Leicester and Leicestershire Enterprise Partnership

September 2021

Final Report
Covid-19 Sector Research – Technical Summary

Contents

1 Introduction

1.1 Background

Over the past decade the Leicester and Leicestershire economy has experienced robust growth, creating some 69,100 jobs and driving economic growth valued at £3.8bn[1]. The area has positioned itself as one of the Midlands leading economic drivers with a diverse range of sectoral strengths and nationally significant assets. This strong rate of growth was expected to be maintained in future, as outlined in the array of ambitious strategies and plans developed by local stakeholders.

Due to the Covid-19 pandemic and the latest Brexit developments, previous expectations of the trajectory of the Leicester and Leicestershire economy and its sectors are now uncertain, and there is a need to articulate the scale and pattern of the shock on local sectors and what impact this might have on their future growth trajectory. This will help to inform and ensure the effectiveness of any potential interventions, strategies and plans moving forward.

Cambridge Econometrics (henceforth CE) has a proven track record of assessing and modelling the short and long run impact of both micro and macro-level shocks on subnational economies, and has employed this technical expertise to produce a set of empirically sound projections for the Leicester and Leicestershire economy and sectors, capturing the expected scale and shape of the shock and resultant recovery from the Covid-19 pandemic, alongside other macroeconomic headwinds (such as Brexit etc.)

1.2 This report

This report outlines CE's approach to producing these forecasts (including modelling details, definitions, and sources), before providing a summary overview of the results, and a final reflection on the implications for jobs and skills. This report is structured as follows:

- The first section summarises the supporting methodology and assumptions behind CE's baseline sector forecasts for Leicester and Leicestershire and outlines the appropriate sources and definitions.
- The second section explores Leicester and Leicestershire's broad sectors specialisms and pre-Covid performance, before considering the impact and recovery trajectory from the Covid-19 pandemic, amongst other macroeconomic trends.
- The third section refines this analysis, using a novel bottom-up approach to better segment and profile Leicester and Leicestershire's sectoral strengths and growth potential, capturing the full value chain of activity.
- The fourth section, looks at the occupational structure (i.e. the type of jobs performed) in Leicester and Leicestershire, recent trends, and how this could change in future.

[1] Source: see *Modelling approach and methodology* ***Error! Reference source not found.***

- The fifth, and final section, looks at what a changing occupational structure means for sectors and skills in Leicester and Leicestershire, particularly in terms of skills needs.

This report is designed as a technical summary to aid understanding of the CE's forecasts, which have been used extensively to support other areas of work locally (see *Links to other work* below.) Workbooks containing the detailed forecasts underlying this report have been provided to the client and are available upon request.

1.3 Links to other work

CE has produced a series of **standalone sector profiles** for sectors of interest in Leicester and Leicestershire. This report supplements the extensive and detailed analysis presented in these profiles. The profiles draw on key commercial and economic data and evidence (including CE's forecasts) to summarise for each sector:

- The market and economic outlook
- Business impacts of Covid-19 and Brexit
- Activities and key organisations in Leicester and Leicestershire
- University and R&D expertise
- Economic and growth indicators
- Spatial structure and clusters
- Industry structure and specialisms
- Sector prospects in Leicester and Leicestershire (including presentation of CE's forecasts)

Rather than duplicating the detailed analysis presented in these profiles, this report outlines the technical details underpinning them, including definitions, sources, and methodologies. It is therefore recommended that this report is consulted alongside the individual sector profiles, to ensure a full understanding of the approach to this work.

This report, and the accompanying profiles, have also been produced during the development of a renewed **Economic Growth Strategy for Leicester and Leicestershire**. The Strategy draws on CE's forecasts, as well as the wider analysis and evidence presented in the sector profiles, to outline key priorities and areas of intervention locally.

Therefore, it is also recommended that the Strategy is consulted alongside this report, particularly to understand the broader policy aims and ambitions relating to Leicester and Leicestershire's sectors.

2 Modelling approach and methodology

2.1 Introduction

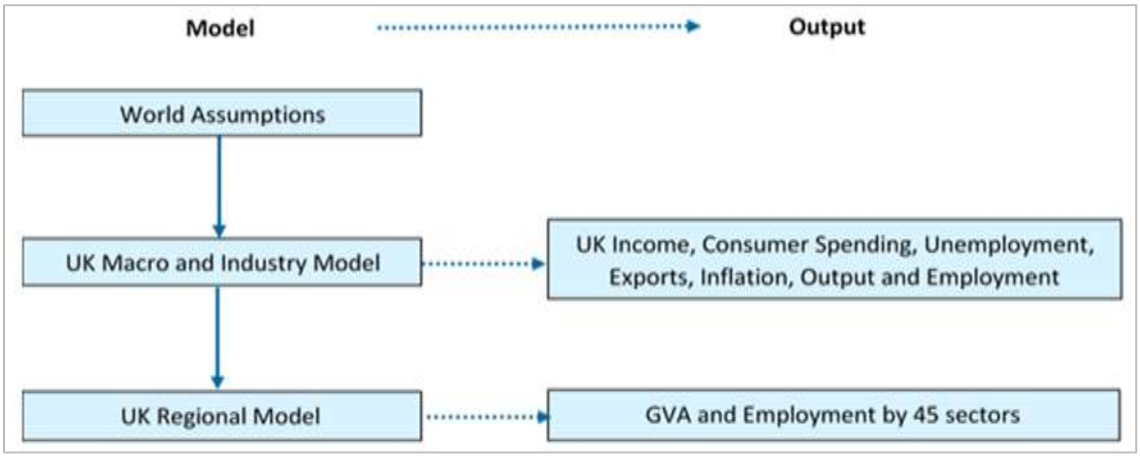
To better understand the likely longer-term impact of the Covid-19 pandemic on Leicester and Leicestershire's sectors, Cambridge Econometrics (CE) has developed a series of credible econometric forecasts for the city, county, and its constituent authority areas. The following analysis outlines the supporting methodology and definitions for these forecasts, including how sectors in Leicester and Leicestershire have been defined.

2.2 Approach and methodology

To produce these local area sector forecasts, CE has initially drawn on the bespoke Local Economy Forecasting Model (LEFM) component of its macroeconomic Multi-Sectoral Dynamic Model (MDM-E3) of the UK economy. Resultantly, the local area forecasts for a sector in Leicester and Leicestershire are consistent with CE's macroeconomic forecasts for the UK sector as a whole.

An important feature of this modelling approach is the link to CE's wider modelling suite, ensuring any local area sector forecasts are consistent with CE's world, UK national and UK regional forecasts and assumptions for a sector, as Figure 2.2.1 demonstrates.

Figure 2.2.1: Links between Cambridge Econometrics' suite of models



Source: Cambridge Econometrics.

CE's headline UK forecasts have been developed within the context of its position within global trade networks, the worldwide impact of Covid-19, and the changing nature of the UK's trading relationship with the EU. These national level impacts are then systematically distributed to regions and local areas, based on historic sectoral relationships.

The regional and local impact depends, therefore, on the historic precedent of how local sectors have historically performed relative to their national or regional equivalents, thereby capturing the differing intrinsic resilience of local sectors to national economic shocks.

For example, if the Professional Services sector in Leicester and Leicestershire has historically been impacted less hard, and/or recovered more rapidly from past shocks, than the UK Professional Services sector as a whole, then this will be reflected in the local forecasts.

CE's latest local area forecasts were produced in March 2021, and draw on up to 12 months data encompassing the Covid-19 pandemic and the end of the EU transition period, for a range national and regional indicators such as:

- Output (GDP, GVA) and productivity
- Income and earnings
- Employment and unemployment
- Trade and exports
- Inflation and consumer spending
- Government-support schemes (furlough, self-employment support etc.)

It should be emphasised that even with this extensive evidence base, any efforts to determine the quantitative implications of Covid-19 on national and local economies are still highly uncertain and indicative at this early stage of the pandemic, particularly on an individual sectoral basis.

And even when accounting for this, as with all kinds of forecasting, there are margins of error associated with the results which tend to widen over time. Furthermore, it should also be noted that the quality and reliability of data decreases at more detailed geographies and sectoral classifications.

2.3 Data sources and definitions

As part of the LEFM, CE have developed and maintained a highly disaggregated database of historical and projected employment, GVA and population data from 1981 to 2050. The data are available in a consistent format across 45 detailed sectors for all unitary authorities and local authority districts in the UK.

Employment definition

Employment is defined as workplace-based jobs[2] and includes full-time employees, part-time employees and the self-employed. Full- and part-time employment data by industry are based on the Business Register and Employment Survey (BRES) for time periods after 2009 and the earlier Annual Business Inquiry (ABI) for the time period 1998-2008. Estimates of self-employment are taken from the Annual Population Survey (APS) from 2004 onwards.

For earlier years estimates are generated under the assumption that the ratios of self-employed to employees at local level by industry are the same as those at the corresponding regional level. Self-employment estimates are then added to the BRES employment data. The figures are made consistent with more recently published estimates of jobs at a regional level (quarterly workforce jobs, June figures) published by ONS, which include people in the armed forces but do not include people on government training schemes.

[2] An alternative would be to use number of people employed (i.e. the employment rate.) This however would not account for people holding multiple jobs, and can be distorted by commuting patterns.

Gross Value Added (GVA) definition

CE GVA data are consistent with sector data (balanced approach) at the local authority level from the ONS' Regional Accounts. GVA is defined by the ONS as *"...a measure of the increase in the value of the economy due to the production of goods and services".* [3]

The measure of GVA used in this report was based on the balanced approach (GVA(B)), which provides *"a single measure of economic activity within a region"*.[4] This is a relatively new approach,[5] calculated using estimates from the income (GVA(I))[6] and production (GVA(P))[7] measures.

Chained Volume Measure (CVM)[8] estimates of GVA were used in order to remove the effects of price inflation and thus allow intertemporal comparisons. GVA data are therefore presented in 'real' terms.

Productivity definition

The measure of productivity[9] used in this report is labour productivity defined as output per unit of labour, with output measured by Gross Value Added (GVA) and employment by workplace-based jobs. Labour productivity, a critical indicator of workforce efficiency, is *"a key dimension of economic performance and an essential driver of changes in living standards"* (OECD, 2019, p. 48)

Apart from its importance as an economic indicator, this definition of labour productivity offers the advantage of relatively low data and computational requirements, as the relevant data are (for the most part) readily available at the local area level.[10] Given the CVM measure of GVA is used in the calculation, productivity data are therefore presented in 'real' terms.

2.4 Sector definitions

The LEFM's 45 sectors

The LEFM provides employment (i.e. for workplace jobs, not residents employed), GVA and productivity data for 12 sector groupings and 45 individual sectors in a consistent format from 1981 to 2050. These sectors are derived from official SIC classifications[11], and therefore provide alignment with official statistics. A lookup between CE's 12 sector groupings, its 45 sectors and official SIC classifications can be found in *Appendix A: Sector definitions*.

The 45 sectors, which underpin the analysis presented *Section 3 Overview of Leicester and Leicestershire's sectors*, are as follows:

1. Agriculture, forestry & fishing
2. Mining & quarrying
3. Food, drink & tobacco
4. Textiles etc
5. Wood & paper

24. Land transport
25. Water transport
26. Air transport
27. Warehousing & postal
28. Accommodation

[3] See this ONS statistical bulletin for more information.

[4] Ibid.

[5] Given National Statistics status in November 2018.

[6] See this ONS statistical bulletin for more information.

[7] See this ONS statistical bulletin for more information.

[8] See this ONS technical paper for more information.

[99] For a review of other measures of productivity see OECD (2001).

[10] This is not the case for the main alternative of GVA per hour worked.

[11] The Standard Industrial Classification 2007 (SIC07), used in this report, is a hierarchical 5-digit system, which provides a framework for the collection, tabulation, presentation and analysis of sectoral data.

6. Printing & recording
7. Coke & petroleum
8. Chemicals
9. Pharmaceuticals
10. Non-metallic mineral products
11. Metals & metal products
12. Electronics
13. Electrical equipment
14. Machinery
15. Motor vehicles
16. Other transport equipment
17. Other manufacturing & repair
18. Electricity & gas
19. Water, sewerage & waste
20. Construction
21. Motor vehicles trade
22. Wholesale trade
23. Retail trade
29. Food & beverage services
30. Media
31. IT services
32. Financial & insurance
33. Real estate
34. Legal & accounting
35. Head offices & management consultancies
36. Architectural & engineering services
37. Other professional services
38. Business support services
39. Public Administration & Defence
40. Education
41. Health
42. Residential & social
43. Arts
44. Recreational services
45. Other services

However, though the 45 sectors within the LEFM are generally more detailed and thematically defined compared to official statistics, they can still fail to accurately capture highly diverse and cross-disciplinary sectors, and in some cases miss critical parts of the value chain.

Sectors of interest

Therefore, in order to better define Leicester and Leicestershire's priority sectors – such as those identified in local research and strategies - and accurately capture their breadth and impact, further bespoke modelling was undertaken to scale data for each of CE's 45 sectors to their constituent 5-digit SIC classifications[12] (which have been derived primarily from BRES data), from which a 'bottom-up' approach can be used to define sectors of interest.

With this additional step of modelling, data for more than more than 700 individual sectors has been produced – a level of detail over 20 times that currently available from official statistics, using the most detailed industry classifications available. These detailed sectors have then been sorted and grouped into sectors of interest for Leicester and Leicestershire.

By applying this novel approach, CE has been able to more accurately capture the wider value chain of a sector in Leicester and Leicestershire. For instance, estimates of the Agri-food sector incorporate primary, farm-based activities, through to food and drink processing and production, to storage and distribution, and finally wholesale and retail. This ensures a better understanding of sector size, specialisms and growth potential.

These sectors of interest, which include those identified in the Local Industrial Strategy (LIS), Sector Growth Plans, and other local plans and strategies, are outlined below (according to thematic grouping). They underpin the analysis in *Section 4 Sectors of interest in Leicester and Leicestershire*, whilst the stand-

[12] The UN provides a useful overview of the relationship between SIC classifications (from 2-digit SIC to 5-digit), and summarises what activity is captured within each classification

alone sector profiles accompanying this report have been produced using these definitions. The official SIC classifications used to define these sectors can be found in *Appendix A: Sector definitions*.

- **Technology and knowledge sectors – R&D excellence with commercialisation and growth potential:**
  1. Life Sciences and Biotech
  2. Sport and Physical Activity
  3. Aerospace and Satellite Technology
  4. Advanced Manufacturing and Engineering
- **Successful industry specialisms that are growing or have significant growth potential:**
  5. Logistics and Distribution
  6. Professional and Financial Services
  7. Digital Tech and Communications
  8. Low Carbon
  9. Agri-food and Drink
- **Sectors that are large and/or significant employers and need to be monitored:**
  10. Retail and Wholesale
  11. Tourism and Hospitality
  12. Health and Social Care
  13. Creative and Cultural industries
  14. Textiles and Fashion
  15. Construction and Development

As emphasised previously, the quality and reliability of data decreases at more detailed levels of sectoral classification. Therefore, caution should be urged when interpreting these results, especially forecasts. Because of this, data for sectors of interest are only available for the Leicester and Leicestershire area as a whole (not for unitary/local authorities.) Moreover, because of the overlap between sector definitions, sector data should not be directly grouped together, given the risk of double counting.

2.5 Calculating sector specialisms

Location Quotients

Within this report, the main analysis technique used to estimate the specialism of a sector is the calculation of a sectors location quotient (LQ's.) Location quotients can be considered as measures of either concentration or specialisation. The results produced are equivalent whichever method is used.

In the context of specialisation they compare for each industry, the industry's share of local area jobs (relative to the national average e.g. the UK average) with its share of total jobs. The equation is:

$$LQ = \frac{\left(\frac{E_{i,r}}{E_r}\right)}{\left(\frac{E_i}{E}\right)}$$

where Ei,r is the number of jobs in industry i region r, Er is the number of jobs in region r, Ei is the number of jobs in industry i and E is the number of jobs in the UK.

A value of 1.0 means that an industry's share of jobs in region r is the same as its share of national jobs in the UK. For example, industry i makes up 5% of jobs in region r and also 5% of jobs in the UK. A value greater than 1.0 means that industry i makes up a larger share of jobs in the local area than at the national level.

Therefore, the higher the location quotient the more an area has a specialisation in that industry relative to the national average. According to the ONS, a location quotient value of 2 indicates notable relative specialisms in an industry.

Krugman Index

This report also briefly considers the Krugman Index. The Krugman index is a relative specialisation measure that compares the industrial structures of 2 geographical areas. It runs from zero, if an area has the same sectoral split as the reference area, to 2 if they have a completely different sectoral split to each other.

The equation for calculating the Krugman index is:

$$K_r = \sum_{i=1}^{k} \left| \frac{E_{i,r}}{E_r} - \frac{E_i}{E} \right|$$

where Ei,r are jobs in industry i in region r, Er is the total number of jobs in region r, Ei is total jobs in industry i and E is the national total of jobs.

In theory, location quotients and the Krugman Index can be calculated for a sectors GVA and even productivity, however employment has been chosen here given it is typically the more reliable and versatile indicator, and ensures alignment with official statistics.

2.6 Occupational definitions

The LEFM's occupational groups

The LEFM provides employment data (i.e. for workplace jobs, not residents employed) for 9 major occupational groupings and 25 sub-major occupational groupings in a consistent format from 1981 to 2050. These sectors are derived from official SOC classifications[13], and therefore provide alignment with official statistics. Occupational data within the LEFM is calculated from sectoral employment forecasts by using a SIC-SOC converter matrix.

[13] The Standard Occupational Classification 2010 (SOC10), used in this report, is a common classification of occupational information for the UK.

The 25 sub-major occupational groups, which underpin the analysis presented in *Section 5 Occupational outlook for Leicester and Leicestershire*, are as follows:

11 Corporate Managers and Directors

12 Other Managers and Proprietors

21 Business, Media and Public Service Professionals

22 Science, Research, Engineering and Technology Professionals

23 Health Professionals

24 Teaching and Educational Professionals

31 Science, Engineering and Technology Associate Professionals

32 Health and Social Care Associate Professionals

33 Protective Service Occupations

34 Culture, Media and Sports Occupations

35 Business and Public Service Associate Professionals

41 Skilled Construction and Building Trades

42 Textiles, Printing and Other Skilled Trades

51 Administrative Occupations

52 Secretarial and Related Occupations

53 Skilled Agricultural and Related Trades

54 Skilled Metal, Electrical and Electronic Trades

61 Caring Personal Service Occupations

62 Leisure, Travel and Related Personal Service Occupations

71 Sales Occupations

72 Customer Service Occupations

81 Process, Plant and Machine Operatives

82 Transport and Mobile Machine Drivers and Operatives

91 Elementary Trades and Related Occupations

92 Elementary Administration and Service Occupations

3 Overview of Leicester and Leicestershire's sectors

3.1 Introduction

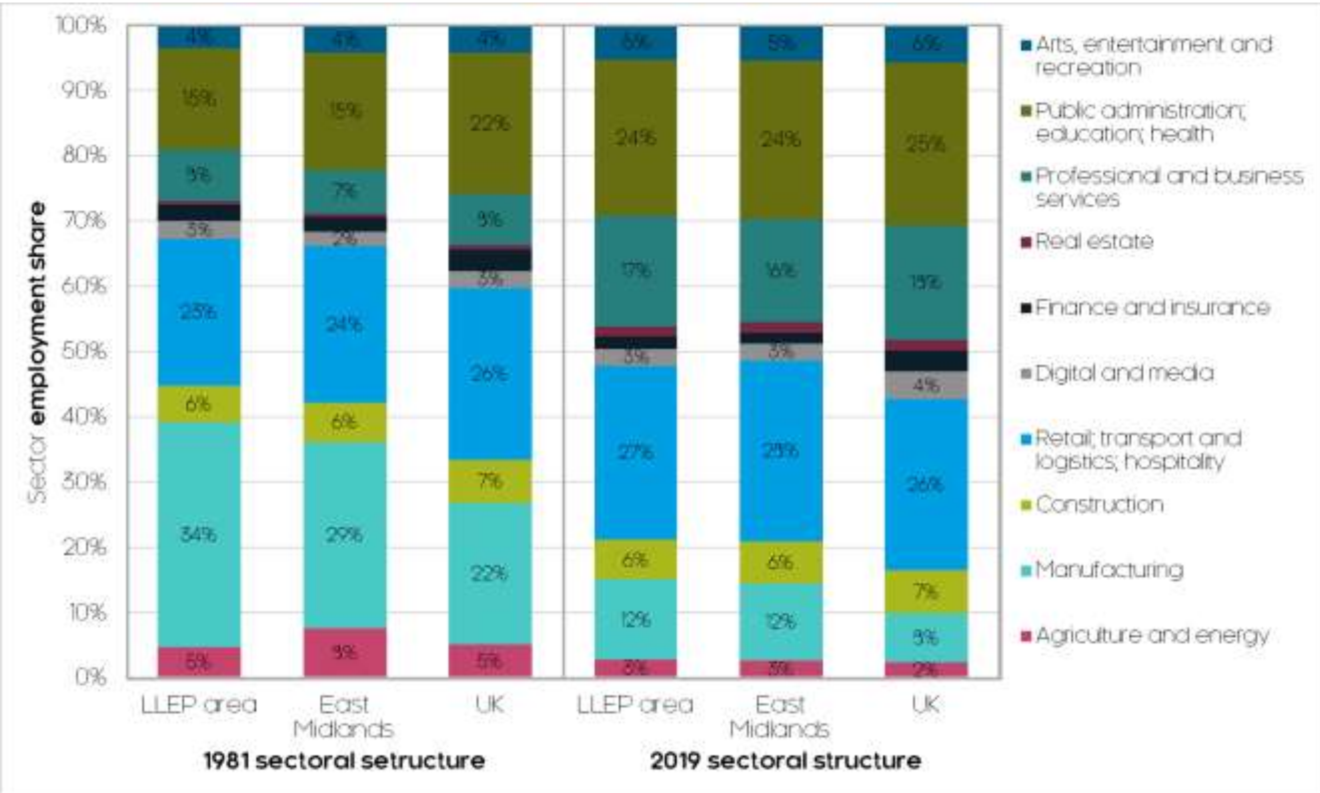
This section explores Leicester and Leicestershire's high-level sector specialisms and pre-Covid performance, before considering the impact and recovery trajectory from the Covid-19 pandemic, amongst other macroeconomic trends. This uses data for the 45 individual sectors available within the LEFM, across all unitary and local authority areas in Leicestershire.

3.2 Leicester and Leicestershire's sectoral structure and specialisms

Sectoral structure

Figure 3.2.1 looks at the broad sectoral structure of the Leicester and Leicestershire economy relative to the UK and East Midlands average, and the longer-terms trends shaping this in the lead up to the Covid-19 pandemic. Sectoral structure is expressed in employment (i.e. jobs) terms, using CE's 12 high-level sector groupings.

Figure 3.2.1: Broad sectoral structure of the Leicester and Leicestershire, East Midlands, and UK labour market, 1981 and 2019



Source: ONS, Cambridge Econometrics.

As with the rest of the country, over the past forty years, Leicester and Leicestershire has seen a sustained shift in its sectoral structure towards consumer and services-based activities.

For instance, in 1981, manufacturing accounted for over 3 in 10 jobs (34%) in Leicester and Leicestershire, more than halving to 1 in 10 (12%) by 2019, attributable to ongoing automation, digitisation and outsourcing in the sector.

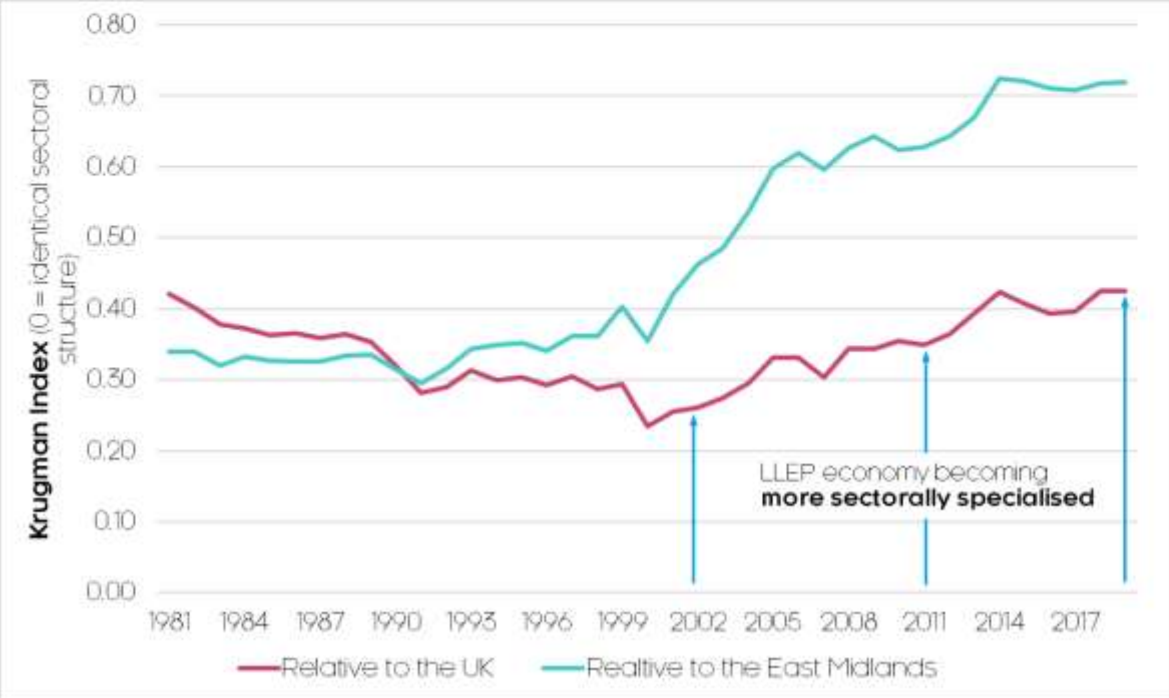
Despite this, the area retains an above average share of manufacturing activity (12%, relative to the UK average of 8%.) Retail; transport and logistics; hospitality has replaced the sector as the dominant activity locally, and accounted for just under a third (27%) of all jobs in 2019.

Public administration; education; health has also increased its share of activity, largely driven by a growing and aging population, and represented a quarter (24%) of all jobs locally in 2019.

Professional and business services have experienced the fastest growth though, more than doubling their share of activity between 1981 and 2019, and now represent 17% of all jobs locally.

As Figure 3.2.2 shows, calculating the Krugman Index for Leicester and Leicestershire's shows the sectoral structure of the area is more related to the UK average than that of the East Midlands – this is important when considering Leicestershire's role within pan-regional trends and strategies.

Figure 3.2.2: Krugman Index for Leicester and Leicestershire, relative to the East Midlands and UK, 1981-2019



Source: ONS, Cambridge Econometrics.

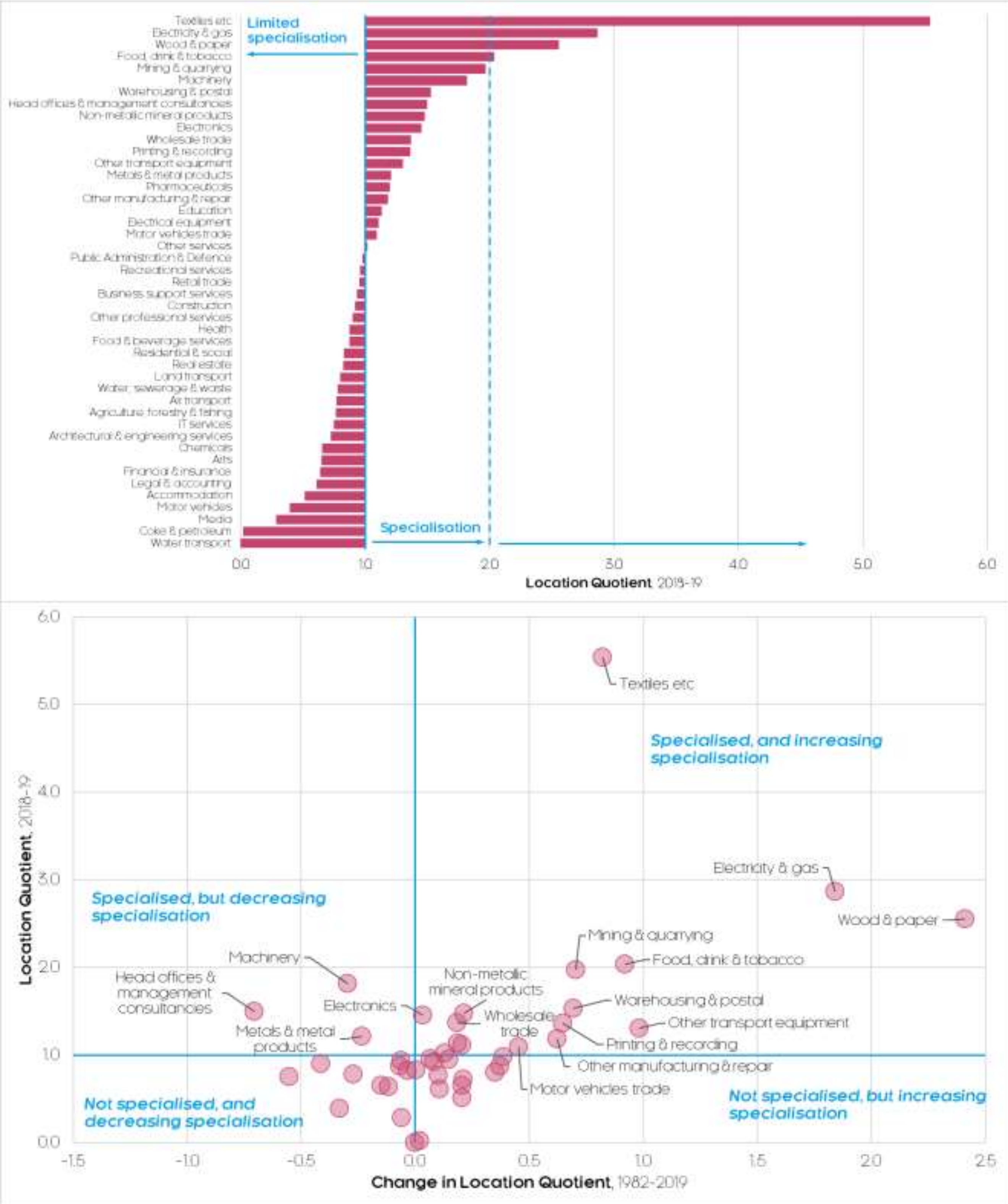
And more notably the index shows that over the past 20 years, Leicester and Leicestershire's sectoral structure has become more unique and increasingly specialised relative to these two areas (reflected by the divergence away from 0, relative to the two comparator areas.)

A higher degree of specialisation (as indicated by the Krugman Index) can confer advantages in terms of growth, investment and resilience. Research has shown areas with higher and/or increasing index values often display lower trade barriers and transport costs.

Sector specialisms

To investigate what sectors are driving this divergence, Figure 3.2.3 looks beyond just the broad sectoral structure to consider how specialised certain sectors are in Leicester and Leicestershire (top chart), and how this has changed overtime (bottom chart.)

Figure 3.2.3: Specialisation (top) and change in specialisation (bottom) by sector in Leicester and Leicestershire



Source: ONS, Cambridge Econometrics.

Based on this analysis, sectors in Leicester and Leicestershire can be grouped into the following identities, depending on their location quotient (LQ) and recent relative performance. An overview of the size of the sector (in terms of jobs and GVA, in 2019) is also shown.

1. Sectors that are highly specialised in Leicester and Leicestershire and are becoming more specialised. These are sectors where Leicester and Leicestershire typically displays a recognised and growing comparative advantage relative to the national average, with local businesses often globally competitive and at the forefront of growth and innovation in the sector. This includes activities such as:

- Wholesale trade - 1.4 location quotient (LQ); 29,500 jobs; £1,310m GVA
- Warehousing & postal - 1.5 LQ; 19,600 jobs; £870m GVA
- Food, drink & tobacco - 2.0 LQ; 13,400 jobs; £970m GVA
- Textiles etc - 5.5 LQ; 12,700 jobs; £750m GVA
- Electricity & gas - 2.9 LQ; 6,300 jobs; £1,160m GVA
- Non-metallic mineral products - 1.5 LQ; 6,300 jobs; £320m GVA
- Wood & paper - 2.6 LQ; 5,700 jobs; £280 GVA
- Other manufacturing & repair - 1.2 LQ; 5,500 jobs; £290m GVA
- Other transport equipment - 1.3 LQ; 3,000 jobs; £180m GVA
- Electronics - 1.5 LQ; 2,500 jobs; £270m GVA
- Printing & recording - 1.4 LQ; 2,000 jobs; £100m GVA
- Mining & quarrying - 2.0 LQ; 1,600 jobs; £200m GVA

2. Sectors that are highly specialised but are becoming less specialised. These are sectors where Leicester and Leicestershire also displays a clear and recognised comparative advantage relative to the national average, but this advantage could be stable or weakening. These sectors often operate in highly globalised and competitive markets, adding to the challenge of retaining and evolving specialisms. This includes activities such as:

- Head offices & management consultancies - 1.5 LQ; 21,700 jobs; £460m GVA
- Metals & metal products - 1.2 LQ; 8,200 jobs; £450m GVA
- Machinery - 1.8 LQ; 4,600 jobs; £440m GVA
- Pharmaceuticals - 1.2 LQ; 800 jobs; £130m GVA

3. Sectors that show limited specialisation but are becoming more specialised. These sectors, though occasionally large, typically do not show a significant comparative advantage relative to the national average in Leicester and Leicestershire. Despite this, these sectors are becoming increasingly specialised, and some can offer significant growth potential if a strong comparative advantage can be established. This includes activities such as:

- Education - 1.1 LQ; 54,300 jobs; £2,060m GVA
- Retail trade - 1.0 LQ; 46,600 jobs; £1,340m GVA

- Health - 0.9 LQ; 33,600 jobs; £1,220m GVA
- Construction - 0.9 LQ; 33,300 jobs; £1,970m GVA
- Public Administration & Defence - 1.0 LQ; 22,200 jobs; £1,090m GVA
- Other services - 1.0 LQ; 15,200 jobs; £540m GVA
- Land transport - 0.8 LQ; 10,600 jobs; £340m GVA
- Recreational services - 1.0 LQ; 10,300 jobs; £310m GVA
- Motor vehicles trade - 1.1 LQ; 10,200 jobs; £560m GVA
- Legal & accounting - 0.6 LQ; 8,200 jobs; £310m GVA
- Architectural & engineering services - 0.7 LQ; 8,100 jobs; £240m GVA
- Agriculture, forestry & fishing - 0.8 LQ; 4,900 jobs; £180m GVA
- Accommodation - 0.5 LQ; 4,500 jobs; £90m GVA
- Arts - 0.6 LQ; 3,200 jobs; £50m GVA
- Electrical equipment - 1.1 LQ; 1,300 jobs; £110m GVA

4. Sectors that show limited specialisation, and a limited change in specialisation. These sectors typically show no significant comparative advantage relative to the national average in Leicester and Leicestershire, and only limited signs of increasing specialisation. Despite this, some of these sectors are still large and important, with significant growth potential. This includes activities such as:

- Business support services - 0.9 LQ; 42,900 jobs; £1,310m GVA
- Food & beverage services - 0.9 LQ; 24,900 jobs; £490m GVA
- Residential & social - 0.8 LQ; 21,900 jobs; £590m GVA
- Other professional services - 0.9 LQ; 12,400 jobs; £630m GVA
- IT services - 0.8 LQ; 12,200 jobs; £950m GVA
- Financial & insurance - 0.6 LQ; 10,800 jobs; £560m GVA
- Real estate - 0.8 LQ; 8,100 jobs; £810m GVA
- Water, sewerage & waste - 0.8 LQ; 2,500 jobs; £260m GVA
- Media - 0.3 LQ; 2,300 jobs; £90m GVA
- Air transport - 0.8 LQ; 1,000 jobs; £120m GVA
- Chemicals - 0.7 LQ; 900 jobs; £90m GVA
- Motor vehicles - 0.4 LQ; 800 jobs; £30m GVA
- Coke & petroleum - 0.0 LQ; <100 jobs
- Water transport - 0.0 LQ; <100 jobs

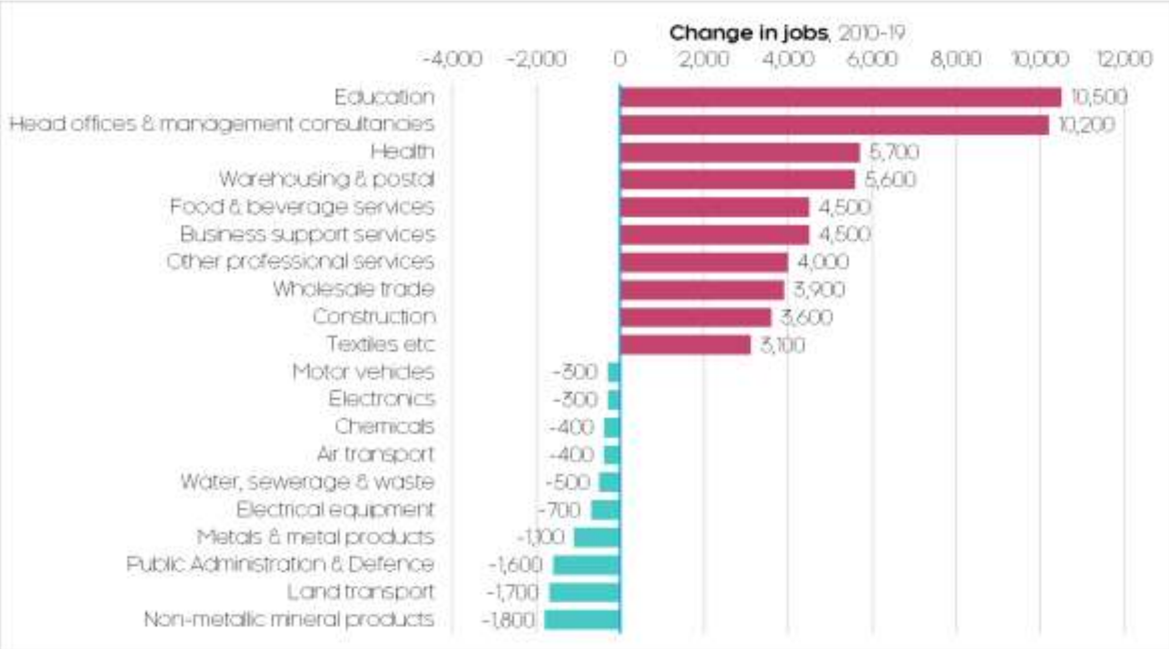
3.3 Pre-Covid sector growth and performance

Sector jobs growth

The Leicester and Leicestershire labour market performed strongly over the decade leading up to the Covid-19 pandemic. Over this period (2010-19) local employers supported the creation of an additional 69,100 jobs in Leicester and Leicestershire, at a faster rate of growth (14.4%) than regional (12.2%) and national (12.9%) averages.

Figure 3.3.1 looks at the sectoral compositional of this buoyant labour market performance. The education sector - capturing the activity of Leicestershire's universities, as well as FE, secondary and primary institutions – has been the leading job creator over this period.

Figure 3.3.1: Change in jobs by top/bottom 10 sectors in Leicester and Leicestershire, 2010-19



Source: ONS, Cambridge Econometrics.

This is closely followed by the activities of head offices & management consultancies - capturing a diverse range of national and international corporate functions present locally. Together, these two sectors have accounted for a third of new jobs in Leicester and Leicestershire.

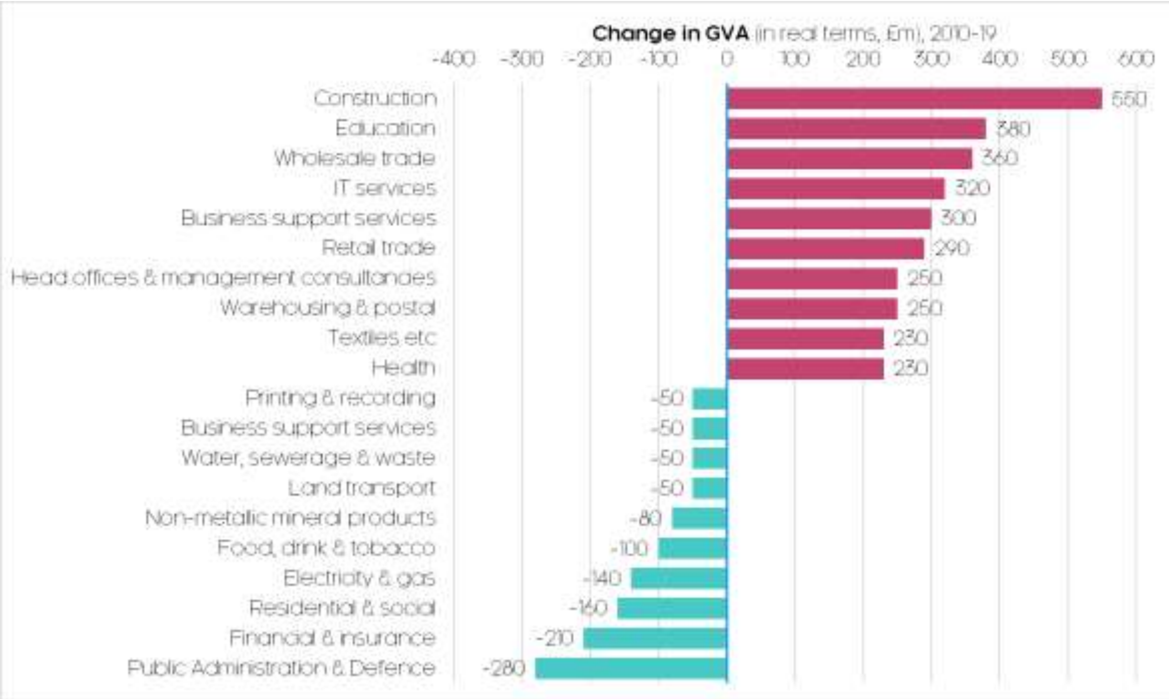
Other sectors delivering significant jobs growth include health, consumer services such as wholesale trade and food & beverage services, and business-oriented activities such as warehousing & postal, business support services and other professional services. Textiles etc is a notable feature, the only manufacturing-related trade.

Despite a strong labour market, some sectors have seen a reduction in their workforce. Typically manufacturing-related trades, such as chemicals, electrical equipment, metals & metal products, and non-metallic mineral products, this largely reflects ongoing automation, digitisation and outsourcing in these sectors.

Sector GVA growth

In terms of GVA growth (in real terms i.e. removing the effects of inflation) Figure 3.3.2 shows the sectoral composition of the £3.8bn of growth delivered in Leicester and Leicestershire since 2010.

Figure 3.3.2: Change in jobs by top/bottom 10 sectors in Leicester and Leicestershire, 2010-19



Source: ONS, Cambridge Econometrics.

Here the picture is subtly different, reflecting productivity differences between sectors. Construction has been the leading growth generator in Leicester and Leicestershire over this period, attributable to growing local demand for housing, commercial space and infrastructure.

High job creation industries, such as education, wholesale trade, business support services, and head offices & management consultancies have also seen significant GVA growth locally. IT services and retail trade have also grown strongly, despite limited job creation, reflecting the higher value-added activity in these sectors. Textiles etc is again a notable feature, the only manufacturing-related trade.

In contrast, some sectors have seen a reduction in their GVA. Most notable are public administration & defence, reflecting reduced spending in the sector, and financial and insurance, given post-Financial Crisis challenges. Food, drink & tobacco, electricity & gas, and residential & social are other sectors to have contracted (in real terms) locally.

Table 3.3.1 sets this sector growth and performance within the context of the UK average. Sector growth rates (per annum, for employment and GVA) are shaded according to whether they have performed better than the UK average (green), slightly poorer than the UK average (amber), or significantly poorer than the UK average (magenta.)

Table 3.3.1: Jobs and GVA growth by sector in Leicester and Leicestershire (shaded relative to the UK average), 2010-19

	Jobs growth per annum, 2010 19	GVA growth per annum, 2010 19
Agriculture, forestry & fishing	2.0%	4.1%
Mining & quarrying	5.6%	18.0%

Food, drink & tobacco	0.7%	-1.1%
Textiles etc	3.2%	4.2%
Wood & paper	4.0%	-0.4%
Printing & recording	-0.6%	-4.0%
Coke & petroleum	-15.1%	-10.1%
Chemicals	-4.1%	-4.2%
Pharmaceuticals	7.5%	-1.4%
Non metallic mineral products	-2.8%	-2.4%
Metals & metal products	-1.4%	-0.3%
Electronics	-1.4%	2.3%
Electrical equipment	-4.6%	-2.0%
Machinery	5.3%	1.7%
Motor vehicles	-3.3%	-10.8%
Other transport equipment	6.5%	5.1%
Other manufacturing & repair	-0.4%	1.2%
Electricity & gas	0.0%	-1.2%
Water, sewerage & waste	-1.9%	-1.9%
Construction	1.3%	3.7%
Motor vehicles trade	0.3%	4.1%
Wholesale trade	1.6%	3.7%
Retail trade	0.6%	2.7%
Land transport	-1.7%	-1.6%
Water transport	-39.4%	-6.8%
Air transport	-3.9%	4.1%
Warehousing & postal	3.8%	3.8%
Accommodation	0.4%	1.1%
Food & beverage services	2.3%	1.0%
Media	2.5%	-0.2%
IT services	2.4%	4.7%
Financial & insurance	2.5%	-3.4%
Real estate	2.3%	2.5%
Legal & accounting	2.5%	1.9%
Head offices & management consultancies	7.3%	8.9%
Architectural & engineering services	1.4%	4.5%
Other professional services	4.4%	-0.4%
Business support services	1.2%	3.0%
Public Administration & Defence	-0.8%	-2.5%
Education	2.4%	2.3%
Health	2.1%	2.3%
Residential & social	-0.1%	-2.7%
Arts	1.0%	-0.2%
Recreational services	2.2%	3.0%

Other services	1.2%	2.1%

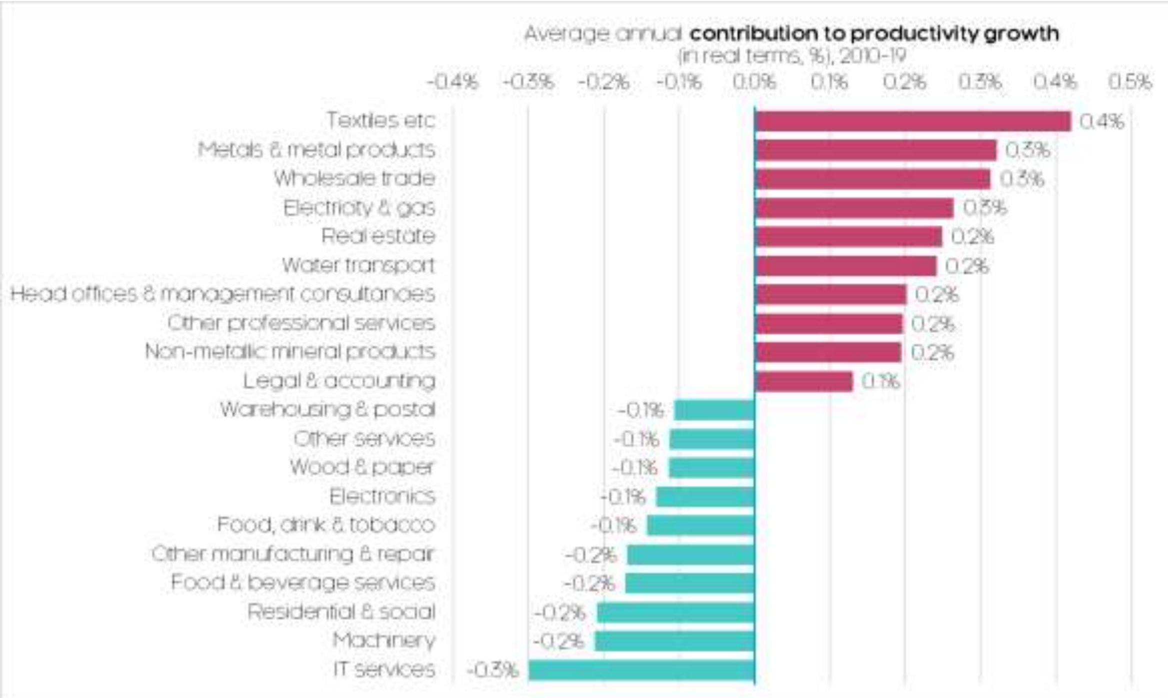
Source: ONS, Cambridge Econometrics.

Sector productivity performance

For some sectors, jobs growth has been notably faster than the UK average, whilst GVA performance has lagged, a result of slower productivity growth in these sectors. As a whole, the Leicester and Leicestershire economy has experienced very slow productivity growth of late (part of the wider UK's 'productivity puzzle'); average annual productivity growth since 2010 has only been 0.7% - pre-crisis, the average was 2.2%.

Figure 3.3.3 looks at what sectors are driving this productivity slowdown in Leicester and Leicestershire. The IT services sector has had the largest negative contribution to productivity growth over this time. Other sectors contributing to the slowdown range from manufacturing-related machinery, food, drink & tobacco, and electronics, to service-based activities such as food & beverage services, and residential & social.

Figure 3.3.3: Contributions to productivity growth by top/bottom 10 sectors in Leicester and Leicestershire, 2010-19



Source: ONS, Cambridge Econometrics. Note: captures sector contribution to overall productivity growth, not sector growth in productivity.

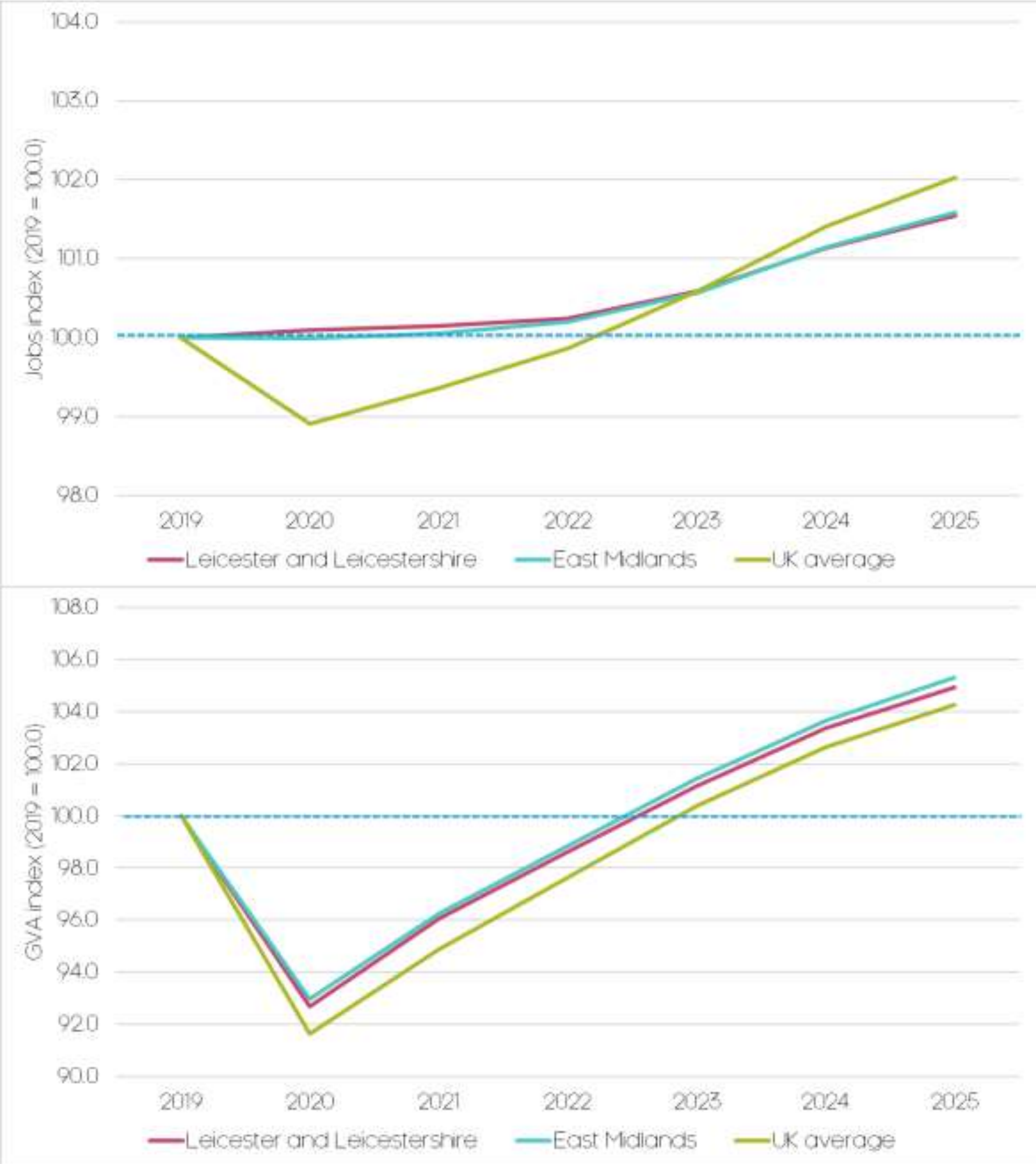
3.4 Forecast sector growth and performance

Forecast overview

Updated forecasts produced by CE (March 2021, presented in Figure 3.4.1) incorporating the impact of the Covid-19 pandemic and the latest Brexit developments indicate a comparatively short, but unprecedented, impact to economic activity in Leicester and Leicestershire, but with a favourable outlook relative to regional and national comparators.

Boosted by the furlough scheme and related labour market support (e.g. self-employment support), alongside the desires of firms to retain staff in spite of falls in output, employment is expected to prove much more resilient than output, contracting by only 1% across the UK.

Figure 3.4.1: Forecast jobs (top) and GVA (bottom) impact and recovery from the Covid-19 pandemic, 2019-25



Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

In fact, within Leicester and Leicestershire, net job losses could be negligible compared to the national average. This does however mask the scale of furlough support, which has ensured people have remained in employment, even if not working – at June 2021, 193,000 jobs had been furloughed in Leicester and Leicestershire.

However, with the unwinding of furlough support (by June 2021, some 31,000 Leicester and Leicestershire jobs were still furloughed, with only 3 months of furlough support remaining), labour market uncertainty could persist into 2021, before stronger jobs growth picks up 2022-onwards with the momentum of a UK-wide recovery.

Output (i.e. GVA), meanwhile, is expected to recover quickly, albeit after a very sharp bottoming-out during a highly disrupted 2020. Given lower furlough uptake and a more resilient labour market, output could decline by 7.3% (in real terms) in Leicester and Leicestershire over 2020, significantly lower than the UK average of 8.4%.

However, this contraction is unprecedented compared to previous economic crises; after the 2008 recession, the output hit was ‘only’ 4.8% in Leicester and Leicestershire. There were however 13,500 net job losses during this time, multiples of those expected during the pandemic (which have been kept by low by extensive and proactive government support, including furlough).

Given the contrasting response of output and employment, productivity consequently undergoes a sharp drop in 2021, further exacerbating Leicester and Leicestershire’s ‘productivity puzzle’, although the recovery could be productivity-led, driven by accelerated digitisation and automation triggered by the pandemic (e.g. the shift to remote working.)

The long-term implications of the pandemic could be significant; relative to a pre-Covid trajectory, CE’s preliminary forecasts indicate that by 2030, as a legacy of the pandemic, the Leicester and Leicestershire economy could expect to have in the region of 1,600 fewer jobs, output £800 million lower, and a workforce £1,300 per annum less productive.

However, it is important to set Leicester and Leicestershire’s recovery within the wider national context; as Table 3.4.1 shows, not only is the short-run impact expected to be less pronounced in Leicester and Leicestershire (see column 1), but its recovery could match the UK average (column 2), resulting in a smaller relative ‘lost growth’ shortfall longer term (column 3.)

Table 3.4.1: GVA impact and recovery prospects in Leicester and Leicestershire relative to the UK average

	GVA impact, 2020 (relative to 2019)	GVA recovery per annum, 2021 30	GVA shortfall relative to pre COVID 19, 2030
Leicester and Leicestershire	**-7.3%**	**2.0%**	**-2.6%**
UK average	-8.4%	2.1%	-4.0%

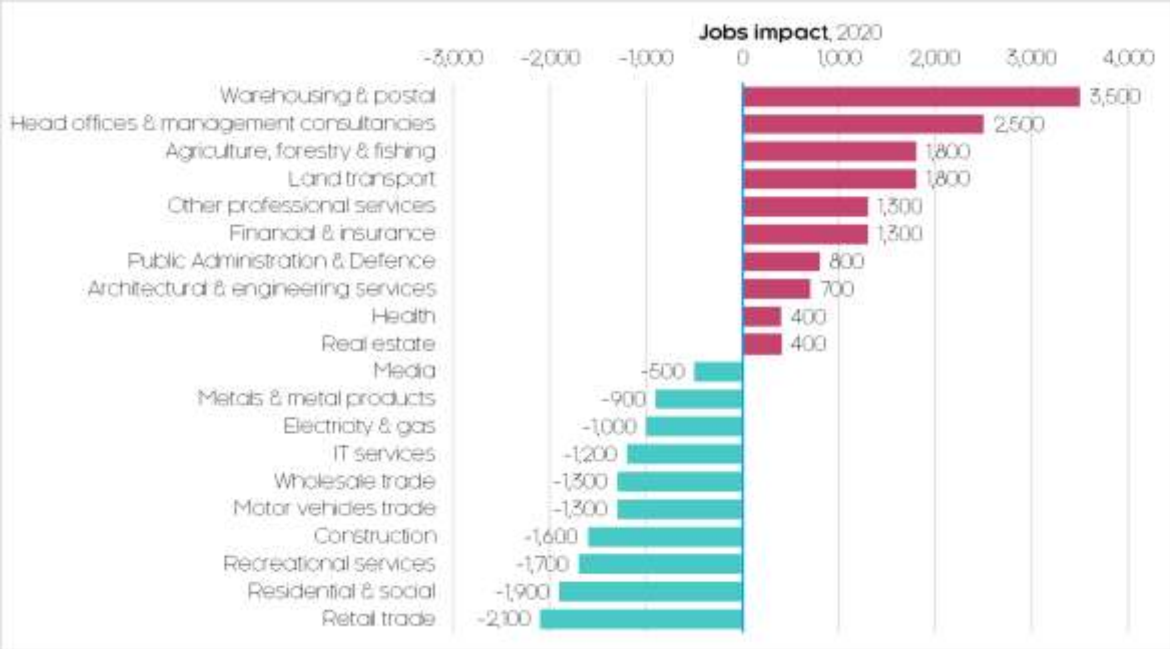
Source: ONS, Cambridge Econometrics.

Sector jobs impact

Figure 3.4.2 looks at some of the hardest hit sectors in terms of employment within Leicester and Leicestershire. Unsurprisingly, sectors that have borne the brunt of lockdown and social distancing restrictions – such as retail/wholesale trade, recreational services, and construction – are expected to see the greatest job losses locally, though significant furlough uptake softens the severity of these losses.

Somewhat surprisingly, residential and social care is also a notable feature, possibly reflecting the Brexit-induced (and Covid-accelerated) decline in the migrant care workforce, alongside a shift to essential services in the sector. Other sectors with a notable incidence of job losses locally include IT services, media and electricity & gas.

Figure 3.4.2: Forecast jobs impact by top/bottom 10 sectors in Leicester and Leicestershire, 2020



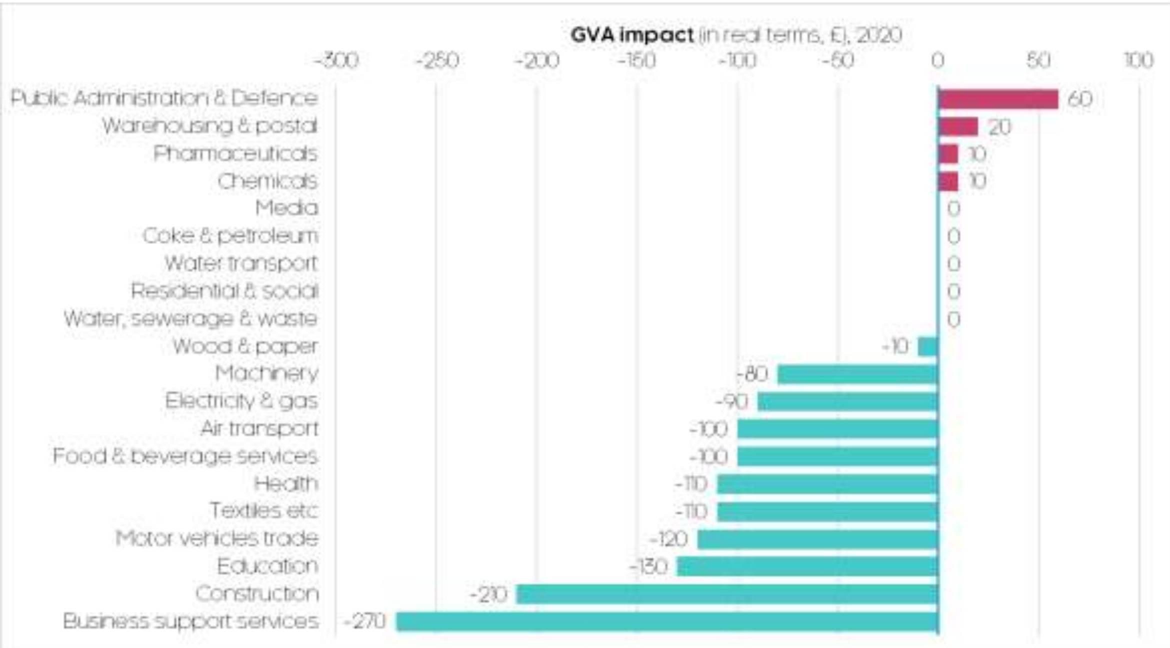
Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

Only a handful of sectors are expected to increase their workforce during 2020. For some, this reflects the pandemic-induced demand for their goods and services e.g. warehousing & postal and land transport, health and public administration, real estate and financial & insurance. For others, this could also relate to Brexit-related shortages and shifting e.g. agriculture, forestry & fishing.

Sector GVA impact

Figure 3.4.3 looks at the sectoral picture in terms of GVA. Here, the impact is much more visible, and across a wider range of sectors. Business support services are expected to see the greatest losses locally – the sector capturing a diverse range of activities disrupted by the pandemic, ranging from telesales, to cleaning services, and vehicle leasing.

Figure 3.4.3: Forecast GVA impact by top/bottom 10 sectors in Leicester and Leicestershire, 2020



Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

Construction and education are also expected to see significant GVA losses, reflecting prolonged disruption, and at times complete cessation, of activities within these sectors. Likewise, for some smaller sectors such as air transport, food & beverage services and accommodation, there could be an unprecedented output hit due to demand plummeting. GVA losses are also forecast in some manufacturing-related activities, notably textiles etc and machinery, reflecting both pandemic and Brexit-related challenges.

Table 3.4.2 sets these sector impacts within the context of the UK average. Sector growth rates during 2020 (for employment and GVA) are shaded according to whether they are expected to perform better than the UK average (green), slightly poorer than the UK average (amber), or significantly poorer than the UK average (magenta) during the pandemic.

Table 3.4.2: Jobs and GVA impact by sector in Leicester and Leicestershire (shaded relative to the UK average), 2020

	Jobs impact, 2020	GVA impact, 2020
Agriculture, forestry & fishing	36.3%	-6.8%
Mining & quarrying	0.9%	-10.4%
Food, drink & tobacco	-3.3%	-5.9%
Textiles etc	1.9%	-15.0%
Wood & paper	-1.1%	-2.0%
Printing & recording	-10.0%	-12.2%
Coke & petroleum	-22.0%	-26.4%
Chemicals	-4.8%	7.0%
Pharmaceuticals	1.7%	5.2%
Non metallic mineral products	4.0%	-3.5%
Metals & metal products	-11.0%	-9.8%
Electronics	4.6%	-3.9%
Electrical equipment	-10.1%	-7.2%
Machinery	-8.3%	-19.2%
Motor vehicles	-14.7%	-23.3%
Other transport equipment	-0.1%	-14.5%
Other manufacturing & repair	5.8%	-6.7%
Electricity & gas	-15.6%	-7.6%
Water, sewerage & waste	-6.4%	-0.7%
Construction	-4.7%	-10.6%
Motor vehicles trade	-13.2%	-22.3%
Wholesale trade	-4.6%	-5.9%
Retail trade	-4.5%	-0.6%
Land transport	16.6%	-13.9%
Water transport	16.6%	-17.5%
Air transport	-5.8%	-85.7%
Warehousing & postal	17.9%	1.8%
Accommodation	-2.8%	-53.2%

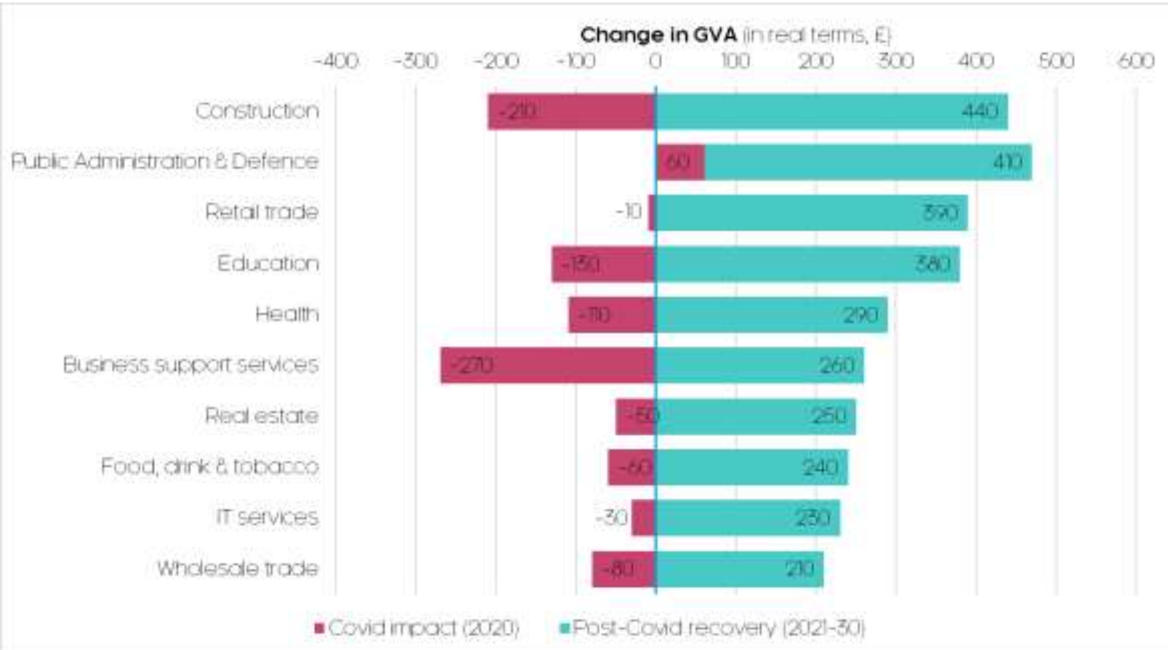
Food & beverage services	-1.3%	-21.5%
Media	-23.1%	-0.3%
IT services	-9.8%	-3.1%
Financial & insurance	11.7%	-5.9%
Real estate	5.2%	-6.4%
Legal & accounting	4.6%	-9.7%
Head offices & management consultancies	11.6%	-7.6%
Architectural & engineering services	8.4%	-5.4%
Other professional services	10.3%	-3.0%
Business support services	0.8%	-20.4%
Public Administration & Defence	3.6%	5.2%
Education	-0.3%	-6.3%
Health	1.3%	-9.0%
Residential & social	-8.7%	-0.2%
Arts	-1.8%	-12.5%
Recreational services	-16.6%	-10.2%
Other services	1.5%	-15.2%

Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

Sector recovery prospects

Once a recovery is underway, many sectors are expected to bounce back strongly, and for some the losses of 2020 could be recovered relatively quickly, as shown in Figure 3.4.4. As a whole, the Leicester and Leicestershire economy is expected to return to its pre-pandemic size by 2022.

Figure 3.4.4: Forecast jobs recovery by top 10 sectors in Leicester and Leicestershire, 2021-2030, and relative to 2020 impact



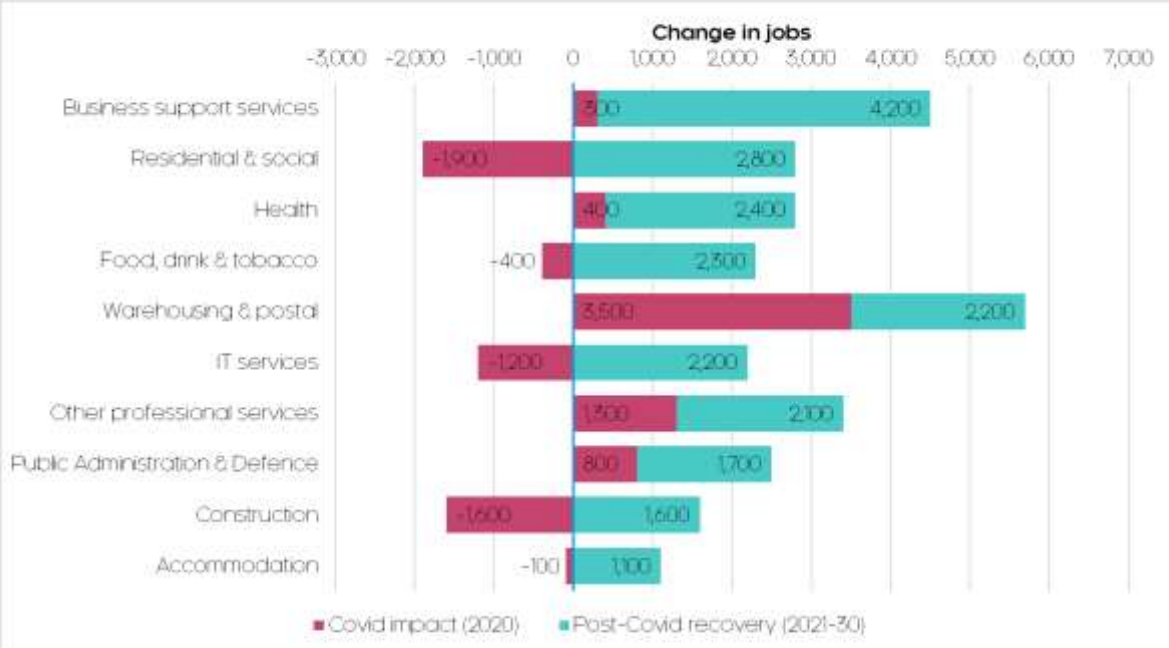
Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

Construction is expected to be the leading growth generator post-Covid, with education and business support services also expected to recover strongly.

Public administration, retail and IT services are also forecast to kick on and deliver substantial growth after proving resilient during the pandemic, with the potential for pandemic-induced boosts to productivity.

In terms of jobs, the recovery is expected to be steadier due to the relative resilience of the labour market (given furlough etc..) Uncertainty around migrant workers may also subdue the pace of hiring in some sectors. As Figure 3.4.5 shows, business support services, residential & social, and health are expected to be the leading job creators post-Covid.

Figure 3.4.5: Forecast GVA recovery by top 10 sectors in Leicester and Leicestershire, 2021-2030, and relative to 2020 impact



Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

Job opportunities are also expected in value added sectors such as IT services, and other professional services. And as before Covid, there is expected to be a continued decline Leicester and Leicestershire's manufacturing workforce. This could be accelerated given the shift to automation and digitisation as a result of the pandemic, though this will help to drive productivity (and GVA) growth in the sector.

Table 3.4.3 sets these sector recoveries within the context of the UK average. Sector growth rates (per annum, for employment and GVA) are shaded according to whether they are expected to perform better than the UK average (green), slightly poorer than the UK average (amber), or significantly poorer than the UK average (magenta) during the recovery from the pandemic.

Table 3.4.3: Jobs and GVA recovery by sector in Leicester and Leicestershire (shaded relative to the UK average), 2021-30

	Jobs recovery growth per annum, 2021 30	GVA recovery growth per annum, 2021 30
Agriculture, forestry & fishing	-0.2%	0.8%
Mining & quarrying	-2.0%	-3.7%
Food, drink & tobacco	1.6%	2.4%
Textiles etc	-2.0%	0.6%

Wood & paper	-1.0%	0.9%
Printing & recording	-1.8%	-0.2%
Coke & petroleum	-4.3%	-4.0%
Chemicals	0.7%	3.4%
Pharmaceuticals	-1.3%	0.4%
Non metallic mineral products	-2.0%	0.5%
Metals & metal products	-1.4%	1.0%
Electronics	-2.3%	1.6%
Electrical equipment	-1.1%	2.2%
Machinery	-0.6%	3.3%
Motor vehicles	0.8%	2.6%
Other transport equipment	-1.2%	0.8%
Other manufacturing & repair	-0.5%	1.1%
Electricity & gas	-0.1%	1.1%
Water, sewerage & waste	0.7%	0.7%
Construction	0.5%	2.3%
Motor vehicles trade	0.8%	1.8%
Wholesale trade	0.3%	1.6%
Retail trade	0.2%	2.6%
Land transport	-0.3%	1.5%
Water transport	-1.4%	0.7%
Air transport	3.1%	26.4%
Warehousing & postal	0.9%	1.9%
Accommodation	2.2%	6.8%
Food & beverage services	0.0%	2.9%
Media	-0.1%	0.1%
IT services	1.8%	2.2%
Financial & insurance	-0.4%	1.3%
Real estate	-0.1%	2.9%
Legal & accounting	0.8%	1.6%
Head offices & management consultancies	0.4%	1.0%
Architectural & engineering services	0.2%	1.3%
Other professional services	1.4%	1.0%
Business support services	0.9%	2.2%
Public Administration & Defence	0.7%	3.1%
Education	-0.1%	1.8%
Health	0.7%	2.4%
Residential & social	1.3%	2.9%
Arts	-2.5%	0.9%
Recreational services	-0.1%	1.4%
Other services	-0.7%	2.1%

Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

4 Sectors of interest in Leicester and Leicestershire

4.1 Introduction

This section presents additional detail on sectors of interest in Leicester and Leicestershire. It draws on a bottom-up approach to segment and more accurately profile the scale and breath of local sectoral strengths and growth potential. It provides an overview of recent growth and performance, before considering the possible impacts of Covid-19 and Brexit (amongst other macroeconomic trends), and the prospects for longer term growth.

4.2 Sectors of interest and their specialisms in Leicester and Leicestershire

Local policy plans and strategies, including the Leicester and Leicestershire Local Industrial Strategy (LIS), Sector Growth Plans, and Sector Skills Plans, identify and reference a number of priority sectors for the area. In order to accurately capture their breadth and impact, CE has undertaken bespoke modelling and analysis to formulate a 'bottom-up' approach to define these sectors of interest, to go beyond the insights afforded by official statistics.

Additional analysis of relevant local plans and strategies, and consultation with local stakeholders, has identified and grouped these 15 sectors of interest according to the following:

- **Technology and knowledge sectors – R&D excellence with commercialisation and growth potential.**
    1. Life Sciences and Biotech - 1.1 location quotient (LQ); 14,200 jobs; £850m GVA
    2. Sport and Physical Activity – 0.8 LQ; 16,900 jobs; £570m GVA
    3. Aerospace and Satellite Technology – 0.5 LQ; 4,300 jobs; £430m GVA
    4. Advanced Manufacturing and Engineering – 1.4 LQ; 81,300 jobs; £5,200m GVA

- **Successful industry specialisms - and that are growing or have significant growth potential:**
    5. Logistics and Distribution – 1.1 LQ; 38,000 jobs; £1,690m GVA
    6. Professional and Financial Services – 0.8 LQ; 78,900 jobs; £3,580m GVA
    7. Digital Tech and Communications – 0.7 LQ; 17,800 jobs; £1,250m GVA

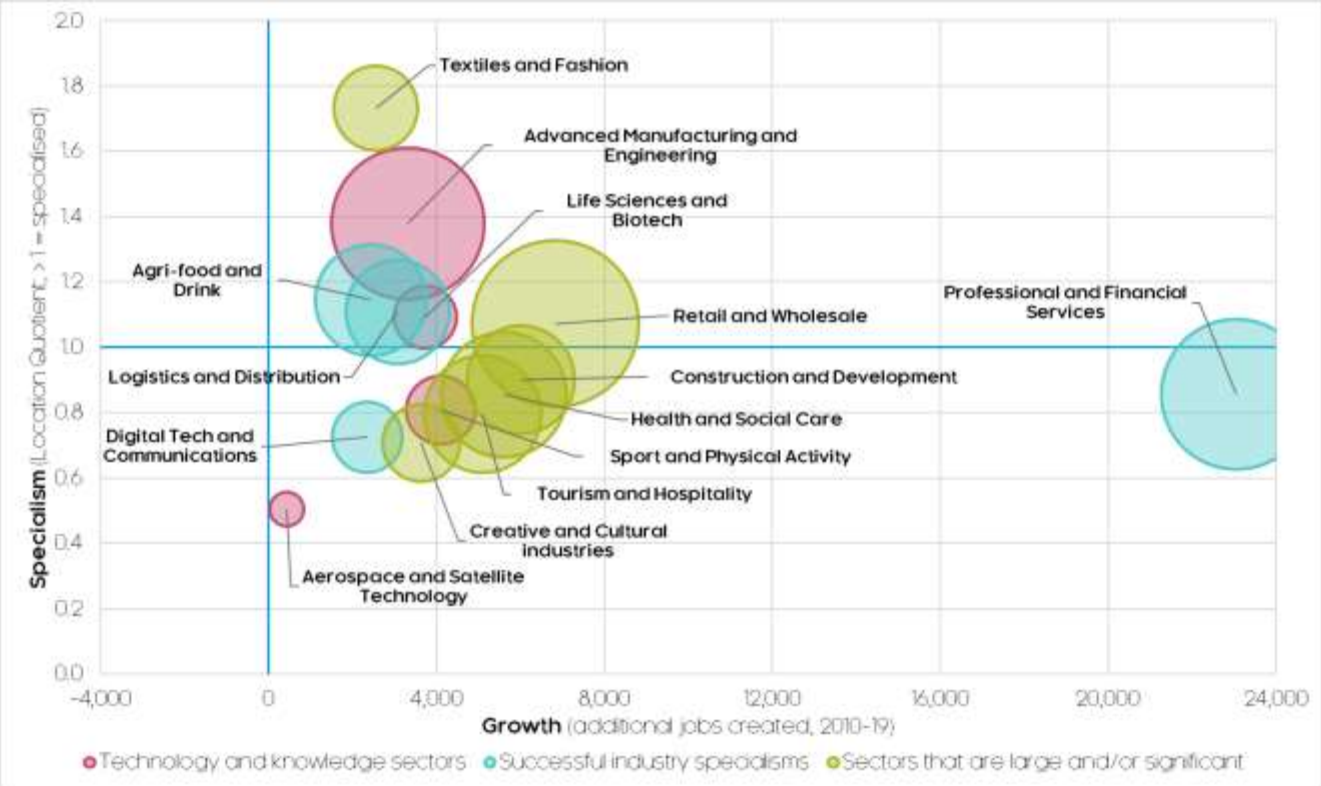
8. Low Carbon[14]
9. Agri-food and Drink – 1.1 LQ; 43,900 jobs; £1,840m GVA

- **Sectors that are large and/or significant - and need to be monitored:**

10. Retail and Wholesale – 1.1 LQ; 97,000 jobs; £3,600m GVA
11. Tourism and Hospitality – 0.8 LQ; 48,300 jobs; £1,240m GVA
12. Health and Social Care – 0.9 LQ; 55,500 jobs; £1,810m GVA
13. Creative and Cultural industries – 0.7 LQ; 38,000 jobs; £1,690m GVA
14. Textiles and Fashion – 1.8 LQ; 25,200 jobs; £1,180m GVA
15. Construction and Development – 0.9 LQ; 40,800 jobs; £2,420m GVA

Figure 4.2.1 provides an overview of these sectors of interest, looking at their relative specialisation and recent growth performance (measured in jobs terms) within Leicester and Leicestershire.

Figure 4.2.1: Growth and specialism of Leicester and Leicestershire's sectors of interest



Source: ONS, Cambridge Econometrics.

High specialisation is evident across the majority of sectors, led by manufacturing-related activities such as textiles and fashion, advanced

[14] Low carbon cannot be easily defined using SIC-based statistics. Instead, data from the Low Carbon Environmental Goods and Services Market Snapshot by the Midlands Energy Hub has been used. This means data on the low carbon sector should not directly compared with other SIC-derived sectors.

manufacturing and engineering, agri-food and drink, and life sciences and biotech.

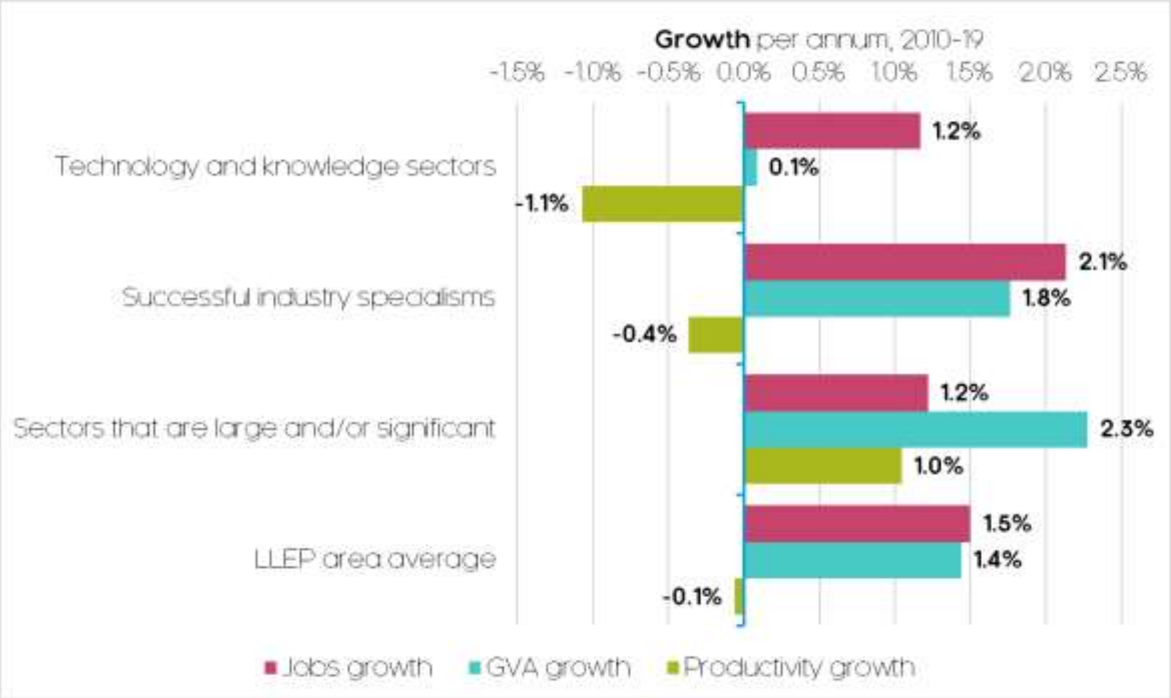
Notably, all of the priority sectors have exhibited significant jobs growth over the past decade (preceding the Covid-19 pandemic), often at rates exceeding the economy average. Service-led activities, such as professional and financial services, retail and wholesale, and health and social care have been at the forefront of this jobs boom.

Within sector segmentation and analysis also reveals further, growing specialisms related to these priority sectors, that are evolving into significant activities in their own right (e.g. automotive within advanced manufacturing and engineering.) These have been summarised for each sector in the more detailed sector profiles accompanying this report.

4.3 Pre-Covid sector growth and performance

Figure 4.3.1 summaries the pre-Covid performance of these sectors of interest, and compares this relative to the LLEP area average. In terms of employment growth, all sector groupings have performed strongly, but Leicestershire's successful industry specialisms have led the way, delivering 30,900 additional jobs between them.

Figure 4.3.1: Jobs, GVA and productivity performance of sectors of interest in Leicester and Leicestershire, 2010-19



Source: ONS, Cambridge Econometrics.

GVA growth meanwhile has been underpinned by Leicestershire's large and/or significant sectors. This buoyant growth has been driven by both robust job creation in these sectors and strong productivity growth (in contrast to the LLEP area average, where productivity growth has been negative.)

Leicestershire's technology and knowledge sectors, despite creating a combined 11,600 additional jobs – many of which are good, highly-skilled roles - has experienced negligible GVA growth due to disappointing productivity growth, which has been some 11x slower than the LLEP area average.

The pre-Covid performance of Leicester and Leicestershire's sectors of interest are summarised in more detail - on a sector-by-sector basis – below. These have been drawn from the more detailed sector profiles accompanying this report.

Life Sciences and Biotech

Worth £900m and accounting for 14,200 high-value jobs, Leicester and Leicestershire hosts a unique, fast-growing and research-intensive life sciences and biotech cluster.

Recent growth has been employment-led, with 3,700 additional jobs created since 2010, at a significantly faster rate (3.5% p.a.) than the UK average (2.8% p.a.). Accompanying productivity growth however has been subdued, contracting by 2% p.a. (4 times slower than the UK average), pulling down headline GVA growth (only +£90m).

Resultantly, this has widened the productivity gap for the sector relative to the UK average, which now stands at over 10% – at the start of the decade, sectoral productivity in the LLEP area had been in line with the UK average. The sector is still some two-fifths more productive than the LLEP average though.

The sector comprises of almost 1,000 local businesses, of which more three-quarters are 'micro'-sized (employing <9 people). Showing strong entrepreneurial activity, an additional 340 businesses have been created in the sector since 2010 – an increase of more than 50%.

Sport and Physical Activity

Worth £600m and accounting for 16,900 jobs Leicester and Leicestershire is home to a vibrant and fast-growing sports and physical activity sector, with research-driven expertise, and globally recognised sports teams, athletes and facilities.

Recent growth has buoyant, with the sector creating 4,100 additional jobs since 2010, driving GVA growth of £190m, both at rates in excess of the UK sector average, with GVA growth (averaging 4.5% p.a. since 2010) the fastest of any sector in Leicester and Leicestershire.

Productivity growth in the sector has also outpaced the UK average since 2010, improving 4 times faster. Despite this, local activity is still some 15% less productive than the UK sector average, though the gap is closing.

The sector is comprised of over 1,000 local businesses, of which some 84% are 'micro'-sized (employing <9 people). Showing strong entrepreneurial activity, an additional 415 businesses have been created in the sector since 2010 – an increase of more than 50%.

Aerospace and Satellite Technology

Worth £430m and accounting for 4,300 high-value jobs, Leicester and Leicestershire hosts the fifth fastest growing aerospace and satellite technology cluster in the country (ranked out of 38 LEP areas).

Recent growth has been strong, and has outpaced the UK sector average, with 400 additional jobs created since 2010. Accompanying productivity growth however has been subdued, contracting by 0.6% p.a., pulling down headline GVA growth (only +£21m).

Productivity in the sector is very high, almost 2.5 times the economy average, and the highest of all sectors in Leicester and Leicestershire. Highlighting the strength of the sector locally, productivity performance exceeds the UK sector average by more than 10%.

The sector comprises some 135 local businesses, the majority of which (some 81%) are 'micro'-sized (employing <9 people).

Advanced Manufacturing and Engineering

Worth £5.2bn and accounting for 81,300 high-value jobs, Leicester and Leicestershire has the 7th highest specialism in advanced manufacturing and engineering in England (ranked by location quotient out of 38 LEP areas).

Recent growth has been employment-led, with 3,300 additional jobs created since 2010. Accompanying productivity growth however has been subdued, contracting by 1% p.a. (2.5 times slower than the UK average), pulling down headline GVA growth (-£240m).

Resultantly, productivity in the sector has dropped 8% below the UK average. At the start of the decade, sectoral productivity in the LLEP area had been in line with the UK average. This gap is estimated to be costing the sector some £400m of potential growth.

The sector comprises over 5,000 local businesses, of which three-quarters are 'micro'-sized (employing <9 people). An additional 520 manufacturing businesses have been established since 2010.

Logistics and Distribution

Worth £1.7bn and accounting for 38,000 jobs Leicester and Leicestershire is home to a large and multi-modal logistics and distribution sector, with a number of emerging specialisms and strong growth potential.

Recent growth has been buoyant, with the sector creating 3,100 additional jobs since 2010, driving GVA growth of £240m. Equivalent to an increase of 1.9% p.a., growth in the sector is currently exceeding the LLEP economy average (1.4% p.a.).

Productivity is also fast improving, outpacing the UK average since 2010. This has seen the sector make rapid progress in closing the productivity gap with the national average in Leicestershire, down from 20% a decade ago to some 5% currently.

The sector is comprised of almost 4,000 local businesses, of which 89% are 'micro'-sized (employing <9 people). Showing strong entrepreneurial activity, an additional 1,390 businesses have been created since 2010 – an increase of more than 50%.

Professional and Financial Services

Worth £3.6bn and accounting for 78,900 jobs, Leicester and Leicestershire is home to a large and increasing professional and financial services presence, with the 3rd fastest growing professional workforce in the country (ranked out of 38 LEP areas).

Recent growth has been employment-led, with a substantial 20,800 additional jobs created since 2010 - over 3 times that of any other sector - driving £600m of GVA growth. Accompanying productivity growth however has been subdued, and in contrast to the UK average has contracted by 1.8% p.a. over this time.

This has further widened the sectors historical productivity gap relative to the UK average, which now stands at almost 40%, meaning professional and financial activity in the LLEP area is almost half as productive than elsewhere in the country. If this gap was closed, the sector could be some £2bn larger.

The sector is comprised of almost 13,000 local businesses, with the overwhelming majority (94%) ‘micro’-sized (employing <9 people). High entrepreneurial activity has seen the creation of 4,290 additional businesses since 2010, with the sector accounting for almost half of new businesses in the LLEP area.

Digital Tech and Communications

Worth £1.3bn and accounting for 17,800 high-value jobs Leicester and Leicestershire is home to a small but vibrant digital tech and communications sector, with significant entrepreneurial and start-up activity.

The sector is fast growing, with 1,000 surviving start-ups supporting the creation of 2,400 additional jobs since 2010. This has enabled £330m of accompanying GVA growth, equivalent to growth of 3.4% p.a., faster than the UK sector average (3.3%).

Productivity is also fast improving, outpacing the UK average since 2010. This is from a low base though, with local activity some 20% less productive than the UK sector average. The sector is still some two-thirds more productive than the LLEP average though.

The sector is underpinned by over 3,200 local businesses, of which the overwhelming majority (93%) are ‘micro’-sized (employing <9 people), highlighting the start-up-driven nature of the sector locally.

Low Carbon

Leicester and Leicestershire’s Low Carbon and Environmental Goods and Services (LCEGS) sector is worth £2.8bn in sales, according to the Low Carbon Environmental Goods and Services Market Snapshot published by the Midlands Energy Hub in December 2020.

The sector has grown year on year in Leicester and Leicestershire, though at a slower rate than the national average. In 2017/18 total sales in the sector were worth £2.5bn and reached £2.8bn in 2019/20, equivalent to sales growth of 8.7%. This was a slower increase than the UK average (18.1%), though the report acknowledges London’s performance distorts this average.

The sector employs an estimated 21,400 people locally, up from 20,100 in 2017/18. Equivalent to an 6.6% rate of employment growth, this was slower than the UK average for the same period (16.7%, though the above caveat regarding London also applies for employment).

There are 1,020 local companies active in the sector, up from 980 in 2017/18. Activity in the sector within Leicester and Leicestershire is made up by the following proportions: Renewable Energy 41%, Low Carbon 37%, and Environmental 22%.

Agri-food and Drink

Worth £1.8bn and accounting for 43,900 jobs, Leicester and Leicestershire is home to a large and historically significant agri-food and drink sector, with some clear and long-established areas of expertise and comparative advantage.

Recent growth has been employment-led, with 2,400 additional jobs created since 2010, at a significantly faster rate (0.6% p.a.) than the UK average (0.1% p.a.). Accompanying productivity growth however has been subdued, contracting by 0.3% p.a. (in contrast to the UK average of 1.8% p.a. growth), pulling down headline GVA growth (only +£50m).

The sector remains some 8% more productive in Leicester and Leicestershire than the UK average, however, highlighting the strength and expertise of the sector locally, though this was down on a decade ago, where local activity was some 20% more productive.

The sector is comprised of almost 4,000 local businesses, of which 86% are 'micro'-sized (employing <9 people). An additional 495 agri-food and drink businesses have been established in the LLEP area since 2010.

Retail and Wholesale

Worth £3.6bn and accounting for a substantial 97,000 jobs, Leicester and Leicestershire supports a large and fast-growing retail and wholesale sector, with a diverse and well-balanced profile.

Recent performance has been positive, with 6,500 additional jobs created since 2010, driving GVA growth of almost £1bn - the most of any sector. Equivalent to an increase of 3.0% p.a., growth in the sector is currently exceeding than the UK sector average (2.1%).

Productivity growth in the sector has also outpaced the UK average since 2010 and is improving faster than any other sector in Leicestershire. Despite this, local activity is still some 10% less productive than the UK sector average.

The sector comprises of over 10,000 local businesses, of which some 83% are 'micro'-sized (employing <9 people). With high rates of enterprise and business churn, an additional 780 retail and wholesale businesses have been established since 2010.

Tourism and Hospitality

Worth £1.2bn and accounting for 48,300 jobs, Leicester and Leicestershire is home to a large and growing tourism and hospitality sector, which hosts a unique and increasingly recognised visitor offer.

Recent growth has been employment-led, with 5,100 additional jobs created since 2010. Accompanying productivity growth however has been subdued, contracting by 0.6% p.a. (3 times slower than the UK average), pulling down headline GVA growth (only +£70m).

Resultantly, productivity in the sector has dropped some 20% below the UK average, reaffirming the sectors long standing productivity gap relative to elsewhere in the country. If this gap was closed, the sector could be some £260m larger.

The sector is underpinned by over 4,400 local businesses, of which three-quarters are 'micro'-sized (employing <9 people). With high rates of enterprise and business churn, an additional 850 tourism and hospitality businesses have been established since 2010.

Health and Social Care

Worth £1.8bn and accounting for 55,500 jobs, health and social care is a large and increasingly important sector for Leicester and Leicestershire, given the need to manage and oversee a fast growing and aging population.

To cope with this increased demand, recent growth in the sector has been strong, with 5,600 additional jobs created since 2010, supporting £70m of GVA growth. Productivity remains in line with the UK average, but has shown limited signs of improvement over recent years despite increased demand.

The sector is underpinned by over 2,000 local businesses, of which some three-quarters are 'micro'-sized (employing <9 people). An additional 525 health and social care businesses have been established since 2010.

Creative and Cultural industries

Worth £700m and accounting for 21,300 jobs, Leicester and Leicestershire is home to a diverse and vibrant cluster of creative, cultural and artistic industries, with extensive overlap and links to other local strengths and assets, such as digital tech, textiles and fashion, and tourism.

Recent growth has been employment-led, with 3,600 additional jobs created since 2010. Accompanying productivity growth however has been subdued, and in contrast to the UK average has contracted by 1.1% p.a. over this time.

This has further widened the sectors historical productivity gap relative to the UK average, which now stands at almost 40%, meaning creative and cultural activity in the LLEP area is almost half as productive than elsewhere in the country. If this gap was closed, the sector could be some £400m larger.

The sector is comprised of over 2,500 local businesses, of which the overwhelming majority (88%) are 'micro'-sized (employing <9 people). An entrepreneurial sector, some 540 additional cultural and creative businesses have been established since 2010.

Textiles and Fashion

Worth £1.2bn and accounting for 25,200 jobs, Leicester and Leicestershire is the UK's 4th largest textiles and fashion cluster (outside of London), and the most specialised in the country (ranked out of 38 LEP areas).

Recent growth has been buoyant, with the sector creating 2,600 additional jobs since 2010, driving GVA growth of £270m, both at rates in excess of the UK sector average, and compared to peers only in London is the sector growing faster.

Productivity growth in the sector has also outpaced the UK average since 2010, with local activity now some 20% more productive than the UK sector average, highlighting the strength and expertise of the sector locally.

The sector comprises of over 2,000 local businesses, of which three-quarters are 'micro'-sized (employing <9 people). An additional 120 textiles and fashion businesses have been established since 2010.

Construction and Development

Worth £2.4bn and accounting for 40,800 jobs, Leicester and Leicestershire's strong economy and attractive location for development has supported a large and successful construction and development sector**.**

Recent growth has buoyant, with the sector creating 6,000 additional jobs since 2010, driving GVA growth of £710m. Equivalent to an increase of 3.9% p.a., growth is currently exceeding the UK sector average (2.4% p.a.), and amongst the fastest of all sectors.

Productivity is also fast improving, growing by almost twice the UK average since 2010. This has seen the sector close the productivity gap with the national average in Leicestershire, which stood at 15% less than a decade ago.

The sector is underpinned by almost 6,000 local businesses, of which 92% are 'micro'-sized (employing <9 people), reflecting the high levels of self-employment and sole proprietorship in the sector. With high rates of enterprise and business churn, an additional 990 businesses have been created in the sector since 2010.

4.4 Forecast sector growth and performance

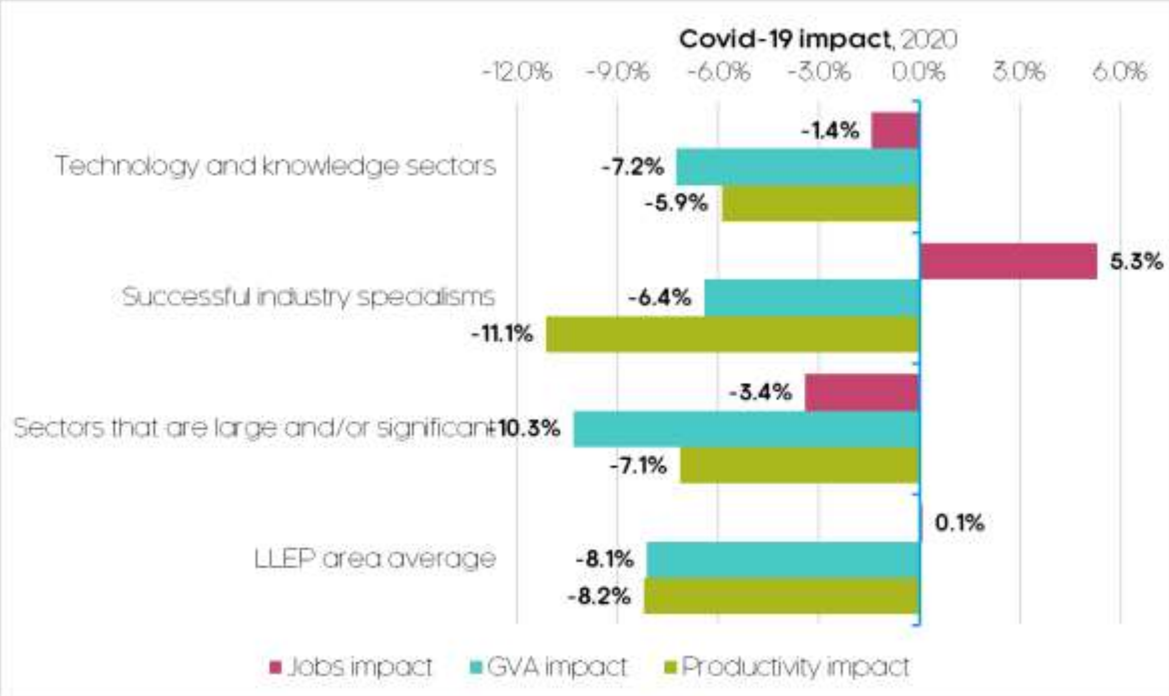
The Covid-19 pandemic, as well as ongoing Brexit developments, are expected to have a substantial and sustained impact on sectors of interest in Leicester and Leicestershire during 2020, as Figure 4.4.1 demonstrates.

Though the Leicestershire labour market is expected to prove resilient overall, job losses will likely be highly concentrated in large and/or significant sectors, with 9,900 permanent job losses in this grouping which is dominated by vulnerable activities including tourism and hospitality, retail, creative and cultural, and construction.

In contrast, Leicestershire's successful industry specialisms are expected to build on their pre-Covid performance and prove resilient to the fallout of the pandemic, with this grouping including a number of essential services and activities largely immune to lockdowns and restrictions (e.g. agri-food, logistics, professional services, digital etc.)

The picture for GVA is subtly different, given the role of furloughed persons (whom, though technically employed, are not producing output.) Most sectors will see a sharp and sudden contraction in GVA and will again be most severe within Leicestershire's large and/or significant sectors, with losses exceeding £1 billion (twice the contraction of technology and knowledge sectors.)

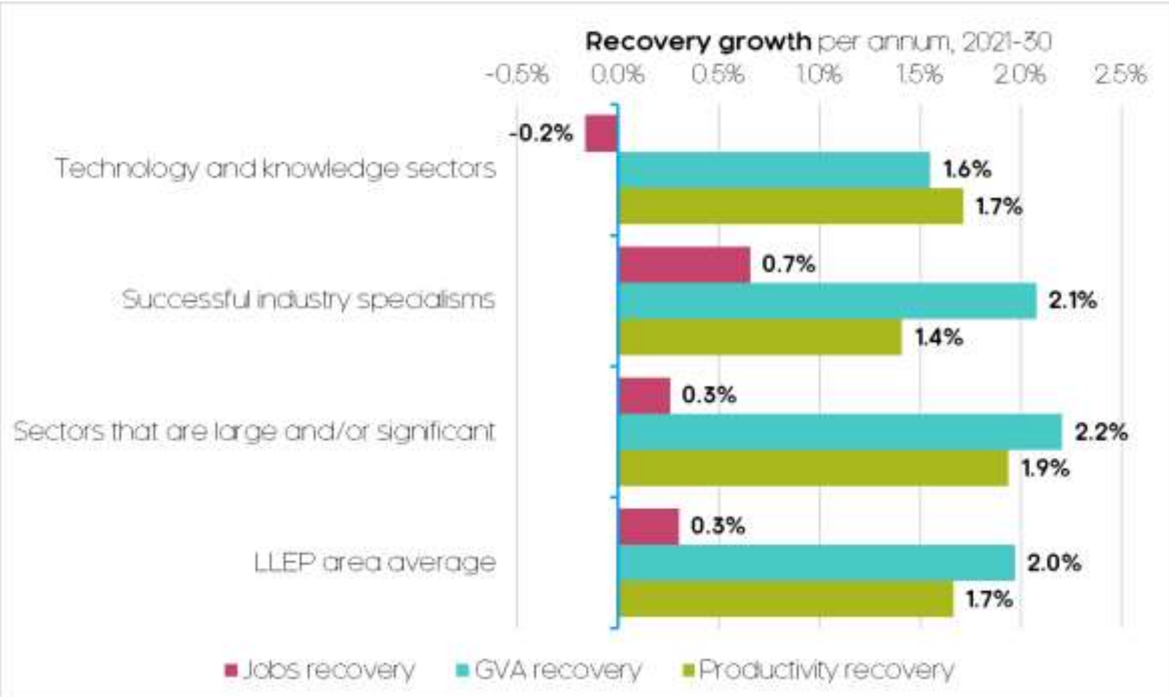
Figure 4.4.1: Forecast jobs, GVA and productivity performance of sectors of interest in Leicester and Leicestershire, 2020



Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

However, as Figure 4.4.2 shows, once a recovery is underway, many of these sectors of interest are expected to rebound strongly. Leicestershire's successful industry specialisms are expected to build on their pandemic resilience and be the fastest job creator during the recovery, with a potential 12,700 additional jobs by 2030.

Figure 4.4.2: Forecast jobs, GVA and productivity performance of sectors of interest in Leicester and Leicestershire, 2021-30



Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

In contrast, Leicestershire's technology and knowledge sectors are expected to see a decline in their workforce, largely a result of automation, digitisation and outsourcing, which could be accelerated post-pandemic. This has the potential to boost productivity growth though, driving robust GVA growth.

It is Leicestershire's large and/or significant sectors that are expected to lead the recovery though, growing faster and improving productivity at rates exceeding the LLEP area average, quickly rebounding to their pre-Covid trajectory.

The impact and recovery prospects from the Covid-19 pandemic for Leicester and Leicestershire's sectors of interest are summarised in more detail - on a sector-by-sector basis – below. These have been drawn from the more detailed sector profiles accompanying this report.

Life Sciences and Biotech

As a result of the Covid-19 pandemic and the associated public health challenge, demand is expected to increase and remain high as the sector leads the global pursuit for a swift and successful resolution to the virus.

With the sector operating largely uninterrupted even during strict 'lockdowns', any adverse impacts are expected to be minimal - in fact, some 700 additional jobs have been created in the LLEP area to manage increased demand and the associated backlog in the sector.

Post-2020, there is the potential for further investment-derived growth to manage and oversee increased demand for health and medicinal services and research, and within other disciplines such as sports science, agri-food, the environment and low-carbon. There are also opportunities for diversification from advanced manufacturing/engineering and supply chain companies.

The sector could support the creation of an additional 1,100 highly skilled roles and drive £120m of growth, being worth a potential £1bn to the Leicester and Leicestershire economy by 2030.

Sport and Physical Activity

The sector will be amongst the most impacted by the Covid-19 pandemic, with only professional sports proceeding uninterrupted, though all activities are susceptible to limited attendance and reduced revenue streams. Resultantly, GVA is expected to contract by approximately 10% (-£60m) in 2020 – the second steepest fall in Leicester and Leicestershire (behind only the tourism and hospitality sector).

Once a recovery is underway though, the sector is expected to rebound, with a potential £100m of growth by 2030, offsetting the losses of 2020. Yet given the scale of the initial impact, and longer-term implications for some businesses and activities, it could still be 4-5 years until the sector recovers to pre-Covid levels.

Furlough and related support will dampen the employment impact, though there could still be 1,400 permanent job losses over 2020-21, which will disproportionately impact the young, low-paid and those on flexible contracts. The jobs recovery could be uncertain given skills shortages and reduced migrant labour.

Aerospace and Satellite Technology

The Covid-19 pandemic and the end of the EU transition present significant challenges for the wider aerospace and satellite technology sector. During a difficult 2020, GVA losses could total £30m locally, driven largely by reduced demand and uncertainty within the aviation sector. The contraction (6%) could be marginally less severe in Leicestershire compared to the UK average (7%).

From 2021 onwards, there is the potential for a robust recovery, with post-Covid rates of growth expected to be 3 times faster than the previous decade, driven by stronger productivity growth and higher research intensity, with a renewed focus on the importance of the UK space sector. The £80m of potential growth by 2030 will more than offset the losses of 2020.

Aerospace job opportunities in Leicester and Leicestershire are expected to increase faster than the UK average to 2030, with 200 additional roles expected in the sector by 2030. By this time, the sector could be directly worth half a billion pounds to the Leicester and Leicestershire economy.

Advanced Manufacturing and Engineering

The Covid-19 pandemic and the end of the EU transition present significant challenges but also some opportunities for the sector. During a difficult 2020, GVA losses could total £410m locally, though this will be inconsistent within the sector e.g. the market for pharmaceuticals/medicinal could be buoyant, in contrast to automotive and aerospace. The contraction could be marginally more severe in Leicestershire compared to the UK average.

From 2021 onwards, there is the potential for a robust recovery, with post-Covid rates of growth expected to be 3 times faster than the previous decade, driven by stronger productivity growth and higher research intensity, with automation and digitisation further accelerated post-pandemic. The £780m of potential growth by 2030 will more than offset the losses of 2020.

Employment is forecast to continue along its longer-term (pre-Covid/Brexit) decline, with 3,300 fewer people working in the sector by 2030. Yet given an aging workforce, reduced migrant labour and sectoral shifting, demand for employment will still be strong; UKCES expects because of such replacement demand, across the East Midlands region, approximately 53,800 manufacturing roles will need to be filled over the next 5 years.

Logistics and Distribution

Operating largely uninterrupted, even during strict 'lockdowns', adverse impacts from the Covid-19 pandemic are expected to be less severe than other sectors, though this will be inconsistent within the sector e.g. demand for air travel has been severely impacted, whilst for postal and delivery – given the rise in online shopping – it has been buoyant. The sector is expected to be much more resilient and show greater growth potential in Leicester and Leicestershire compared to the UK average.

The sector is expected to be at the forefront of the recovery, with post-Covid rates of growth (2.6% p.a.) faster than the economy average (2.0%). Productivity growth will continue to outpace the national average, with automation and digitisation further accelerated post-pandemic. The £440m of growth by 2030 will more than offset 2020's losses.

With an aging workforce, reduced migrant labour (particularly EU-based) and sectoral shifting, demand for employment will remain strong, with the potential for 2,700 additional jobs in the sector by 2030.

Professional and Financial Services

Despite recent buoyant growth, the sector is not immune to the effects of the Covid-19 pandemic, as well as the end of the EU transition period.

During a difficult 2020, GVA losses could total £200m locally, though employment is expected to remain resilient and adaptable, aided by high homeworking uptake (with the share of professional service workers working from home exceeding 70%). The sector is expected to more resilient in Leicestershire than the UK average.

A strong recovery is expected through the 2020's, with the potential for £650m of additional growth by 2030 – more than offsetting the losses of 2020. Leicestershire's professional workforce is expected to continue growing rapidly, with a potential 5,000 additional roles by 2030 - second only to health and social care for job opportunities during this time.

Digital Tech and Communications

The Covid-19 pandemic and the end of the EU transition present significant challenges but also some opportunities for the sector. During the pandemic, the sector is expected to be one of the most resilient within Leicester and Leicestershire, with a 3.4% (-£40m) contraction in GVA through 2020 - only life sciences and biotech has contracted less. The sector is expected to be much more resilient in in Leicestershire compared to the UK average.

The sector's resilience can be attributed to the pandemic-induced demand for innovative digital services and infrastructure e.g. around cloud computing, e-commerce, streaming, fintech, and meeting/conference services. During this time, the digital workforce has also been resilient and adaptable, aided by high homeworking uptake (with the share of digital workers working from home exceeding 80%).

This additional demand and ongoing digitisation throughout the economy could fuel a strong recovery through the 2020's, with the potential for £270m of additional growth by 2030 – more than offsetting the losses of 2020. Leicestershire's digital workforce is also expected to rebound during this time, with 2,300 additional roles by 2030.

Low Carbon

Some 4,500 'Green Recovery' jobs could be directly created in Leicester and Leicestershire by 2030 as a result of the interventions outlined in the UK Government's 'Ten Point Plan for a Green Industrial Revolution', CE analysis shows.

The plan outlines how Government will 'build back better', support green jobs, and accelerate the UK's path to net zero post-Covid. Interventions outlined in the plan will mobilise an estimated £12 billion of Government investment, and potentially 3 times as much from the private sector, to create and support up to 250,000 green jobs across the UK.

It is estimated thousands more will likely be supported indirectly within the local low carbon supply chain (due to the impacts which accrue indirectly due to investments undertaken as part of the plan).

The scale of the direct jobs impact by policy area in Leicester and Leicestershire has been estimated as follows:

- Green Finance and Innovation - 1,600 direct jobs by 2030
- Greener Buildings - 900 direct jobs by 2030
- Investing in Carbon Capture, Usage and Storage - 700 direct jobs by 2030
- Accelerating the Shift to Zero Emission Vehicles - 500 direct jobs by 2030
- Driving the Growth of Low Carbon Hydrogen - 400 direct jobs by 2030
- Protecting Our Natural Environment - 300 direct jobs by 2030
- Jet Zero and Green Ships - 100 direct jobs by 2030
- Green Public Transport, Cycling and Walking - 100 direct jobs by 2030

Agri-food and Drink

With the sector operating largely uninterrupted even during strict 'lockdowns', adverse impacts from the Covid-19 pandemic are expected to be relatively minimal – in fact, some 300 additional jobs have been created in the LLEP area to manage increased demand in the sector through 2020. Yet losses could still total £85m locally.

There is the potential for a robust recovery, with post-Covid rates of growth (2.2% p.a.) faster than the LLEP economy average (2.0%), driven by stronger productivity growth, with automation and digitisation further accelerated post-pandemic. The £430m of growth by 2030 will more than offset 2020's losses.

With an aging workforce, reduced migrant labour (particularly EU-based) and sectoral shifting, demand for employment will remain strong, with the potential for 2,300 additional jobs in the sector by 2030, particularly in sales and support service functions.

Retail and Wholesale

The Covid-19 pandemic has presented significant challenges but also some opportunities for the sector. During a difficult and interrupted 2020, GVA losses could total £270m locally, though this will be inconsistent within the sector; the Centre for Cities notes some retail, such as food and essential retail, and new leisure activities (e.g. computer games, gardening, children's toys) have actually seen higher demand during the pandemic, whilst activities with a high online presence have also been more resilient.

Despite this, the impact is expected to be more severe in Leicestershire than the UK average, partly attributable to the additional lockdown restrictions imposed on the city of Leicester, the LLEP areas largest retail centre.

There is the potential for a robust recovery, however, with post-Covid rates of growth in the sector locally (2.1% per annum) expected to rebound faster than the UK sector average (1.8%). The £750m of potential growth by 2030 will more than offset the losses of 2020.

Furlough and related support will dampen the employment impact, though there could still be 4,600 permanent job losses over 2020-21, which will disproportionately impact the young, low-paid and those on flexible contracts, whilst the jobs recovery could be uncertain given skills shortages (compounded by retention and attraction challenges) and reduced migrant labour.

Tourism and Hospitality

The sector has been amongst the most impacted by 'lockdowns' and social distancing restrictions during the Covid-19 pandemic. Resultantly, GVA is expected to contract more than any other sector in Leicestershire - by approximately 25% (equating to losses of -£310m) through 2020. This contraction is however less severe than the UK average, despite the additional lockdown restrictions imposed on the city of Leicester.

Once a recovery is underway though, the tourism and hospitality sector has the potential to rebound with £390m of growth by 2030, aided by a staycation boom and pent-up consumer demand. In fact, growth throughout the 2020's (3.7% p.a.) is expected to be the fastest of any sector, and almost twice the economy average (2.1% p.a.). Yet given the scale of the initial impact, it could still be 6-7 years until the sector recovers to pre-Covid levels.

Furlough and related support will dampen the employment impact, though there could still be 1,500 permanent job losses over 2020-21, which will disproportionately impact the young, low-paid and those on flexible contracts. Despite high demand from employers post-pandemic, the jobs recovery could be uncertain given skills shortages (compounded by retention and attraction challenges) and reduced migrant labour.

Health and Social Care

As a result of the Covid-19 pandemic and the associated public health challenge, demand is expected to increase and remain high, with the sector at the forefront of the response to the virus, including testing, treatment and vaccine deployment.

An essential service operating uninterrupted even during strict 'lockdowns', any adverse impacts are expected to be minimal. However, the sector is expected somewhat less resilient in Leicester and Leicestershire than elsewhere in the country, possibly reflecting local uncertainty in non-essential health and care services.

Post-2020, there is the potential for higher levels of investment-derived growth to manage and oversee increased demand, given a fast growing and aging population, as well as a need to manage the large demand backlog from the pandemic (with a number of treatments delayed during 2020).

By 2030, the sector could support the creation of an additional 5,200 roles locally – more than any other sector in Leicester and Leicestershire, emphasising the substantial recruitment needs in the sector. By this time, it is anticipated the sector will be worth almost £2.2 billion.

Creative and Cultural industries

The sector has been highly impacted by 'lockdowns' and social distancing restrictions during the Covid-19 pandemic. Resultantly, GVA is expected to contract by approximately 7% (-£50m) in 2020, though this is notably more resilient than the UK sector average (-14%).

Once a recovery is underway, the sector is expected to rebound strongly, with a potential £80m of growth by 2030, more than offsetting the losses of 2020. Yet given the scale of the initial impact, and longer-term implications for some businesses and activities, it could still be 4-5 years until the sector recovers to pre-Covid levels.

Furlough and related support will dampen the employment impact, though there could still be 1,300 permanent job losses over 2020-21, which will disproportionately impact the young, low-paid and those on flexible contracts. The jobs recovery could be uncertain given skills shortages and lower migrant labour, alongside reduced employment opportunities in traditional creative activities (e.g. TV and radio, journalism and media etc.)

Textiles and Fashion

The Covid-19 pandemic and the end of the EU transition present significant challenges for the sector. During a difficult and interrupted 2020, GVA losses could total £130m locally, though this will be inconsistent within the sector, with some businesses, particularly those depending on high online and e-commerce activity, seeing stronger demand. The disruption to activity could be marginally more severe in Leicestershire compared to the UK average.

Given an uncertain recovery, post-Covid rates of growth are expected to be slower than the previous decade, with the £120m of potential growth by 2030 unlikely to offset the losses of 2020. Employment will continue along its longer-term (pre-Covid/Brexit) decline, with 1,800 fewer people working in the sector by 2030, largely a result of automation and outsourcing.

Yet with an aging workforce, reduced migrant labour and sectoral shifting, demand for employment will still be strong. UKCES expects because of such replacement demand, across the East Midlands region approximately 4,400 textiles and clothing roles will need to be filled over the next 5 years.

Construction and Development

The Covid-19 pandemic will trigger a short and sharp contraction in the sector, given reduced demand and 'lockdown' interruptions. During a difficult 2020 – with construction activity coming to an effective halt during the spring - GVA losses could total £250m locally. This contraction is in line with the UK average, although job losses locally could be notably higher.

There is the potential for a robust recovery, given the wider economic rebound, alongside ambitious policy aspirations around housing delivery, infrastructure and commercial space in Leicestershire. The £550m of growth expected by 2030 will more than offset the losses of 2020.

Furlough and related support will dampen the employment impact, whilst the adaptable nature of the sectors labour market could see a rapid return to pre-Covid levels. Skills shortages and reduced migrant labour have the potential to put a drag on the pace of hiring and employment growth, despite potentially buoyant demand.

5 Occupational outlook for Leicester and Leicestershire

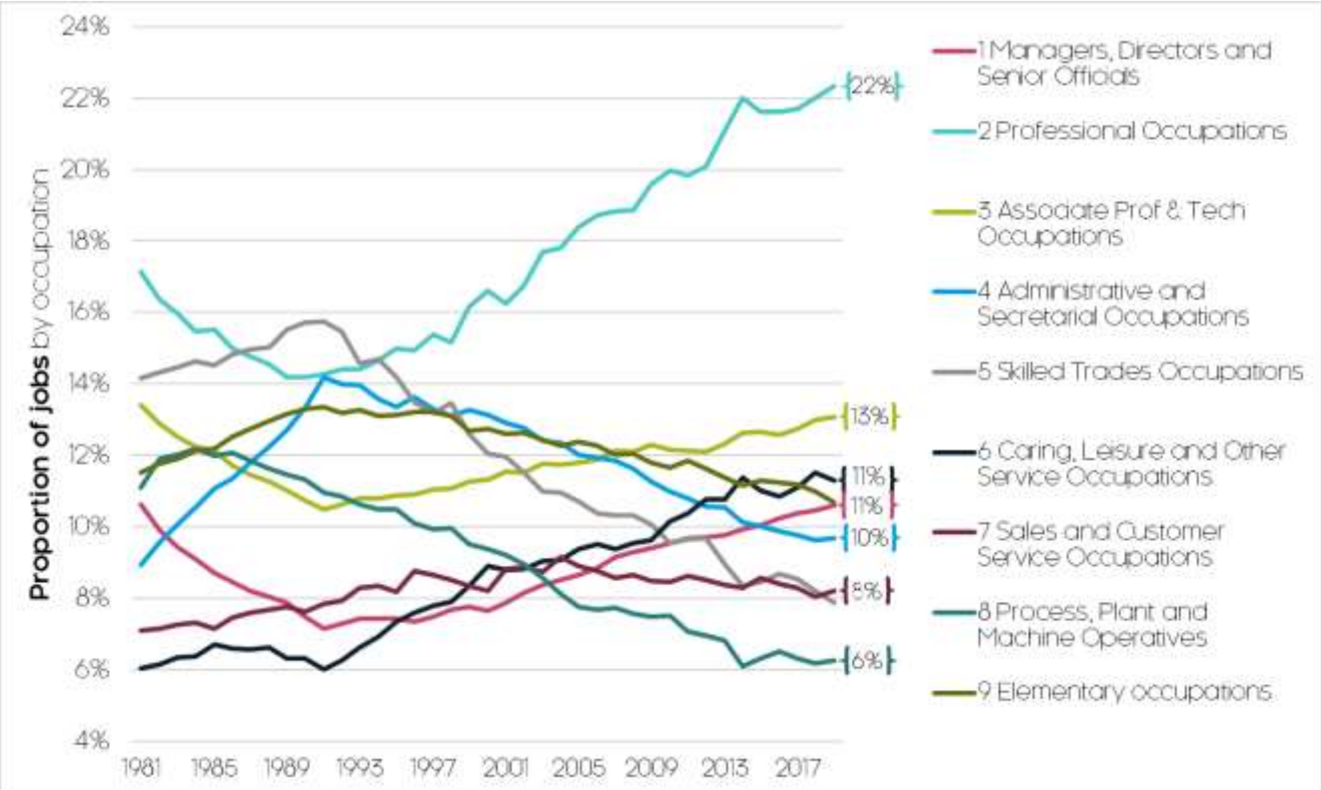
5.1 Introduction

Supplementing the sectoral analysis in this report, this section draws on CE's bespoke modelling to consider the occupational structure and outlook for the Leicester and Leicestershire labour market. It provides an overview of the type of jobs performed in Leicester and Leicestershire, how this has changed over recent years, and what the outlook is for the future. This has the been used to inform the implications for skills, explored in the following section.

5.2 Pre-Covid occupational trends

Pre-Covid, there were an estimated 550,800 jobs present within Leicester and Leicestershire. Figure 5.2.1 provides a high-level overview of the type work performed by these jobs i.e. their occupation (according to 8 major occupational groups), and how this has changed over the past 40 years - a period of rapid and fundamental change in the UK labour market.

Figure 5.2.1: Major occupational structure of the Leicester and Leicestershire labour market, 1981-2019



Source: ONS, Cambridge Econometrics. Note: shares are a proportion of jobs, not people.

Over this time, there has been a significant and sustained trend of professionalisation in the Leicester and Leicestershire labour market, with an increasing proportion of jobs concentrated in managerial, professional and associate professional occupations (groups 1, 2 and 3.) These groups have a combined workforce share of 46%.

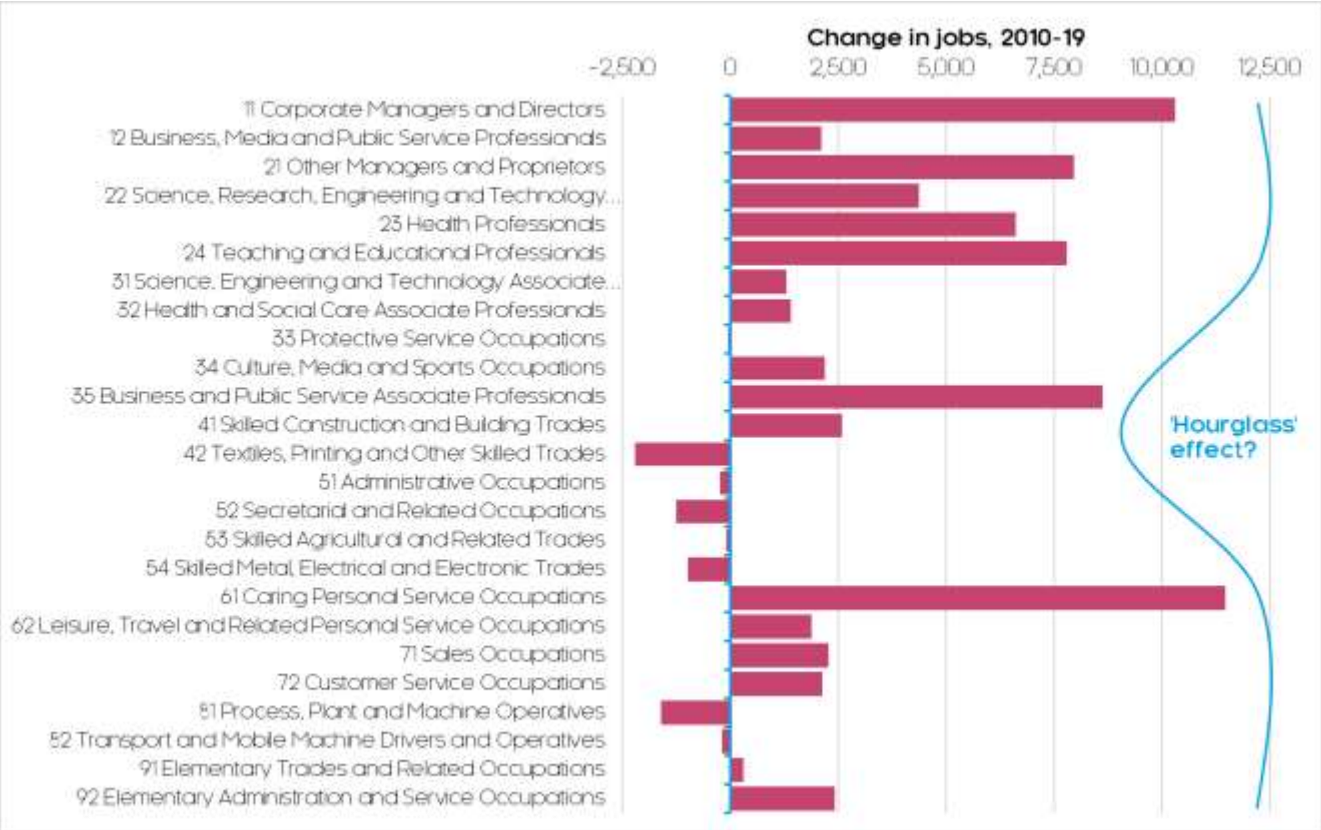
As a result of this professionalisation, there has been a notable decline in administrative and secretarial, skilled trades, and process and plant operative occupations (groups 4, 5 and 8.) In the early 1990's, these groups were the largest and fastest growing occupational groups, accounting for 4 in 10 jobs locally at the time.

This share has almost halved since, and by 2019 only 25% of workers performed such roles within Leicester and Leicestershire. This reflects the ongoing role of automation, digitisation and outsourcing in reducing the viability and need for these occupations. In more recent years, the aging (and thus retirement) of workers within these occupations has also contributed to this downward trend.

Alongside professional occupations, caring and leisure, and sales and customer service occupations (groups 6 and 7) have also become more widespread, with their combined workforce share almost doubling over the past 40 years. This reflects both a growing and aging population within Leicester and Leicestershire, and increased disposable incomes and consumption.

This high-level occupational analysis provides a summary overview of the changing structure and characteristics of the Leicester and Leicestershire labour market. Figure 5.2.2 considers these trends at a more detailed occupational level (according to 25 sub-major occupational groups.)

Figure 5.2.2: Sub-major occupational trends in the Leicester and Leicestershire labour market, 2010-19



Source: ONS, Cambridge Econometrics.

At this more detailed occupational grouping, the relative polarisation in occupational trends become more apparent, with a strong bias towards professionalisation, a decline in administrative and skilled roles, and growth in caring and leisure/customer services. Given this relative polarisation, some commentators have labelled this trend an ‘hourglass’ effect.

The effect suggests that “since the early 1990s sustained growth in high wage, analytical, non-routine jobs; an expansion of manual, lower wage jobs; and a contraction of routine, middle wage jobs has led to a ‘hollowing out’ of the labour market in developed economies. This creates an ‘hourglass’-shaped labour market.”

Though the ‘hourglass’ narrative captures some of the labour market story of the past 30 years, and critically emphasises the sustained decline in ‘middle-wage’ skilled and administrative occupations, the overriding trend has still been towards that of professionalisation; for every additional ‘manual, lower wage’ job created in Leicester and Leicestershire over the past decade, 3 additional jobs have been created in professional and managerial occupations.

By assessing the trends in Figure 5.2.1 and Figure 5.2.2 with those of the UK average , occupations can be sorted according to the following identities within Leicester and Leicestershire. The current number of jobs (in 2019) within each occupational sub-major group is also shown.

1. Occupations that are overrepresented in Leicester and Leicestershire and growing. These are occupations that are more widespread in Leicester and Leicestershire relative to the rest of the UK and have experienced strong growth over the past decade. These occupations capture areas of growing local expertise, such as science and research, higher education, digital and media, and head office and corporate functions, and include:

- Caring Personal Service Occupations - 49,200 jobs
- Corporate Managers and Directors - 42,000 jobs
- Science, Research, Engineering and Technology Professionals - 34,600 jobs
- Business, Media and Public Service Professionals - 33,000 jobs
- Teaching and Educational Professionals - 29,000 jobs
- Health Professionals - 26,500 jobs
- Sales Occupations - 35,600 jobs
- Leisure, Travel and Related Personal Service Occupations - 13,000 jobs

2. Occupations that are overrepresented, but stable or declining. These are occupations that are more widespread in Leicester and Leicestershire relative to the rest of the UK, but have seen a sustained decline in their workforce over the past decade. Such occupations are typically those most susceptible to automation, digitisation and outsourcing, and include:

- Process, Plant and Machine Operatives - 16,400 jobs

3. Occupations that are underrepresented but growing. These are occupations that are less widespread in Leicester and Leicestershire relative to the rest of the UK but have experienced strong growth over the past decade. These occupations often reflect emerging local activities and strengths, particularly consumer and public service-related, and include:

- Business and Public Service Associate Professionals - 38,100 jobs
- Administrative Occupations - 42,800 jobs
- Elementary Administration and Service Occupations - 51,600 jobs
- Culture, Media and Sports Occupations - 11,200 jobs
- Other Managers and Proprietors - 16,400 jobs
- Customer Service Occupations - 9,500 jobs
- Health and Social Care Associate Professionals - 7,800 jobs
- Science, Engineering and Technology Associate Professionals - 10,200 jobs

4. Occupations that are underrepresented, and stable or declining. These are occupations that are now less widespread in Leicester and Leicestershire relative to the rest of the UK and have seen a sustained decline in their workforce over the past decade. Often production and manufacturing-related, such occupations are those most susceptible to automation, digitisation and outsourcing, and include:

- Elementary Trades and Related Occupations - 7,300 jobs
- Skilled Construction and Building Trades - 12,500 jobs
- Protective Service Occupations - 4,700 jobs
- Transport and Mobile Machine Drivers and Operatives - 18,000 jobs
- Skilled Agricultural and Related Trades - 4,300 jobs
- Textiles, Printing and Other Skilled Trades - 10,000 jobs
- Skilled Metal, Electrical and Electronic Trades - 16,600 jobs
- Secretarial and Related Occupations - 10,500 jobs

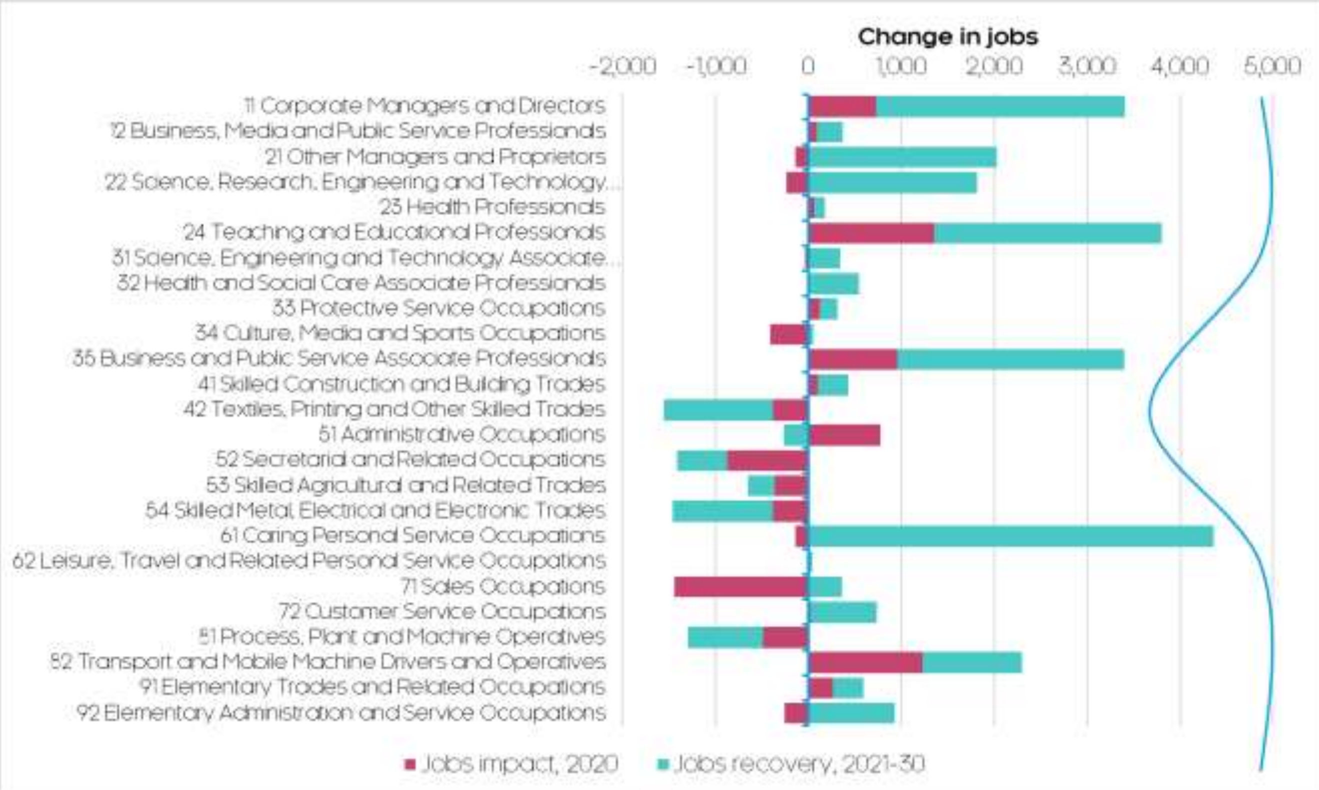
5.3 Forecast occupational trends

Analysis of CE’s forecasts in previous sections suggest the Leicester and Leicestershire labour market, aided by furlough and related support, will prove resilient during the Covid-19 pandemic, and with a favourable outlook compared to regional and national comparators.

Despite this, there is still expected to be significant labour market disruption and upheaval, and in terms of occupations, these impacts are expected to be unevenly distributed. For instance, as Figure 5.3.1 shows, 1,400 permanent job losses are expected in sales occupations during 2020, reflecting the substantial disruption to retail and wholesale industries during the pandemic.

Skilled trades occupations are also expected to be highly impacted, reflecting significant disruption to, at time times complete cessation of related activities, particularly in construction, and to a lesser extent manufacturing. Adding to this, some employers have fast-tracked automation and digitisation relating to these trades to overcome social distancing and other restrictions.

Figure 5.3.1: Forecast sub-major occupational trends, 2021-30, and relative to 2020 impact



Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

There have been some ‘winners’ in Leicester and Leicestershire as a result of the pandemic, particularly relating to those working in essential services. For instance, there could be 1,200 additional transport operatives and driver roles created during 2020, due to the surge in demand for logistics, online retail and related services.

Agricultural occupations could also see increased opportunities, to manage and oversee higher demand and plug migrant worker shortages. Some IT, media and design occupations also have the potential to expand due to increased demand for related services and infrastructure e.g. around cloud computing, e-commerce, fintech, streaming, and meeting/conference services.

Generally, professional and associate professional occupations are expected to prove highly resilient during the pandemic, aided by furlough and high homeworking uptake. Resolution Foundation analysis found less than 1 in 10 low wage, manual occupations have the option to work from home during the lockdown, compared with half of all professional occupations.

As the labour market recovers 2021-onwards, occupational trends in Leicester and Leicestershire are expected to return to their pre-Covid trajectory, with a renewed focus on professionalisation; of the 16,900 additional jobs forecast to be created locally by 2030, 12,900 will be in professional occupations.

Particularly strong growth is expected in senior and higher-level professional occupations, as employers place an increased emphasis on managerial aptitude and technical expertise. Trends including digitisation, a growing and aging population, and science and innovation can also be observed through strong demand for accompanying professional occupations.

A slight ‘hourglass effect’ is still observable, with secretarial and skilled trades set to experience an ongoing decline, with automation, digitisation and outsourcing potentially accelerated post-pandemic. In contrast, strong growth is forecast in caring, leisure, and customer service and sales occupations (the ‘bottom’ of the ‘hourglass’.)

In fact, out of all occupations in Leicester and Leicestershire, caring personal service occupations are expected create more job opportunities than any other during the recovery (4,400 additional roles by 2020.) This is attributable to a fast growing and aging population locally, as well as the need to oversee and manage the demand backlog from the pandemic.

Robust demand is expected to be maintained for transport operatives and driver occupations, as worker shortages persist due to reduced migration and an aging workforce. Some elementary roles, particularly administration and service related that cannot be easily automated, could also grow.

6 Sector, occupations and skills needs in Leicester and Leicestershire

6.1 Introduction

Building on the occupational analysis presented in the previous section, this section explores the skills structure and outlook for the Leicester and Leicestershire labour market. It provides an overview of how the type of jobs performed in Leicester and Leicestershire relate to skills needs, how this has changed over recent years, and what the outlook is for the future.

6.2 The link between occupations and skills

Jobs are classified into their respective occupational groups according to the concept of ‘skill level’ and ‘skill specialisation’. The ONS defines skill level as “the duration of training and/or work experience…required in order to perform the activities related to a job in a competent and efficient manner.” Skill specialisation is defined “as the field of knowledge required for competent, thorough and efficient conduct of the tasks.”

As a result of this skills-based approach to defining occupational groups, occupational analysis can therefore be a useful and effective tool for inferring the demand and supply of skills and qualifications in a labour market overtime. The ONS assigns sub-major occupational groups to the following skills identities (note; skills here are defined as more than just qualifications), as summarised in Table 6.2.1:

1. The **first skill level (‘Level 1’)** “equates with the competence associated with a general education, usually acquired by the time a person completes his/her compulsory education and signalled via a satisfactory set of school-leaving examination grades. Competent performance of jobs classified at this level will also involve knowledge of appropriate health and safety regulations and may require short periods of work-related training.”
2. The **second skill level (‘Level 2’)** “covers a large group of occupations, all of which require the knowledge provided via a good general education as for occupations at the first skill level, but which typically have a longer period of work-related training or work experience.”
3. The **third skill level (‘Level 3’)** “applies to occupations that normally require a body of knowledge associated with a period of post-compulsory education but not normally to degree level. A number of technical occupations fall into this category, as do a variety of trades occupations and proprietors of small businesses. In the latter case, educational qualifications at sub-degree level or a lengthy period of vocational training may not be a necessary prerequisite for competent performance of tasks, but a significant period of work experience is typical.”
4. The **fourth skill level (‘Level 4’)** “relates to what are termed ‘professional’ occupations and high-level managerial positions in

corporate enterprises or national/local government. Occupations at this level normally require a degree or equivalent period of relevant work experience"

Table 6.2.1: Sub-major occupational groups and minimum skill level requirements

Minimum Skill Level	Sub major occupational groups
Level 4	11 Corporate managers and directors 21 Science, research, engineering and technology professionals 22 Health professionals 23 Teaching and educational professionals 24 Business, media and public service professionals
Level 3	12 Other managers and proprietors 31 Science, engineering and technology associate professionals 32 Health and social care associate professionals 33 Protective service occupations 34 Culture, media and sports occupations 35 Business and public service associate professionals 51 Skilled agricultural and related trades 52 Skilled metal, electrical and electronic trades 53 Skilled construction and building trades 54 Textiles, printing and other skilled trades
Level 2	41 Administrative occupations 42 Secretarial and related occupations 61 Caring personal service occupations 62 Leisure, travel and related personal service occupations 71 Sales occupations 72 Customer service occupations 81 Process, plant and machine operatives 82 Transport and mobile machine drivers and operatives
Level 1	91 Elementary trades and related occupations 92 Elementary administration and service occupations

Source: ONS.

Table 6.2.2 below provides additional detail in terms of the general nature of the qualifications, training and experience associated with each of the 9 major occupational groups. However, the ONS acknowledge the relationship is not always precise, and emphasise that "some occupational areas in major group 3 (and even major group 4) typically have a degree-level qualification associated with current entry routes."

Table 6.2.2: General nature qualifications, training and experience for each major occupational group

Major occupational group	General nature of qualifications, training and experience
1 Managers, directors and senior officials	A significant amount of knowledge and experience of the production processes and service requirements associated with the efficient functioning of organisations and businesses.

2 Professional occupations	A degree or equivalent qualification, with some occupations requiring postgraduate qualifications and/or a formal period of experience-related training.
3 Associate professional and technical occupations	An associated high-level vocational qualification, often involving a substantial period of full-time training or further study. Some additional task-related training is usually provided through a formal period of induction.
4 Administrative and secretarial occupations	A good standard of general education. Certain occupations will require further additional vocational training to a well-defined standard (e.g. office skills.)
5 Skilled trades occupations	A substantial period of training, often provided by means of a work-based training programme.
6 Caring, leisure and other service occupations	A good standard of general education. Certain occupations will require further additional vocational training, often provided by means of a work-based training programme.
7 Sales and customer service occupations	A general education and a programme of work-based training related to Sales procedures. Some occupations require additional specific technical knowledge but are included in this major group because the primary task involves selling.
8 Process, plant and machine operatives	The knowledge and experience necessary to operate vehicles and other mobile and stationary machinery, to operate and monitor industrial plant and equipment, to assemble products from component parts according to strict rules and procedures and subject assembled parts to routine tests. Most occupations in this major group will specify a minimum standard of competence for associated tasks and will have a related period of formal training.
9 Elementary occupations	Occupations classified at this level will usually require a minimum general level of education (that is, that which is acquired by the end of the period of compulsory education.) Some occupations at this level will also have short periods of work-related training in areas such as health and safety, food hygiene, and customer service requirements.

Source: ONS.

Since occupational classifications relate to the minimum skills (qualifications and/or experience) required by an employer to perform a task competently, they can broadly be inferred as the demand for skills by employers. The accompanying supply of skills would therefore broadly relate to the skill levels (i.e. qualifications and experience) of residents within Leicester and Leicestershire.

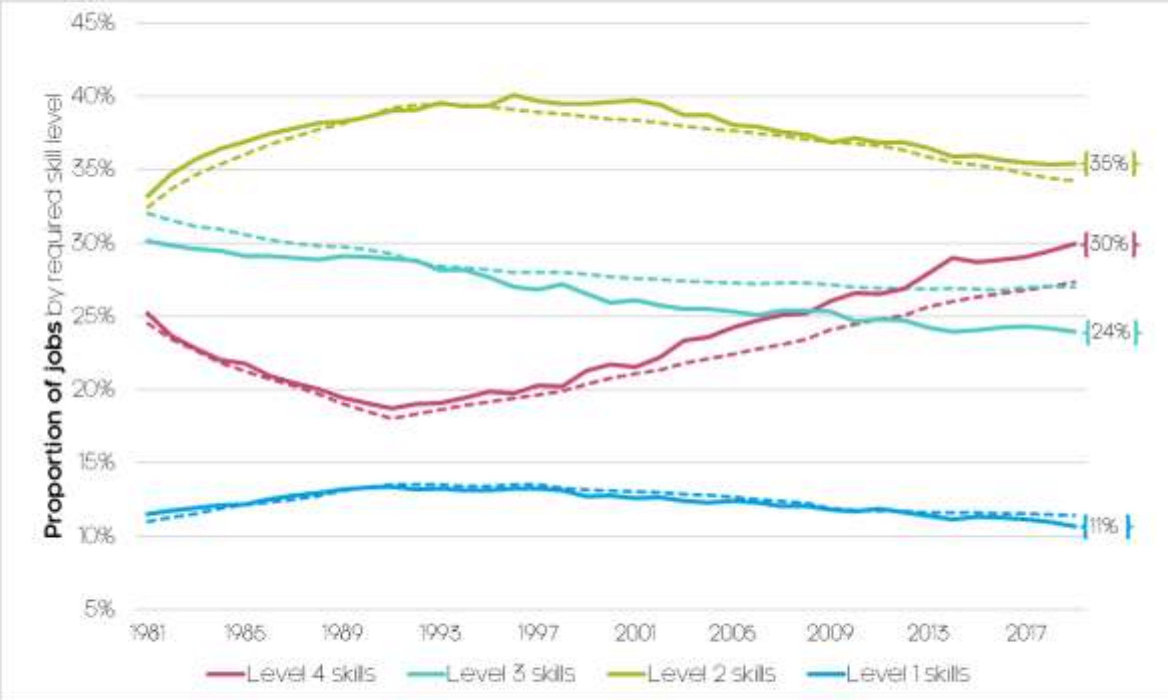
6.3 Occupational-based skills outlook for Leicester and Leicestershire

Figure 6.3.1 provides a high-level overview of the corresponding skill requirements of jobs within Leicester and Leicestershire, how this has changed over the past 40 years, and how this compares to the UK average (denoted by the dotted lines.)

Reflecting the significant and sustained trend of professionalisation in the Leicester and Leicestershire labour market (as observed in the previous section), there has been an increase in the proportion of jobs requiring higher Level 4 (i.e. degree level and above) skills and qualifications.

Approximately a third of all jobs currently (pre-Covid) require such skills (or equivalent) as a minimum entry standard on average, up from just 19% in the early 1990's. Significantly, this proportion is also higher and increasing at a faster rate than the UK average (which currently stands at 27%.)

Figure 6.3.1: Recent trends in the skill level requirement of jobs in Leicester and Leicestershire, 1981-2019



Source: ONS, Cambridge Econometrics. Note: shares are a proportion of jobs, not people. Dotted line denotes UK average.

This reflects both the strength and attractiveness of the Leicester and Leicestershire labour market and skills system (to ensure workers fill such roles), as well as the concentration of advanced and technical sectors, such as science and research, higher education, digital and media, and head office and corporate activities (who require such high-level skills.)

However, the majority (35%) of jobs within Leicester and Leicestershire still only require level 2 skills (i.e. a good completion of general education – equivalent to GCSE's) or related experience as a minimum entry standard on average, though this is down from 40% only 20 years ago, as an increasing number of these roles are upskilled.

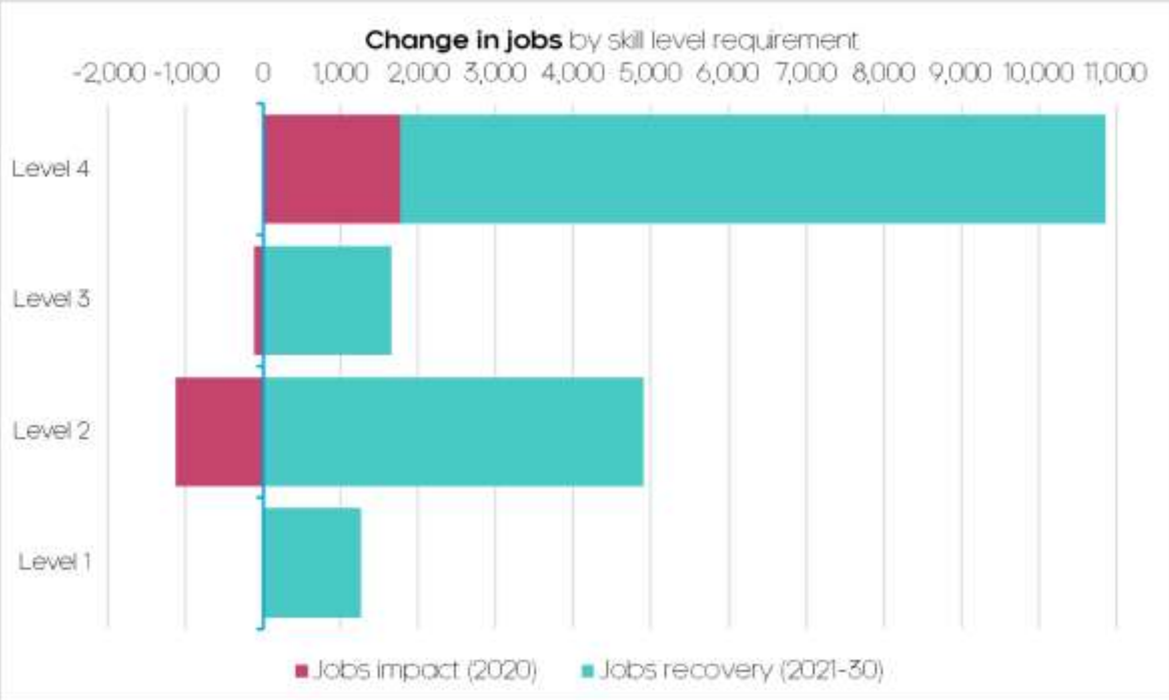
Level 3 skills meanwhile, encompassing further and vocational education (some, to degree-level or equivalent), are becoming less commonplace in the labour market, with 24% of jobs requiring such skills as a minim entry standard on average, down from 30% in the 1980's, and below the current UK average (27%.)

This largely reflects reduced job opportunities in sectors where such skills are prevalent (e.g. engineering, manufacturing, agriculture), though an increasing number of trades and activities are becoming to welcome such qualifications again, though with an emphasis on ongoing upskilling (often to degree level.)

Finally, Level 1 skills, which indicate entry-level roles requiring only a basic general education – GCSE's – as a minimum entry standard on average, have proven relatively stable over this time period, though represent only 1 in 10 jobs (11%) within Leicester and Leicestershire. This band often captures manual, routine work that is not easy to automate.

Looking ahead, the Covid-19 pandemic is not expected to have a material impact on the skills composition of the Leicester and Leicestershire labour market. However, as Figure 6.3.2 shows, job losses will be concentrated in occupations requiring lower-level skills, particularly those at Level 2.

Figure 6.3.2: Forecast change in jobs by skill level requirement, 2021-30, and relative to 2020 impact



Source: ONS, Cambridge Econometrics. Note: data strictly forecasts.

In fact, research by the Resolution Foundation found that the young, the low skilled and low earners have been more likely to have lost work or to have been furloughed due to the crisis. This is because some of the sectors hardest hit by the pandemic employ more young and low-skilled workers.

In contrast, demand for occupations requiring Level 4 skills is expected to remain robust throughout 2020, reflecting the resilience of these roles to the pandemic, aided to some extent by high homeworking potential (which in the same research the Resolution Foundation estimates is 5 times that of low-skilled roles.)

As the labour market recovers, skills requirements will continue to be biased towards higher level skills or equivalent; of the 16,900 additional jobs forecast to be created in Leicester and Leicestershire by 2030, 9,100 are expected to require Level 4 skills (i.e. degree level or above) as a minimum entry standard on average.

In contrast, a further 4,900 additional jobs are expected to only require Level 2 skills as a minimum entry standard on average. This reflects the significant forecast growth, as explored in previous sections, in activities relating health and care, tourism and hospitality, and business services, where such qualification standards are prevalent.

Only 1,700 additional jobs are expected to require Level 3 (i.e. further and vocational education) skills as a minimum entry standard on average, reflecting reduced job opportunities where such skills are prevalent. Despite this, such qualifications will still be widely used as a starting point for progression on to higher level (i.e. Level 4) qualifications.

Finally, 1,300 additional jobs are expected to require Level 1 skills (entry-level roles requiring only a basic general education) as a minimum entry standard on average. There is the potential for this number to be higher if reduced migrant flows (who are overrepresented in such roles) persist.

6.4 Sector skills needs

In addition to a general labour market-wide analysis of skills trends and needs, CE has also undertaken a detailed appraisal of the skills needs and challenges for each of Leicester and Leicestershire's sectors of interest.

This analysis has primarily been informed by the UK Commission for Employment and Skills (UKCES) sector insight reports, the UKCES working futures dataset (which is available to a regional level i.e. East Midlands), stakeholder testimony, and other local plans, reports and strategies.

Detailed analysis is provided in the sector profiles accompanying this report, though a summary for each sector is provided below. Note that UKCES' forecasts of sector skills need use a different definition (QCF based) to the ONS occupations-derived one (used in the previous section.)

Life Sciences and Biotech

Skills needs in the sector are fast-moving, characterised by continuous technological change and development, and a globally competitive talent pool.

Highly-technical, STEM-based skills – to oversee and coordinate increasingly advanced and digitised research methods and production processes – as well as softer skills and management aptitude – to manage and navigate complex supply chains and highly competitive research and product markets – will be necessary.

By 2024, UKCES expects over two-thirds (68%) of the life sciences workforce in the East Midlands will require high-level (QCF4+, typically STEM-based) qualifications, the highest share of any sector in the region. A further quarter of the workforce could require post-degree qualifications (such as doctorates), again the most of any sector, emphasising the technical and demanding skills needs in the sector.

Industry players stress the need for individuals with cross discipline skills rather than highly specialised in a particular field (e.g. who can apply biological processes to AI/digital health, or combine engineering to living systems.)

Sport and Physical Activity

Skills needs in the sector are varied, ranging from highly-technical, STEM-based skills – to oversee increasingly advanced and technology-led methods across coaching, broadcasting, sports medicine etc. - as well as softer, people-centric skills – given increased client interaction and expectations, and the high value placed on leadership and charisma in the sector.

By 2024, UKCES expects over half (51%) of the region's sport and recreation workforce will require high-level (QCF4+) qualifications, up from a third a decade ago. Vocational and technical-training routes will remain an increasingly popular and successful way to address sector skills-needs.

Aerospace and Satellite Technology

The UK space sector has an exceptionally skilled workforce, emphasising the technical and demanding skills needs in the sector. Research indicates 75% of roles in the sector are currently filled by those with at least a bachelor's degree, almost twice the average for the UK labour market, and higher than any other sector studied.

With the sector retaining strong links to local universities – with almost a third (27%) of local graduates staying in Leicestershire for work – the research also notes the positive uptake and impact of vocational learning and training in the sector, which currently accounts for 13% of roles in the sector.

Given skills needs in the sector are fast-moving, characterised by continuous technological change and development, and a globally competitive talent pool, skills shortages and gaps can emerge; the same research found more than half (52%) of large space sector employers are particularly worried about access to skills.

Advanced Manufacturing and Engineering

The sector will increasingly rely on technical, STEM-based skills – to operate advanced and digitised machinery and production processes – as well as softer and interpersonal skills, alongside management aptitude – to manage and oversee complex supply chains and greater employee autonomy – according to research by UCKES.

As part of this research, they expect that almost half (44%) of the East Midlands manufacturing workforce will require higher-level (QCF4+, typically STEM-based) qualifications by 2024, up from just a quarter a decade ago.

Uncertainty relating to the availability of migrant labour could also push up demand for lower-skilled, manual-based roles, whilst the sector has the potential to continue providing good, well-paid opportunities for those without higher-level qualifications, particularly through vocational and technical training routes.

If the supply for such skills and qualifications are not forthcoming, already high skills shortages and gaps could be exacerbated in the sector; according to the 2019 UK Employer Skills Survey, 14% of manufacturers in Leicester and Leicestershire experienced skills shortages, with almost three-quarters (70%) of local vacancies in the sector hard-to-fill - the highest of any sector.

Logistics and Distribution

The sector will increasingly rely on technical skills – to oversee advanced and digitised technologies and processes, particularly relating to low carbon – as well as softer skills and management aptitude – to coordinate complex supply chains and increased client interaction.

UKCES research expects almost a third (28%) of the transport workforce in the East Midlands will require high-level (QCF4+) qualifications by

2024, twice that of a decade ago. Upskilling and retraining will play a vital role in ensuring such supply, given lower rates of entry into the sector (and high exit given an aging workforce.)

Uncertainty relating to the availability of migrant labour could further push up demand for lower-skilled, manual-based roles, whilst the sector has the potential to continue providing good, well-paid opportunities for those without higher-level qualifications, particularly through vocational and technical training routes.

If the supply for such skills and qualifications are not forthcoming, already high skills shortages and gaps could be exacerbated in the sector; according to the 2019 UK Employer Skills Survey, a quarter of logistics firms in Leicester and Leicestershire reported having staff who were not fully proficient in their role. These issues have intensified post-Covid.

Professional and Financial Services

Characterised by ongoing technological change and development, the sector's skill needs are changing rapidly, according to research by UCKES, including reliance on technical skills – given increasingly advanced, digitised and analytics-based work – as well as softer and interpersonal skills and management aptitude to oversee diverse, technical teams and complex supply chains.

Fast becoming one of Leicestershire's most skilled sectors, UKCES expects that by 2024 over two-thirds (68%) of the professional workforce in the East Midlands will require high-level (QCF4+) qualifications, up from just half a decade ago.

With strong links to the local universities – with almost a one-third (27%) of local graduates staying in Leicestershire for work - UKCES also notes the positive uptake and impact of vocational learning and training in the sector.

Digital Tech and Communications

Characterised by ongoing technological change and development, the sector's skill needs are changing rapidly, according to research by UCKES. Cybersecurity skills are increasingly desired, as are softer and interpersonal skills and management aptitude, to oversee technical teams and complex supply chains. On the creative side, increasingly technical skills are needed for greater multiple-platform content and work.

Already one of Leicestershire's most skilled sectors, UKCES expects that by 2024 over two-thirds (67%) of the digital workforce across the East Midlands region will require high-level (QCF4+, typically STEM-based) qualifications, up from just under half a decade ago.

With strong links to the local universities – with almost a third (27%) of local graduates staying in Leicestershire for work - UKCES also notes the positive uptake and impact of vocational learning and training in the sector.

If the supply for such skills and qualifications are not forthcoming, already high skills shortages and gaps could be exacerbated in the sector; according to the 2019 UK Employer Skills Survey, a third (30%) of local vacancies in the sector were hard-to-fill.

Low Carbon

The skills mix required by the sector is expected to evolve in the future, to include soft skills, technical skills such as data analytics, as well as knowledge of new technologies as they emerge – according to research on the low carbon energy sector by UCKES.

As part of this research, they expect that almost half (49%) of the East Midlands low carbon energy workforce will require higher-level (QCF4+, typically STEM-based) qualifications by 2024, up from just a third a decade ago. The sector also has the potential to continue providing good, well-paid opportunities for those without higher-level qualifications, particularly through vocational and technical training routes.

Attraction and retention issues (given an aging workforce) could however exacerbate already high skills shortages in the sector; the LCEGS Market Snapshot estimated skills shortages were equivalent to 8.6% of employees (though this was in line with the Midlands average of 8.7%), with significant skills gaps reported in the following occupations:

- Production Engineers - 34.5% of all roles in Leicester and Leicestershire (Midlands average 35.7%)
- Power Distribution Engineers - 30.1% of all roles (29.8%)
- Technicians - 22.0% of all roles (22.2%)

Agri-food and Drink

The sector will increasingly rely on technical skills – to operate advanced and digitised machinery and production – as well as softer skills and management aptitude – to manage and oversee complex supply chains and increasing employee autonomy.

By 2024, UKCES expects almost two-fifths (37%) of the agri-food workforce in the East Midlands will require high-level (QCF4+) qualifications, twice that of a decade ago, with vocational and technical-training routes a popular and successful way to address such skills-needs.

Yet uncertainty relating to the availability of migrant labour could also push up demand for lower-skilled, manual-based roles, whilst the sector has the potential to continue providing good, well-paid opportunities for those without higher-level qualifications.

Retail and Wholesale

The sector will continue to rely on softer, customer-centric skills, especially given increased customer expectations and competition with online markets, according to research by UCKES. Effective management skills are also critical, to drive improved performance, whilst increasingly technical, analytics-based skills will be required for business-planning and management, and digital-related activity.

By 2024, UKCES expects over a third (32%) of the retail and wholesale workforce in the East Midlands will require high-level (QCF4+) qualifications, almost twice that of a decade ago. The sector can also continue to provide good, well-paid opportunities for those without higher-level qualifications.

If the necessary supply is not forthcoming, already high skills shortages and gaps could be exacerbated in the sector; according to the 2019 UK Employer Skills Survey almost a quarter (21%) of local vacancies in the sector were hard-to-fill. These issues have intensified post-Covid.

Tourism and Hospitality

The sector will continue to rely on softer, customer-centric skills, according to research by UCKES, especially given increased customer expectations and competitive, review-driven markets. Effective management skills are also critical, to drive improved performance through better planning and scheduling, the introduction of new technologies, and reducing staff turnover.

By 2024, UKCES expects two-fifths (40%) of the tourism and hospitality workforce in the East Midlands will require high-level (QCF4+) qualifications, almost twice that of a decade ago, though this could exacerbate already high underemployment/overqualification issues. The sector can also continue to provide good, well-paid opportunities for those without higher-level qualifications.

If the necessary supply is not forthcoming, already high skills shortages and gaps could be exacerbated in the sector; according to the 2019 UK Employer Skills Survey, 10% of tourism businesses in Leicester and Leicestershire experienced skills shortages, with almost a quarter (21%) of local vacancies in the sector hard-to-fill. These issues have intensified post-Covid.

Health and Social Care

Skills needs in the sector are varied, ranging from highly-technical, STEM-based skills – to oversee increasingly advanced, technology-led diagnosis and treatments – as well as softer, social and care-oriented skills – to manage and attend to an aging population, and an increasing prevalence of physical and mental impairments, according to research by UKCES.

By 2024, UKCES expects over half (54%) of the health and social care workforce in the East Midlands will require high-level (QCF4+) qualifications. Vocational and technical-training routes will remain an increasingly popular and successful way to address sector skills-needs, particularly social care-related, whilst the sector also has the potential to continue providing good, well-paid opportunities for those without higher-level qualifications.

With an aging workforce, reduced migrant labour (particularly EU-based) and sectoral shifting, skills shortages could emerge, which UKCES notes are already established in certain pharmacy, physiological sciences and respiratory physiology roles. And according to the 2019 UK Employer Skills Survey, almost a fifth (15%) of local vacancies in the sector were hard-to-fill, whilst 14% of employers reported having staff who were not fully proficient.

Creative and Cultural industries

Skills needs in the sector are varied according to research by UKCES, ranging from highly-technical, STEM-based skills – to oversee increasingly advanced and technology-led design methods and content production - as well as softer, people-centric skills – given greater client interaction – and, naturally, creative aptitude - for design, marketing and merchandising purposes.

By 2024, UKCES expects over two-thirds (64%) of the creative and cultural workforce in the East Midlands will require high-level (QCF4+) qualifications, a much higher proportion than the labour market average. With strong links to the local universities – with almost a third (27%) of local graduates staying in Leicestershire for work - UKCES also notes the positive uptake and impact of vocational learning and training in the sector.

If the supply for such skills and qualifications are not forthcoming, already high skills shortages and gaps could be exacerbated in the sector. According to the 2019 UK Employer Skills Survey, one-third (30%) of local digital creative vacancies were hard-to-fill.

Textiles and Fashion

The sector will increasingly rely on technical skills – to operate advanced and digitised machinery, design, and production processes – as well as softer, creative skills – for design, marketing and merchandising purposes. Management skills are also critically important for the sector, given the high number of small, family-owned firms.

By 2024, UKCES expects over two-fifths (41%) of the textiles and clothing workforce in the East Midlands will require high-level (QCF4+) qualifications, double that of a decade ago.

Uncertainty relating to the availability of migrant labour could also push up demand for lower-skilled, manual-based roles, whilst the sector has the potential to continue providing good, well-paid opportunities for those without higher-level qualifications, particularly through vocational and technical training routes.

Construction and Development

Though the need for technical, STEM-based skills is becoming more widespread - given increasingly advanced, technology-led methods, machinery and materials, particularly low-carbon related - dependency on traditional, skilled trades will remain high, according to research by UCKES. Good management skills will also be required, given increasingly diverse and complex projects.

By 2024, UKCES expects almost a third of the construction workforce in the East Midlands will require high-level (QCF4+) qualifications, up from one-fifth a decade ago. The sector has the potential to continue providing good, well-paid opportunities for those without such qualifications, particularly through vocational and technical training routes.

According to the CITB, to meet anticipated demand a total construction workforce of around 42,100 people is required in Leicester and Leicestershire. The current workforce available appears to be short of what is currently required, and with significant demand anticipated across the Midlands there are risks that Leicester and Leicestershire may not be able to meet demand for many occupations. With an aging workforce, resulting in increased retirement, that challenge may become more extreme.

7 Appendix A: Sector definitions

7.1 The LEFM's 45 sectors

The table below provides a look-up between CE's 45 sectors (as provided by the LEFM, and analysed in *Section 3 Overview of Leicester and Leicestershire's sectors*) and official SIC classifications.

LEFM code	LEFM Sector	SIC classification(s) (2 digit SIC07)
1	Agriculture, forestry & fishing	01-03
2	Mining & quarrying	05-09
3	Food, drink & tobacco	10-12
4	Textiles etc	13-15
5	Wood & paper	16-17
6	Printing & recording	18
7	Coke & petroleum	19
8	Chemicals	20
9	Pharmaceuticals	21
10	Non-metallic mineral products	22-23
11	Metals & metal products	24-25
12	Electronics	26
13	Electrical equipment	27
14	Machinery	28
15	Motor vehicles	29
16	Other transport equipment	30
17	Other manufacturing & repair	31-33
18	Electricity & gas	35
19	Water, sewerage & waste	36-39
20	Construction	41-43
21	Motor vehicles trade	45
22	Wholesale trade	46
23	Retail trade	47
24	Land transport	49
25	Water transport	50
26	Air transport	51
27	Warehousing & postal	52-53
28	Accommodation	55
29	Food & beverage services	56
30	Media	58-60
31	IT services	61-63
32	Financial & insurance	64-66
33	Real estate	68
34	Legal & accounting	69
35	Head offices & management consultancies	70
36	Architectural & engineering services	71
37	Other professional services	72-75

38	Business support services	77-82
39	Public Administration & Defence	84
40	Education	85
41	Health	86
42	Residential & social	87-88
43	Arts	90-91
44	Recreational services	92-93
45	Other services	94-96

7.2 Leicester and Leicestershire's sectors of interest

An overview of the official SIC classifications used to define each of the 15 sectors[15] of interest (as analysed in *Section 4 Sectors of interest in Leicester and Leicestershire)* are provided in the tables below.

Where possible, these definitions align with or incorporate government and/or industry recommended definitions (e.g. DCMS for creative and cultural, TechNation for digital tech, Sport England for sport and physical activity, UNWTO for tourism).

Note that for some sectors only a proportion of certain classifications are used, to capture important elements of the sector not included in the standard SIC classifications for that sector (e.g. the logistics and distribution element of agri-food).

Likewise, it should be noted some SIC classifications are used in more than sector, to ensure the full value chain of that sector is captured. Therefore, sectoral data should not be directly grouped together, given the risk of double-counting.

Life Sciences and Biotech

SIC classification (5 digit SIC07)	Proportion
01610: Support activities for crop production	100.0%
01629: Support activities for animal production (other than farm animal boarding and care) nec	100.0%
20130: Manufacture of other inorganic basic chemicals	100.0%
20140: Manufacture of other organic basic chemicals	100.0%
20150: Manufacture of fertilisers and nitrogen compounds	100.0%
20200: Manufacture of pesticides and other agrochemical products	100.0%
20590: Manufacture of other chemical products nec	100.0%
21100: Manufacture of basic pharmaceutical products	100.0%
21200: Manufacture of pharmaceutical preparations	100.0%
26600: Manufacture of irradiation, electromedical and electrotherapeutic equipment	100.0%
26701: Manufacture of optical precision instruments	100.0%
32500: Manufacture of medical and dental instruments and supplies	100.0%
46460: Wholesale of pharmaceutical goods	100.0%

[15] Low carbon cannot be defined using standard SIC-based statistics, and is therefore excluded from this section. Instead, the definition from the Low Carbon Environmental Goods and Services Market Snapshot published by the Midlands Energy Hub has been used. This means however data on the low carbon sector cannot be compared with those of other sectors.

46750: Wholesale of chemical products	100.0%
47730: Dispensing chemist in specialised stores	100.0%
47741: Retail sale of hearing aids in specialised stores	100.0%
47749: Retail sale of medical and orthopaedic goods (other than hearing aids) nec, in specialised stores	100.0%
49200: Freight rail transport	10.6%
49410: Freight transport by road	4.5%
50200: Sea and coastal freight water transport	0.4%
50400: Inland freight water transport	0.4%
51210: Freight air transport	0.4%
52101: Operation of warehousing and storage facilities for water transport activities of division 50	1.8%
52102: Operation of warehousing and storage facilities for air transport activities of division 51	1.8%
52103: Operation of warehousing and storage facilities for land transport activities of division 49	1.8%
52211: Operation of rail freight terminals	1.8%
52219: Other service activities incidental to land transportation, nec (not including operation of rail freight terminals, passenger facilities at railway stations or passenger facilities at bus and coach stations)	1.8%
52220: Service activities incidental to water transportation	1.8%
52230: Service activities incidental to air transportation	1.8%
52241: Cargo handling for water transport activities of division 50	1.8%
52242: Cargo handling for air transport activities of division 51	1.8%
52243: Cargo handling for land transport activities of division 49	1.8%
52290: Other transportation support activities	1.8%
71122: Engineering related scientific and technical consulting activities	100.0%
72110: Research and experimental development on biotechnology	100.0%
72190: Other research and experimental development on natural sciences and engineering	100.0%
74202: Other specialist photography (not including portrait photography)	100.0%
74901: Environmental consulting activities	100.0%
75000: Veterinary activities	100.0%
82920: Packaging activities	1.8%

Sport and Physical Activity

SIC classification (5 digit SIC07)	Proportion
32300: Manufacture of sports goods	100.0%
47640: Retail sale of sporting equipment in specialised stores	100.0%
60200: Television programming and broadcasting activities	100.0%
77210: Renting and leasing of recreational and sports goods	100.0%
85510: Sports and recreation education	100.0%
86900: Other human health activities	100.0%
92000: Gambling and betting activities	100.0%
93110: Operation of sports facilities	100.0%
93120: Activities of sport clubs	100.0%
93130: Fitness facilities	100.0%
93191: Activities of racehorse owners	100.0%
93199: Other sports activities (not including activities of racehorse owners) nec	100.0%
96040: Physical well-being activities	100.0%

Aerospace and Satellite Technology

SIC classification (5 digit SIC07)	Proportion
30300: Manufacture of air and spacecraft and related machinery	100.0%
33160: Repair and maintenance of aircraft and spacecraft	100.0%
51220: Space transport	100.0%
61300: Satellite telecommunications activities	100.0%
61900: Other telecommunications activities	100.0%
84220: Defence activities	100.0%

Advanced Manufacturing and Engineering

SIC classification (5 digit SIC07)	Proportion
10110: Processing and preserving of meat	100.0%
10120: Processing and preserving of poultry meat	100.0%
10130: Production of meat and poultry meat products	100.0%
10200: Processing and preserving of fish, crustaceans and molluscs	100.0%
10310: Processing and preserving of potatoes	100.0%
10320: Manufacture of fruit and vegetable juice	100.0%
10390: Other processing and preserving of fruit and vegetables	100.0%
10410: Manufacture of oils and fats	100.0%
10420: Manufacture of margarine and similar edible fats	100.0%
10511: Liquid milk and cream production	100.0%
10512: Butter and cheese production	100.0%
10519: Manufacture of milk products (other than liquid milk and cream, butter, cheese) nec	100.0%
10520: Manufacture of ice cream	100.0%
10611: Grain milling	100.0%
10612: Manufacture of breakfast cereals and cereals-based foods	100.0%
10620: Manufacture of starches and starch products	100.0%
10710: Manufacture of bread; manufacture of fresh pastry goods and cakes	100.0%
10720: Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes	100.0%
10730: Manufacture of macaroni, noodles, couscous and similar farinaceous products	100.0%
10810: Manufacture of sugar	100.0%
10821: Manufacture of cocoa, and chocolate confectionery	100.0%
10822: Manufacture of sugar confectionery	100.0%
10831: Tea processing	100.0%
10832: Production of coffee and coffee substitutes	100.0%
10840: Manufacture of condiments and seasonings	100.0%
10850: Manufacture of prepared meals and dishes	100.0%
10860: Manufacture of homogenised food preparations and dietetic food	100.0%
10890: Manufacture of other food products nec	100.0%
10910: Manufacture of prepared feeds for farm animals	100.0%
10920: Manufacture of prepared pet foods	100.0%

11010: Distilling, rectifying and blending of spirits	100.0%
11020: Manufacture of wine from grape	100.0%
11030: Manufacture of cider and other fruit wines	100.0%
11040: Manufacture of other non-distilled fermented beverages	100.0%
11050: Manufacture of beer	100.0%
11060: Manufacture of malt	100.0%
11070: Manufacture of soft drinks; production of mineral waters and other bottled waters	100.0%
12000: Manufacture of tobacco products	100.0%
13100: Preparation and spinning of textile fibres	100.0%
13200: Weaving of textiles	100.0%
13300: Finishing of textiles	100.0%
13910: Manufacture of knitted and crocheted fabrics	100.0%
13921: Manufacture of soft furnishings	100.0%
13922: Manufacture of canvas goods, sacks etc	100.0%
13923: Manufacture of household textiles (other than soft furnishings of 13921)	100.0%
13931: Manufacture of woven or tufted carpets and rugs	100.0%
13939: Manufacture of carpets and rugs (other than woven or tufted) nec	100.0%
13940: Manufacture of cordage, rope, twine and netting	100.0%
13950: Manufacture of non-wovens and articles made from non-wovens, except apparel	100.0%
13960: Manufacture of other technical and industrial textiles	100.0%
13990: Manufacture of other textiles nec	100.0%
14110: Manufacture of leather clothes	100.0%
14120: Manufacture of workwear	100.0%
14131: Manufacture of men's outerwear, other than leather clothes and workwear	100.0%
14132: Manufacture of women's outerwear, other than leather clothes and workwear	100.0%
14141: Manufacture of men's underwear	100.0%
14142: Manufacture of women's underwear	100.0%
14190: Manufacture of other wearing apparel and accessories	100.0%
14200: Manufacture of articles of fur	100.0%
14310: Manufacture of knitted and crocheted hosiery	100.0%
14390: Manufacture of other knitted and crocheted apparel	100.0%
15110: Tanning and dressing of leather; dressing and dyeing of fur	100.0%
15120: Manufacture of luggage, handbags and the like, saddlery and harness	100.0%
15200: Manufacture of footwear	100.0%
16100: Sawmilling and planing of wood	100.0%
16210: Manufacture of veneer sheets and wood-based panels	100.0%
16220: Manufacture of assembled parquet floors	100.0%
16230: Manufacture of other builders' carpentry and joinery	100.0%
16240: Manufacture of wooden containers	100.0%
16290: Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	100.0%
17110: Manufacture of pulp	100.0%
17120: Manufacture of paper and paperboard	100.0%
17211: Manufacture of corrugated paper and paperboard; manufacture of sacks and bags of paper	100.0%
17219: Manufacture of paper and paperboard containers other than sacks and bags	100.0%
17220: Manufacture of household and sanitary goods and of toilet requisites	100.0%

17230: Manufacture of paper stationery	100.0%
17240: Manufacture of wallpaper	100.0%
17290: Manufacture of other articles of paper and paperboard	100.0%
18110: Printing of newspapers	100.0%
18121: Manufacture of printed labels	100.0%
18129: Printing (other than printing of newspapers and printing on labels and tags) nec	100.0%
18130: Pre-press and pre-media services	100.0%
18140: Binding and related services	100.0%
18201: Reproduction of sound recording	100.0%
18202: Reproduction of video recording	100.0%
18203: Reproduction of computer media	100.0%
19100: Manufacture of coke oven products	100.0%
19201: Mineral oil refining	100.0%
19209: Other treatment of petroleum products (excluding mineral oil refining petrochemicals manufacture)	100.0%
20110: Manufacture of industrial gases	100.0%
20120: Manufacture of dyes and pigments	100.0%
20130: Manufacture of other inorganic basic chemicals	100.0%
20140: Manufacture of other organic basic chemicals	100.0%
20150: Manufacture of fertilisers and nitrogen compounds	100.0%
20160: Manufacture of plastics in primary forms	100.0%
20170: Manufacture of synthetic rubber in primary forms	100.0%
20200: Manufacture of pesticides and other agrochemical products	100.0%
20301: Manufacture of paints, varnishes and similar coatings, mastics and sealants	100.0%
20302: Manufacture of printing ink	100.0%
20411: Manufacture of soap and detergents	100.0%
20412: Manufacture of cleaning and polishing preparations	100.0%
20420: Manufacture of perfumes and toilet preparations	100.0%
20510: Manufacture of explosives	100.0%
20520: Manufacture of glues	100.0%
20530: Manufacture of essential oils	100.0%
20590: Manufacture of other chemical products nec	100.0%
20600: Manufacture of man-made fibres	100.0%
21100: Manufacture of basic pharmaceutical products	100.0%
21200: Manufacture of pharmaceutical preparations	100.0%
22110: Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	100.0%
22190: Manufacture of other rubber products	100.0%
22210: Manufacture of plastic plates, sheets, tubes and profiles	100.0%
22220: Manufacture of plastic packing goods	100.0%
22230: Manufacture of builders� ware of plastic	100.0%
22290: Manufacture of other plastic products	100.0%
23110: Manufacture of flat glass	100.0%
23120: Shaping and processing of flat glass	100.0%
23130: Manufacture of hollow glass	100.0%
23140: Manufacture of glass fibres	100.0%
23190: Manufacture and processing of other glass, including technical glassware	100.0%
23200: Manufacture of refractory products	100.0%

23310: Manufacture of ceramic tiles and flags	100.0%
23320: Manufacture of bricks, tiles and construction products, in baked clay	100.0%
23410: Manufacture of ceramic household and ornamental articles	100.0%
23420: Manufacture of ceramic sanitary fixtures	100.0%
23430: Manufacture of ceramic insulators and insulating fittings	100.0%
23440: Manufacture of other technical ceramic products	100.0%
23490: Manufacture of other ceramic products	100.0%
23510: Manufacture of cement	100.0%
23520: Manufacture of lime and plaster	100.0%
23610: Manufacture of concrete products for construction purposes	100.0%
23620: Manufacture of plaster products for construction purposes	100.0%
23630: Manufacture of ready-mixed concrete	100.0%
23640: Manufacture of mortars	100.0%
23650: Manufacture of fibre cement	100.0%
23690: Manufacture of other articles of concrete, plaster and cement	100.0%
23700: Cutting, shaping and finishing of stone	100.0%
23910: Production of abrasive products	100.0%
23990: Manufacture of other non-metallic mineral products nec	100.0%
24100: Manufacture of basic iron and steel and of ferro-alloys	100.0%
24200: Manufacture of tubes, pipes, hollow profiles and related fittings, of steel	100.0%
24310: Cold drawing of bars	100.0%
24320: Cold rolling of narrow strip	100.0%
24330: Cold forming or folding	100.0%
24340: Cold drawing of wire	100.0%
24410: Precious metals production	100.0%
24420: Aluminium production	100.0%
24430: Lead, zinc and tin production	100.0%
24440: Copper production	100.0%
24450: Other non-ferrous metal production	100.0%
24460: Processing of nuclear fuel	100.0%
24510: Casting of iron	100.0%
24520: Casting of steel	100.0%
24530: Casting of light metals	100.0%
24540: Casting of other non-ferrous metals	100.0%
25110: Manufacture of metal structures and parts of structures	100.0%
25120: Manufacture of doors and windows of metal	100.0%
25210: Manufacture of central heating radiators and boilers	100.0%
25290: Manufacture of other tanks, reservoirs and containers of metal	100.0%
25300: Manufacture of steam generators, except central heating hot water boilers	100.0%
25400: Manufacture of weapons and ammunition	100.0%
25500: Forging, pressing, stamping and roll-forming of metal; powder metallurgy	100.0%
25610: Treatment and coating of metals	100.0%
25620: Machining	100.0%
25710: Manufacture of cutlery	100.0%
25720: Manufacture of locks and hinges	100.0%
25730: Manufacture of tools	100.0%
25910: Manufacture of steel drums and similar containers	100.0%
25920: Manufacture of light metal packaging	100.0%
25930: Manufacture of wire products, chain and springs	100.0%

25940: Manufacture of fasteners and screw machine products	100.0%
25990: Manufacture of other fabricated metal products nec	100.0%
26110: Manufacture of electronic components	100.0%
26120: Manufacture of loaded electronic boards	100.0%
26200: Manufacture of computers and peripheral equipment	100.0%
26301: Manufacture of telegraph and telephone apparatus and equipment	100.0%
26309: Manufacture of communication equipment (other than telegraph and telephone apparatus and equipment)	100.0%
26400: Manufacture of consumer electronics	100.0%
26511: Manufacture of electronic instruments and appliances for measuring, testing, and navigation, except industrial process control equipment	100.0%
26512: Manufacture of electronic industrial process control equipment	100.0%
26513: Manufacture of non-electronic instruments and appliances for measuring, testing and navigation, except industrial process control equipment	100.0%
26514: Manufacture of non-electronic industrial process control equipment	100.0%
26520: Manufacture of watches and clocks	100.0%
26600: Manufacture of irradiation, electromedical and electrotherapeutic equipment	100.0%
26701: Manufacture of optical precision instruments	100.0%
26702: Manufacture of photographic and cinematographic equipment	100.0%
26800: Manufacture of magnetic and optical media	100.0%
27110: Manufacture of electric motors, generators and transformers	100.0%
27120: Manufacture of electricity distribution and control apparatus	100.0%
27200: Manufacture of batteries and accumulators	100.0%
27310: Manufacture of fibre optic cables	100.0%
27320: Manufacture of other electronic and electric wires and cables	100.0%
27330: Manufacture of wiring devices	100.0%
27400: Manufacture of electric lighting equipment	100.0%
27510: Manufacture of electric domestic appliances	100.0%
27520: Manufacture of non-electric domestic appliances	100.0%
27900: Manufacture of other electrical equipment	100.0%
28110: Manufacture of engines and turbines, except aircraft, vehicle and cycle engines	100.0%
28120: Manufacture of fluid power equipment	100.0%
28131: Manufacture of pumps	100.0%
28132: Manufacture of compressors	100.0%
28140: Manufacture of other taps and valves	100.0%
28150: Manufacture of bearings, gears, gearing and driving elements	100.0%
28210: Manufacture of ovens, furnaces and furnace burners	100.0%
28220: Manufacture of lifting and handling equipment	100.0%
28230: Manufacture of office machinery and equipment (except computers and peripheral equipment)	100.0%
28240: Manufacture of power-driven hand tools	100.0%
28250: Manufacture of non-domestic cooling and ventilation equipment	100.0%
28290: Manufacture of other general-purpose machinery nec	100.0%
28301: Manufacture of agricultural tractors	100.0%
28302: Manufacture of agricultural and forestry machinery (other than agricultural tractors)	100.0%
28410: Manufacture of metal forming machinery	100.0%
28490: Manufacture of other machine tools	100.0%
28910: Manufacture of machinery for metallurgy	100.0%
28921: Manufacture of machinery for mining	100.0%

28922: Manufacture of earthmoving equipment	100.0%
28923: Manufacture of equipment for concrete crushing and screening roadworks	100.0%
28930: Manufacture of machinery for food, beverage and tobacco processing	100.0%
28940: Manufacture of machinery for textile, apparel and leather production	100.0%
28950: Manufacture of machinery for paper and paperboard production	100.0%
28960: Manufacture of plastics and rubber machinery	100.0%
28990: Manufacture of other special-purpose machinery nec	100.0%
29100: Manufacture of motor vehicles	100.0%
29201: Manufacture of bodies (coachwork) for motor vehicles (except caravans)	100.0%
29202: Manufacture of trailers and semi-trailers	100.0%
29203: Manufacture of caravans	100.0%
29310: Manufacture of electrical and electronic equipment for motor vehicles	100.0%
29320: Manufacture of other parts and accessories for motor vehicles	100.0%
30110: Building of ships and floating structures	100.0%
30120: Building of pleasure and sporting boats	100.0%
30200: Manufacture of railway locomotives and rolling stock	100.0%
30300: Manufacture of air and spacecraft and related machinery	100.0%
30400: Manufacture of military fighting vehicles	100.0%
30910: Manufacture of motorcycles	100.0%
30920: Manufacture of bicycles and invalid carriages	100.0%
30990: Manufacture of other transport equipment nec	100.0%
31010: Manufacture of office and shop furniture	100.0%
31020: Manufacture of kitchen furniture	100.0%
31030: Manufacture of mattresses	100.0%
31090: Manufacture of other furniture	100.0%
32110: Striking of coins	100.0%
32120: Manufacture of jewellery and related articles	100.0%
32130: Manufacture of imitation jewellery and related articles	100.0%
32200: Manufacture of musical instruments	100.0%
32300: Manufacture of sports goods	100.0%
32401: Manufacture of professional and arcade games and toys	100.0%
32409: Manufacture of games and toys (other than professional and arcade games and toys) nec	100.0%
32500: Manufacture of medical and dental instruments and supplies	100.0%
32910: Manufacture of brooms and brushes	100.0%
32990: Other manufacturing nec	100.0%
33110: Repair of fabricated metal products	100.0%
33120: Repair of machinery	100.0%
33130: Repair of electronic and optical equipment	100.0%
33140: Repair of electrical equipment	100.0%
33150: Repair and maintenance of ships and boats	100.0%
33160: Repair and maintenance of aircraft and spacecraft	100.0%
33170: Repair and maintenance of other transport equipment	100.0%
33190: Repair of other equipment	100.0%
33200: Installation of industrial machinery and equipment	100.0%
35210: Manufacture of gas	100.0%
58110: Book publishing	100.0%
58120: Publishing of directories and mailing lists	100.0%
58130: Publishing of newspapers	100.0%

58141: Publishing of learned journals	100.0%
58142: Publishing of consumer, business and professional journals and periodicals	100.0%
58190: Other publishing activities	100.0%
61300: Satellite telecommunications activities	100.0%
61900: Other telecommunications activities	100.0%
64202: Activities of production holding companies	100.0%
71121: Engineering design activities for industrial process and production	100.0%
71122: Engineering related scientific and technical consulting activities	100.0%
71129: Other engineering activities (not including engineering design for industrial process and production or engineering related scientific and technical consulting activities)	100.0%
71200: Technical testing and analysis	100.0%
72110: Research and experimental development on biotechnology	100.0%
72190: Other research and experimental development on natural sciences and engineering	100.0%

Logistics and Distribution

SIC classification (5 digit SIC07)	Proportion
33150: Repair and maintenance of ships and boats	100.0%
33160: Repair and maintenance of aircraft and spacecraft	100.0%
33170: Repair and maintenance of other transport equipment	100.0%
45200: Maintenance and repair of motor vehicles	100.0%
49100: Passenger rail transport, interurban	100.0%
49200: Freight rail transport	100.0%
49311: Urban, suburban or metropolitan area passenger railway transportation by underground, metro and similar systems	100.0%
49319: Urban, suburban or metropolitan area passenger land transport other than railway transportation by underground, metro and similar systems	100.0%
49320: Taxi operation	100.0%
49390: Other passenger land transport nec	100.0%
49410: Freight transport by road	100.0%
49420: Removal services	100.0%
49500: Transport via pipeline	100.0%
50100: Sea and coastal passenger water transport	100.0%
50200: Sea and coastal freight water transport	100.0%
50300: Inland passenger water transport	100.0%
50400: Inland freight water transport	100.0%
51101: Scheduled passenger air transport	100.0%
51102: Non-scheduled passenger air transport	100.0%
51210: Freight air transport	100.0%
51220: Space transport	100.0%
52101: Operation of warehousing and storage facilities for water transport activities of division 50	100.0%
52102: Operation of warehousing and storage facilities for air transport activities of division 51	100.0%
52103: Operation of warehousing and storage facilities for land transport activities of division 49	100.0%
52211: Operation of rail freight terminals	100.0%
52212: Operation of rail passenger facilities at railway stations	100.0%

52213: Operation of bus and coach passenger facilities at bus and coach stations	100.0%
52219: Other service activities incidental to land transportation, nec (not including operation of rail freight terminals, passenger facilities at railway stations or passenger facilities at bus and coach stations)	100.0%
52220: Service activities incidental to water transportation	100.0%
52230: Service activities incidental to air transportation	100.0%
52241: Cargo handling for water transport activities of division 50	100.0%
52242: Cargo handling for air transport activities of division 51	100.0%
52243: Cargo handling for land transport activities of division 49	100.0%
52290: Other transportation support activities	100.0%
53100: Postal activities under universal service obligation	100.0%
53201: Licensed Carriers	100.0%
53202: Unlicensed Carriers	100.0%
64204: Activities of distribution holding companies	100.0%
77110: Renting and leasing of cars and light motor vehicles	100.0%
77120: Renting and leasing of trucks	100.0%
77341: Renting and leasing of passenger water transport equipment	100.0%
77342: Renting and leasing of freight water transport equipment	100.0%
77351: Renting and leasing of passenger air transport equipment	100.0%
77352: Renting and leasing of freight air transport equipment	100.0%
79110: Travel agency activities	100.0%
82920: Packaging activities	100.0%
85530: Driving school activities	100.0%

Professional and Financial Services

SIC classification (5 digit SIC07)	Proportion
62012: Business and domestic software development	100.0%
62020: Computer consultancy activities	100.0%
62030: Computer facilities management activities	100.0%
62090: Other information technology and computer service activities	100.0%
63910: News agency activities	100.0%
64110: Central banking	100.0%
64191: Banks	100.0%
64192: Building societies	100.0%
64201: Activities of agricultural holding companies	100.0%
64202: Activities of production holding companies	100.0%
64203: Activities of construction holding companies	100.0%
64204: Activities of distribution holding companies	100.0%
64205: Activities of financial services holding companies	100.0%
64209: Activities of other holding companies (not including agricultural, production, construction, distribution and financial services holding companies) n.e.c	100.0%
64301: Activities of investment trusts	100.0%
64302: Activities of unit trusts	100.0%
64303: Activities of venture and development capital companies	100.0%
64304: Activities of open-ended investment companies	100.0%
64305: Activities of property unit trusts	100.0%
64306: Activities of real estate investment trusts	100.0%
64910: Financial leasing	100.0%

64921: Credit granting by non-deposit taking finance houses and other specialist consumer credit grantors	100.0%
64922: Activities of mortgage finance companies	100.0%
64929: Other credit granting (not including credit granting by non-deposit taking finance houses and other specialist consumer credit grantors and activities of mortgage finance companies) n.e.c.	100.0%
64991: Security dealing on own account	100.0%
64992: Factoring	100.0%
64999: Other financial service activities, except insurance and pension funding, (not including security dealing on own account and factoring) n.e.c.	100.0%
65110: Life insurance	100.0%
65120: Non-life insurance	100.0%
65201: Life reinsurance	100.0%
65202: Non-life reinsurance	100.0%
65300: Pension funding	100.0%
66110: Administration of financial markets	100.0%
66120: Security and commodity contracts brokerage	100.0%
66190: Other activities auxiliary to financial services, except insurance and pension funding	100.0%
66210: Risk and damage evaluation	100.0%
66220: Activities of insurance agents and brokers	100.0%
66290: Other activities auxiliary to insurance and pension funding	100.0%
66300: Fund management activities	100.0%
68100: Buying and selling of own real estate	100.0%
68201: Renting and operating of Housing Association real estate	100.0%
68202: Letting and operating of conference and exhibition centres	100.0%
68209: Letting and operating of own or leased real estate (other than Housing Association real estate and conference and exhibition services) n.e.c.	100.0%
68310: Real estate agencies	100.0%
68320: Management of real estate on a fee or contract basis	100.0%
69101: Barristers at law	100.0%
69102: Solicitors	100.0%
69109: Activities of patent and copyright agents; other legal activities (other than those of barristers and solicitors) nec	100.0%
69201: Accounting, and auditing activities	100.0%
69202: Bookkeeping activities	100.0%
69203: Tax consultancy	100.0%
70100: Activities of head offices	100.0%
70210: Public relations and communication activities	100.0%
70221: Financial management	100.0%
70229: Management consultancy activities (other than financial management)	100.0%
71111: Architectural activities	100.0%
71112: Urban planning and landscape architectural activities	100.0%
71121: Engineering design activities for industrial process and production	100.0%
71122: Engineering related scientific and technical consulting activities	100.0%
71129: Other engineering activities (not including engineering design for industrial process and production or engineering related scientific and technical consulting activities)	100.0%
71200: Technical testing and analysis	100.0%
72110: Research and experimental development on biotechnology	100.0%
72190: Other research and experimental development on natural sciences and engineering	100.0%

72200: Research and experimental development on social sciences and humanities	100.0%
73110: Advertising agencies	100.0%
73120: Media representation	100.0%
73200: Market research and public opinion polling	100.0%
74100: Specialised design activities	100.0%
74201: Portrait photographic activities	100.0%
74202: Other specialist photography (not including portrait photography)	100.0%
74203: Film processing	100.0%
74209: Other photographic activities (not including portrait and other specialist photography and film processing) nec	100.0%
74300: Translation and interpretation activities	100.0%
74901: Environmental consulting activities	100.0%
74902: Quantity surveying activities	100.0%
74909: Other professional, scientific and technical activities (not including environmental consultancy or quantity surveying)	100.0%
75000: Veterinary activities	100.0%
77400: Leasing of intellectual property and similar products, except copyrighted works	100.0%
82301: Activities of exhibition and fair organizers	100.0%
82302: Activities of conference organizers	100.0%
82911: Activities of collection agencies	100.0%
82912: Activities of credit bureaus	100.0%
94110: Activities of business and employer's membership organisations	100.0%

Digital Tech and Communications

SIC classification (5 digit SIC07)	Proportion
18110: Printing of newspapers	18.4%
18130: Pre-press and pre-media services	44.7%
18201: Reproduction of sound recording	33.2%
18202: Reproduction of video recording	33.2%
18203: Reproduction of computer media	100.0%
26110: Manufacture of electronic components	100.0%
26120: Manufacture of loaded electronic boards	100.0%
26200: Manufacture of computers and peripheral equipment	100.0%
26301: Manufacture of telegraph and telephone apparatus and equipment	100.0%
26309: Manufacture of communication equipment (other than telegraph and telephone apparatus and equipment)	100.0%
26400: Manufacture of consumer electronics	100.0%
26800: Manufacture of magnetic and optical media	100.0%
27310: Manufacture of fibre optic cables	100.0%
46510: Wholesale of computers, computer peripheral equipment and software	100.0%
46520: Wholesale of electronic and telecommunications equipment and parts	100.0%
47410: Retail sale of computers, peripheral units and software in specialised stores	100.0%
47421: Retail sale of mobile telephones in specialised stores	100.0%
47429: Retail sale of telecommunications equipment (other than mobile telephones) nec, in specialised stores	100.0%
58110: Book publishing	18.4%
58120: Publishing of directories and mailing lists	18.4%
58130: Publishing of newspapers	18.4%

58141: Publishing of learned journals	18.4%
58142: Publishing of consumer, business and professional journals and periodicals	18.4%
58190: Other publishing activities	18.4%
58210: Publishing of computer games	100.0%
58290: Other software publishing	100.0%
59111: Motion picture production activities	33.2%
59112: Video production activities	33.2%
59113: Television programme production activities	33.2%
59120: Motion picture, video and television programme post-production activities	33.2%
59131: Motion picture distribution activities	33.2%
59132: Video distribution activities	33.2%
59133: Television programme distribution activities	33.2%
59140: Motion picture projection activities	33.2%
59200: Sound recording and music publishing activities	33.2%
60100: Radio broadcasting	33.2%
60200: Television programming and broadcasting activities	33.2%
61100: Wired telecommunications activities	100.0%
61200: Wireless telecommunications activities	100.0%
61300: Satellite telecommunications activities	100.0%
61900: Other telecommunications activities	100.0%
62011: Ready-made interactive leisure and entertainment software development	100.0%
62012: Business and domestic software development	100.0%
62020: Computer consultancy activities	100.0%
62030: Computer facilities management activities	100.0%
62090: Other information technology and computer service activities	100.0%
63110: Data processing, hosting and related activities	100.0%
63120: Web portals	100.0%
63910: News agency activities	100.0%
63990: Other information service activities nec	100.0%
70210: Public relations and communication activities	44.7%
73110: Advertising agencies	44.7%
73120: Media representation	44.7%
73200: Market research and public opinion polling	44.7%
74100: Specialised design activities	44.7%
74201: Portrait photographic activities	44.7%
74202: Other specialist photography (not including portrait photography)	44.7%
74203: Film processing	44.7%
74209: Other photographic activities (not including portrait and other specialist photography and film processing) nec	44.7%
77330: Renting and leasing of office machinery and equipment (including computers)	100.0%
95110: Repair of computers and peripheral equipment	100.0%
95120: Repair of communication equipment	100.0%
95210: Repair of consumer electronics	100.0%

Agri-food and Drink

SIC classification (5 digit SIC07)	Proportion

01000: DEFRA/Scottish Executive Agricultural Data	100.0%
01610: Support activities for crop production	100.0%
01621: Farm animal boarding and care	100.0%
01629: Support activities for animal production (other than farm animal boarding and care) nec	100.0%
01630: Post-harvest crop activities	100.0%
01640: Seed processing for propagation	100.0%
01700: Hunting, trapping and related service activities	100.0%
02100: Silviculture and other forestry activities	100.0%
02200: Logging	100.0%
02300: Gathering of wild growing non-wood products	100.0%
02400: Support services to forestry	100.0%
03110: Marine fishing	100.0%
03120: Freshwater fishing	100.0%
03210: Marine aquaculture	100.0%
03220: Freshwater aquaculture	100.0%
10110: Processing and preserving of meat	100.0%
10120: Processing and preserving of poultry meat	100.0%
10130: Production of meat and poultry meat products	100.0%
10200: Processing and preserving of fish, crustaceans and molluscs	100.0%
10310: Processing and preserving of potatoes	100.0%
10320: Manufacture of fruit and vegetable juice	100.0%
10390: Other processing and preserving of fruit and vegetables	100.0%
10410: Manufacture of oils and fats	100.0%
10420: Manufacture of margarine and similar edible fats	100.0%
10511: Liquid milk and cream production	100.0%
10512: Butter and cheese production	100.0%
10519: Manufacture of milk products (other than liquid milk and cream, butter, cheese) nec	100.0%
10520: Manufacture of ice cream	100.0%
10611: Grain milling	100.0%
10612: Manufacture of breakfast cereals and cereals-based foods	100.0%
10620: Manufacture of starches and starch products	100.0%
10710: Manufacture of bread; manufacture of fresh pastry goods and cakes	100.0%
10720: Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes	100.0%
10730: Manufacture of macaroni, noodles, couscous and similar farinaceous products	100.0%
10810: Manufacture of sugar	100.0%
10821: Manufacture of cocoa, and chocolate confectionery	100.0%
10822: Manufacture of sugar confectionery	100.0%
10831: Tea processing	100.0%
10832: Production of coffee and coffee substitutes	100.0%
10840: Manufacture of condiments and seasonings	100.0%
10850: Manufacture of prepared meals and dishes	100.0%
10860: Manufacture of homogenised food preparations and dietetic food	100.0%
10890: Manufacture of other food products nec	100.0%
10910: Manufacture of prepared feeds for farm animals	100.0%
10920: Manufacture of prepared pet foods	100.0%
11010: Distilling, rectifying and blending of spirits	100.0%
11020: Manufacture of wine from grape	100.0%

11030: Manufacture of cider and other fruit wines	100.0%
11040: Manufacture of other non-distilled fermented beverages	100.0%
11050: Manufacture of beer	100.0%
11060: Manufacture of malt	100.0%
11070: Manufacture of soft drinks; production of mineral waters and other bottled waters	100.0%
20150: Manufacture of fertilisers and nitrogen compounds	100.0%
20200: Manufacture of pesticides and other agrochemical products	100.0%
28301: Manufacture of agricultural tractors	100.0%
28302: Manufacture of agricultural and forestry machinery (other than agricultural tractors)	100.0%
28930: Manufacture of machinery for food, beverage and tobacco processing	100.0%
46110: Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods	100.0%
46170: Agents involved in the sale of food, beverages and tobacco	100.0%
46210: Wholesale of grain, unmanufactured tobacco, seeds and animal feeds	100.0%
46220: Wholesale of flowers and plants	100.0%
46230: Wholesale of live animals	100.0%
46310: Wholesale of fruit and vegetables	100.0%
46320: Wholesale of meat and meat products	100.0%
46330: Wholesale of dairy products, eggs and edible oils and fats	100.0%
46341: Wholesale of fruit and vegetable juices, mineral waters and soft drinks	100.0%
46342: Wholesale of wine, beer, spirits and other alcoholic beverages	100.0%
46360: Wholesale of sugar and chocolate and sugar confectionery	100.0%
46370: Wholesale of coffee, tea, cocoa and spices	100.0%
46380: Wholesale of other food, including fish, crustaceans and molluscs	100.0%
46390: Non-specialised wholesale of food, beverages and tobacco	100.0%
46610: Wholesale of agricultural machinery, equipment and supplies	100.0%
47110: Retail sale in non-specialised stores with food, beverages or tobacco predominating	100.0%
47210: Retail sale of fruit and vegetables in specialised stores	100.0%
47220: Retail sale of meat and meat products in specialised stores	100.0%
47230: Retail sale of fish, crustaceans and molluscs in specialised stores	100.0%
47240: Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores	100.0%
47250: Retail sale of beverages in specialised stores	100.0%
47290: Other retail sale of food in specialised stores	100.0%
47810: Retail sale via stalls and markets of food, beverages and tobacco products	100.0%
49200: Freight rail transport	1.0%
49410: Freight transport by road	7.5%
50200: Sea and coastal freight water transport	1.2%
50400: Inland freight water transport	1.2%
51210: Freight air transport	0.1%
52101: Operation of warehousing and storage facilities for water transport activities of division 50	0.8%
52102: Operation of warehousing and storage facilities for air transport activities of division 51	0.8%
52103: Operation of warehousing and storage facilities for land transport activities of division 49	0.8%
52211: Operation of rail freight terminals	0.8%

52219: Other service activities incidental to land transportation, nec (not including operation of rail freight terminals, passenger facilities at railway stations or passenger facilities at bus and coach stations)	0.8%
52220: Service activities incidental to water transportation	0.8%
52230: Service activities incidental to air transportation	0.8%
52241: Cargo handling for water transport activities of division 50	0.8%
52242: Cargo handling for air transport activities of division 51	0.8%
52243: Cargo handling for land transport activities of division 49	0.8%
52290: Other transportation support activities	0.8%
64201: Activities of agricultural holding companies	100.0%
72110: Research and experimental development on biotechnology	100.0%
77310: Renting and leasing of agricultural machinery and equipment	100.0%
82920: Packaging activities	0.8%

Retail and Wholesale

SIC classification (5 digit SIC07)	Proportion
45111: Sale of new cars and light motor vehicles	100.0%
45112: Sale of used cars and light motor vehicles	100.0%
45190: Sale of other motor vehicles	100.0%
45200: Maintenance and repair of motor vehicles	100.0%
45310: Wholesale trade of motor vehicle parts and accessories	100.0%
45320: Retail trade of motor vehicle parts and accessories	100.0%
45400: Sale, maintenance and repair of motorcycles and related parts and accessories	100.0%
46110: Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods	100.0%
46120: Agents involved in the sale of fuels, ores, metals and industrial chemicals	100.0%
46130: Agents involved in the sale of timber and building materials	100.0%
46140: Agents involved in the sale of machinery, industrial equipment, ships and aircraft	100.0%
46150: Agents involved in the sale of furniture, household goods, hardware and ironmongery	100.0%
46160: Agents involved in the sale of textiles, clothing, fur, footwear and leather goods	100.0%
46170: Agents involved in the sale of food, beverages and tobacco	100.0%
46180: Agents specialised in the sale of other particular products	100.0%
46190: Agents involved in the sale of a variety of goods	100.0%
46210: Wholesale of grain, unmanufactured tobacco, seeds and animal feeds	100.0%
46220: Wholesale of flowers and plants	100.0%
46230: Wholesale of live animals	100.0%
46240: Wholesale of hides, skins and leather	100.0%
46310: Wholesale of fruit and vegetables	100.0%
46320: Wholesale of meat and meat products	100.0%
46330: Wholesale of dairy products, eggs and edible oils and fats	100.0%
46341: Wholesale of fruit and vegetable juices, mineral waters and soft drinks	100.0%
46342: Wholesale of wine, beer, spirits and other alcoholic beverages	100.0%
46350: Wholesale of tobacco products	100.0%
46360: Wholesale of sugar and chocolate and sugar confectionery	100.0%
46370: Wholesale of coffee, tea, cocoa and spices	100.0%
46380: Wholesale of other food, including fish, crustaceans and molluscs	100.0%
46390: Non-specialised wholesale of food, beverages and tobacco	100.0%
46410: Wholesale of textiles	100.0%

46420: Wholesale of clothing and footwear	100.0%
46431: Wholesale of gramophone records, audio tapes, compact discs and video tapes and of the equipment on which these are played	100.0%
46439: Wholesale of radio and television goods and of electrical household appliances (other than of gramophone records, audio tapes, compact discs and video tapes and the equipment on which these are played) n.e.c.	100.0%
46440: Wholesale of china and glassware and cleaning materials	100.0%
46450: Wholesale of perfume and cosmetics	100.0%
46460: Wholesale of pharmaceutical goods	100.0%
46470: Wholesale of furniture, carpets and lighting equipment	100.0%
46480: Wholesale of watches and jewellery	100.0%
46491: Wholesale of musical instruments	100.0%
46499: Wholesale of household goods (other than musical instruments) nec	100.0%
46510: Wholesale of computers, computer peripheral equipment and software	100.0%
46520: Wholesale of electronic and telecommunications equipment and parts	100.0%
46610: Wholesale of agricultural machinery, equipment and supplies	100.0%
46620: Wholesale of machine tools	100.0%
46630: Wholesale of mining, construction and civil engineering machinery	100.0%
46640: Wholesale of machinery for the textile industry and of sewing and knitting machines	100.0%
46650: Wholesale of office furniture	100.0%
46660: Wholesale of other office machinery and equipment	100.0%
46690: Wholesale of other machinery and equipment	100.0%
46711: Wholesale of petroleum and petroleum products	100.0%
46719: Wholesale of fuels and related products (other than petroleum and petroleum products)	100.0%
46720: Wholesale of metals and metal ores	100.0%
46730: Wholesale of wood, construction materials and sanitary equipment	100.0%
46740: Wholesale of hardware, plumbing and heating equipment and supplies	100.0%
46750: Wholesale of chemical products	100.0%
46760: Wholesale of other intermediate products	100.0%
46770: Wholesale of waste and scrap	100.0%
46900: Non-specialised wholesale trade	100.0%
47110: Retail sale in non-specialised stores with food, beverages or tobacco predominating	100.0%
47190: Other retail sale in non-specialised stores	100.0%
47210: Retail sale of fruit and vegetables in specialised stores	100.0%
47220: Retail sale of meat and meat products in specialised stores	100.0%
47230: Retail sale of fish, crustaceans and molluscs in specialised stores	100.0%
47240: Retail sale of bread, cakes, flour confectionery and sugar confectionery in specialised stores	100.0%
47250: Retail sale of beverages in specialised stores	100.0%
47260: Retail sale of tobacco products in specialised stores	100.0%
47290: Other retail sale of food in specialised stores	100.0%
47300: Retail sale of automotive fuel in specialised stores	100.0%
47410: Retail sale of computers, peripheral units and software in specialised stores	100.0%
47421: Retail sale of mobile telephones in specialised stores	100.0%
47429: Retail sale of telecommunications equipment (other than mobile telephones) nec, in specialised stores	100.0%
47430: Retail sale of audio and video equipment in specialised stores	100.0%
47510: Retail sale of textiles in specialised stores	100.0%
47520: Retail sale of hardware, paints and glass in specialised stores	100.0%
47530: Retail sale of carpets, rugs, wall and floor coverings in specialised stores	100.0%
47540: Retail sale of electrical household appliances in specialised stores	100.0%

47591: Retail sale of musical instruments and scores in specialised stores	100.0%
47599: Retail sale of furniture, lighting equipment and other household articles (other than musical instruments) nec, in speci	100.0%
47610: Retail sale of books in specialised stores	100.0%
47620: Retail sale of newspapers and stationery in specialised stores	100.0%
47630: Retail sale of music and video recordings in specialised stores	100.0%
47640: Retail sale of sporting equipment in specialised stores	100.0%
47650: Retail sale of games and toys in specialised stores	100.0%
47710: Retail sale of clothing in specialised stores	100.0%
47721: Retail sale of footwear in specialised stores	100.0%
47722: Retail sale of leather goods in specialised stores	100.0%
47730: Dispensing chemist in specialised stores	100.0%
47741: Retail sale of hearing aids in specialised stores	100.0%
47749: Retail sale of medical and orthopaedic goods (other than hearing aids) nec, in specialised stores	100.0%
47750: Retail sale of cosmetic and toilet articles in specialised stores	100.0%
47760: Retail sale of flowers, plants, seeds, fertilisers, pet animals and pet food in specialised stores	100.0%
47770: Retail sale of watches and jewellery in specialised stores	100.0%
47781: Retail sale in commercial art galleries	100.0%
47782: Retail sale by opticians	100.0%
47789: Other retail sale of new goods in specialised stores (other than by opticians or commercial art galleries), nec	100.0%
47791: Retail sale of antiques including antique books, in stores	100.0%
47799: Retail sale of second-hand goods (other than antiques and antique books) in stores	100.0%
47810: Retail sale via stalls and markets of food, beverages and tobacco products	100.0%
47820: Retail sale via stalls and markets of textiles, clothing and footwear	100.0%
47890: Retail sale via stalls and markets of other goods	100.0%
47910: Retail sale via mail order houses or via Internet	100.0%
47990: Other retail sale not in stores, stalls or markets	100.0%
95110: Repair of computers and peripheral equipment	100.0%
95120: Repair of communication equipment	100.0%
95210: Repair of consumer electronics	100.0%
95220: Repair of household appliances and home and garden equipment	100.0%
95230: Repair of footwear and leather goods	100.0%
95240: Repair of furniture and home furnishings	100.0%
95250: Repair of watches, clocks and jewellery	100.0%
95290: Repair of other personal and household goods	100.0%
96010: Washing and (dry-)cleaning of textile and fur products	100.0%
96020: Hairdressing and other beauty treatment	100.0%
96030: Funeral and related activities	100.0%
96040: Physical well-being activities	100.0%
96090: Other personal service activities nec	100.0%

Tourism and Hospitality

SIC classification (5 digit SIC07)	Proportion
55100: Hotels and similar accommodation	100.0%
55201: Holiday centres and villages	100.0%
55202: Youth hostels	100.0%
55209: Other holiday and other short-stay accommodation (not including holiday centres and villages or youth hostels) nec	100.0%
55300: Camping grounds, recreational vehicle parks and trailer parks	100.0%

55900: Other accommodation	100.0%
56101: Licensed restaurants	100.0%
56102: Unlicensed restaurants and cafes	100.0%
56103: Take away food shops and mobile food stands	100.0%
56210: Event catering activities	100.0%
56290: Other food service activities	100.0%
56301: Licensed clubs	100.0%
56302: Public houses and bars	100.0%
49100: Passenger rail transport, interurban	100.0%
49320: Taxi operation	100.0%
49390: Other passenger land transport nec	100.0%
50100: Sea and coastal passenger water transport	100.0%
50300: Inland passenger water transport	100.0%
51101: Scheduled passenger air transport	100.0%
51102: Non-scheduled passenger air transport	100.0%
77110: Renting and leasing of cars and light motor vehicles	100.0%
77341: Renting and leasing of passenger water transport equipment	100.0%
77351: Renting and leasing of passenger air transport equipment	100.0%
79110: Travel agency activities	100.0%
79120: Tour operator activities	100.0%
79901: Activities of tourist guides	100.0%
79909: Other reservation service activities (not including activities of tourist guides)	100.0%
82301: Activities of exhibition and fair organizers	100.0%
82302: Activities of conference organizers	100.0%
68202: Letting and operating of conference and exhibition centres	100.0%
46431: Wholesale of gramophone records, audio tapes, compact discs and video tapes and of the equipment on which these are played	100.0%
47630: Retail sale of music and video recordings in specialised stores	100.0%
47781: Retail sale in commercial art galleries	100.0%
47791: Retail sale of antiques including antique books, in stores	100.0%
47640: Retail sale of sporting equipment in specialised stores	100.0%
47650: Retail sale of games and toys in specialised stores	100.0%
59140: Motion picture projection activities	100.0%
77210: Renting and leasing of recreational and sports goods	100.0%
77291: Renting and leasing of media entertainment equipment	100.0%
78101: Motion picture, television and other theatrical casting	100.0%
85520: Cultural education	100.0%
85510: Sports and recreation education	100.0%
90010: Performing arts	100.0%
90020: Support activities to performing arts	100.0%
90030: Artistic creation	100.0%
90040: Operation of arts facilities	100.0%
91011: Library activities	100.0%
91012: Archive activities	100.0%
91020: Museum activities	100.0%
91030: Operation of historical sites and buildings and similar visitor attractions	100.0%
91040: Botanical and zoological gardens and nature reserve activities	100.0%
92000: Gambling and betting activities	100.0%
93110: Operation of sports facilities	100.0%
93191: Activities of racehorse owners	100.0%

93199: Other sports activities (not including activities of racehorse owners) nec	100.0%
93210: Activities of amusement parks and theme parks	100.0%
93290: Other amusement and recreation activities	100.0%
94910: Activities of religious organisations	100.0%

Health and Social Care

SIC classification (5 digit SIC07)	Proportion
86101: Hospital activities	100.0%
86102: Medical nursing home activities	100.0%
86210: General medical practice activities	100.0%
86220: Specialist medical practice activities	100.0%
86230: Dental practice activities	100.0%
86900: Other human health activities	100.0%
87100: Residential nursing care activities	100.0%
87200: Residential care activities for learning disabilities, mental health and substance abuse	100.0%
87300: Residential care activities for the elderly and disabled	100.0%
87900: Other residential care activities	100.0%
88100: Social work activities without accommodation for the elderly and disabled	100.0%
88910: Child day-care activities	100.0%
88990: Other social work activities without accommodation nec	100.0%

Creative and Cultural industries

SIC classification (5 digit SIC07)	Proportion
18110: Printing of newspapers	100.0%
18130: Pre-press and pre-media services	100.0%
18140: Binding and related services	100.0%
18201: Reproduction of sound recording	100.0%
18202: Reproduction of video recording	100.0%
18203: Reproduction of computer media	100.0%
32120: Manufacture of jewellery and related articles	100.0%
32130: Manufacture of imitation jewellery and related articles	100.0%
32200: Manufacture of musical instruments	100.0%
46431: Wholesale of gramophone records, audio tapes, compact discs and video tapes and of the equipment on which these are played	100.0%
46491: Wholesale of musical instruments	100.0%
47591: Retail sale of musical instruments and scores in specialised stores	100.0%
47610: Retail sale of books in specialised stores	100.0%
47630: Retail sale of music and video recordings in specialised stores	100.0%
47640: Retail sale of sporting equipment in specialised stores	100.0%
47650: Retail sale of games and toys in specialised stores	100.0%
47781: Retail sale in commercial art galleries	100.0%
47791: Retail sale of antiques including antique books, in stores	100.0%
58110: Book publishing	100.0%
58130: Publishing of newspapers	100.0%
58141: Publishing of learned journals	100.0%
58142: Publishing of consumer, business and professional journals and periodicals	100.0%

58190: Other publishing activities	100.0%
58210: Publishing of computer games	100.0%
58290: Other software publishing	100.0%
59111: Motion picture production activities	100.0%
59112: Video production activities	100.0%
59113: Television programme production activities	100.0%
59120: Motion picture, video and television programme post-production activities	100.0%
59131: Motion picture distribution activities	100.0%
59132: Video distribution activities	100.0%
59133: Television programme distribution activities	100.0%
59140: Motion picture projection activities	100.0%
59200: Sound recording and music publishing activities	100.0%
60100: Radio broadcasting	100.0%
60200: Television programming and broadcasting activities	100.0%
62011: Ready-made interactive leisure and entertainment software development	100.0%
70210: Public relations and communication activities	100.0%
71111: Architectural activities	100.0%
71112: Urban planning and landscape architectural activities	100.0%
73110: Advertising agencies	100.0%
73120: Media representation	100.0%
74100: Specialised design activities	100.0%
74201: Portrait photographic activities	100.0%
74202: Other specialist photography (not including portrait photography)	100.0%
74203: Film processing	100.0%
74209: Other photographic activities (not including portrait and other specialist photography and film processing) nec	100.0%
74300: Translation and interpretation activities	100.0%
77210: Renting and leasing of recreational and sports goods	100.0%
77291: Renting and leasing of media entertainment equipment	100.0%
78101: Motion picture, television and other theatrical casting	100.0%
85510: Sports and recreation education	100.0%
85520: Cultural education	100.0%
90010: Performing arts	100.0%
90020: Support activities to performing arts	100.0%
90030: Artistic creation	100.0%
90040: Operation of arts facilities	100.0%
91011: Library activities	100.0%
91012: Archive activities	100.0%
91020: Museum activities	100.0%
91030: Operation of historical sites and buildings and similar visitor attractions	100.0%
91040: Botanical and zoological gardens and nature reserve activities	100.0%
92000: Gambling and betting activities	100.0%
93110: Operation of sports facilities	100.0%
93191: Activities of racehorse owners	100.0%
93199: Other sports activities (not including activities of racehorse owners) nec	100.0%
93210: Activities of amusement parks and theme parks	100.0%
93290: Other amusement and recreation activities	100.0%
94910: Activities of religious organisations	100.0%

Textiles and Fashion

SIC classification (5 digit SIC07)	Proportion
13100: Preparation and spinning of textile fibres	100.0%
13200: Weaving of textiles	100.0%
13300: Finishing of textiles	100.0%
13910: Manufacture of knitted and crocheted fabrics	100.0%
13921: Manufacture of soft furnishings	100.0%
13922: Manufacture of canvas goods, sacks etc	100.0%
13923: Manufacture of household textiles (other than soft furnishings of 13921)	100.0%
13931: Manufacture of woven or tufted carpets and rugs	100.0%
13939: Manufacture of carpets and rugs (other than woven or tufted) nec	100.0%
13940: Manufacture of cordage, rope, twine and netting	100.0%
13950: Manufacture of non-wovens and articles made from non-wovens, except apparel	100.0%
13960: Manufacture of other technical and industrial textiles	100.0%
13990: Manufacture of other textiles nec	100.0%
14110: Manufacture of leather clothes	100.0%
14120: Manufacture of workwear	100.0%
14131: Manufacture of men's outerwear, other than leather clothes and workwear	100.0%
14132: Manufacture of women's outerwear, other than leather clothes and workwear	100.0%
14141: Manufacture of men's underwear	100.0%
14142: Manufacture of women's underwear	100.0%
14190: Manufacture of other wearing apparel and accessories	100.0%
14200: Manufacture of articles of fur	100.0%
14310: Manufacture of knitted and crocheted hosiery	100.0%
14390: Manufacture of other knitted and crocheted apparel	100.0%
15110: Tanning and dressing of leather; dressing and dyeing of fur	100.0%
15120: Manufacture of luggage, handbags and the like, saddlery and harness	100.0%
15200: Manufacture of footwear	100.0%
20600: Manufacture of man-made fibres	100.0%
26520: Manufacture of watches and clocks	100.0%
28940: Manufacture of machinery for textile, apparel and leather production	100.0%
32120: Manufacture of jewellery and related articles	100.0%
32130: Manufacture of imitation jewellery and related articles	100.0%
46160: Agents involved in the sale of textiles, clothing, fur, footwear and leather goods	100.0%
46410: Wholesale of textiles	100.0%
46420: Wholesale of clothing and footwear	100.0%
46480: Wholesale of watches and jewellery	100.0%
46640: Wholesale of machinery for the textile industry and of sewing and knitting machines	100.0%
47510: Retail sale of textiles in specialised stores	100.0%
47710: Retail sale of clothing in specialised stores	100.0%
47721: Retail sale of footwear in specialised stores	100.0%
47722: Retail sale of leather goods in specialised stores	100.0%
47770: Retail sale of watches and jewellery in specialised stores	100.0%

47820: Retail sale via stalls and markets of textiles, clothing and footwear	100.0%
74100: Specialised design activities	100.0%
74201: Portrait photographic activities	100.0%
74209: Other photographic activities (not including portrait and other specialist photography and film processing) nec	100.0%
95230: Repair of footwear and leather goods	100.0%
95250: Repair of watches, clocks and jewellery	100.0%
96010: Washing and (dry-)cleaning of textile and fur products	100.0%

Construction and Development

SIC classification (5 digit SIC07)	Proportion
39000: Remediation activities and other waste management services	100.0%
41100: Development of building projects	100.0%
41201: Construction of commercial buildings	100.0%
41202: Construction of domestic buildings	100.0%
42110: Construction of roads and motorways	100.0%
42120: Construction of railways and underground railways	100.0%
42130: Construction of bridges and tunnels	100.0%
42210: Construction of utility projects for fluids	100.0%
42220: Construction of utility projects for electricity and telecommunications	100.0%
42910: Construction of water projects	100.0%
42990: Construction of other civil engineering projects nec	100.0%
43110: Demolition	100.0%
43120: Site preparation	100.0%
43130: Test drilling and boring	100.0%
43210: Electrical installation	100.0%
43220: Plumbing, heat and air-conditioning installation	100.0%
43290: Other construction installation	100.0%
43310: Plastering	100.0%
43320: Joinery installation	100.0%
43330: Floor and wall covering	100.0%
43341: Painting	100.0%
43342: Glazing	100.0%
43390: Other building completion and finishing	100.0%
43910: Roofing activities	100.0%
43991: Scaffold erection	100.0%
43999: Specialised construction activities (other than scaffold erection) nec	100.0%
64203: Activities of construction holding companies	100.0%
68100: Buying and selling of own real estate	100.0%
68201: Renting and operating of Housing Association real estate	100.0%
68310: Real estate agencies	100.0%
71111: Architectural activities	100.0%
71112: Urban planning and landscape architectural activities	100.0%
71200: Technical testing and analysis	100.0%
74902: Quantity surveying activities	100.0%
77320: Renting and leasing of construction and civil engineering machinery and equipment	100.0%