Greater Cambridge Local Plan – Regulation 18: Issues and Options Consultation 2020
Land to the North of Station Road, Cambridge
Jesus College
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BIDWELLS

LAND TO THE NORTH OF STATION ROAD, CAMBRIDGE
EMPLOYMENT LAND NEEDS APPRAISAL

Quality Assurance

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SMARTER PLANNING CHAMPION

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Executive Summary

This report considers the economic needs evidence base in respect of B1a (Office) requirements in Cambridge. The report has been prepared by Bidwells LLP on behalf of Jesus College.

The importance of growing the AI industry cannot be overstated for both the local, regional and international economy. This report has identified a clear need for high quality B1a (office requirements) in the Core City District close to central Cambridge train station.

Policy led growth

National policy requires LPA to support development that builds on economic growth, increases productivity and where development builds on a location's strengths. Cambridge has a recognised role in delivering the UK Industrial strategy particularly in relation to AI and can help increase UK GVA growth through higher productivity as well as employment growth. Cambridgeshire and Peterborough Industrial Strategy supports the UK Industry Strategy. It looks to leverage the strengths of the Cambridge cluster, support the Cambridge innovation system, continue to attract international firms and support the expansion of high growth companies.

The emphasis on clean growth places a responsibility on planners to make the most of locations, such as Station Road, benefiting from rail infrastructure and active travel opportunities. Investment in low energy buildings is also key to improving energy productivity.

Serving the national and regional economy

Employment in Greater Cambridge is dominated by Education, health and administration, with Banking, finance and insurance (which includes Professional, scientific and technical activities) accounting for approximately 20% of the total jobs in the Greater Cambridge area.

Following the redevelopment of Cambridge central station, a new prime office quarter has emerged in its vicinity, the Core City District, which now accounts for 15% of all jobs in Cambridge. It has proved a popular destination in the last six years for company headquarters, computer consultancy, legal and accounting activities.

Economic growth projections for Greater Cambridge have come under scrutiny with the Cambridgeshire and Peterborough Independent Economic Commissions (IEC) providing evidence in their report (CPIER) suggesting official statistics under represent past levels of economic growth in the region and have projected them forward, thereby underestimating future employment growth. To meet C&PCA target of doubling GVA by 2041, a significant increase in growth in both employment and productivity is required in Greater Cambridge. This in turn will require a step change in the level of both office and industrial premises to accommodate this growth.

A gap in the commercial market

The office market within c.10 minutes walk of the Cambridge Station has grown over the past decade with the delivery of modern grade A office stock on the CB1 estate that has created a new prime city office market that has been particularly attractive for R&D functions of international tech businesses. The connectivity to public transport and urban commercial district with mix of uses and amenity has been successful with all new space being let in advance of delivery. The limited supply and strong demand has led to significant increases in rent of 32% over the past five years.

This area has office stock of c. 1.35M sq. ft. and is constrained in opportunities for development, falling well short of the 2.3 million sq. ft. of office space in the market around Cambridge North Station.

Cambridge is now a leading R&D capital, in many fields including AI, which builds in significant resilience to the city centre office market. The ability of Cambridge to maintain this position is in part reliant on space being available in the areas desired for these high value businesses to continue to grow. For the R&D sector, the location decisional drivers are access and ability to recruit the right skill sets. Cambridge provides this, but the Core City District's small size, the lack of available space and lack of development pipeline puts that resilience at risk and could undermine the growth of the R&D sector.

Why Station Road?

Station Road and the surrounding Core City District provide a newly established location in which some of the region's most productive industries have chosen to make their home. Further prime office development in this area is necessary to support the growth of this cluster. Clustering is driven by agglomeration forces, particularly the need for close proximity, which facilitates both formal and informal knowledge and idea exchange, access to suppliers and customers, economies of scale for market forces, and prestige. Other locations in Cambridge cannot offer the same strength of agglomeration benefits to these companies.

A lack of high quality offices in this location is likely to lead to such internationally footloose businesses locating outside of the UK. Expanding this cluster brings high density employment growth and highly productive industries to Cambridge, both of which are necessary to meet the ambitious regional target of doubling growth.

Not only will the development provide economic benefits to the region, it will do so in a manner that promotes health and wellbeing for employees. Station Road is particularly well located at the hub of Cambridgeshire's current and future public transport network, with strong pedestrian and cycle routes to neighbouring residential areas and the retail heart of Cambridge. This supports the Council's aim of reducing car traffic, congestion and air pollution: benefits which will be felt throughout the county.

The redevelopment of this area is an efficient use of land, a significant benefit given the scarcity of land within the tight geographical confines of Cambridge.

Without this development, the economic growth potential of Cambridge is curtailed. With the development, Cambridge benefits from a large increase in well paid employment at a sustainable location and through expansion of supply chains; inclusive growth that considers the needs of vulnerable groups; it can compete on the international office market; and takes a large step toward meeting regional growth targets.

1.0 Introduction

1.1 This Employment Needs Appraisal has been prepared by Bidwells LLP on behalf of Jesus College. It provides a review of the economic needs evidence base in respect of B1a (Office) requirements in Cambridge.

1.2 The Appraisal is in support of representations in response to the Greater Cambridge Local Plan Regulation 18: Issues and Options 2020 consultation and in respect of Land to the north of Station Road, Cambridge which is in the ownership of Jesus College. Land to the north of Station Road, Cambridge is being promoted as an allocation for employment uses in the emerging Greater Cambridge Local Plan.

1.3 Using the latest market data and research, the Appraisal sets out:

- The need for B1a office floorspace generally and then more specifically the need for development of large floorplate, modern, high specification offices along Station Road;
- Why that need is best located at Station Road; and
- The health and wellbeing benefits of said development at Station Road in the context of local health and wellbeing concerns.

1.4 The representations to the Greater Cambridge Local Plan are also supported by a Vision Document, prepared by Allies and Morrison. The Vision Document includes three potential concept proposals for the site:

- Option A – Do nothing (the existing accommodation extends to circa 3,500m^2, including outbuildings);
- Option B – Retention of Salisbury Villas with development to the rear, potentially linked to the Villas (a total net floor space of circa 16,000m^2 could potentially be delivered);
- Option C – Demolition and redevelopment of Salisbury Villas (a total net floor space of circa 24,000m^2 could potentially be delivered).

2.0 The Need for Office Floorspace: Policy Context

2.1 National, regional and local policy recognises the need for and supports development such as at Land to the north of Station Road. This chapter provides a summary of key relevant policies.

National Policy

2.2 The National Planning Policy Framework (NPPF)[1], paragraph 7 confirms that the purpose of the planning system is to contribute to the achievement of sustainable development. One of the three overarching objectives intended to contribute towards sustainable development, as set out in paragraph 8, states:

***"An economic objective** – to help build a strong, responsive and competitive economy, by ensuring that sufficient land of the right types is available in the right places and at the right time to support growth, innovation and improved productivity; and by identifying and coordinating the provision of infrastructure."*

2.3 Chapter 6 of the revised NPPF specifically deals with the need to build a strong competitive economy. Paragraph 80 states:

"Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt. Significant weight should be placed on the need to support economic growth and productivity, taking into account both local business needs and wider opportunities for development. The approach taken should allow each area to build on its strengths, counter any weaknesses and address the challenges of the future. This is particularly important where Britain can be a global leader in driving innovation, and in areas with high levels of productivity, which should be able to capitalise on their performance and potential."

2.4 Footnote 40 states that:

"The Government's Industrial Strategy sets out a vision to drive productivity improvements across the UK, identifies a number of Grand Challenges facing all nations, and sets out a delivery programme to make the UK a leader in four of these: artificial intelligence and big data; clean growth; future mobility; and catering for an ageing society. HM Government (2017) Industrial Strategy: Building a Britain fit for the future."

2.5 Finally, paragraph 82 states that:

"Planning policies and decisions should recognise and address the specific locational requirements of different sectors. This includes making provision for clusters or networks of knowledge and data-driven, creative or high technology industries; …at a variety of scales and in

2.6 In 2017, the **UK's Industrial Strategy**[2] was launched with a Vision to improve productivity through five foundations: ideas, people, infrastructure, business environment and people. It

[1] MHCLG. July 2018. National Planning Policy Framework.
[2] MCLG (2017) Industrial Strategy 2017 – Building a Britain Fit for the future.

recognises four grand challenges - developments in technology that are set to transform industry in society:

- AI and data revolution (priority areas = cyber security, life sciences, construction, manufacturing, energy and agricultural technology);
- Shift to clean growth (construction, renewable energy, smart systems, food production);
- Future of mobility;
- Power of innovation and needs of aging society.

2.7 It seeks to put the UK at the forefront of the artificial intelligence and data revolution and promotes the Oxford-Cambridge Arc as a location for developing artificial intelligence, along with life sciences and construction. The Strategy focusses on "*making the most of our strengths*" and ensuring continued growth in local economic growth corridors and clusters:

"…towns such as MK, Oxford and Cambridge have been hot spots for job creation. We must promote growth through fostering clusters and connectivity across cities, towns and surrounding areas." [3]

2.8 AI industry development is important because of its contribution to the UK economy (one estimate is of £232bn added to the economy by 2030[4]), but it is also necessary to address the potential benefits of AI:

"As with previous revolutionary technologies, these changes cannot be resisted and it would be irresponsible to fail to prepare. Meeting our Grand Challenge means maximising the opportunities created by AI and advanced data technologies, and responding to the potential impacts on society. It is a call for businesses, research institutions and the government to work together throughout the UK to invest in these technologies, encourage their adoption and set standards in secure, trusted use of data."[5]

2.9 Increased and sustained productivity is flagged as the most essential requirement of future growth in order to meet inclusive national growth objectives and raise living standards. Growth of the AI industry helps to deliver this:

"s*ustained higher productivity that is the essential requirement for higher wages. Unless we improve productivity while holding on to high employment, we cannot raise living standards and quality of life for all our citizens…. A major source of productivity improvements comes from making the most of AI and machine learning across the economy* [6].

2.10 The Clean Growth Strategy[7] recognises that the low carbon economy is expected to grow four times faster than the UK economy. The Strategy suggests a range of measures to support businesses to improve their energy productivity by at least 20% by 2030. In addition, it intends to accelerate the shift to low carbon transport with greater use of rail and investment to make cycling and walking the natural choice for shorter journeys. This reinforces the Cycling and

[3] OP cit p18
[4] OP cit p36
[5] OP cit p36
[6] Op cit p29 and p39
[7] HM Government. October 2017. The Clean Growth Strategy: Leading the Way to a Low Carbon Future.

Walking Investment Strategy[8] on taking a strategic approach to making improvements to infrastructure.

Regional Economic Policy

2.11 Cambridgeshire and Peterborough Industrial Strategy reflects the ambitions and priorities of the UK Industrial Strategy[9]. It sets out three priorities for the region to build on the four sectoral strengths (life sciences, agri-tech, digital and information technologies and advances manufacturing and materials) of the region identified in the CPIER:

- ***'Improve the long-term capacity for growth in Greater Cambridge by supporting the foundations of productivity'.*** *This will be achieved by*

  'investing heavily in housing; supporting supply chain development; delivering transformational transport and infrastructure; whilst leveraging the strengths and better connecting the Cambridge cluster. – all for the greater benefit of the other two economies and the UK. There also needs to be continued efforts to support the Cambridge innovation ecosystem and to continue to attract international firms to the region' (Pg.8).

- ***'Increase sustainability and broaden the base of local economic growth'***

  "by identifying opportunities for high growth companies to accelerate growth where there is greater absorptive capacity, addressing the current bottlenecks to growth in Greater Cambridge" (Pg 9).

- ***'Expand and build upon the clusters and networks that have enabled Cambridge to become a global leader in innovative growth' (Pg.9).***

2.12 The strategy for Digital and Information Technologies (including AI), recognises:

'the opportunity is to establish Greater Cambridge and the Arc as the preferred global base for firms from across the world to create and adopt the technologies of tomorrow. As part of this, the Combined Authority will host a global artificial intelligence conference in Greater Cambridge'. (Pg. 10).

Conclusion

2.13 National policy clearly requires LPA to support development that builds on economic growth, increases productivity and where development builds on a location's strengths.

2.14 Cambridge has a recognised role in delivering the UK Industrial strategy particularly in relation to AI and can help increase UK GVA growth through higher productivity as well as employment growth. CPIS supports the UK Industry Strategy. It looks to leverage the strengths of the Cambridge cluster, support the Cambridge innovation system, continue to attract international firms and support the expansion of high growth companies.

2.15 The emphasis on clean growth places a responsibility on planners to make the most of locations, such as Station Road, benefiting from rail infrastructure and active travel opportunities. Investment in low energy buildings is also key to improving energy productivity.

[8] DfT. April 2017. Cycling and Walking Investment Strategy.
[9] Cambridgeshire and Peterborough Local Industrial Strategy, July 2019

3.0 Economic Growth Requires More Offices

3.1 Professional, scientific and technical activities are the dominant industrial sector in Greater Cambridge, providing around 39,000 jobs, contributing 20% of the total jobs in Greater Cambridge (194,000), or 8% of all jobs (462,000) in the C&PCA. Other sectors which are important in terms of the volume of jobs and where Cambridge has a higher % jobs than the UK are: Education, Health, Accommodation and food services, and information and communication[10].

Figure 3.1: Jobs by Industry in Greater Cambridge

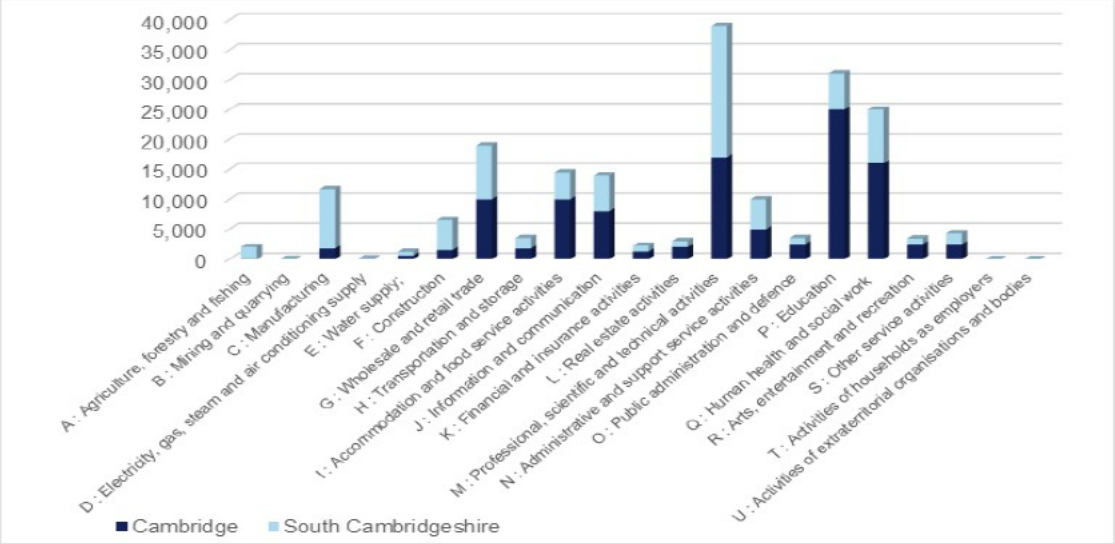
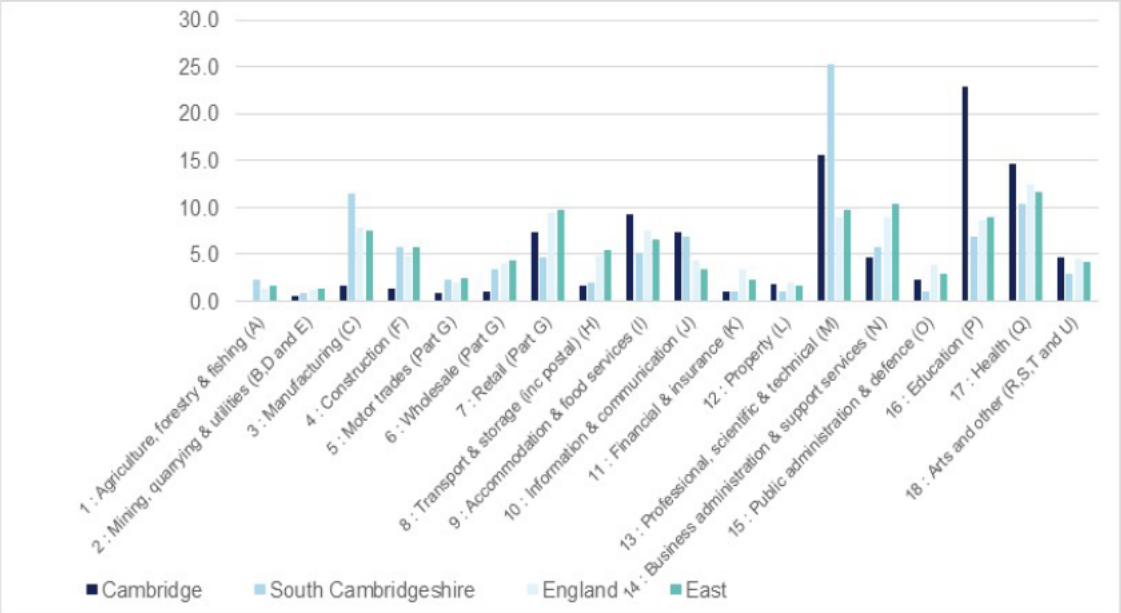


Figure 3.2: % of Employment in Each Region by Industry

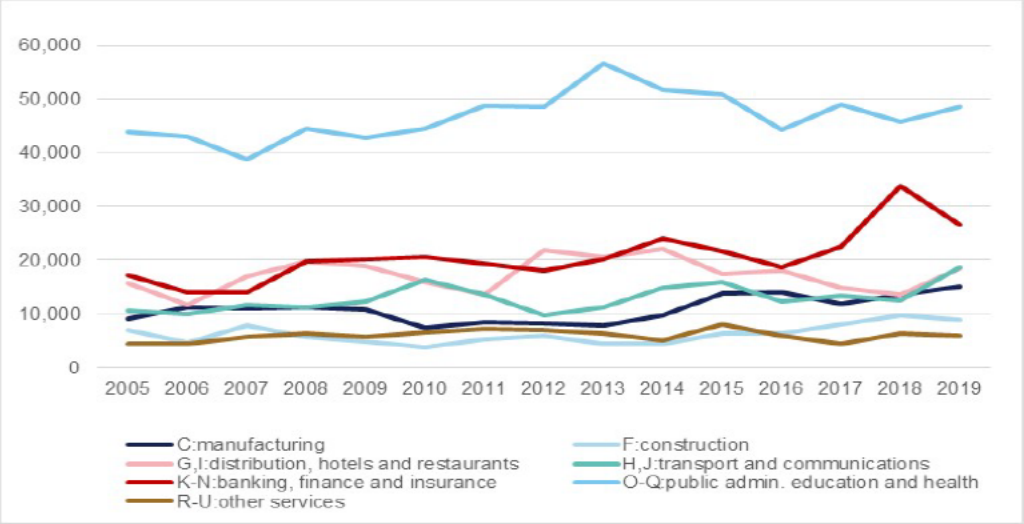


[10] BRES

3.2 When considering the employment in industrial sectors over time, the Annual Population Survey provides a more stable measure of growth, as its methodology, in contrast to BRES, has remained constant. However, BRES provides more detailed breakdown by SIC and geography enabling more in-depth study.

3.3 Over the past fourteen years, Banking, Finance and Insurance (which includes professional, technical and research) has experienced a 35% increase in jobs, the largest sectoral change in Cambridge (See Figure 3).

Figure 3.3: Growth in Cambridge: Number of Jobs by Industry



Source: Annual Population Survey

3.4 The area around Cambridge[11] known as the Core City District provides 16,490 jobs in 2018, a 4% increase since 2015. The area accounts for 15% of all jobs in Cambridge. Table 1.1 lists those industries with more than 100 jobs in the Core City District. It demonstrates that:

- The area is dominated by legal and accounting activities, computer consultancy, publishing and head offices, which between them account for 5,000 jobs, roughly one third of employment in the area;
- Education remains the largest industry but has declined from 4,500 jobs to 2,700;
- In contrast, head office employment has risen from 135 jobs to 1,160, a clear signal that a new market has been created in the Core City District;
- Industries who no longer have a presence in the area are non-office users in repairs, utilities, gambling and betting and manufacturing;
- New industries since 2015 are office-based industries such as programming and broadcasting (100 jobs).

[11] Map of the area in in Appendix 1

Table 3.1: Job Growth in Core District by Industry

STANDARD INDUSTRIAL CLASSIFICATION	JOBS IN CORE AREA 2018	JOB INCREASE SINCE 2015
85 : Education	2,725	-1,800
69 : Legal and accounting activities	1,395	200
62 : Computer programming, consultancy and related activities	1,200	165
58 : Publishing activities	1,180	40
70 : Activities of head offices; management consultancy activities	1,160	1,025
56 : Food and beverage service activities	950	325
71 : Architectural and engineering activities; technical testing and analysis	820	10
68 : Real estate activities	620	20
72 : Scientific research and development	575	65
47 : Retail trade, except of motor vehicles and motorcycles	525	50
88 : Social work activities without accommodation	370	120
55 : Accommodation	370	120
49 : Land transport and transport via pipelines	350	40
90 : Creative, arts and entertainment activities	340	140
84 : Public administration and defence; compulsory social security	320	-120
86 : Human health activities	305	50
53 : Postal and courier activities	300	160
96 : Other personal service activities	255	60
74 : Other professional, scientific and technical activities	220	85
81 : Services to buildings and landscape activities	215	115
93 : Sports activities and amusement and recreation activities	200	50
64 : Financial service activities, except insurance and pension funding	190	-20
46 : Wholesale trade, except of motor vehicles and motorcycles	180	15
26 : Manufacture of computer, electronic and optical products	170	140
78 : Employment activities	150	20
66 : Activities auxiliary to financial services and insurance activities	150	50
87 : Residential care activities	135	-175
61 : Telecommunications	120	35
94 : Activities of membership organisations	115	10
91 : Libraries, archives, museums and other cultural activities	100	-130
52 : Warehousing and support activities for transportation	100	20
60 : Programming and broadcasting activities	100	100
All SIC and net change	**16,490**	**760**

Economic Growth Projections and Industrial Breakdown

3.5 Looking to the future is both an art and science that reflects the assumptions and variables used. There is no one defined position on growth, other than there is going to be lots of it in Cambridgeshire. However, this chapter provides an overview of what the most respected sources conclude.

East of England Forecasting Model (EEFM)

3.6 Designed to facilitate the setting of consistent housing and jobs targets, the EEFM provides a set of baseline forecasts prepared by a leading independent forecasting house (Cambridge Econometrics) for the East of England region and sub-regions, the East Midlands and South East regions, and the Greater Cambridge Greater Peterborough, Hertfordshire, New Anglia, South East and South East Midlands LEP areas. The EEFM is an integrated demographic, housing and economic model providing a range of outputs. The most recent version is the 2017EEFM, which uses the 2014SNPP (sub national population projections) updated to reflect the mid-year population estimates for 2015.

3.7 While the model is comprehensive, it is not entirely suitable for land use planning where ideally some variables would be fixed to understand the implications of different policy interventions. An example of this is the interplay between the resident population and employee jobs in local consumer demand sectors. These jobs are limited to the number 'required' by the resident population with little consideration of the cross-border flow of services or commuting. This is likely to subdue the reported growth of these jobs. Notwithstanding these issues, it could still provide a reasonable starting projection of future economic growth.

3.8 The model estimates that there will be 200,000 jobs in the Cambridgeshire and Peterborough in 2018. However, the most recent total job estimates from Office for National Statistics (ONS) would suggest that, in 2017, some 215,000 jobs had already been achieved.

3.9 Overall, the model suggests growth of 34,400 jobs between 2018 and 2041, at an annualised rate of 1,496 jobs. However, with jobs already appearing to be significantly higher than those modelled, it seems probable that job creation could be far higher.

CPIER

3.10 Economic growth is the basis of the devolution contract between central government and the Cambridge and Peterborough area. The area committed to doubling its economic output (measured as Gross Value Added – GVA) over the next 25 years (2043). This requires an annual growth rate of 2.81%, when historically since 1998 the economy has grown at around 2.5%. The report comments: "*it requires the area going beyond what it has before*"[12]. This is a challenge as:

- UK growth over the longer term has slowed; and

[12] CPIER p33

- Recent economic growth in the region has largely been led by employment growth, but this will be harder going forward due to high levels of employment and a likely restriction in access to the European labour market.

3.11 Over the coming years, employment growth and particularly productivity growth will be required to make the step change. The Strategy sets out a productivity growth target of 0.8% reflecting an assumption that employment growth will return to its higher longer-term growth rate.

Conclusion

3.12 Employment in Greater Cambridge is dominated by Education, health and administration, with Banking, finance and insurance (which includes Professional, scientific and technical activities) accounting for approximately 20% of the total jobs in the Greater Cambridge area.

3.13 Following the redevelopment of Cambridge central station, a new prime office quarter has emerged in its vicinity, the Core City District, which now accounts for 15% of all jobs in Cambridge. It has proved a popular destination for company head-quarters, computer consultancy, legal and accounting activities.

3.14 Economic growth projections for Greater Cambridge have come under scrutiny with the Cambridgeshire and Peterborough Independent Economic Commissions (IEC) providing evidence their report (CPIER) suggesting official statistics under represent past levels of economic growth in the region and have projected them forward, thereby under estimated future employment growth. To meet C&PCA target of doubling GVA by 2041 a significant increase in growth in both employment and productivity is required in Greater Cambridge. This in turn will require a step change in the level of both office and industrial premises to accommodate this growth.

4.0 The Commercial Office Market

Overview

4.1 Historically the Cambridge office market has been dispersed at sites in Castle Hill, the retail heart of the city, a core market centred along Hills Road, bounded by Parkers Piece and Cherry Hinton Road and in necklace of the science and business parks on the edge of Cambridge and surrounding area.

4.2 Demand in the science and business parks has remained strong with their attractive offer of proximity to similar enterprises, business support, expansion space, green environments and parking. They have continued to grow through densification and expansion providing grade A supply.

4.3 Other locations such as Castle Hill have declining office stock and operate largely a second hand market as residential pressures and high values outbid commercial values.

4.4 The retail heart of Cambridge has a limited supply of offices on upper floors, typically in historic buildings with inherent constraints on space efficiency and scale of floorplates.

4.5 The Cambridge City Centre core market is a compact area surrounding the Station. It comprises circa 1.5m sq. ft of office space and stretches to the railway line in the North, Cherry Hinton Road in the East, Parkers Piece in the West and just south of Hills Road. This area is now seen as 'the place to be' in Cambridge.

4.6 The availability of office stock in Cambridge has remained at around 600,000 sq. ft over the past five years, but with a significant change in the volume of Grade A space on the market, rising from less than 10,000 sq. ft in 2014 to more than 225,000 sq. ft in 2019, reflecting an increase in construction (see Figure 4.1).

4.7 Take-up of second hand space creates a solid market of around 200,000 sq. ft per annum. Currently more than 50% of space required is for premises more than 30,000 sq. ft. Knowledge based industries account for circa 75% of take-up in Cambridge over the past five years (see Figure 4.2).

Figure 4.1: Office Supply and Demand

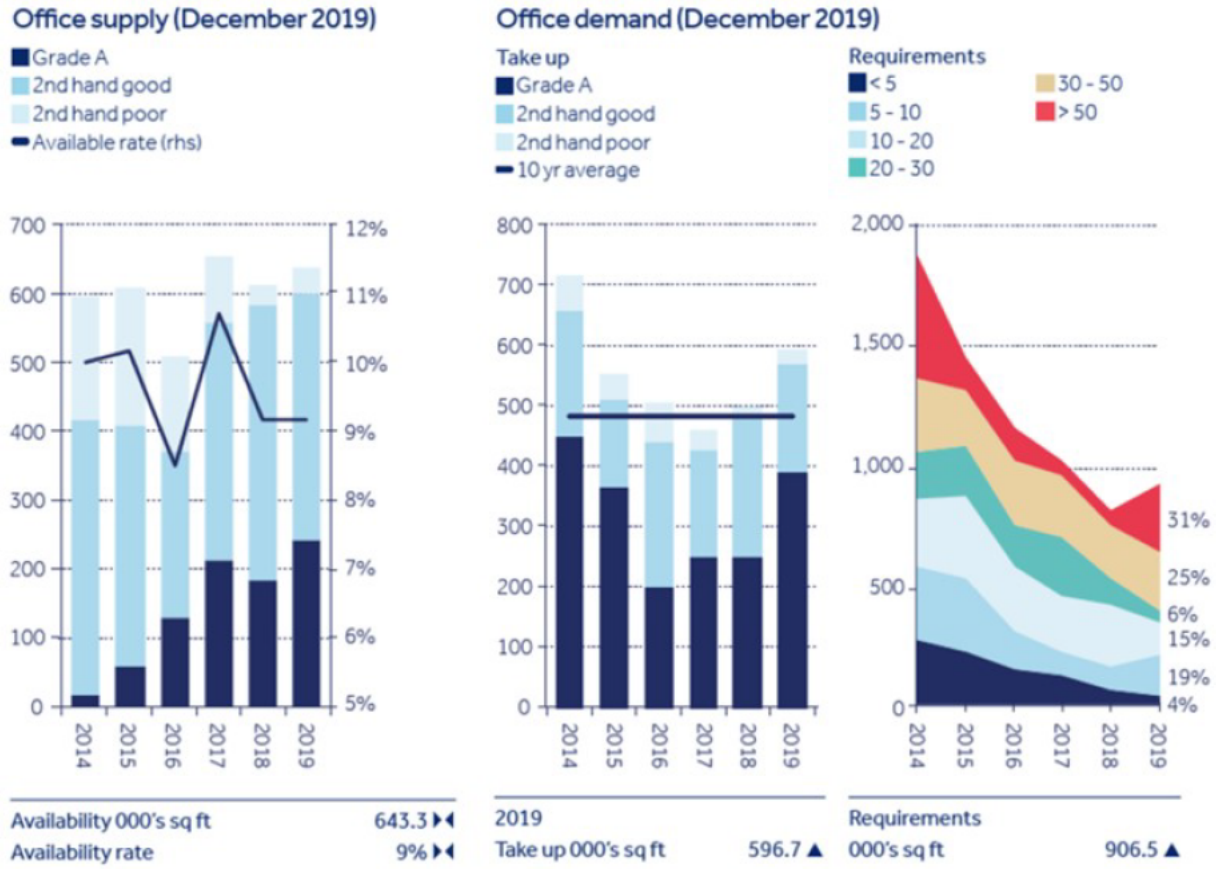
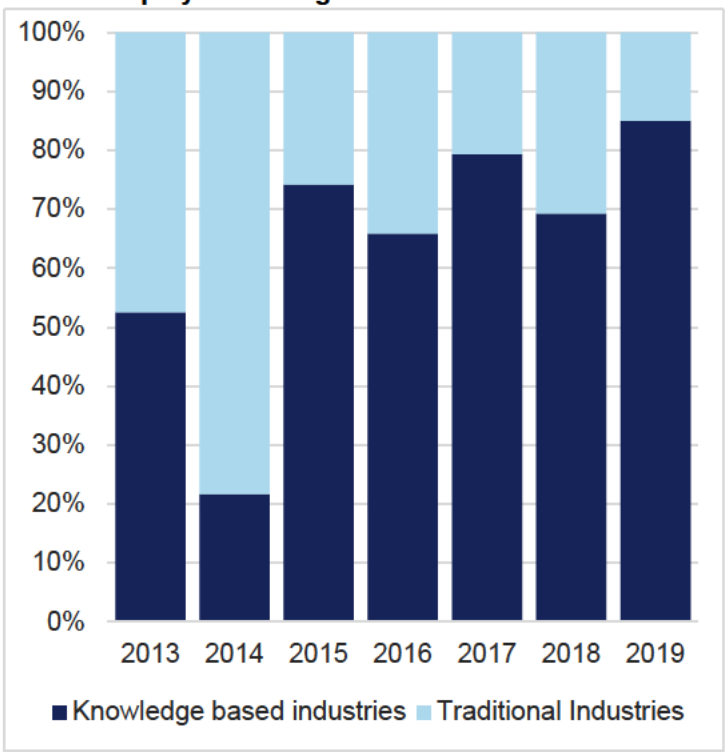


Figure 4.2: Take up by Knowledge Based Industries



4.8 Bidwells' research into the drivers of this demand found that recruitment, connectivity, availability of property to grow and local amenities were the four most common reasons for choosing their location (Figure 4.3). More than half of businesses indicated high quality available property was a driver.

4.9 The research also investigated firms' locational preferences. The City District was judged an attractive location by the highest percentage of respondents – 58%, substantially more than the next most attractive location, within a research institution (36% of respondents). See Figure 4.4.

Figure 4.3: Drivers of Knowledge Based Business Demand

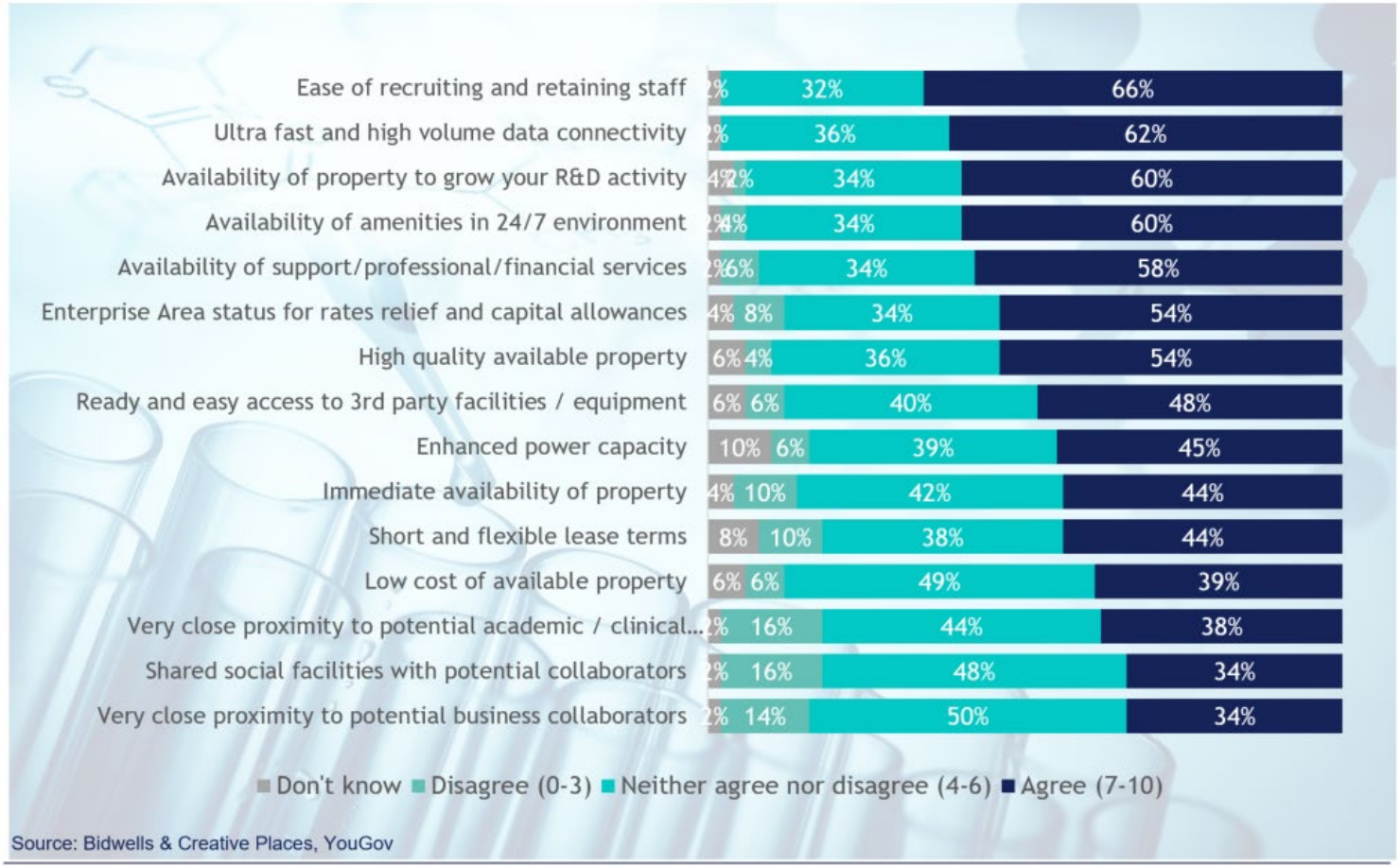
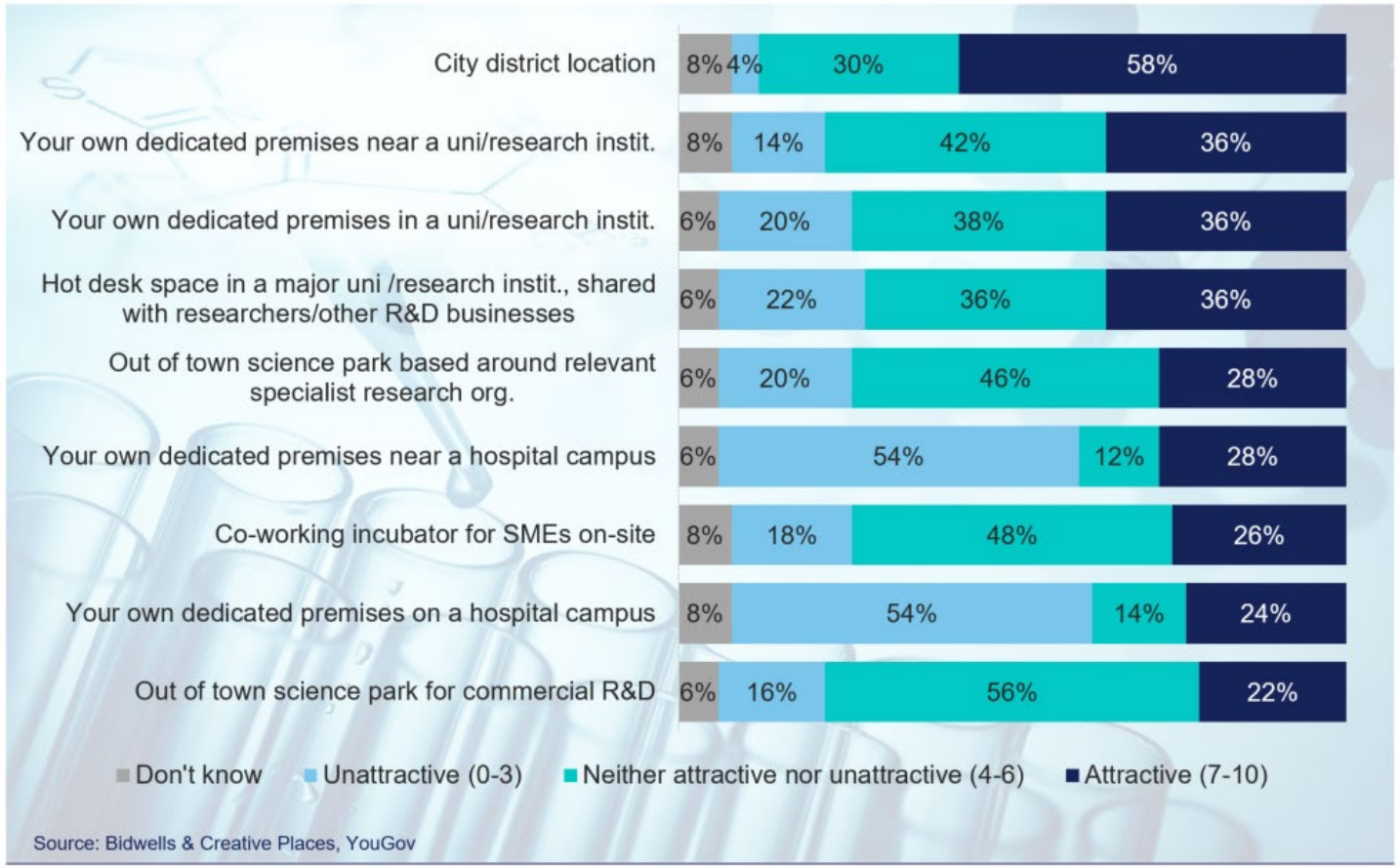


Figure 4.4: Locational Preference of Knowledge Based Business Demand



Cambridge City Centre Core Market

4.10 This Core City District market i.e. the market within c.10 minutes walk from Cambridge Station has office stock of c.1.35M SF. Key buildings are noted in Table 4.1. Despite recent growth, it is just less than half the size of the office market within proximity to Cambridge North Station in the NE of the city (Cambridge Science Park / St Johns Innovation Park / Cambridge Business Park): c. 2.3M sq. ft.

Table 4.1: Size (sq. ft) of City Centre Core Office Market

CORE MARKET	FLOORSPACE (NIA) SF	STATION ROAD / CB1	FLOORSPACE (NIA) SF
4,6 & 8	6,369	10	22,314
Francis House	30,000	20	24,767
City	84,826	21	79,230
Unex	19,357	22	64,770
Academy	30,763	30	79,000
Clarendon House	23,750	50/60	165,000
Lockton House	30,000	Murdoch House	19,962
Eastbrook House	170,000	Microsoft	83,000
Botanic House	52,000	Kett House	35,697
1 Hills Road	110,000	One Station Square	129,000
37 Hills Road	10,300		
51 Hills Road	7,500		
90 Hills Road	9,030		
Bateman House	20,000		
72 Hills Road	25,469		
Charter House	30,251		
24 Hills Road	13,993		
Terrington House	23,380		
Cintra House	19,896		
7-9 Hills Road	32,000		
Gonville Place	26,570		
Sub total	**170,000**	**Sub total**	**702,740**
ALL			**872,740**

4.11 The area is constrained in opportunities for development. Increasing the supply of office stock can only be delivered through continued densification of existing sites, as is the case with recent consents at No's 10 and 20 Station Road. Current availability in this area is less than 1.5% with no grade A space. This is a constraint on future business development.

4.12 Recent development of offices in this area has facilitated and encouraged Cambridge's reinvention of itself from a relatively immature market to 'a', if not 'the' European Capital for R&D. The drivers of this step change are multiple and complex, but are broadly a result of the following:

4.13 **University Effect** - Cambridge University remains one of the top five universities in the world. It is particularly strong in all forms of Science and Maths. It has also been visionary in its approach to partnering with the private industry to foster numerous successful companies. Cambridge Science Park was visionary in this regard and has provided a platform for many companies and continues to do so.

4.14 **Buy Outs** - Given the success of Cambridge to grow companies, it naturally became a focus for international companies to purchase these companies for their IP. Historically the purchasing companies tried to bring back the IP to their home countries, but this largely resulted in the loss of the staff from the company itself. The value of the companies was always the people so now companies are purchased and invested in to enable indigenous growth. This has increased the average requirement size, which has been reflected in trend take up rates.

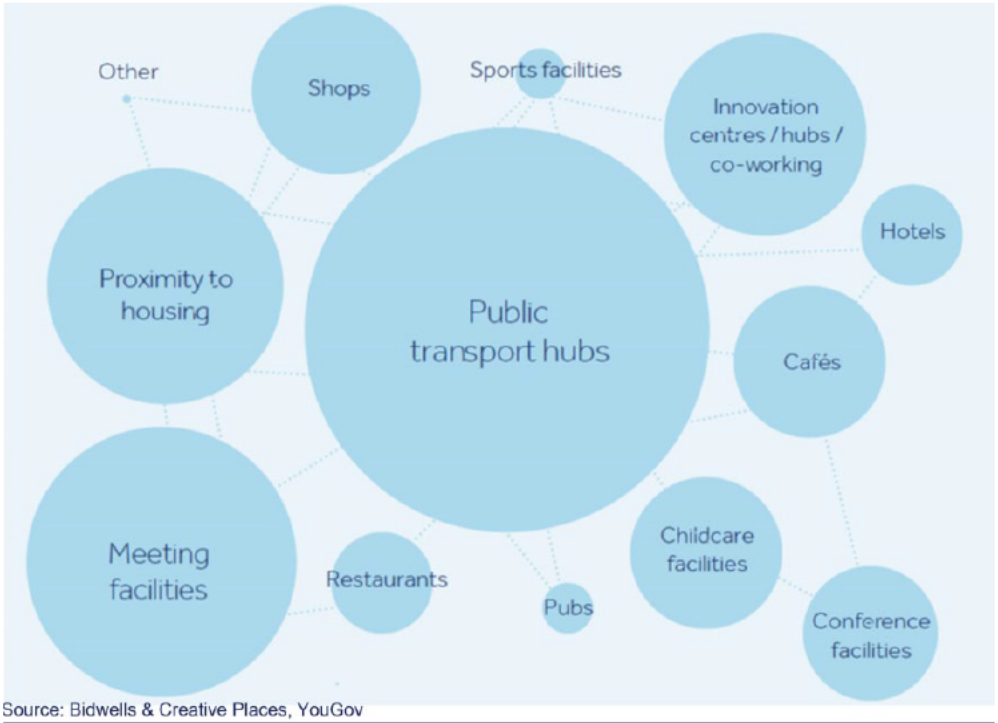
4.15 **Indigenous Growth and Access to Funds** - Cambridge companies have been more inclined to grow indigenously and less inclined to sell out their technology and expertise. This has meant they have grown in size in Cambridge in their own right, way beyond what was historically normal, again this has significantly pushed requirement sizes. This has been helped by a significant entrepreneurial market that is prepared to invest and nurture the growth. A lot of this money has come from serial Cambridge entrepreneurs who have historically grown and sold businesses, thus recycling their money.

4.16 **Life Science Sector** - The emergence of the Life Science Sectors has added another significant dimension to the market. This really emerged at the end of the 90's and whilst only totals circa 2.5 / 3 million sq ft has grown rapidly giving Cambridge the label of "Life Sciences Capital of the UK".

4.17 **Clustering** - Finally, and overreaching all of this, is the recognition by Research and Development sectors of the importance of clustering. The importance of technology companies to be proximate to like-minded businesses, a world class University and a very skilled labour pool is a fundamental decision determining business location. Cambridge has benefitted hugely from this being recognized as one of the leading European/global Hubs. This has attracted leading tech and Life Sciences to the City that have scaled significantly. For Example: Between 2016-2019, Amazon R&D operations in the City has scaled from 15,000 sq. ft to over 100,000 sq. ft.

4.18 This has fuelled demand for Cambridge over the last decade and the global brands have largely focused their attention on the City Centre Core. The young skilled cosmopolitan workforce of Cambridge prefers an urban lifestyle with quick connection to London. This gives the global brands the best access to the most skilled labour force which can also be attracted from London, particularly around the growing Kings Cross area. Bidwells' own survey of R&D business supports this assessment revealing public transport hubs as the most important facility (Figure 4.5).

Figure 4.5: Hierarchy of facilities important to large R&D business



Source: Bidwells & Creative Places, YouGov

Who's in the Cluster?

4.19 Global players such as Amazon, Apple, AstraZeneca, Samsung, Microsoft and Siemens have all got a significant presence in the core area. Many are growing fast with a desire to remain in this central core area. CB1 has acted as a catalyst for the expansive growth. Table 4.2 summarises the significant volume of prime office space over the past six years, and their occupiers.

Table 4.2: CB1 Office Supply and History of Growth

YEAR DELIVERED	LOCATION	SIZE SQ FT (NIA)	OCCUPIERS	NATURE OF BUSINESS
2013	21 Station Road	79,230	Microsoft	Computer Research Laboratory R&D
2015	22 Station Road	64,800	Mott MacDonald	Mechanical, civil and electrical engineering
			Birketts	Legal Services
			Slater and Gordon	Legal Services
			Stace Undo	Multidisciplinary Consultancy
2017	One Station Square	129,000	Amazon	R&D
			Thales	Engineering and R&D
			Deloitte	Life science and technology
			Carter Jonas	Property services
2019	50/60 Station Road	156,384	Samsung	Artificial Intelligence
			Amazon	R&D
			Eversheds Sutherland	Legal Services
			Peter Brett	Engineering Consultancy
			Centrica	Technology (Computers & Software)
			Costello Medical,	Pharmaceuticals (scientific support to healthcare industry)
			WeWork	Letting Company (Coworking Office Space)
			Brewin Dolphin	Finance (Financial Planner)
2021 (practical completion)	30 Station Road	79,000	Apple	R&D
ALL		**429,414**		

Source: Bidwells

4.20 The cluster can be defined as R&D, AI and business services. Demand from these sectors is strong in the area, evidenced by:

- All buildings being fully let on practical completion; and
- Rents have been driven up to £46.50 psf, a 32% increase in five years.

Conclusion

4.21 The office market within c.10 minutes walk of the Cambridge Station has grown over the past decade with the delivery of modern grade A office stock on the CB1 estate that has created a new prime city office market that has been particularly attractive for R&D functions of international tech businesses. The connectivity to public transport and urban commercial district with mix of uses and amenity has been successful with all new space being let in advance of delivery. The limited supply and strong demand has led to significant increases in rent of 32% over the past five years.

4.22 This area has office stock of c. 1.35M sq. ft. and is constrained in opportunities for development, falling well short of the 2.3 million sq. ft of office space in the market around Cambridge North Station.

4.23 Cambridge is now a leading R&D capital which builds in significant resilience to the city centre market. The ability of Cambridge to maintain this position is in part reliant on space being available in the areas desired for these high value businesses to continue to grow. For the R&D sector, the location decisional drivers are access and ability to recruit the right skill sets. Central Cambridge provides this, but the small size of the core central area, the lack of available space and lack of development pipeline puts that resilience at risk and could undermine the growth of the R&D sector.

5.0 Why is the station area the best option?

Economics – Growing the Cluster

5.1 Companies in knowledge intensive industries tend to want to cluster with others in their industry despite rising and comparatively high costs. Clustering is driven by agglomeration forces:

- Desire to be near suppliers and customers;
- External economies of scale on factor markets e.g.
  - Workers have choice of job, which protects them from business shocks and may encourage them to accept lower wages;
  - Reduced risk of investment because of opportunities for resale;
  - Benefits from cluster of suppliers; and
  - Significant market entry costs when relocating to a foreign country.
- Knowledge spillover - especially relevant to firms involved in advanced technologies and R&D activities. It reduces the cost of obtaining and processing knowledge. Knowledge spillover is influenced by the daily activity system through which people meet, frequency of job changes, and local areas where people see each other by chance. Agglomeration forces continue even with ICT developments: ICT helps transfer knowledge and data, but tacit knowledge and its context is vague and difficult to codify and hence spreads through face to face contact, hence ICT is a poor substitute.
- Easy access to knowledge, workforce, supply chains and markets enables companies to use the right combination of resources at the right time, and helps innovative entrepreneurs undertake a jump in growth to the next development stage. (Vohora et al., 2004)."
- Prestige associated with being in the 'right' place.

5.2 As discussed in Chapter 4, commercial development around the station has been occupied by high tech companies involved in R&D and AI (as well as financial services). The immediate cluster can also benefit from relatively close proximity to The Wellcome Sangar Institute[13], south of Cambridge, and the Alan Turing National Research Centre for AI a short train ride away in London.

5.3 Growing this industry is a key strand of the UK and local industrial strategy, particularly the development of artificial intelligence to reap the benefits for productivity, healthcare and ageing well.

"*There is world class R&D and innovation across the UK, from excellent research in university departments and public research organisations to investments from leading businesses. We*

[13] One of 5 centres of excellence set up to develop artificial Intelligence, data and innovation to transform the prevention, early diagnosis and treatment of chronic diseases by 2030

need to capitalise on these strengths and foster the local ecosystems that can support innovation and sustained growth".[14]

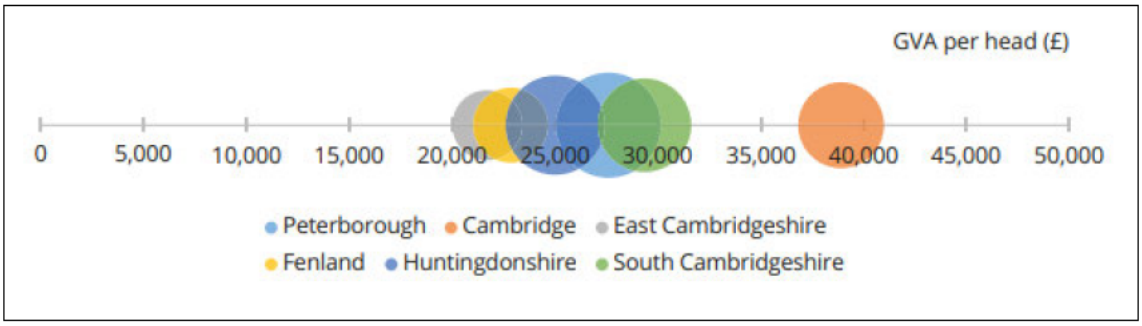
5.4 Research for the CPIER concludes that if KI companies can't stay in Cambridge then they are most likely to relocate abroad. It also makes a cautionary warning that actively growing the cluster requires a well-considered approach and an understanding of the nature of businesses in the cluster. It needs a systems approach in which all three of the components of three main components of successful business and innovation systems work:

- Key actors (which includes the Combined Authority and businesses, as well as technology and capabilities);
- Institutional practices (which include both formal rules and business norms);
- Market and non-market relationships (which include the markets for labour, capital, and property, as well as informal networks and relationships).

5.5 This development provides one of those three main components: property that competes on an internal market.

Economics – Expanding Productive Industries

5.6 Figure shows that productivity (as measured by GVA – a measure of the increase in the value of the economy due to the production of goods and services) varies across the region, with highest levels in Cambridge.



Source: ONS taken from CPIER p38

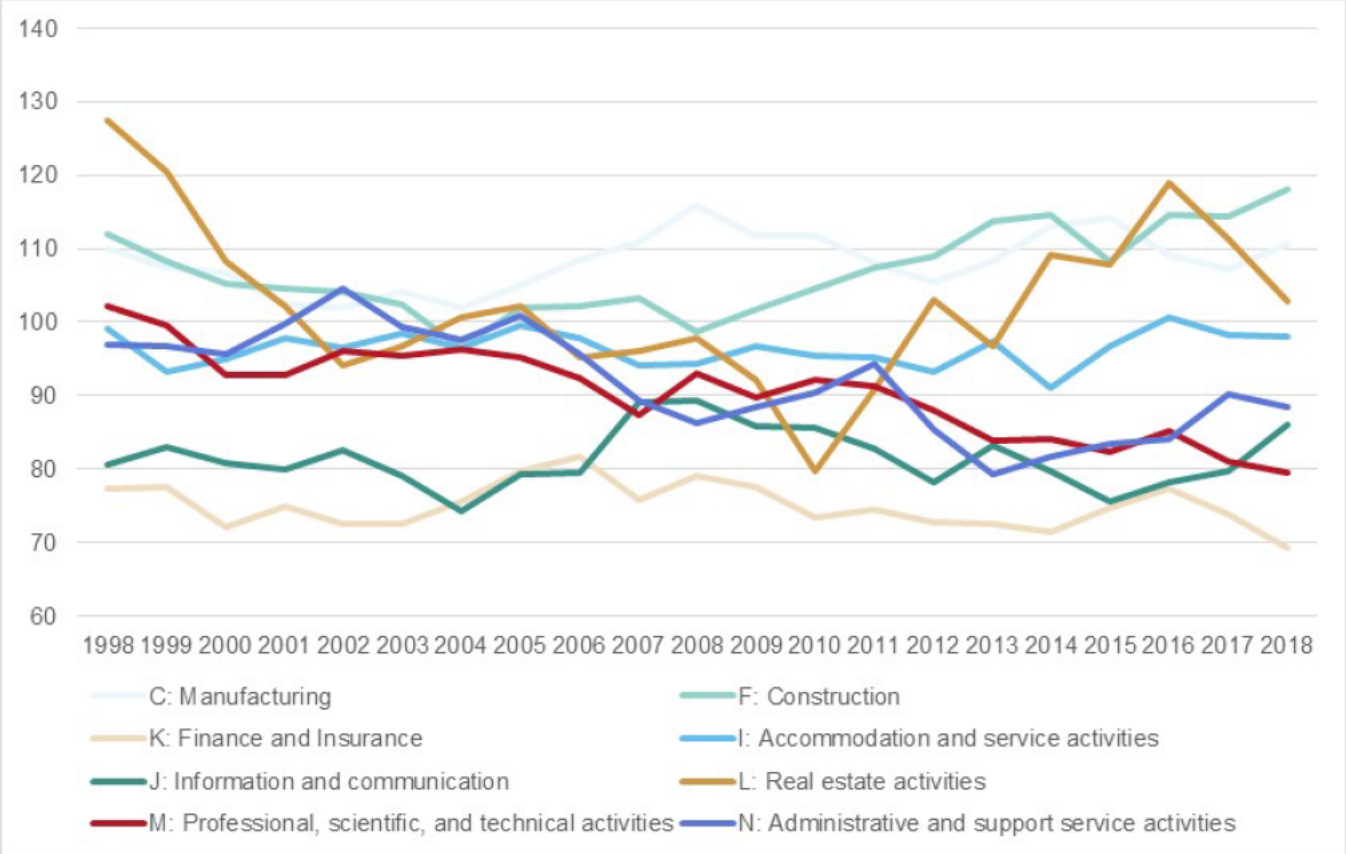
5.7 Analysis of GVA by industry in Cambridgeshire and Peterborough shows real estate and Professional, scientific, technical deliver highest GVA (after Construction), each accounting for 15% of the region's service economy (£24,118m)[15]. Both sectors are strongly represented in CB1.

[14] UK Industrial Strategy
[15] ONS 2017

5.8 Locating some of the regions jobs in the productivity hot spots will help to meet the regions doubling productivity target.

5.9 The regions productivity as measured by output per job for office based industries and those supported by large office development is shown in Figure 5.1. Output per job in those industries which are most likely occupiers of prime office development (Finance, Insurance, Professional, scientific and technical, Information and communication) show lower output per job in the East ~~is~~ relative to the UK. This suggests a need for a step change in the type of businesses present in the East. Construction of the buildings, growth of the hi-tech and AI cluster, and making Cambridge more attractive to multinationals will create additional demand for other industries such as Accommodation and Services Activities, Construction, Real Estate and Manufacturing in which the East shows above UK average output or increasing output in the case of Accommodation and Services.

Figure 5.1: Output per Job in the East Region Relative to the UK (Current prices. UK indexed at 100)



Sources: ONS Labour Productivity: 2018, pub 5 February 2020.

Sustainable Travel

5.10 The 2016 SNPP population projections have been reasonably accurate over the last two years. They suggest the population will increase to 301,000 by 2041. However, in terms of those aged 15-64, the projections suggest that these will decrease from 187,000 people in 2016 to 186,000

in 2041. In effect, therefore, these would suggest that any increase in the labour force would rely on either those aged 65+ or commuters into the area.

5.11 The EEFM estimates of the number of residents in employment for 2019 accurately reflects the estimates in the ONS Annual Population Survey (APS) at around 154,000 people. However, the model suggests there would be approximately 194,000 workplaces in the area when the APS suggests that there are likely to be approximately 198,000 workplaces.

5.12 The model suggests that net commuting in 2019 would be +38,500 workers but the APS suggests that this is more likely to be +44,000 workers.

5.13 The model suggests, even with notable growth in the resident working age population that, by 2041, net commuting will reach +43,200 workers. As indicated above, this is more than likely to have already been reached and, due to the decline in the resident working age population, net commuting is likely to grow at a far greater rate than anticipated by this model.

5.14 Locating commercial premises characterised by high employment densities at locations with highest public transport mobility and within active travel of most city residents, maximises opportunity for sustainable travel.

Strategic Approach to Infrastructure Development

5.15 The CPIER recommends a strategic approach to infrastructure development, promoting four investment selection criteria: people; quality of life; place; business. Station Road as a 'place' for investment, particularly in offices suited to large international firms and hi-tech companies, makes the most of the regions infrastructure assets that support successful business operation – train station, city centre location, existing prime office cluster.

5.16 Furthermore, as an existing area of employment land use, redevelopment and intensification is an efficient use of land resources, in a city where land is scarce, there are significant development pressures and the need to protect open spaces has never been greater.

Conclusion

5.17 Station Road and the surrounding Core City District provide a newly established location in which some of the region's most productive industries have chosen to make their home. Further prime office development in this area is necessary to support the growth of this cluster. Other locations in Cambridge cannot offer the same strength of agglomeration benefits to these companies. A lack of high quality offices in this location, is likely to lead to such internationally footloose businesses locating outside of the UK.

5.18 Expanding this cluster brings high density employment growth and highly productive industries, both of which are necessary to meet the ambitious target of doubling growth.

5.19 The location is ideally suited to high density employment being at the hub of the current and future public transport network.

5.20 The redevelopment of this area is an efficient use of land, a significant benefit given the scarcity of land within the tight geographical confines of Cambridge.

6.0 Health and Wellbeing

6.1 So far, this report has focussed on defining the need for commercial floorspace at Station Road. It is also the case that there is a need for commercial floorspace which promotes health and wellbeing. Delivering health and wellbeing is required by the planning system[16] and necessary if the Cambridge and Peterborough economy is to grow and meet its ambitious productivity targets.

"To get to work on this productivity problem will involve increasing the output of businesses, improving skills (both in terms of levels, but also their relevance to local growth industries), and boosting health outcomes."[17]

Local Health Issues

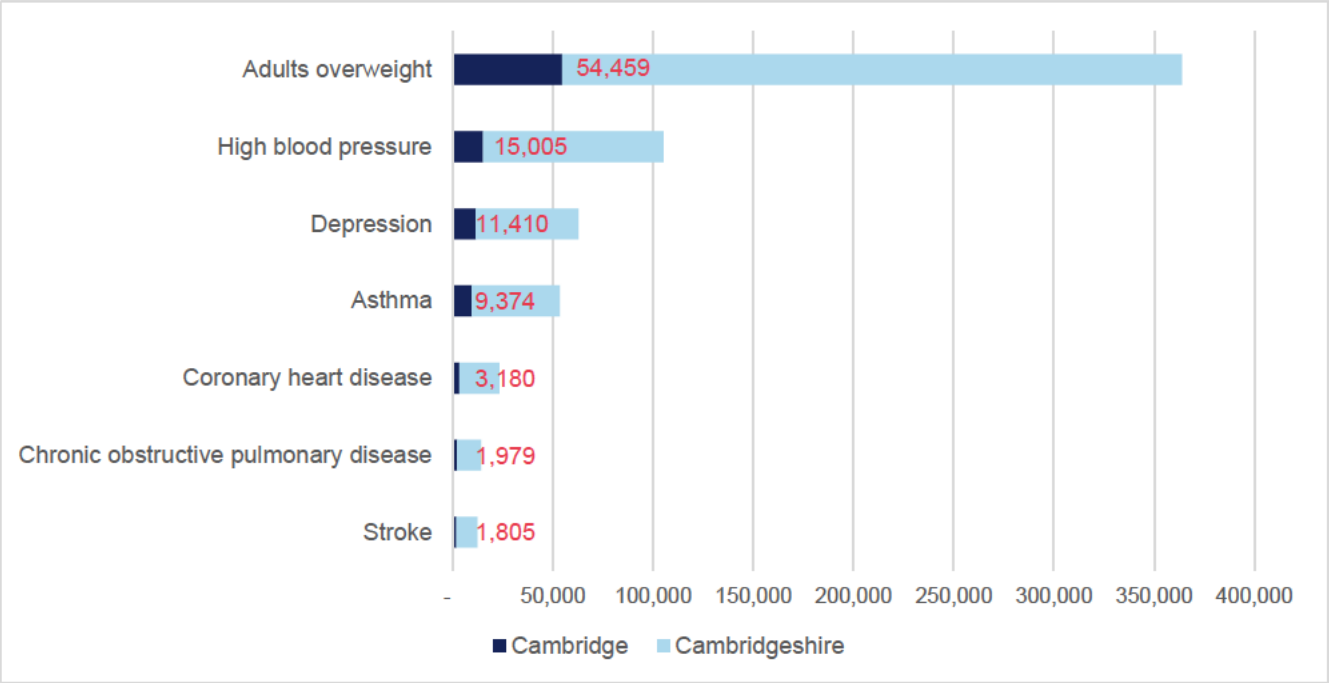
6.2 Overall the health of people living in Cambridgeshire is very good and, on most measures, is statistically significantly better than the UK national average. Areas of concern for Cambridge include:

- Cambridge has statistically high levels of statutory **homelessness, diabetes** diagnoses and hospital stays for **self-harm and alcohol-related harm** compared to England;
- Some pockets of **deprivation**: Kings Hedges and Abbey wards categorised at within the most deprived 20% of area nationally. In both wards and East Chesterton, good or very good health is statistically significantly lower than the Cambridgeshire average;
- The gap in the **employment rate between those with a long-term health condition** and the overall employment rate (ages 16-64 years), is statistically significantly worse in Cambridge**.** This is the only Cambridgeshire district to have a worse outcome for this indicator. The differences in the size of the population, overall employment rate, average earnings and stability of employment in Cambridge could all be contributory factors to this;
- In terms of **mental health**, rates of depression, dementia, and learning disabilities are at levels statistically significantly lower than England averages, but levels of Schizophrenia, bipolar affective disorder, and other psychoses are statistically significantly higher than the national rate;
- **Self-harm** appears to be a particular issue across Cambridgeshire and Peterborough combined, independently, and across most of the Cambridgeshire districts. There are sustained high rates of emergency hospital admissions and levels above the national average in all districts other than Huntingdonshire. Rates are higher in females than males;
- The gap in **life expectancy** between the least and most deprived area sin Cambridge is 10.4 years for males and 9.4 years for females;
- The rates of mortality from **cardiovascular disease, dementia and Alzheimer's** are statistically significantly worse than the Cambridgeshire average for all ages;
- In 2017/18 there were 810 **children's social care referrals** from Cambridge. This is a rate of 350.8 per 10,000 population aged 0-17 years, the second highest rate in Cambridgeshire.

[16] National planning policy states Social planning - supporting strong vibrant and healthy communities, is one of the three primary objectives of the planning system
[17] CPIER p39

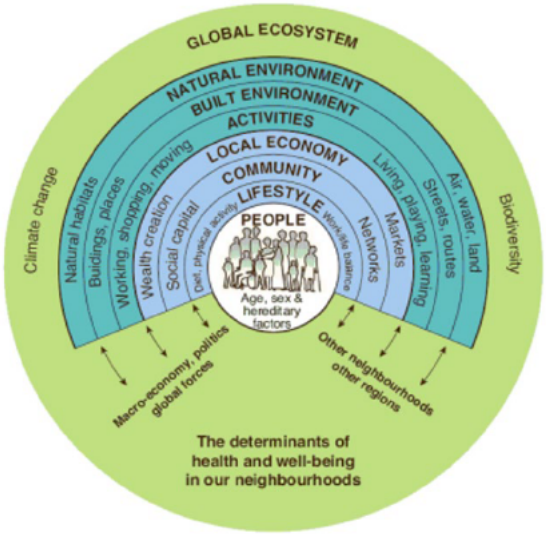
6.3 These are aspects of health in which Cambridge is significantly worse than the County or UK, but there are other health issues, shown in Figure 6.1, which despite Cambridge's relative good health, need to be reduced (Numbers in red refer to Cambridge)

Figure 6.1: Illness in the Population



Health Benefits of This Location

6.4 Health improvements and benefits are delivered a range of pathways, including the built environment, summarised in the diagram below and explained in Appendix 1.

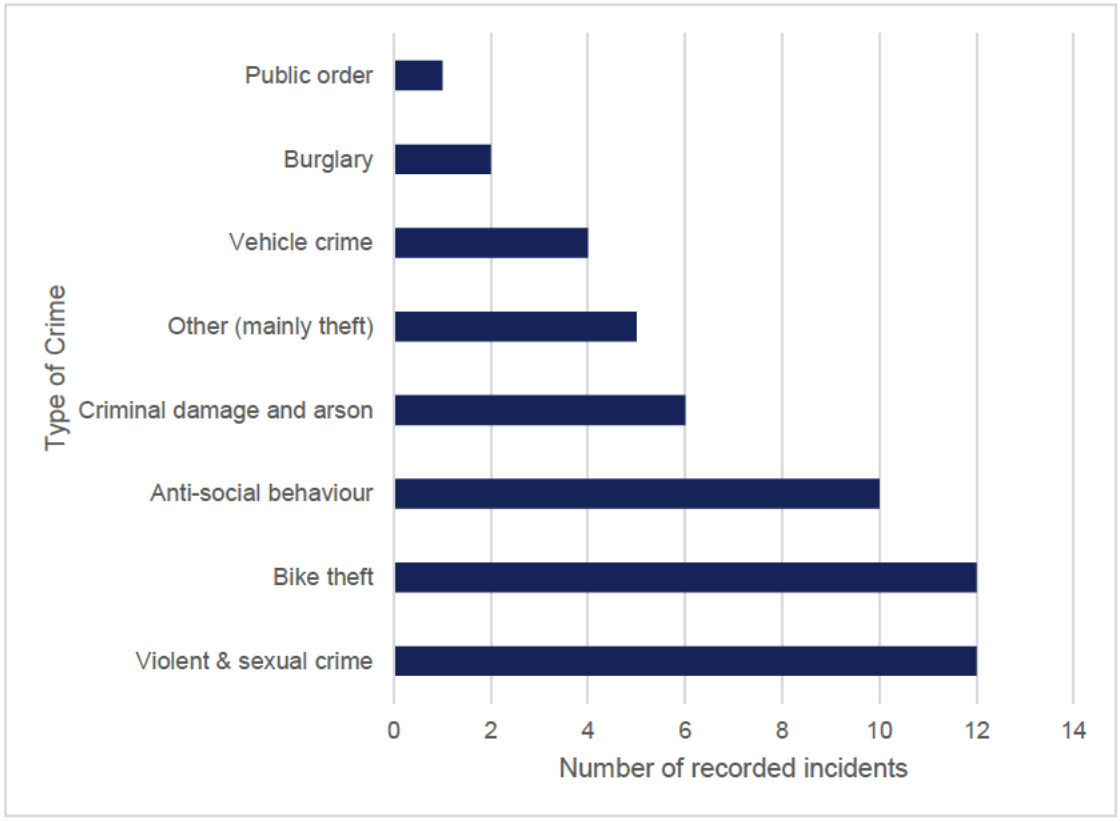


Barton and Grant (4), adapted from Dahlgren and Whitehead (5)

6.5 High quality urban design and master planning at any location can deliver many of these determinants of health and pathways through which health benefits are distributed. Those which are specifically delivered because the development is on Station Road include:

- Proximity to open space at the Botanic Gardens, which provides open space of a scale that can absorb a large number of people, thereby having the capacity to serve high density employment development. The health benefits derive from the opportunity for people to form social capital, induced feelings of relaxation and physical activity;
- Proximity to the train station and several bus service destinations encourages less polluting forms of transport and typically involves active travel at each end of the journey;
- The central location of the scheme and good cycle and pedestrian provision encourages active travel;
- Proximity to a range of places to eat and local supermarkets in the local area, which offer healthy eating choices;
- Proximity to local services and amenities bringing opportunities for social interaction and community development. Particularly important given a large number of employees will not be resident in Cambridge and have established local networks;
- Opportunity to reduce crime rates on Station Road through change of use (the majority of crime occurred at Education establishments) and better cycle security.

Figure 6.2: Crimes Recorded in 2019 at Premises within the Development Site.



Source: www.police.uk/cambridgeshire/CamCity_South_City/crime/2019-01

Health Benefits of Densification

6.6 Commercial development in CB1 delivers the highest rent in Cambridge and is extremely attractive to the investment market. These property values enable the delivery of buildings that meet the WELL Building Standards, the global benchmark for "*buildings, interior spaces and communities seeking to implement, validate and measure features that support and advance human health and wellness*"[18].

Reducing Health Inequalities for Vulnerable Groups

6.7 Reducing health inequalities is a priority for NHS England[19], extending the recommendations of the 2010 Marmott review, which called for a reduction of health inequalities through (among other things):

- Creation of fair employment and good work for all;
- Ensure a healthy living standard for all; and
- Create and develop healthy and sustainable places and communities.

6.8 An essential first step to reducing inequalities is identifying vulnerable groups for whom additional support or targeted measures are required in order to maximise their access to the benefits. Following a review of local data and local health issues, local vulnerable groups among the potential future working population and local residents have been identified. Table 6.1 summarises the health and wellbeing sensitivities of these vulnerable groups and how the proposed development could bring health benefits. Some actions relate to the development itself, others rely on the approach taken to managing the site and expectations of occupiers through tools such as a supply chain charter.

Conclusion

6.9 Commercial floorspace at Station Road will help promote health and wellbeing. Despite the overall health of the people living in Cambridgeshire being good, there are a number of areas where Cambridgeshire is below the UK national average.

6.10 Station Road is well related to publicly accessible open space, public transport, cycle and pedestrian routes and local services and amenities.

6.11 Development of this scale and quality provides an opportunity to reduce health inequalities for vulnerable groups.

[18] International WELL Building Institute
[19] NHS (January 2019) NHS Long Term Plan

Table 6.1 Reducing Health Inequalities for Vulnerable Groups

VULNERABLE GROUP	H&W SENSITIVITIES	HOW PROPOSED DEVELOPMENT REDUCES INEQUALITIES
EMPLOYEES		
International workers	Social isolation (including few social opportunities and living alone) increases person's risk of dying by more than 29%[20]	Provision of opportunities for social interaction and engagement in their place of work.
Female workers	Gender inequality may be experienced by women in relation to the pay gap, occupational segregation, primary caring responsibilities for children/family, gender based violence and less economic and political power, all of which can contribute to poor health.	Encourage occupiers to have a social charter and supply chain charter that: • Encourages part-time and flexible working • Enable employees control over scheduling of hours (e,g. flexible working practices) • Business objectives that incorporate wellbeing of staff • Equality through shared parental leave • Female apprenticeships that also balance care responsibilities • Training and options to progress • Manage bias.
Drug misuse causing death:	Drugs change the brain, lead to addiction and life threatening health issues. County drug lines have engulfed Cambridge and the county as dealers have travelled up the train lines. A development with higher earners is another potential target.	• Site design and security to prevent public areas being used for drug transaction. • Encourage occupiers to provide drug prevention programmes, targeted at employees, & teens and young adults whose brains are still developing and on whom drug use has a bigger impact. • Engage with neighbourhood teams to tackle drug use
LOCAL RESIDENTS		
Residents in surrounding area who have had development on their doorstep for many years	Construction noise and air pollutions where there is a greater susceptibility to health issues. Mental health concerns related to changing neighbourhood and loss of locality.	• Creating pro-social spaces that suit the elderly • Participation and volunteering opportunities • Public spaces for flexible use • Design that keeps the senses alive • Targeted engagement in the design process and communication during construction
Adults carrying excess weight	Poor levels of physical activity, sedentary jobs and long commutes contribute to obesity which can lead to life threatening conditions including type 2 diabetes, coronary heart disease, some types of cancer including breast and bowel, stroke, and lead to psychological conditions such as depression and low self-esteem.	Healthy work environment: build in movement (stairs etc), access to recreational keep fit opportunities, promote active travel to work, and access to healthy food.
Drug misuse	See previous entry in Employees section	See previous entry in Employees section
People with long term health conditions	Cambridge has a statistically significant high gap in employment rates between those with long term health conditions and the national average ages 16-64. (21.6% point gap).	• Targeted employment policies • Jobs with good wages • Healthy work place environment and holistic approach to health and wellbeing.

[20] Design Council Creating Healthy Places

7.0 Conclusion

7.1 Overall, Cambridge has a recognised role in the UK industrial strategy, particularly in relation to the R&D and AI sectors. This is supported through the Cambridge & Peterborough Industrial strategy which looks to leverage the strengths of the Cambridge cluster in order to achieve the C&PCA target of doubling GVA by 2041. It is identified that in order to achieve this target, a significant increase will be required in both high-density employment growth and productivity.

7.2 The redevelopment of the Cambridge central station area has resulted in economic growth in the region and now accounts for 15% of all jobs in Cambridge. This is a prime office quarter, within circa 10 minutes walk of Cambridge train station and so is a particularity attractive location to R&D functions of international tech businesses that would bolster the bourgeoning cluster of high-tech companies that now occupy the Central Station Area business district.

7.3 To enable continued growth of the R&D sector, access and ability to recruit the right skill set is essential and is something that central Cambridge provides. However, space is the limiting factor and the lack of a development pipeline risks undermining the continued growth of this cluster and curtailing the economic growth of the region.

7.4 The redevelopment of the Station Road site provides a solution in a sustainable location, through its connectivity to the urban commercial district, public transport and strong pedestrian and cycle links to neighbouring residential areas. This will not only help to achieve the economic targets of the region but also deliver health and wellbeing benefits to employees and support the Councils target to reduce traffic, congestion and air pollution in the city.

APPENDIX 1
DETERMINANTS OF HEALTH: HEALTH IMPACTS AND PATHWAYS

Access to Work and Training

Health Impacts and Pathways

Employment and income is a key determinant of health and wellbeing. Unemployment generally leads to poverty, illness and a reduction in personal and social esteem. Work aids recovery from physical and mental illnesses.

The susceptibility of population to accessing these health benefits relates directly to their suitability for the job. This is influenced by an array of factors, but includes knowledge of opportunity, adequate skills for the job, ease of travel as well as personal attributes.

Access to Community Infrastructure

Health Impacts and Pathways

Employment which is well located with respect to services and amenities brings opportunities for social interaction, community development and development of social capital (defined later in the chapter). Research reviewed by the King's Fund shows:

- A person's social networks can have a significant impact on their health, affecting survival rates and have been shown to be as powerful in predicting mortality as common lifestyle and clinical risks such as moderate smoking, excessive alcohol consumption, obesity and high cholesterol and blood pressure.
- Social support is particularly important in increasing resilience and promoting recovery from illness. Strong social capital can also improve the chances of avoiding lifestyle risks such as smoking. However, in the most deprived communities, almost half of people report severe lack of support, making people who are at greater risk less resilient to the health effects of social and economic disadvantage.
- Lack of social networks and support, and chronic loneliness, produces long-term damage to physiological health via raised stress hormones, poorer immune function and cardiovascular health. Loneliness also makes it harder to self-regulate behaviour and build willpower and resilience over time, leading to engagement in unhealthy behaviours.

Access to Open Space and Nature

Health Benefits and Pathways

Benefits have been broadly categorised by the three pathways by which they are gained:

- Induced feelings of relaxation and reduced stress
- Facilitation of social interaction and social capital
- Stimulation of physical activity

Benefits accrue to individuals using the space, but there is also evidence that greener and more natural environments are beneficial to human health of a wider population as open space (and allotments) offer a 'therapeutic landscape'[21]. Interaction and visual connection with nature has been proven to benefit people by:

- Lowering blood pressure and heart rate reducing the hormones linked to stress
- Positively impacting perceptual and physiological sense of wellbeing and tranquillity, enabling positive thinking.
- Impacting the Circadian system, the clock in the body, that enables good sleep, digestion and healthy hormone production

Open space provision has been identified as a pathway for reducing income-associated-health inequality. People living in deprived areas often have less access to natural spaces and have to endure poorer environments, including high levels of congestion, poor air quality and noise pollution.

Access to Healthy Food

Health benefits and pathways

Access to healthy food in respect of the CSP relates to opportunities to grow your own food, local convenience retail outlets and the offer from local café and restaurants. All such facilities offer opportunities for social contact and the development of social capital. The health benefits of allotment gardening are both physical and mental, including: lower levels of fatigue, depression, anger, tension, higher levels of self esteem, better general health and lower body mass index [22].

Community Orchards can also help to build communities, facilitating connections, raising the social capital of an area, while also offering free fresh fruit to local people.

The range of retail opportunities in proximity to the CSP will have an impact on the type of food consumed by the workforce. The evidence base linking proximity of fast food outlets with obesity is growing, and it indicates that proximity to supermarkets is associated with fewer visits to fast food outlets, while the presence of fast outlets generates more visits to fast food outlets [23]. While not all fast food is unhealthy, some is high in saturated, fat, calories and salt which are significant contributors to obesity.

[21] Global Urban Research Unit (2012) Electronic Working Paper No 47, The Social Health and Wellbeing benefits of Allotments
[22] Wood, Pretty and Griffin (2015) A Case-control study of the health and well-being benefits of allotment gardening published in the Journal of Public Health Oct 2015
[23] Athens, Duncan, Elbel (Aug 2016) Proximity to fast food outlets and supermarkets as predictors of fast food dining frequency

Accessibility and Active Travel

Health benefits and pathways

Transport related health impacts stem from air pollution (see above), active travel and access to transport.

Convenient access to a range of services and facilities minimises the need to travel and provides greater opportunities for social interaction. Buildings and spaces that are easily accessible and safe also encourage all groups, including older people and people with a disability, to use them. Discouraging car use and providing opportunities for walking and cycling can increase physical activity and help prevent chronic diseases (such as stroke and dementia), reduce risk of premature death and improve mental health[24].

Participation in active travel is influenced by many environmental and personal factors. Travel to work patterns show that walking and cycling is more common for short distance commutes, reducing as distance from work increases (cycling drops off after 5km[25])

Crime Reduction and Community Safety

Health benefits and pathways

Thoughtful planning and urban design that promotes natural surveillance and social interaction can help to reduce crime and the 'fear of crime', both of which impact on the mental wellbeing of employees. As well as the immediate physical and psychological impact of being a victim of crime, people can also suffer indirect long-term health consequences including disability, victimisation and isolation because of fear. Community engagement in development proposals can lessen fears and concerns[26].

Safety on roads has a direct impact on health for both drivers, other road users and pedestrians. Every year in Britain, around 23,000 pedestrians are killed or injured each year in police reported road accidents, of which 5,000 are killed or seriously injured. Some groups are particularly vulnerable such as children, and young people from the most deprived backgrounds and older people[27]. An unsafe walking environment will inhibit walking and the consequent health benefits of increased levels of physical activity.

ROSPA identify safe on and off road environments as a key factor in increasing cycling[28]. Safer cycling environments can be achieved through creation of a safe on and off road cycle environment that minimises the risk of crashes occurring and ensuring that when they do they are unlikely to result in death or serious injury. Other pathways through which safer environments and health can be achieved are improving cyclists and driver attitudes and behaviours to each other, producing safer vehicles that reduce risks to cyclists, education and enforcement programmes.

The pathways through which streets can be made safer and negative health impacts reduced include: street lighting, reduced vehicle speed, shared spaces, walking environments designed for people with special needs, vehicle technology, improving driver behaviour, improving pedestrian behaviour.

[24] JSNA Transport and Health p2
[25] JSNA Transport and Health p2
[26] JSNA Transport and Health p2
[27] RoSPA Policy Paper: Pedestrian Safety
[28] RoSPA (September 2017) Cycling Policy Paper

Social Cohesion, Social Capital and Lifetime Neighbourhoods

Health benefits and pathways
Social Capital has four domains:

- Personal relationships;
- Social network support (the level of resources or support that a person can draw from their personal relationships);
- Civic engagement (the actions and behaviours that can be seen as contributing positively to the collective life of the community or society);
- Trust and co-operative norms that shape the way people behave towards each other and as members of society.

Research indicates there is a strong causal link between an individual's level of social capital and their general level of health[29]. Where there is strong social capital there is likely to a more supportive community environment and community action can be achieved. However, there is limited evidence on the pathways between social capital and health, but commonly discussed themes include:

- Social support impacts on access to support
- Social influence affects health enhancing / determining behaviour
- Social participation affects cognitive skills, belongingness and life meaning
- Reciprocity affects material resources which in turn affects access to health services, jobs, opportunities and finances etc.

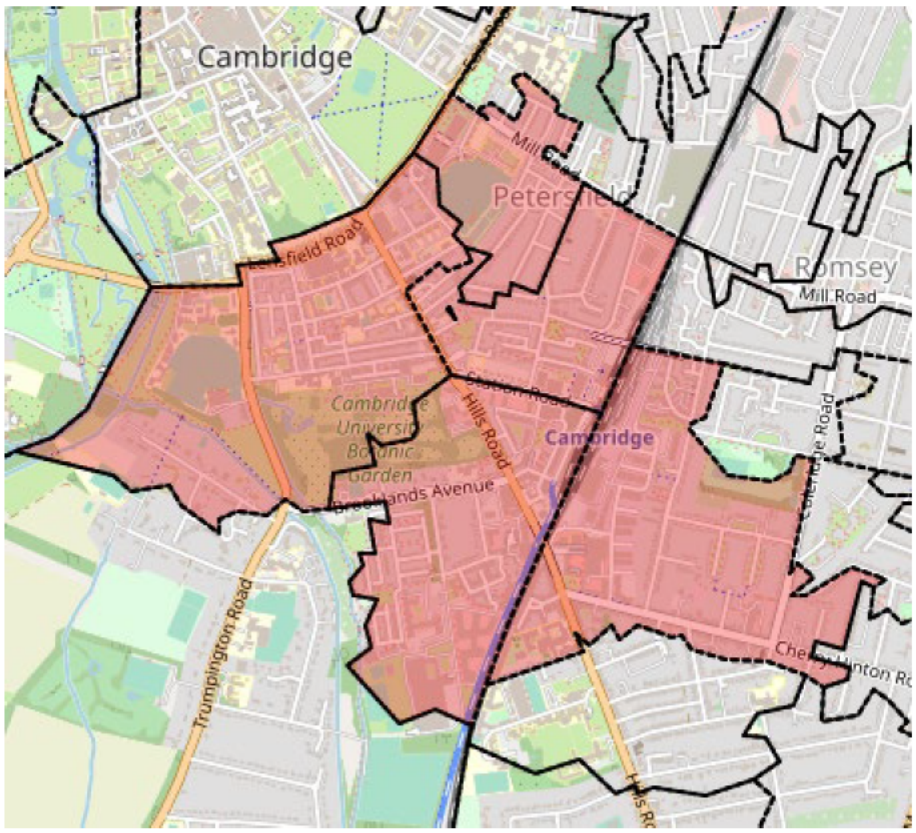
Research shows that children and adolescents who are able to acquire social capital in and through their local communities have the potential for much better health and wellbeing[30].

Lifetime neighbourhoods are places designed to be inclusive regardless of age or disability. Whilst they are commonly associated with residential developments, the concept can also apply to economic development. Enabling companies to grow in their established location by the provision of a range of office types and sizes reduces the negative impacts of relocation on staff and ensures social capital built up over time is not lost.

[29] WHO (2012) Is social capital good for health? A European perspective

[30] Glasgow Centre for Population Health (2013) The Role and Impact of Social Capital on the Health and Wellbeing of Children and Adolescents: a systematic review

APPENDIX 2
CORE CITY DISTRICT



Source: NOMIS

LSOA Areas:

E01017966.

E0101988

E01017987

E01018005

E01032795

BIDWELLS