PRESS RELEASE

Cambridge Cluster Insights

GREATER CAMBRIDGE AREA

Annual Draw 2020/21 Highlights

Greater Cambridge continued to grow despite Covid, but not as fast

- The study analysed the performance of 10,750 companies based in Cambridge and South Cambridgeshire.
- Together these companies had employment of 110,500 and a combined turnover of £25bn.
- This report covers accounting year ends between 6th April 2020 and 5th April 2021 (the median year end is 31st December 2020) and looks at performance over the last decade. The latest period captures the impact of the first year of Covid in England.
- **Exhibit 1** shows the employment growth of Greater Cambridge companies over the last ten years. It shows knowledge intensive (KI) and non-KI companies separately and all companies together.
- Corporate growth in this region has been robust over the past decade but fell from 4.2% in 2019-20 to 2.4% in 2020-21. This decline is modest given the unprecedented challenges brought about by the Covid pandemic.
- The slowdown in employment growth over the past two years is due to a weaker performance amongst non-KI sectors. Overall KI companies have maintained a high rate of employment growth and this has offset the decline in employment amongst non-KI companies.
- The UK Government's furlough scheme has reduced the impact of Covid on employment over this period. This is, in part, reflected by the relatively worse performance of turnover over the past year (0.7% growth against a figure of 2.4% for employment).
- **Exhibit 2** shows turnover growth over the past decade. Turnover growth fell in the latest year – from 6.9% to 2.4% for the KI sector and from 5.4% to -1.9% for the non-KI sector.
- Annual turnover growth has tended to exceed employment growth over the past decade by a few percentage points, particularly in the KI sector, due to productivity gains. In the latest, Covid affected, year the opposite has occurred and turnover growth has been substantially less than employment growth. This is strong evidence for the importance of the furlough scheme in holding up employment.

Sectoral effects - employment

- In terms of employment the largest KI sectors are Life Sciences, Information Technology and High-tech Manufacturing. KI sectors account for almost half of corporate employment in Greater Cambridge. In non-KI sectors the largest are Education, Business Services, Other Services, Distribution, Property and Finance, Construction and Other Manufacturing.

- The employment growth per annum of these sectors over the last year is shown on the vertical axis in **Exhibit 3** in comparison with their annual growth rates over the last three years on the horizontal axis.
- The 45^0 degree line shows faster growth the further away from the origin you go. Sectors above the 45^0 degree line have increased their growth in the last year whereas those below the line have a declining growth rate.
- Sectors with positive growth in the latest year are shown above the horizontal axis and those with positive growth in the previous three years are found to the right of the vertical axis.
- The fastest growing sectors in the last year and over three years are Life Sciences, Information Technology and, to a lesser extent, Knowledge Intensive Services. By contrast the other KI sector, high-tech manufacturing had a decline in employment last year.
- Within Life Sciences, AstraZeneca, Abcam, Genome Research, GW Pharmaceuticals, CMR Surgical and the SDI Group together increased employment from 5,592 three years ago to 7,007 last year and to 8,401 this year – an increase of 14.5% pa. Covid increased the demand for the products and services of this sector.
- Within ICT, Arm, Darktrace, EVI Technologies, Frontier Developments, Huawei Technologies and, more recently, Spectral Edge, together increased employment from 2,977 three years ago to 4,339 last year and to 5,222 this year – an increase of 20.5% pa. Covid increased the demand for connectivity, security and entertainment for this sector.
- In contrast, high-tech manufacturers suffered from a reduction in demand from the impact of Covid on their customers – Hexcel Composites (leading supplier of composite materials for the commercial aerospace industry) and Xaar (world-leading manufacturer of industrial inkjet printheads). The employment in these two businesses fell form 1,060 to 844 in the last year, a decline of 20%.
- All of the non-KI sectors had lower growth in the latest year compared with the last three years and six of these nine sectors showed employment losses over the past year despite the furlough scheme.

Sectoral effects - turnover

- In terms of turnover the largest KI sectors are Life Sciences, Information Technology, and High-tech Manufacturing. In non-KI sectors the largest are Distribution, Business Services and Construction.
- The turnover growth per annum of these sectors over the last year is shown on the vertical axis in **Exhibit 4** in comparison with their annual growth rates over the last three years on the horizontal axis.
- Within Life Sciences, the six companies listed above have seen turnover grow from £1,151m three years ago to £1,610m last year and to £1,911m in the latest year – an increase of 18% pa. The growth of turnover in the Life Sciences sector was brought down by Illumina Cambridge which had a fall in turnover of £283m in the last year.
- Within ICT, the six companies listed above have seen turnover grow from £1,493m three years ago to £2,002m last year and to £2,239m in the latest year – an increase of 15% pa.
- The two high-tech manufacturers listed above saw turnover fall from £333m to £213m over the past year – a fall of 36%, partly due to the impact of covid on their customers.

- Apart from Knowledge Intensive Services all of the KI sectors had lower growth in the latest year compared with the last three years, but only High-tech Manufacturing suffered a fall in turnover.
- With the exception of the Primary sector, all of the non-KI sectors had lower growth in the latest year compared with the last three years and a decline in turnover over the past year.

Size effects

- We see the usual skewed size distribution. 88% of the companies fall in the 1-9 employee size range, 9% in 10-49 employees, 2% in 50-249 employees, and only 0.6% (69 companies) have 250 or more employees.
- It is a different pattern if we look at the distribution of employment. 19% are in 1-9 employee firms, 18% in 10-49 employee firms, 22% in 50-249 employee firms; but firms with 250 or more employees represent 41% of corporate employment in Greater Cambridge.
- This large company group with 250 or more employees also had the fastest employment growth in the last year at 10%, but Covid appears to have had a more damaging effect on other size groups.
- There are some fast growers amongst smaller firms e.g. Riverlane, a University of Cambridge spinout that develops software and algorithms for quantum computers, and Omnigen Biodata, an R&D start-up building real-world health and genomic data.

Business demography

- The demographic analysis explores the contribution to employment growth made by companies in the Greater Cambridge area at the beginning and end of the year alongside the contribution made by births and deaths and location changes into and out of the area.
- **Exhibit 5** shows the growth in Greater Cambridge corporate employment from 2011/12 up to the latest year. The pattern of employment growth overall is similar to that shown in Exhibit 1, but an interesting trend is observed. The impact of net entrants (i.e. those born or moved in less those died or moved out) has moved over time from being a strong positive influence on growth in the first half of the decade to being neutral or slightly negative in recent years – this is represented by the shaded area in Exhibit 5.
- In the first few years of this period employment changes due to business start-ups exceeded the losses due to company closures. This has changed and now the impact of closures exceeds that of start-ups and imparts a negative, but small, impact on growth.
- However, employment growth in Greater Cambridge remained positive during the pandemic even after taking into account the effect of births and deaths.

18th February 2022

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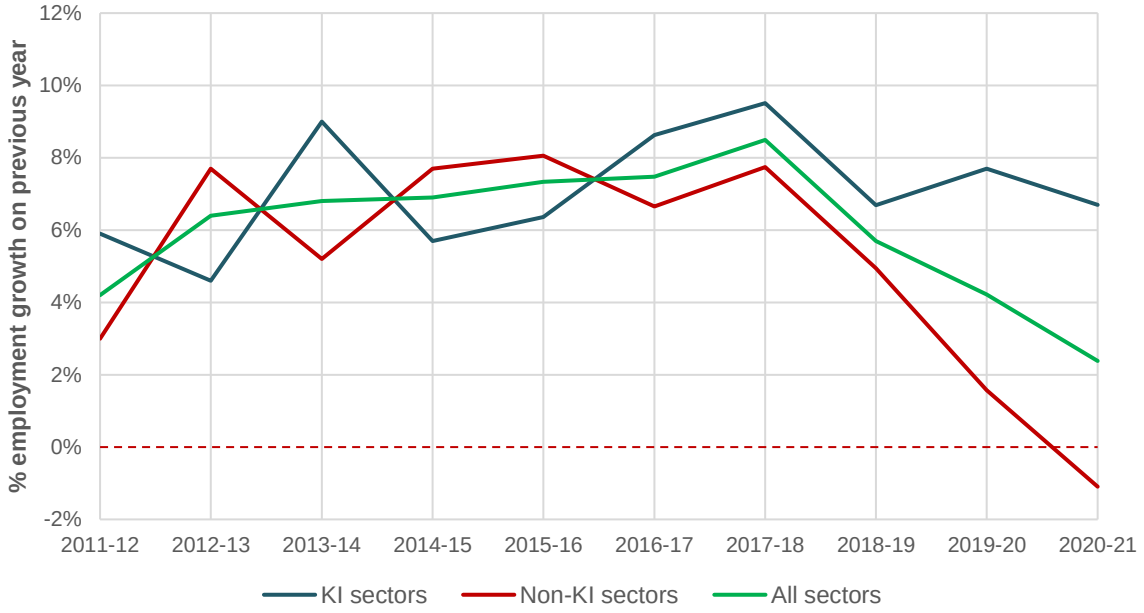
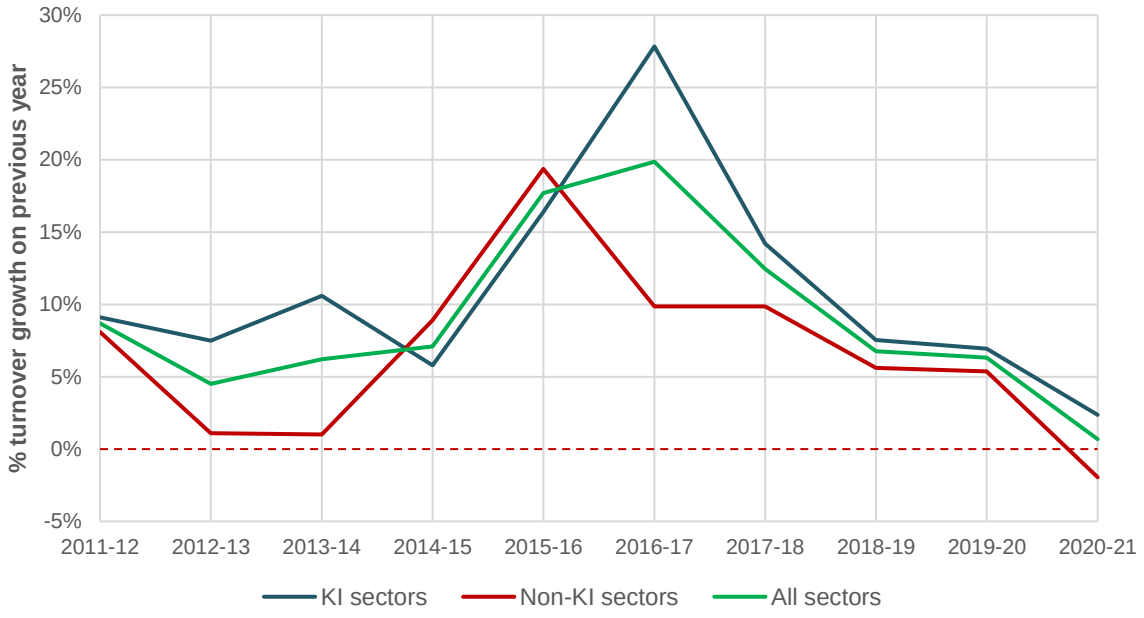
Exhibit 1 Employment growth 2011-12 to 2020-21, Greater Cambridge



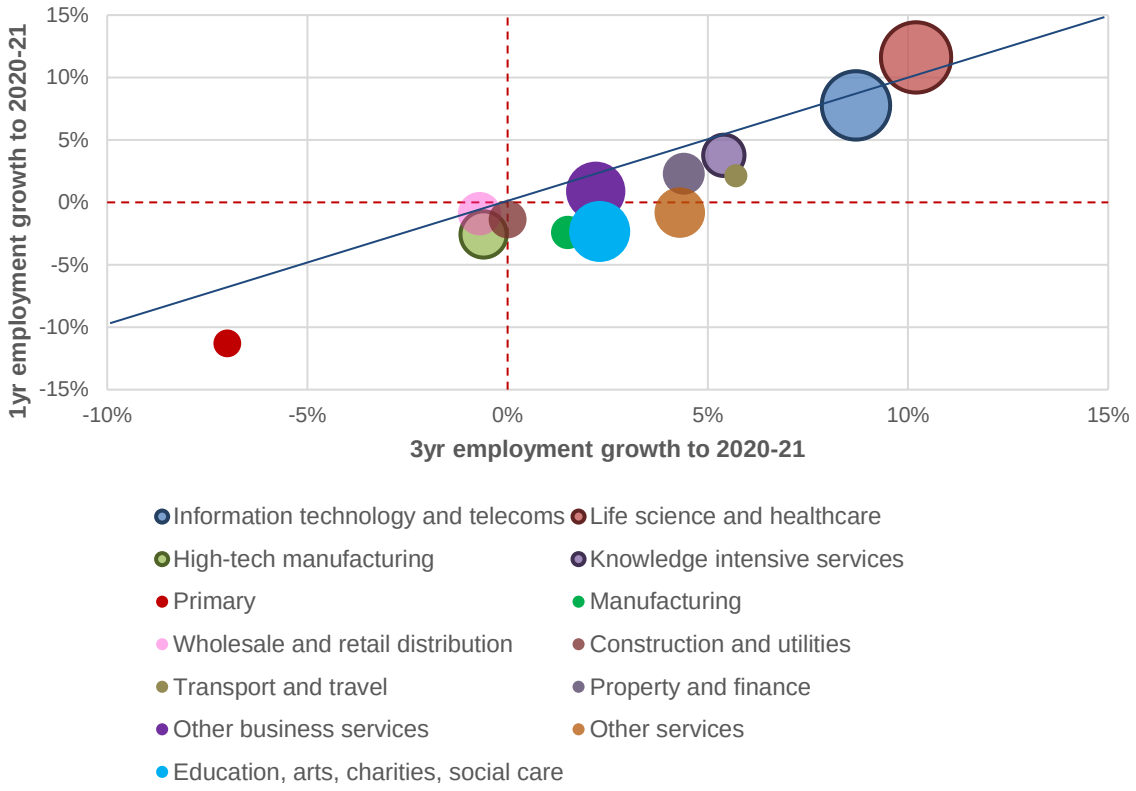
Source: Cosh & Caselli, CBR.

Exhibit 2 Turnover growth 2011-12 to 2020-21, Greater Cambridge



Source: Cosh & Caselli, CBR.

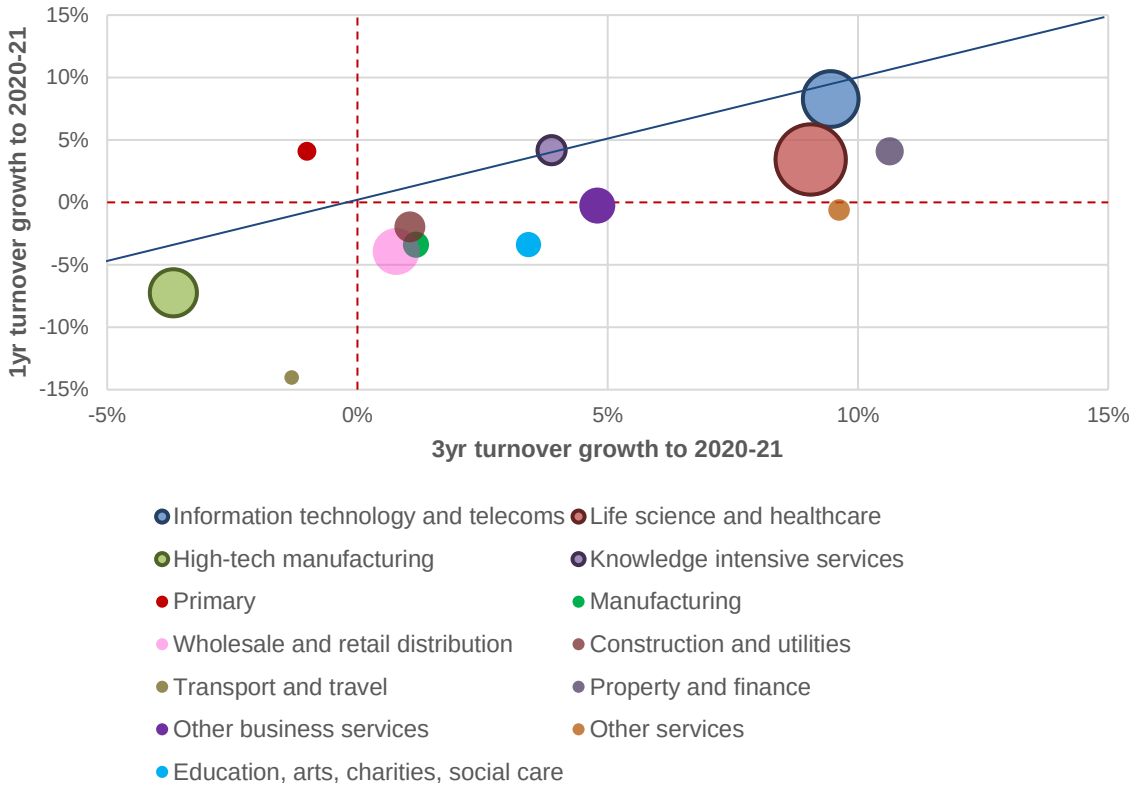
Exhibit 3 Employment growth by sector, Greater Cambridge



Note: The size of each bubble is proportionate to the number of employees in 2020-21. Bubbles with an outline identify KI sectors.

Source: Cosh & Caselli, CBR.

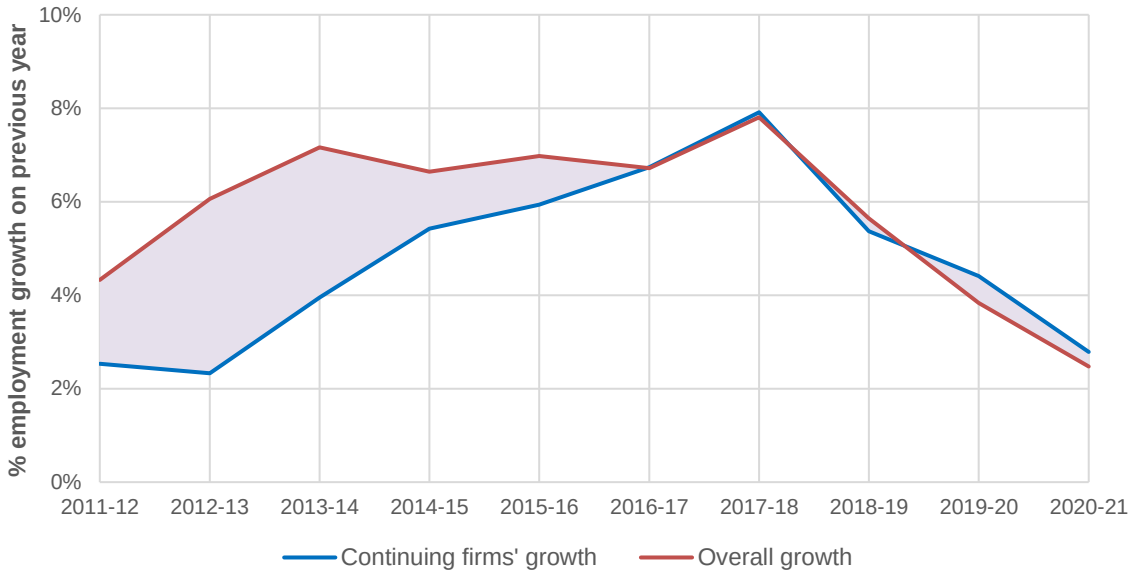
Exhibit 4 Turnover growth by sector, Greater Cambridge



Note: The size of each bubble is proportionate to turnover in 2020-21. Bubbles with an outline identify KI sectors.

Source: Cosh & Caselli, CBR.

Exhibit 5 Contribution of net entrants to employment growth 2011-12 to 2020-21, Greater Cambridge



Note: The contribution of net entrants to employment growth is represented by the shaded area.
Source: Cosh & Caselli, CBR.

About Cambridge Cluster Insights

Cambridge Cluster Insights - Cambridge Ahead

The webpage above includes the Cambridge Cluster Map (select Cluster Map tab) which shows the location of each company. It covers both the Cambridge City Region (a twenty mile radius from the centre of Cambridge) and the Cambridgeshire and Peterborough Combined Authority (Cambridge, South Cambridgeshire, East Cambridgeshire, Huntingdonshire, Fenland and Peterborough).

This report covers the Greater Cambridge area which comprises the local authority districts of Cambridge and South Cambridgeshire.

The maps and tables allow the user to look at the clusters shown in the broad picture, or to drill down to a single company and capture its information. The user can choose the area covered and which sectors to include. On separate tabs the user can explore sectoral growth, growth by company size, company births and deaths and produce lists of companies by area, sector and size.

Cambridge Cluster Insights also provides information about the size and location of the principal research intensive institutions in the area.

About the draw

The annual draw takes all companies based within any of the areas noted above, but also includes major businesses operating, but not based, in the area. The annual audited accounts of these companies are inspected to discover their employment and turnover and their principal location is established. The annual draw allows us to track the growth of companies' employment and turnover, changes in location and company births and deaths. The database underpinning this work has over 90,000 companies on it and covers the financial years 2010/11 to 2020/21.

The underlying core corporate database has been established and maintained with the ongoing support of Cambridge Ahead, and is currently sponsored by Arm, Marshall of Cambridge and the Cambridgeshire and Peterborough Combined Authority.

Covid impacts

The 2020/21 draw shows the information of the accounting period ending in the 2020/21 financial year. On average the latest year end for our companies is 31 December 2020 so the latest year was severely impacted by the covid pandemic compared with the previous year in which the impact was minimal (affecting about a quarter of the companies for a month or so).

The nerdy stuff

The data provided in the principal analyses concerns only companies based in the area covered by the report. Our analyses exclude companies such as national retailers which, whilst operating in the area, are based elsewhere. It also excludes non-corporates such as sole proprietors and the public sector. Each company is given a principal location and main sector of activity. We measure the total employment and turnover of our companies. About three-quarters of our companies provide employment and most of the rest are one-person businesses. However, less than 10% of the companies provide turnover data (fortunately these are the largest few thousand). This means that

we estimate a company's turnover based on its employment and the ratio of turnover to employment for that sector and size.

Our size and sector analyses take companies which are in the Cambridge area in 2020/21 or were in the Cambridge area when they died. It then looks at the employment and turnover of these companies back to 2010/11. Companies that moved out of the area in the past decade are excluded. The Cluster Map uses these data but by default displays only those that are alive in 2020/21.

Our demography analysis takes a different approach from that used for size and sector analyses. It takes companies that were alive and in the Cambridge area in 2010/11. Some of these companies died or moved out of the area in the following years, but other companies were born or moved into the area. The company demography yearly analysis splits changes in employment and turnover into the growth of continuing companies, plus births and those moved in, less deaths and those moved out. Location changes are identified only since 2016 when our work began.

Some companies require special treatment due to their very large size – AstraZeneca, Arm, Marshall Motor Holdings and Aveva kindly provide us with their employment in the Cambridge area and it is those figures that appear. Also, Marshall of Cambridge is split into Marshall Motor Holdings and its other businesses (principally Marshall Aerospace).

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