3	Fully developed employment site	-	-	-	-	-	The site hosts new office floorspace with occupiers that specialise in the Information Technology sector. There are limited intensification options.	The site should be retained for employment through the existing policy framework.
32	Dickenson Industrial Estate (north of Cambridge Research Park)	8.1	Fully developed employment site	-	-	-	-	-	This is an Established Employment Area (Policy E/15) in the South Cambridgeshire Local Plan 2018.It is a traditional industrial site meeting the land requirements of occupiers. There are limited opportunities for intensification.	Retain as an established employment area - the hard standing land on the western boundary may be explored for future growth.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
33	Waterbeach New Town	13.8	Greenfield and Brownfield	-	24,800 sqm (8.8 ha assumed from pending application)	-	15,000 sqm (5.0 ha)	39,800 sqm (13.8 ha, assumed land area)	New Town allocated in the South Cambridgeshire Local Plan 2018. Policy is guided by Waterbeach New Town SPD. It is located within access to the strategic road network (A10). Employment development will likely be long term benefitting from existing local business space agglomeration - Cambridge Research Park is located to the west and Cambridge Innovation Park to the south. The site is coming forward through applications from two landownerships. Current planning applications propose: • Up to 15,000sqm of business space (now granted permission) • Up to 24,800m2 B use (comprising 22,400 B1a office, and 2,400 B1c/B8)	Support a flexible approach to employment provision within the new town, supporting potential for development in the longer term to meet demand.
34	Norman Way Industrial Estate, Over	6.2	Developed employment site, with vacant land		1.7 ha	-		1.7 ha	This is identified as an Established Employment site (Policy E/15) in the South Cambridgeshire Local Plan 2018. There is 1.7 Ha of greenfield land on the southern boundary allocated in the Local Plan 2018 which would likely absorb medium to long term demand for light industrial floorspace.	Maintain allocation and retain as established employment area.
35	Cambridge Business Park, Milton Road, Cambridge	8.7	Fully developed employment site	-	-	-	-	-	This developed office site benefits from good access to the city and the North East Cambridge Area Action Plan designation. Future opportunities for intensification are anticipated, to be established in the North East Cambridge Area Action Plan.	Seek intensification through the AAP for employment uses.
36	Cowley Road Estate	10.3	Developed employment site, with vacant land	-	-	-	-	-	Industrial site in a desirable gateway location following North Cambridge Station reinstatement, captured in the North East Cambridge AAP area. Major intensification is anticipated however reprovision for a number of existing activities should be included whilst other non sensitive activities can be relocated.	Seek intensification through the AAP retaining location sensitive functional floorspace.
37	Merlin Place, Milton Road, Cambridge	0.7	Fully developed employment site	-	-	-	-	-	Office site, fully developed. Opportunities for future intensification would have to be comprehensively considered within the North East Cambridge Area Action Plan.	Seek intensification through the AAP for employment uses.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
38	Nuffield Road Estate, Cambridge	6.0	Fully developed employment site	-	-	-	-	-	Large industrial site with good road / busway access forming part of the North East Cambridge Area Action Plan. It is a well performing site with limited vacancy but major intensification could be considered through increased density to manage land use efficiently whilst retaining effective functional industrial floorspace.	Seek intensification through the AAP retaining location sensitive functional floorspace.
39	St Johns Innovation Park, Cowley Road, Cambridge	10.0	Fully developed employment site	-	-	-	2,687 sqm (0.37 ha)	2,687 sqm (0.37 ha)	The site forms a key research and development area and is fully developed. In the medium term, development opportunities may be achieved through upgrading or intensification of existing building stock, parking and open spaces. Future development will be informed by the North East Cambridge Area Action Plan. Existing commitments include 2,687 sqm on 0.37 ha.	Seek intensification through the AAP for employment uses.
40	Cambridge Science Park	61.2	Fully developed employment site	-	-	-338 sqm (-1.71 ha)	46,419 sqm (7.08 ha est.)	46,081 sqm (5.37 ha est.)	This is a key office and R&D employment site for the city. It forms part of the North East Cambridge Area Action Plan area. There is future floorspace in the development pipeline providing new laboratory and office floorspace amounting to 46,081 sqm (net) with planning permission as of March 2019, and further capacity for intensification and renewal. A framework for development and intensification will be established in the North East Cambridge Area Action Plan.	Seek intensification through the AAP for employment uses
41	Capital Park, Fulbourn	4.0	Developed employment site	-	-	-	-	-	Western edge of city office and R&D park with good road access. Intensification opportunities are limited on the site. There is potential for intensification of smaller sites and / or at grade parking.	Retain through existing policies, support intensification where feasible.
42	Fielding Industrial Estate, Wilbraham Road, Fulbourn	2.3	Fully developed employment site	-	-	-	-	-	More isolated industrial site. Fully developed and there are no opportunities for future intensification. The site is not specifically identified as an employment site in the Local Plan 2018, however it is an active site which meets the needs of the local market.	Retain through existing employment policy framework .
43	Fulbourn Road West (Peterhouse Technology Park), Cambridge	8.0	Developed employment site, with vacant land	-	1.6 ha	-	-	1.6 ha	Large office/R&D site has a strong tech focus providing a mix of dry laboratory and office floorspace. The western part of the site was allocated for development in the Cambridge Local Plan 2018 (Site GB3 & GB4). Development is underway (2019). Following the development of these plots, there will be 1.6 ha of land remaining.	Retain allocation.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
44	Land east of Peterhouse Technology Park, Cambridge	6.9	Greenfield	-	6.9 ha	-	-	6.9 ha	This greenfield land is an allocated employment site in the South Cambridgeshire Local Plan 2018 (Policy E/3). The site is located east of Peterhouse Technology Park. The entire site is anticipated to be developed in the medium term to accommodate demand for laboratory and office floorspace.	Retain allocation.
45	Babraham Institute, Babraham	c27	Fully developed employment site	-	-	-	-	-	The site is located in the Cambridge Green Belt, and is not subject to a specific policy related to employment, however it is a high value institute accommodating a range of start-up and scale-up opportunities with a distinct focus on bioscience. Planning permission was granted in 2014 for 10,000 sqm of additional floorspace on 8.4 ha to the north west of the site, which has now been constructed. Intensification opportunities are limited given greenbelt sensitivities.	The site should be considered for employment designation.
46	Dales Manor Business Park, Sawston	15.4	Fully developed employment site	-	-	-	5,886 sqm (approx. 1.38 ha)	-	A light industrial site allocated for residential (200 units), light industrial and office (Policy H/1a) in the South Cambridgeshire Local Plan 2018. It is currently an established industrial site primarily meeting the needs of the industrial and distribution market. There is a mixed planning history and demand appears to be maintained. On the north-western part of the site a detailed planning permission for 27 units for B1c, B2 and B8 uses is being implemented, therefore making this area of the site unavailable for the proposed residential use as anticipated by the allocation. Phase 1 of this development has been completed, however there is still 5,886 sqm outstanding. If the remainder of the site is developed/redeveloped for residential, light industrial and office, as per the allocation, a further 3.7 ha (net) of business land could be lost.	Given the active commercial interest in the site and recent completions, the residential component is unlikely to be brought forward in full if not in entirety. A removal of the mixed use allocation should be considered and employment otherwise retained under the wider existing policy framework.
47	Button End Industrial Estate, Harston	1.6	Fully developed employment site	-	-	-	-	-	The site is not subject to a specific planning policy designation in the South Cambridgeshire Local Plan 2018; however, it is an active local employment site meeting the needs of businesses that seek small scale industrial floorspace. The site is fully developed and there are no intensification opportunities. The site should be retained.	Retain through existing employment policy framework.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
48	Daleshead Food, Linton	4.0	Fully developed employment site	-	-	-	-	-	This site is identified as an Established Employment Area in the South Cambridgeshire Local Plan 2018 (Policy E/15). The industrial floorspace on the site is active. It benefits from access to the strategic road network.	Retain as established employment area.
49	Eternit site, Meldreth	14.7	Fully developed employment site	-	-	-	-	-	This site is identified as an Established Employment Area in the South Cambridgeshire Local Plan 2018 (Policy E/15). The site meets the needs of the current occupier who require proximity to the road network to access the regional market.	Retain as established employment area.
50	Former Bayer Crop Science, Hauxton	8.7	Developed employment site, with vacant land	0.4 ha	-	0	4,000 sqm (0.4 ha)	4,000 sqm (0.4 ha)	The site is a former employment site subject to a residential-led mixed use development allocation (Policy H/2 of the South Cambridgeshire Local Plan 2018). The residential component has come forward, however the identified capacity for 4,000 sqm of B1 floorspace has not. This is an appropriate location for B1 floorspace and will likely experience demand given proximity to the strategic network and nearby employment.	Retain allocation.
51	Former Spicers Site, Sawston	20.2	Developed employment site, with vacant land	7.3 ha	-	-	-	7.3 ha	This site is identified as an Established Employment Area in the South Cambridgeshire Local Plan 2018 (Policy E/15). Planning permission for the development of commercial floorspace including 50,445 sqm B1b was granted in August 2020, and there is potential for future phases. The site is located outside of Cambridge centre and has the potential to create a cluster for future employment floorspace.	Retain as established employment area.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
52	Wellcome Trust Genome Campus, Hinxton	27.9 ha	Fully developed employment site	-	-	-	55.0[33] ha	55.0 ha	Major bioscience park, A11 access, part of local cluster, creating a well-established science cluster, specialising in genomics and computational biology with global links. The existing part of the site is identified as an Established Employment Area in the South Cambridgeshire Local Plan 2018 (Policy E/15). There is land within this existing site which has not yet been developed – an outline planning permission for phases 2 & 3 lapsed in December 2019 without the final grow-on unit being brought forward - anticipated to be 3000 sqm of B1b on 2.86 ha. South Cambridgeshire has resolved to grant permission for a mixed use application for 150,000 sqm of employment floorspace and this will likely respond to the short to medium term demand for laboratory and associated office floorspace. The proposal includes the vacant land that previously had outline planning permission.	Site with anticipated significant expansion supporting economic growth in a specialist sector. The delivery of the proposals should be supported through the existing policy framework and expansion of the Established Employment Area would be suitable as the development progresses.
53	Granta Park, Great Abington	47.0	Employment site with undeveloped phases	11.3	-	-	32,490 sqm (11.3 ha)	32,490 sqm (11.3 ha)	Major site, A11 access, well-established strategic employment site meeting the floorspace needs of the bioscience sector close to Babraham with a number of recently completed developments in B1b. A further outline unimplemented permission exists for 32,490 sqm for phase 2. The site should continue to be protected.	Retain and consider protection through designation.
54	Grip Industrial Estate, Linton	2.9	Fully developed employment site	-	-	-	-	-	Local industrial site, local access, fully developed with no opportunities for intensification. The site is active and provides floorspace to meet the needs of the local industrial market.	The site should be retained as employment land through the existing policy framework.

[33] Resolution to grant planning permission given by planning committee in October 2019 for the expansion of the campus for a mixed use development comprising of up to 150,000 sqm of mixed B Class floorspace (around 50 Ha applying a plot ratio of 0.3), 1,500 dwellings, some retail and a hotel. Once implemented, the development will expand the site boundary.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
55	Land at Hinxton Road, South of Duxford	23.3	Developed employment site, with vacant land	-	-	-	-	-	This is identified as an Established Employment Area in the South Cambridgeshire Local Plan 2018 (Policy E/15). The site is fully active and specialises high tech engineering and manufacturing. There is around 2.0ha of undeveloped land on the southern boundary of the site, part of this is a former protected rail head. Further development has historically been permitted and lapsed, suggesting some intensification opportunities. The site should be retained for employment uses.	Site should be retained as an established employment area. Around 2.0 ha of land could be included for future development and intensification through an allocation to encourage development.
56	Sagentia Research Park, Harston Mill	5.5	Fully developed employment site	-	-	-	-	-	The employment site is located in the Green Belt and is not specifically designated by other policies in the South Cambridgeshire Local Plan 2018. A10 access. The site hosts a niche focus on medical science and technological sectors.	This site should be retained as an employment site through the existing policy framework.
57	Saxon Way, Melbourn	17.0	Developed employment site, with vacant land	-	-	-	-	-	This is an active employment site hosting a local industrial cluster and a large-scale building used for office use. There is an intensification opportunity for new office or laboratory floorspace surrounding the existing office building to the west of the site. Intensification of this site is likely to be long-term and dependent on landowner intentions. Local access is limited before reaching the A10.	Potential to intensify some of the car park / campus area if desirable which can be considered through the application route. The site can be protected through the existing policy framework although may benefit from a designation given its local importance.
58	Melbourn Science Park, Melbourn	6.1	Developed employment site, with vacant land	-	-	-	10,974 sqm (9.3 ha)	10,974 sqm (9.3 ha)	This is a well-established employment site providing laboratory and office floorspace for occupiers specialising in science industries. Opportunities for intensification are limited. In 2019 planning permission was granted for land North of Melbourn Science Park for the expansion of the TPP site	This site should be retained as an employment site through the existing policy framework.
59	West of London Road, Pampisford	8.0	Developed employment site, with vacant land		-	-8,486 sqm (-3.3 ha est.)	19,833 sqm (3.3 ha est)	11,347 sqm	This is an active employment site meeting demand for industrial and commercial uses. Through one hybrid planning application the centre of the site has received planning for the redevelopment of Sawston Trade Park and the vacant land at the rear of the site (western fringe) has received planning for a new business park (Use Class B1). Construction has commenced and development will result in a loss of industrial floorspace. The future floorspace will respond to the short to medium term demand for office and research floorspace.	This site should be retained as an employment site through the existing policy framework and the allocation is no longer required.

No.	Site	Site Area (Ha)	Land Classification	Vacant (existing) (Ha)	Vacant (allocated) (Ha)	Permitted Loss (Ha)	Permitted Gain (Ha)	Total Supply (Ha)	Summary	Policy Recommendation
60	Cambridge Road, Linton	4.0	Developed employment site, with vacant land	-	-	-	-	-	Mixed industrial units at the site subject to Policy H/6 South of A1307 Linton. This policy protects the site from windfall residential development and protects the existing properties.	There is around 0.5 Ha of undeveloped land on the southern boundary that may be considered for development in the medium to long term through an allocation, subject to constraints.
61	Bourn Airfield, Bourn	9.2	Brownfield	-	1,500 sqm (approx. 1.1 ha)	-	26,037 sqm (8.1 ha est.)	27,537 sqm (9.2 ha est.)	The site was allocated in the South Cambridgeshire Local Plan 2018 (Policy SS/7) for a new settlement. Subsequently the Bourn Airfield SPD was adopted. Planning permission was granted in 2013 for 17,723 sqm of B2 employment floorspace to replace existing employment uses. After the allocation of this area as part of the new settlement, Diageo Pension Fund submitted an outline planning application in March 2019 proposing 24,620 sqm of employment floorspace (B1c & B8) instead, which has now been withdrawn. A further hybrid planning application in June 2020 for up to 26,757 sqm of commercial floorspace (B1c, B1b, B8, A3, D1 & D2) and is undetermined at time of writing. It is understood that the extant planning permission will not be implemented and therefore the most recent planning application has been used to anticipate the likely floorspace that will be provided on the industrial area within this new village[34]. Further employment uses are proposed by Countryside properties in their application for the main part of the airfield site, 1,500 sqm GEA of employment uses comprising offices, research and development and light industry only (Class B1a, b and c uses).	Given the strategic location of the site, employment uses should be provided in accordance with the SPD.

[34] The submitted planning application does not provide a breakdown between use classes, therefore the floorspace anticipated for the café/restaurant, nursery and gym (use classes A3, D1 & D2) has been estimated as 720 sqm (based on the floorspace for these uses on Granta Park and the size (in hectares) of this proposed development in comparison to the size (in hectares) of Granta Park). The floorspace for B uses is therefore estimated as 26,037 sqm.

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62	Cambourne Business Park, Cambourne	15.4	Developed employment site, with vacant land	9.5 (including non B class elements)	4,400 sqm (1.5 ha est.)	-	4,978 sqm (1.5 ha est.)	9,378 sqm (3.0 ha est.)	This is identified as an Established Employment Area in the South Cambridgeshire Local Plan 2018 (Policy E/15). hosting a collection of modern office buildings in a purpose-built campus with a range of professional services occupiers and flexible floorspace. The Cambridge Compass Enterprise Zone includes part of the Cambourne Business Park site. The vacant land south of the Business Park Road is anticipated to deliver a mixed use development, incorporating around 240 dwellings and 4,400 sqm B1. In addition, north of the business park road, Building 4010 has planning permission for 4,978 sqm B1.	Retain the established employment area - the strategic position of the site in the Enterprise Zone creates opportunities to provide a mix of floorspace types and respond to the demand for start-up office and potentially incubator floorspace.
63	Cambourne West	6.3 ha	Greenfield	-	-	-	6.3 ha	6.3 ha	This is a greenfield mixed use site allocated in the South Cambridgeshire Local Plan 2018 (Policy SS/8). Outline planning permission for Cambourne West (S/2903/14/OL) was granted on 29 December 2017, for a larger site than allocated in the South Cambridgeshire Local Plan 2018. The development description includes: 'offices/light industry, use class B1 (up to 6.25ha). Employment areas targeted at small to medium sized operators will be provided in two locations: to the north east of the site - extending from the existing area of employment along Sheepfold Lane into the main site, and by Caxton Gibbet to the north west.	Retain allocation – provides a long term pipeline of employment floorspace along the A428 with planned housing and population growth.
64	Green End Industrial Estate, Gamlingay	4.1	Fully developed employment site		-	-3.1 ha	-	-3.1 ha	This is an active employment site meeting the needs of the local industrial market. The site is subject to South Cambridgeshire Local Plan 2018 Policy H/1f which focuses on mixed-use development. The site received planning permission for 90 dwellings which when implemented, will result in a loss of employment floorspace from 75% of the site. The remaining part of the site should be retained for employment to meet local floorspace needs.	Retain remaining elements of employment floorspace to meet local market needs through the existing policy framework.
65	Horizon Park, Comberton	1.1	Developed employment site, with vacant land	-	-	-	-	-	This is a small-scale employment site specialising in science research. It is currently meeting the needs of the active occupiers.	The site should be retained for employment purposes through the existing policy framework.

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66	North West Cambridge (Eddington)	10.0	Greenfield	-	-	-	40,000 sqm (10.0 ha)	40,000 sqm (10.0 ha)	The site is subject to the North West Cambridge Area Action Plan, a joint plan adopted by Cambridge City and South Cambridgeshire District Councils. Part of the site is under construction for a new residential settlement with local retail, student accommodation and university associated floorspace. The developable land will support the expansion of the university by providing education and associated research and commercial floorspace. The planning permission for the development includes 100,000 sqm of research facilities, including up to 40,000 sqm for research institutes and 60,000 sqm private research facilities linked to the University.	Retain allocation, part of academic and commercial expansion of the University.
67	Papworth Business Park, Papworth Everard	8.7	Developed employment site, with vacant land	-	-	-	640 sqm (0.3 ha)	640 sqm (0.3 ha)	Active local industrial site. The land at the northern part of the site is allocated for employment in the South Cambridgeshire Local Plan 2018 (Policy E/5). This has recently been developed. Application permitted in 2018 enabled 640 sqm B1 on a former car park thus facilitating intensification.	The site should be retained for employment purposes through the existing policy framework.
68	Trafalgar Way, Bar Hill	11.5	Fully developed employment site	-	-	-	-	-	This is a local light industrial site meeting the floorspace needs of the local light industrial and distribution market. There will likely remain a need for this site to continue to accommodate local light industrial uses, however there are no intensification opportunities.	The site should be retained for employment purposes through the existing policy framework.
69	Viking Way, Bar Hill	4.4	Fully developed employment site	-	-	-	-	-	The uses on the site contribute to the industrial landscape of Greater Cambridge and the site is strategically positioned near the A14 which provides strong links to the rest of Greater Cambridge and to regional markets. There are no opportunities for intensification.	The site should be retained for future employment purposes through the existing policy framework.
70	West Cambridge	66.0	Developed employment site, with vacant land	-	-	-	17,786 sqm (1.7 ha)	17,786 sqm (1.7 ha)	The site is subject to Cambridge Local Plan 2018 Policy 19 West Cambridge Area of Major Change. Development has recently occurred on the southern boundary of the site as part of a Masterplan accommodating floorspace needs of university departments. There are large amounts of open space on the site. A further application (undecided) has been submitted for major development to facilitate the implementation of the wider masterplan for the University across the site totalling 336,410 sqm including 170,000 sqm B1b commercial and 158,150 educational floorspace.	Major University research and development expansion area supporting commercial R&D, existing policy should be retained given development is ongoing.

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71	Station Road, Gamlingay	4.5	Fully developed employment site	-	-	-	-	-	Site is quite detached from the strategic road network making it more appealing to small industrial uses that benefit from access to nearby markets. It is unlikely to experience demand for intensification; however it is an active site that meets the needs of its current occupiers and should be retained. There is an extant permission for an extension to the existing buildings.	Retain for employment through the existing policy framework.

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