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West Midlands and Warwickshire Local Skills Improvement Plan

Annex A: Local Strategic Context

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Coventry and Warwickshire Chamber of Commerce

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Introduction

This Annex to the West Midlands and Warwickshire Local Skills Improvement Plan sets out the local strategic context to the Plan. Enclosed is a detailed description of the geography the Plan refers to and the background economic context in the area. This annex also summarises secondary research regarding the cross-cutting themes of the LSIP and the 'Priority Growth Clusters' in which the Plan sought to develop a deeper understanding of specific skills needs through a series of in-depth, online focus groups and interviews.

West Midlands and Warwickshire LSIP Geography

The West Midlands and Warwickshire Local Skills Improvement Plan (WMW LSIP) covers the geographical regions administered by the West Midlands Combined Authority – constituted of the seven local authorities of Birmingham City Council, Coventry City Council, Dudley Metropolitan Borough Council, Sandwell Metropolitan Borough Council, Solihull Metropolitan Borough Council, Walsall Council and the City of Wolverhampton Council – and Warwickshire County Council.

This reflects the geographical region of the three Chambers of Commerce collaboratively delivering the Plan – Coventry and Warwickshire Chamber of Commerce, Greater Birmingham Chambers of Commerce and Black Country Chamber of Commerce – and the three West Midlands Local Enterprise Partnerships (Greater Birmingham and Solihull LEP, Black Country LEP and Coventry and Warwickshire LEP).

On occasion, secondary data cited in this report refers to the West Midlands region. This is the large-scale region at International Territorial Level 1 (ITL1), which encompasses the WMW LSIP geography. Please note that ITL recently replaced the EU's Nomenclature of Units for Territorial Statistics (NUTS).

References to the 'West Midlands Combined Authority (WMCA) area' are to that administered by the Combined Authority, as outlined above. References to 'Warwickshire' are to the area administered by Warwickshire County Council, comprising the five district/borough areas of North Warwickshire Borough, Nuneaton and Bedworth Borough, Rugby Borough, Stratford-on-Avon District and Warwick District.

Commuter patterns recorded by the most recently available census data (2011) demonstrate the close economic relationship between Warwickshire and the West Midlands Combined Authority area. Around 27,700 commuters travel from Warwickshire to Coventry for work (accounting for almost a quarter of out-commuting from the county). A further 12,000 Warwickshire residents commute to Birmingham. The single largest movement of in-commuters to areas in Warwickshire also takes place between Coventry and Warwick with some 9,249 workers travelling - almost one in four commuters into the county. 10,500 commuters travel from Birmingham into Warwickshire.¹ The crossover of workforce catchments between the two geographies plays an important role in the local labour market.

¹ Who goes where...Commuting patterns into and out of Warwickshire, Rosie Smith, North Warwickshire Borough Council, 2015

Background Economic Context in the West Midlands and Warwickshire

The West Midlands has faced significant challenges over recent years as a result of successive macro-economic shocks – Brexit, the Covid-19 pandemic and most recently inflation, driven in part by the crisis in Ukraine and historically high energy prices. In order to understand the current skills landscape of the West Midlands, it is important to recognise these factors, as well as the business demography of the region, its relatively diverse resident population, and the education and training opportunities available to facilitate access to the local labour market.

Macroeconomic Context

Prior to the pandemic, the West Midlands was on a significant and encouraging growth trajectory. More recent years have delivered significant challenges for businesses across the region. The region has been disproportionately impacted by Brexit disruption, associated supply chain difficulties and the Covid-19 pandemic due to its industrial economic base.² Covid-19 posed a greater challenge for many sectors than any time since the Second World War, although governmental support successfully staved off a wave of failures whilst digitalisation allowed many firms to operate remotely. Whilst the economy has at this stage largely recovered from the direct hit brought on by the pandemic, supply chain issues, staff shortages and inflation all continue to pose challenges. Not least the energy crisis which is placing many firms under strain and raising the threat of failure once again.

“The [West Midlands] region was one of the most prosperous areas of the UK until the 1970/80s, and in the five years prior to 2020 it had been experiencing a resurgence of that power on the back of the growth in the business and professional services sector; technology driven manufacturing and city centre construction growth. A thriving city centre based international business and professional services sector drove high levels of business tourism. The manufacturing base was becoming more productive and the automotive sector was responding to the challenge of a carbon neutral future. The region was characterised by high exports, foreign direct investment and strong international links. It had the biggest higher education cluster outside London. The region broke through the £100bn GVA barrier and hit £106.7bn (in 2019) and had been bucking the national trend on a host of economic indicators, such as enterprise and employment growth. All this was powered by a young workforce, increasing its skills and moving to the region. However, alongside this growth there were significant issues with inequality, poverty, youth unemployment, low skills, poor health and school performance.” – West Midlands State of the Region Summary Evidence Report for 2021

The economic impacts of the pandemic were mitigated by extensive government support for businesses, including the Coronavirus Business Interruption Loan Scheme (CBILs) and then-Chancellor Rishi Sunak’s Coronavirus Job Retention Scheme. Total GVA across the West Midlands region declined by 4.5% between 2019 and 2020 to £102.9bn, compared to an average 3.4% decline across the UK.³ GVA per head declined from 5% to £24,411 in the same period (compared to an average of 3.8% nationally).⁴

² Brexit and the West Midlands: What Has Happened in the Last Five Years?, Johannes Read, City-REDI, University of Birmingham, 2022

³ Regional gross value added (balanced) by industry: local authorities by ITL1 region, ONS, via Black Country Consortium

⁴ Regional gross value added (balanced) by industry: local authorities by ITL1 region and mid-year population estimates, ONS, accessed via Black Country Consortium

Economic recovery from the pandemic has been dampened by global supply chain issues (some attributable to the ongoing changes resulting from Britain's exit from the European Union), tight labour markets and a historic rise in energy prices in 2022.

Monthly real gross domestic product (GDP) is estimated to have fallen by 0.3% in March 2023, after showing no growth in February 2023. Looking at the broader picture, GDP grew by 0.1% in the three months to March 2023. Monthly GDP is now estimated to be 0.1% above its pre-coronavirus (COVID-19) levels (February 2020).⁵

The Consumer Prices Index (CPI) rose by 10.1% in the 12 months to March 2023, down from 10.4% in February (the latest available figures at the time of writing). On a monthly basis, CPI rose by 0.8% in March 2023, compared with a rise of 1.1% in March 2022. The largest downward contributions to the monthly change in both the CPIH and CPI annual rates came from motor fuels, and housing and household services (particularly liquid fuels), partially offset by upward contributions from food, and recreation and culture.⁶

In response to current inflation, at its meeting ending on 10th May 2023, the Bank of England's Monetary Policy Committee (MPC) voted by a majority of 7-2 to increase the Bank Rate by 0.25 percentage points, to 4.5%.

Minutes of this MPC meeting reflect Bank expectations that UK GDP will be flat over the first half of this year, although underlying output, excluding the estimated impact of strikes and an extra bank holiday, is projected to grow modestly. Economic activity has been less weak than expected in February, contributing to an improved outlook which reflects stronger global growth, lower energy prices, the fiscal support announced by the Chancellor in the Spring Budget, and the possibility that a tight labour market leads to lower precautionary saving by households. Although there are indications that the labour market has started to loosen, the MPC minutes project that the national unemployment rate will remain below 4.0% until the end of 2024, before rising over the second half of the forecast period to around 4.5%.⁷

The Quarterly Economic Snapshot, published by the Greater Birmingham, Coventry and Warwickshire and Black Country Chambers of Commerce saw the balance score for price pressures among local businesses hit 76 in Q1 2023– a decline of 2 points compared to the previous quarter but nevertheless high. Over 61% of manufacturers across the area expected the prices of their goods and services to increase over the following three months, along with 53% of service firms. 28% of manufacturers and 25% of service firms experienced a fall in cashflow in Q1 of the year.⁸

Business Demography and Workforce Jobs

“Businesses are the lifeblood of the regional economy and have a critical role to play in delivering regional growth and levelling up aims. They are essential drivers of growth, investment, jobs, productivity and innovation necessary for progress across economic, social and environmental domains. Future prosperity is intrinsically linked to the performance of the many small, medium and large businesses and entrepreneurs across the region. They are also a major source of tax revenues necessary to fund investment in better public services, infrastructure and the transition to net zero. Achievement of these objectives becomes much harder without a strong and dynamic business base.”
– Birmingham Economic Review 2022

⁵ GDP monthly estimate, UK: March 2023, ONS

⁶ Consumer price inflation, UK: March 2023, ONS

⁷ Bank Rate increased to 4.5% - May 2023, Bank of England

⁸ Quarterly Economic Snapshot Q1 2023, Greater Birmingham Chambers of Commerce

In 2022, it is reported that 120,615 enterprises were registered in the West Midlands and Warwickshire. The vast majority (88.9%) of enterprises are micro businesses (with 0-9 employees). 9.1% are small (with 10 to 49 employees) and 1.6% medium-sized (50 to 249 employees). Just 0.5% of enterprises are large (defined as 250+ employees).⁹

The highest proportions of workforce jobs in the West Midlands region are attributable to: wholesale and retail trade; repair of motor vehicles and motorcycles (13.8%); Human health and social work activities (13.6%); Manufacturing (10.4%); Administrative and support service activities (9.3%); and Education (8.2%).¹⁰

Total workforce jobs by industry (SIC 2007) - seasonally adjusted (West Midlands and United Kingdom, 2022)

Industry	West Midlands		United Kingdom	
	number	%	number	%
A : Agriculture, forestry and fishing	32,277	1.1	345,009	1.0
B : Mining and quarrying	349	0.0	50,080	0.1
C : Manufacturing	310,955	10.4	2,637,426	7.3
D : Electricity, gas, steam and air conditioning supply	10,533	0.4	137,901	0.4
E : Water supply; sewerage, waste management and remediation activities	24,524	0.8	236,165	0.7
F : Construction	155,944	5.2	2,230,763	6.2
G : Wholesale and retail trade; repair of motor vehicles and motorcycles	413,937	13.8	4,823,229	13.3
H : Transportation and storage	190,236	6.4	1,912,714	5.3
I : Accommodation and food service activities	234,781	7.8	2,608,347	7.2
J : Information and communication	107,787	3.6	1,669,571	4.6
K : Financial and insurance activities	61,202	2.0	1,161,735	3.2
L : Real estate activities	40,124	1.3	663,094	1.8
M : Professional, scientific and technical activities	212,126	7.1	3,321,374	9.2
N : Administrative and support service activities	277,542	9.3	3,077,591	8.5

⁹ UK Business Counts, West Midlands Combined Authority and Warwickshire County Council (combined), 2022, ONS Inter Departmental Business Register, accessed via Nomis

¹⁰ Workforce jobs by industry (SIC 2007) - seasonally adjusted, ONS, September 2022, accessed via Nomis

O : Public administration and defence; compulsory social security	108,297	3.6	1,632,740	4.5
P : Education	246,888	8.2	3,054,363	8.4
Q : Human health and social work activities	408,433	13.6	4,656,571	12.9
R : Arts, entertainment and recreation	77,811	2.6	1,017,292	2.8
S : Other service activities	80,522	2.7	927,449	2.6
T : Activities of households as employers; undifferentiated goods-and services-producing activities of households for own use	560	0.0	53,361	0.1
Column Total	2,994,828	100.0	36,216,775	100.0

Source: ONS, September 2022, Accessed via Nomis

Resident Demography

The working age population of the West Midlands and Warwickshire is estimated to be around 2,211,800.¹¹

“We expect significant population growth across the region (5.41%) between now and ... 2027. This should provide a greater workforce to the region, however it is important that schemes are focused on bridging the skills gap between demand and supply, to ensure that this growing local workforce matches the skills demands of employers” – West Midlands Local Skills Report Evidence Base, 2021

The West Midlands region is the second most diverse region across England and Wales. The latest available data shows that 79.2% of the population are White British, 10.8% Asian, 3.6% White Other, 3.3% Black, 2.4% Mixes and 0.9% Other.¹²

Economic activity and Employment

Around 73.0% of West Midlands and Warwickshire residents aged 16-64 are in employment (as of January to December 2022).¹³

The employment rate in the West Midlands and Warwickshire is relatively low compared to the national average over the same period (75.6%).¹⁴

Employment rates in the WMCA area vary considerably by ethnicity. In the WMCA area for the period between July 2021 and June 2022, 75.2% of Indian residents were in employment, the highest employment rate seen across all ethnic groups. By comparison, the lowest employment rate for any ethnic group in the region was that of Pakistanis and Bangladeshis (57.9%).¹⁵

Employment rates of ethnic groups in the West Midlands Combined Authority Area (July 2021 to June 2022)

¹¹ Population estimates - local authority based by five year age band, ONS, 2021, Accessed via Nomis

¹² Regional Ethnic diversity, England and Wales, Census, 2011

¹³ Annual population survey, ONS, 2022, Accessed via Nomis

¹⁴ Annual population survey, ONS, 2022, Accessed via Nomis

¹⁵ Annual population survey, ONS, 2022, Accessed via Nomis

Variable	West Midlands Combined Authority area	
	Employed	Rate (%)
aged 16-64 employment rate - white	868,800	72.0
aged 16-64 employment rate - ethnic minority	412,700	64.1
aged 16-64 employment rate for all mixed ethnic group	15,900	49.0
aged 16-64 employment rate for all Indians	119,500	75.2
aged 16-64 employment rate for all Pakistanis/Bangladeshis	102,900	57.9
aged 16-64 employment rate for all Black or black British	108,600	64.7
aged 16-64 employment rate for all other ethnic group	65,700	62.0

Source: ONS annual population survey, 2022, Accessed via Nomis

Warwickshire also experienced significant variance in employment rates among ethnic groups in the same period, with the highest employment rate seen among Black or black British residents (90.8%) and the lowest also by Pakistanis and Bangladeshis (77.3%).¹⁶

Employment rates of ethnic groups in Warwickshire (July 2021 to June 2022)

Variable	Warwickshire	
	Employed	Rate (%)
aged 16-64 employment rate - white	242,200	79.4
aged 16-64 employment rate - ethnic minority	29,300	83.8
aged 16-64 employment rate for all mixed ethnic group	4,000	90.7
aged 16-64 employment rate for all Indians	16,000	83.1
aged 16-64 employment rate for all Pakistanis/Bangladeshis	2,500	77.3
aged 16-64 employment rate for all Black or black British	3,800	90.8
aged 16-64 employment rate for all other ethnic group	2,900	77.9

Source: ONS annual population survey, 2022, Accessed via Nomis

Unemployment and Claimant Count

The West Midlands and Warwickshire has relatively high levels of unemployment. In January to December 2022, approximately 4.4% of West Midlands and Warwickshire residents aged 16-64 were unemployed, compared to 3.6% of residents across Great Britain.¹⁷

As of 13th October the Claimant Count in the West Midlands Group stood at 152,150. The Claimant Count was falling consistently from the beginning of 2021, though this has stabilised in recent months. The Claimant Count remains 21.7% higher than its pre-pandemic level in March 2020. It reached a peak of 231,510 in February 2021. It should be noted that enhancements to Universal Credit as part of the UK government's response to coronavirus means that an increasing number of people became eligible for unemployment-related benefit support through earnings falling below

¹⁶ Annual population survey, ONS, 2022, Accessed via Nomis

¹⁷ Annual population survey, ONS, 2022, Accessed via Nomis

income thresholds, and as such changes in the Claimant Count are not wholly due to changes in the number of people who are unemployed.¹⁸

Economic Inactivity

The West Midlands and Warwickshire has relatively high levels of economic inactivity. In January to December 2022, approximately 24.4% of West Midlands and Warwickshire residents aged 16-64 were economically inactive, compared to 21.5% of residents across Great Britain.¹⁹

Vacancies

The number of job vacancies across the country in August to October 2022 was 1,225,000, having decreased by 46,000 from May to July 2022. Quarterly growth fell for the fourth consecutive period to negative 3.6% in the three months to October, however, vacancies remained 429,000 (54%) above the January to March 2020 (pre-coronavirus) level, and 32,000 (2.7%) above the level a year prior (August to October 2021).

In July to September 2022, the number of unemployed people per vacancy was 1.0. This remained unchanged from the previous quarter and indicative of a tight labour market.²⁰

Local data for the West Midlands region shows that as of 17th-23rd April 2023, regional growth in job postings is 42.1% compared with the last week of December 2021. While this is considerably lower than the peak seen in August, it is notably higher than the comparable rate between 18th-24th April 2022 (17.8%). This latest data reflects surveying by Chambers of Commerce across the WMW area, which suggests that in Q1 2023, 62% of businesses looking to recruit experienced difficulties doing so.^{21 22}

Where employers are unable to access the skilled talent they need, this can impact on competitiveness, increase costs, and slow technological change and innovation, as reported in the 2019 Employer Skills Survey, and published in the WMCA Local Skills Plan Evidence Report.²³

Impacts of skills gaps, as identified by employers in each of the three WM LEPs (2019)

¹⁸ West Midlands State of The Group Report November 2022, Department for Work and Pensions

¹⁹ Annual population survey, ONS, 2022, Accessed via Nomis

²⁰ Vacancies and jobs in the UK: November 2022, ONS

²¹ Labour Market Tracker, Recruitment and Employment Confederation, 2022

²² Quarterly Economic Snapshot Q1 2023, Greater Birmingham Chambers of Commerce (unpublished)

²³ Employer Skills Survey, Department for Education, 2019, as cited by West Midlands Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

	BC LEP	CW LEP	GBS LEP
Lose business or orders to competitors	46%	34%	58%
Delay developing new products or services	44%	55%	36%
Have difficulties meeting quality standards	30%	34%	30%
Experience increased operating costs	60%	22%	56%
Have difficulties introducing new working practices	34%	34%	34%
Increase workload for other staff	92%	95%	78%
Outsource work	35%	16%	27%
Withdraw from offering certain products or services altogether	25%	31%	27%
Have difficulties meeting customer services objectives	64%	59%	47%
Have difficulties introducing technological change	36%	29%	34%
None	2%	3%	3%

Source: West Midlands Local Skills Plan Evidence Report, WMCA, 2020

While skills gaps can be a critical source of recruitment difficulties, it is also important to acknowledge where other factors are contributing to high levels of unfilled vacancies. For example, in certain industries, this may include the nature of work, rewards & conditions.

Gross Disposable Household Income

Gross Disposable Household Income (GDHI) per head in the West Midlands region was £18,363 in 2020, below the UK figure of £21,440 and well below the figure of £29,890 for London. However, the region saw GDHI growth of 0.2% compared to 2019, compared to an average decline across the UK of 0.2%.²⁴

GDHI per head in Countries and Regions of the UK

Countries and regions of the UK	Population (million)	GDHI per head (£)	GDHI per head growth on 2019 (%)	Share of the UK population (%)	Share of UK total GDHI (%)
United Kingdom	67.1	21,440	-0.2	100.0	100.0
England	56.6	21,962	-0.2	84.3	86.4
North East	2.7	17,416	0.9	4.0	3.2
North West	7.4	18,900	0.9	11.0	9.7
Yorkshire and The Humber	5.5	18,119	0.5	8.2	7.0
East Midlands	4.9	18,844	0.6	7.3	6.4
West Midlands	6.0	18,363	0.2	8.9	7.6
East of England	6.3	22,310	-0.4	9.3	9.7

²⁴ Regional gross disposable household income, UK, Census 2021, Accessed via ONS

London	9.0	29,890	-0.9	13.4	18.7
South East	9.2	24,551	-0.9	13.7	15.7
South West	5.7	21,117	-0.9	8.4	8.3

Source: Census 2021, Accessed via ONS

Qualifications and Skill Attainment

The Skills for Jobs whitepaper reflects that the UK skills system has historically been effective at producing graduates, but less suited to helping people achieve good quality higher technical skills. The whitepaper cites Department for Education data from 2018, indicating that just 4% of individuals achieve a higher technical qualification as their highest level qualification by the age of 25, while 37% of 25 year-olds have only achieved an intermediate (level 2) qualification or below, as their highest level qualification. In comparison, the whitepaper cites that 33% achieve a degree level (level 6) qualification or above by 25 years of age.²⁵ This nuance in NVQ data is important in understanding where existing technical education provision is not being fully utilised, and why employers requiring advanced technical qualifications may struggle to access skilled talent in the labour market.

The skills profile of the region is of great significance in attracting business investment and, particularly in challenging economic times, enabling business survival, recovery and growth.

The WMCA cites that on average in the West Midlands, 25% of all vacancies are skills shortage vacancies, compared to a national average of 22%. The report identifies that skilled trades occupations are the most common occupation to be suffering from skills shortage vacancies in both BC LEP (38%) and GBS LEP (21%), associate professionals in CW LEP (41%).²⁶

The Department for Education's 2020 Working Futures report estimates that (55.2%) of all jobs will require NVQ level 4+ skills by 2027. While 2021 data shows that NVQ level 4+ attainment across the West Midlands Combined Authority Area (36.9%) remains below the national average (43.6%), it has increased significantly over the past five years, closing the gap on the national rate. For comparison, in 2016 the NVQ level 4+ rate in the West Midlands was 29.1% and the national rate 38.2%.

54.9% of the resident West Midlands Combined Authority population hold NVQ level 3+ qualifications. Again, this is significantly lower than the 61.5% national average, but has been on a similar upward trajectory over the past 5 years. In 2016, 45.7% of the West Midlands population were trained to level NVQ level 3+, compared to 56.9%.

72.1% and 81.8% of the resident population in the WMCA area hold NVQ level 2+ and NVQ level 1+ qualifications respectively. These proportions are significantly lower than the average across Great Britain (78.1% and 87.5% respectively). These changed only slightly, much like the national rates, between 2020 and 2021.

The proportion of the resident population in the WMCA area with no formal qualifications has also declined at well beyond the national rate over the past 5 years, from 15.4% in 2016 to 9.6% in 2021, however it remains high compared to the national average of 6.6% in 2021²⁷ and Department for

²⁵ Skills for Jobs: Lifelong Learning for Opportunity and Growth, Department for Education, 2021

²⁶ West Midlands Local Skills Report Evidence Base, West Midlands Combined Authority, 2021

²⁷ Annual population survey, ONS, 2022, Accessed via Nomis

Education analysis projects that the West Midlands will be the slowest region to reduce 'no qualifications' status between 2017 and 2027.²⁸

Comparatively, Warwickshire's population holds qualification rates above the national average: in 2021 45.0% of residents were qualified to NVQ level 4 and above and 62.7% to NVQ level 3+. Just 5.3% of the resident population hold no formal qualifications.

The proportion of the Warwickshire population qualified to NVQ level 4+ has increased over the past 5 years from 37.8% in 2016, however saw a slight decline between 2020 and 2012 from 47.6%. Likewise, the proportion qualified to NVQ level 3+ has increased from 56.7% in 2016 but saw a decline in the past year, from 65.8% in 2020.

The proportion of Warwickshire residents qualified to NVQ level 2+ and NVQ level 1+ in 2021 were 80.6% and 89.4% respectively – both above the national average. Both rates saw a slight decline in the area between 2020 and 2021.

Warwickshire also saw a slight decline in the proportion of its resident population with no formal qualifications over the past 5 years (from 6.9% in 2016) but this decline was more turbulent, with temporary increases in 2017 and 2018, and again between 2020 (4.4%) and 2021.²⁹

Higher Education Provision

The West Midlands is home to 12 Universities, producing over 70,000 graduates annually, however, graduate retention in the region lags behind that in other areas of the country, exacerbating the shortfall in individuals qualified to NVQ level 4+ in the region.

Graduates

The West Midlands region produced 44,930 qualifiers (those who obtained undergraduate equivalent qualifications) in the 2020/21 academic year, increasing to 73,155 when including postgraduate qualifications.³⁰ This accounted for around 8.5% of all UK undergraduate qualifiers and 8.4% of qualifiers at both undergraduate and postgraduate level. This figure has remained consistent throughout the past five years, hitting a peak of 8.9% of all qualifiers at undergraduate and postgraduate level in the 2019/20 academic year.

However, while the number of UK qualifiers across all levels has increased by 12.5% between 2016/17 and 2020/21 (from 775,535 to 872,765), the number of West Midlands qualifiers has only grown by 9.3% during the same period. This is the second lowest level of growth in the English regions, beating only the North West (6.4%). In contrast, the East Midlands increased their qualifiers by 23.4% in the five-year period, London by 14.6%, and the South East and South West by 13.9% each.

Graduate retention

²⁸ Working Futures 2017-2027: Long-run labour market and skills projections for the UK; Annexes, Department for Education, 2020

²⁹ Annual population survey, ONS, 2022, Accessed via Nomis

³⁰ What are HE students' progression rates and qualifications?, Higher Education Statistics Agency, 2022

In the 2019/20 academic year 67% of graduates whose domicile was the West Midlands remained in the West Midlands to work (compared to 68% in 2018/19), falling to 44% for those whose domicile and higher education provider were based in the West Midlands (compared to 45% in 2018/19).³¹

Destination of 2019/20 Cohort Graduates from the West Midlands

Region of work	Percentage (domicile in West Midlands)	Percentage (domicile and HE provider in West Midlands)
North East	1%	0%
North West	4%	1%
Yorkshire and The Humber	2%	0%
East Midlands	4%	1%
West Midlands	67%	44%
East of England	2%	1%
London	8%	2%
South East	4%	1%
South West	4%	1%

Source: Higher Education Statistics Agency, 2022; Note that figures may not add up to 100% due to graduates working outside of the UK or in the UK outside of England

West Midlands further and higher education institutions attract students from other domiciles, with 46% of graduates from West Midlands education providers not listing West Midlands as their region of domicile. However, keeping this skill and talent in-region appears to be an issue - for example, 10% of graduates in the 2019/20 academic year had the East Midlands as their domicile, but only 2% were employed in the West Midlands post-studying.

Research undertaken by the University of Birmingham City Region Economic and Development Institute (City-REDI) in 2021 shows that the West Midlands region is lagging behind the majority of other regions in relation to graduate retention, with the West Midlands seeing one of the lowest retention rates among STEM graduates in the UK (42%), second only to the East Midlands (39%). For 'other' graduates (those not studying STEM (Science, Technology, Engineering, Mathematics and Medicine) or LEM (Law, Economics and Management) subjects), the West Midlands has a 59.4% retention rate. This is below London (75.8%) and the North West (66.9%), but above all other regions in England.³²

The complex challenge of graduate retention exacerbates the shortfall in individuals qualified to NVQ level 4+ in the region.

Apprenticeships

³¹ Graduate Outcomes 2019/20: Summary Statistics – Graduate salaries and work locations, Higher Education Statistics Agency, 2022

³² Regional brain drain and gain in the UK: Regional patterns of graduate retention and attraction, Carrascal-Incera, A., Green, A., Kollydas, K., et al., University of Birmingham, 2021

Apprenticeships within the region were recovering from the fall following the introduction of the apprenticeship levy in 2017/18. However, there has been a significant decline in the number of apprenticeship starts and achievements since the beginning of COVID-19.

Apprenticeships are a critical element of the post-16 technical education landscape. The 2019 Employer Skills Survey cited by the WMCA Local Skills report identified a fairly low level of awareness amongst West Midlands employers of the apprenticeship system and how it can support them. Only 41% of employers in the Black Country, 37% in CWLEP, and 40% in GBSLEP were aware of the introduction of the apprenticeship levy. Of these, 58%, 60%, and 60% were aware that this levy applies to employers with an annual wage bill of more than £3million. Fewer still were aware of the premium available for recruiting apprentices from deprived areas, with 21% in the Black Country and 22% in CWLEP and GBSLEP being aware of this. Small businesses between 10 and 49 employees are more common in the West Midlands, and the report theorises that these organisations may be missing out through financial pressure and the administrative time it takes to arrange apprenticeships.³³

Nevertheless, research conducted by the Greater Birmingham Chambers of Commerce in 2021 on behalf of Birmingham City Council found that the over 200 businesses surveyed that operated in the city were most frequently aware of, and had considered apprenticeship programmes (79%) above any other employment initiatives to support young people into work.³⁴

Apprenticeships play a critical role in up-skilling individuals of all ages and not only increasing access to work, but also in-work progression. Ensuring employers are aware of opportunities associated with further education provision in the region is critical to maximising uptake.

The WMCA report that the region is in short supply of apprentices; while the main sectors of the regional economy are making approximately equal use of the system, the low overall take-up of apprentices by employers is constraining every sector.³⁵

Increasing uptake of apprenticeships, particularly at higher levels, is also important in respect of social mobility. 2020 research by the Social Mobility Commission found that disadvantaged learners benefit most from apprenticeships - individuals from disadvantaged backgrounds completing an apprenticeship receive a larger boost in their earnings than non-disadvantaged individuals. This is particularly true at intermediate level and the earnings gap closes as learners move further up the apprenticeship levels. However, disadvantaged learners are currently under-represented in higher-level apprenticeships, clustered in low-paying subject areas at higher apprenticeship levels (particularly for women), and had shorter planned apprenticeship durations than their peers, on average, within higher-earning subject areas such as engineering, construction and Information and Communications Technology (ICT).³⁶

Higher Apprenticeships

Higher apprenticeships are qualifications available at level 4 or 5, with a level 4 apprenticeship (or an Higher National Certificate (HNC)) being equivalent to the first year of an undergraduate degree and a level 5 (or a Higher National Diploma (HND)) being equivalent to a foundation degree.

³³ Employer Skills Survey, Department for Education, 2019, as cited by West Midlands Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

³⁴ Breaking Down Barriers, Working Towards Birmingham's Future, Birmingham City Council, 2021

³⁵ West Midlands Local Skills Report Evidence Base, West Midlands Combined Authority, 2021

³⁶ Apprenticeships and Social Mobility, Fulfilling Potential, Social Mobility Commission, 2020

The West Midlands produced 300 qualifiers of HNCs/HNDs in the 2020/21 academic year, accounting for 3.8% of all HNC/HNDs achieved across the UK in that year and making it the 4th highest English region in terms of HNC/HND qualifications (after London, the North East and the South East). London accounts for 38.1% of higher apprenticeships qualifiers.³⁷

The number of higher apprenticeship qualifiers in the region has fallen by over half (53.1%) in the past five years, with 640 qualifying at this level in the 2016/17 academic year.³⁸ The decrease in the number of qualifiers over time is displayed in the below graph:



Source: Higher Education Statistics Agency, 2022

The WMCA Local Skills Report reflects that ‘the distribution across apprenticeship levels in the West Midlands does not differ markedly from the UK average, suggesting that the apprenticeship system is not contributing to the region’s general skills gap. However, given the region’s comparative advantage in technical sectors such as automotive, manufacturing, and health, it might be hoped that the region could aim to outperform the UK average in offering higher-level apprenticeships.’³⁹

Intermediate and Advanced Apprenticeships

The West Midlands is fifth out of England’s regions in terms of both apprenticeship starts and achievements, with 31820 starts and 9740 achievements in 2021/22. This accounts for 11% of starts and 11% of achievements in England. This ranks above London, who provide 10.8% of starts and 9.5% of achievements. The South East accounts for the highest proportion of starts and achievements at 15.2% and 14.9% respectively.⁴⁰

Narrowing the data down to the West Midlands Combined Authority and Warwickshire area, the number of apprenticeship starts and achievements has fallen by 60.8% and 76.2% respectively, with

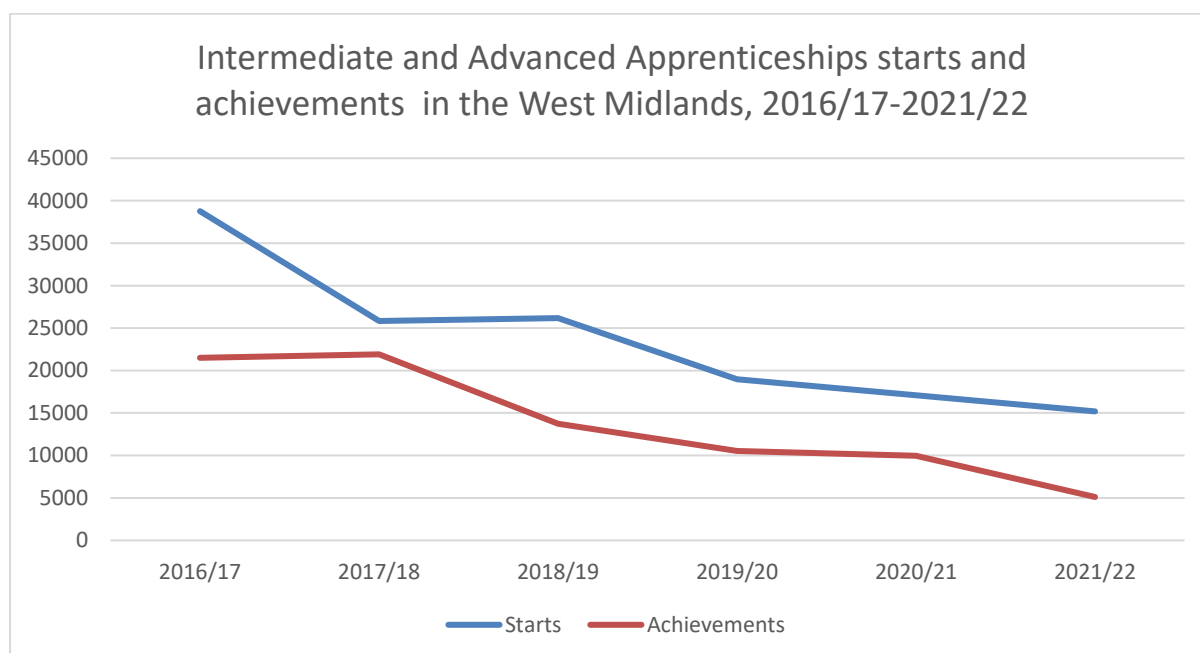
³⁷ What are HE students’ progression rates and qualifications?, Higher Education Statistics Agency, 2022

³⁸ What are HE students’ progression rates and qualifications?, Higher Education Statistics Agency, 2022

³⁹ West Midlands Local Skills Report Evidence Base, West Midlands Combined Authority, 2021

⁴⁰ ‘Geographical breakdowns - detailed (reported to date)’ from ‘Apprenticeships and traineeships’, November 2022, Gov.uk

starts falling from 38,770 to 15,190 between 2016/17 and 2021/22 and achievements falling from 21,500 to 5,110 in the same period.⁴¹ The graph below demonstrates this change year-on-year.



Source: Gov.uk, Apprenticeships and traineeships, Geographical breakdowns - PCON and LAD, 2022

In contrast, on a national level for the 2020/21 academic year start rate and achievement rates had fallen by 53.8%⁴² and 52.8%⁴³ respectively compared to 2016/17, suggesting a wider trend of a decline in the provision or uptake of intermediate and advanced apprenticeships.

Apprenticeship Achievements by Subject Area

There were 15,190 apprenticeship achievements in the West Midlands Region in the academic year 2021/22. These were most frequently in Business, Administration and Law (4,530), Health, Public Services and Care (3,760), and Engineering and Manufacturing Technologies (2,670). 1,510 were in Retail and Commercial Enterprise, 950 in Information and Communication Technology, 700 in Construction, Planning and the Built Environment and 520 in Education and Training. A further 240 were in Agriculture, Horticulture and Animal Care and 230 in Leisure, Travel and Tourism.⁴⁴

Among those in Business, Administration and Law, 600 were intermediate, 2,160 Advanced and 1,770 Higher Apprenticeships. In Health, Public Services and Care, 990 were intermediate, 1,730 advanced and 1,004 higher level apprenticeships. There were proportionately far fewer higher level apprenticeship achievements in Engineering and Manufacturing Technologies; 630 achievements in this subject area were in intermediate apprenticeships, 1,810 in advanced apprenticeships and just 230 in higher apprenticeships.⁴⁵

⁴¹ 'Geographical breakdowns - PCON and LAD' from 'Apprenticeships and traineeships', November 2022, Gov.uk

⁴² 'Annual Headlines - detailed series' from 'Apprenticeships and traineeships', November 2022, Gov.uk

⁴³ 'Annual Headlines - detailed series' from 'Apprenticeships and traineeships', November 2022, Gov.uk

⁴⁴ Apprenticeships by Subject, Department for Education, 2022, Accessed via 'Apprenticeships and traineeships Interactive Data Visualisation Tool', Gov.uk

⁴⁵ Apprenticeships by Subject, Department for Education, 2022, Accessed via 'Apprenticeships and traineeships Interactive Data Visualisation Tool', Gov.uk

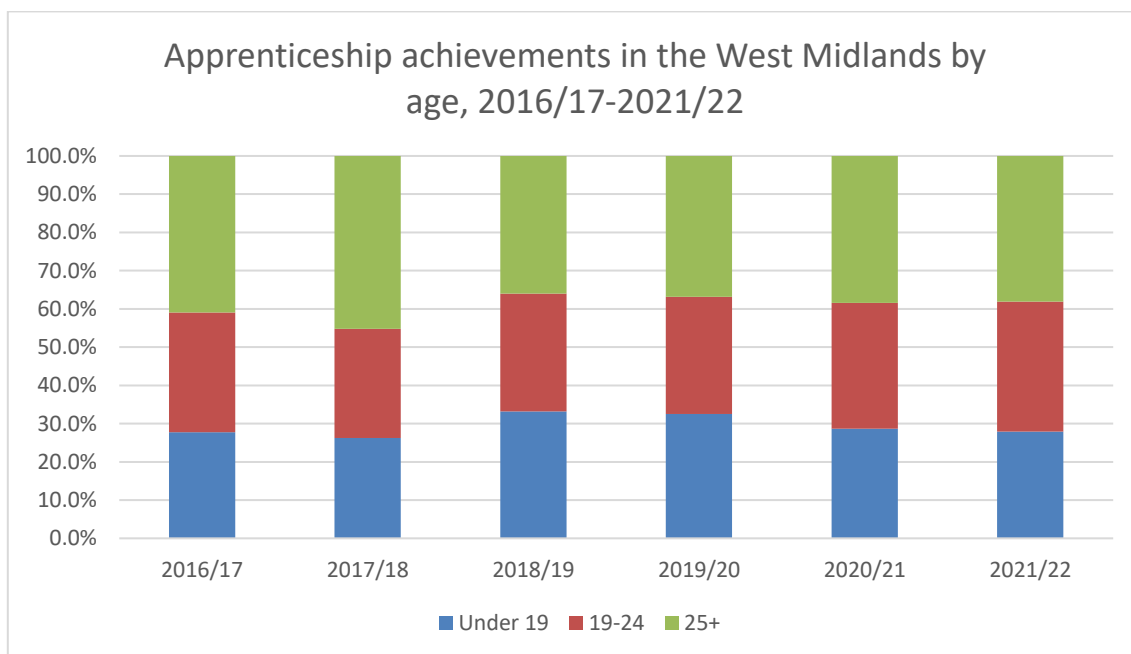
The WMCA Local Skills Report states that top course categories reflect the largest industries in the regional economy (though recognises that some sectors evidently place more emphasis on apprentices than others). However, the large share of manufacturing in the regional economy compared to the UK is not reflected in the apprenticeship figures. As most job postings result from replacing existing workers and not from expansion of the sector, this apprenticeship shortfall is not necessarily attributable to a decline in manufacturing employment in the region; there will still be a strong demand for staff and skills to replace existing workers as they retire, even if a sector is in decline in terms of total employment.⁴⁶

Diversity of Apprentices

Please note that in this section age and gender data was available at a LEP level and has been combined (to cover the Black Country, Coventry and Warwickshire and Greater Birmingham and Solihull LEP areas) while ethnicity was only available at English Devolved Area level (West Midlands) (i.e. WMCA Area) or a national level. Data related to learning difficulties and disabilities was only available at a national level. Some data in the gender and ethnicity sections aren't comparable at a local vs. national level due to differences in data measurement. In the age category local data was provided at the level of under 19, 19-24 and 25+ while national data was measured at 16-18, 19-23 and 24+.

Age⁴⁷

The majority of learners on intermediate or advanced apprenticeships were aged 25 and over, and this has remained fairly consistent over the last five years. In the 2021/22 academic year over 25s accounted for 38.9% of apprenticeship achievement rates, while 34.0% of learners were aged 19-24 and 27.9% under 19. In terms of apprenticeship starts, 37.1% were over 25, 31.6% 19-24 and 31.3% under 19.

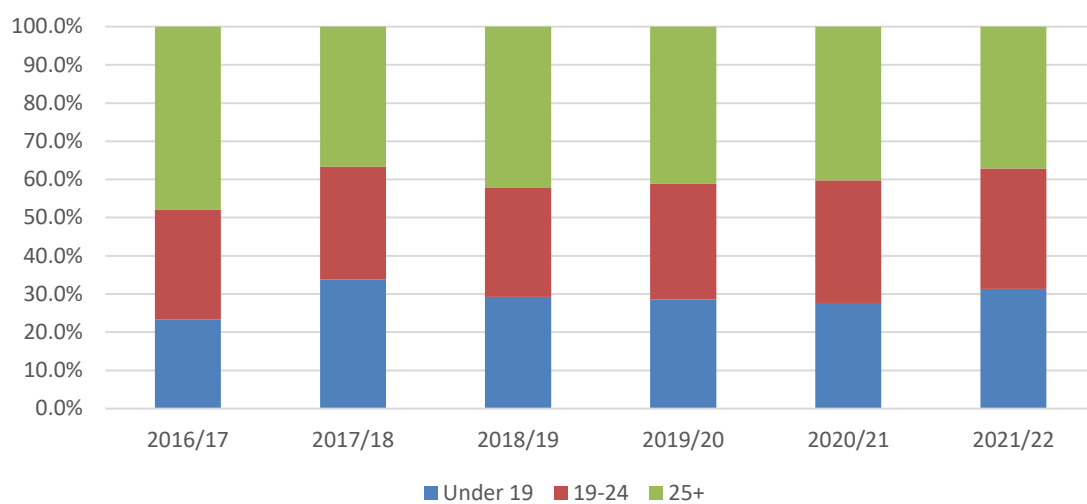


Source: Gov.uk, Apprenticeships and traineeships, Geographical breakdowns - LEP and EDA, 2022

⁴⁶ Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

⁴⁷ 'Geographical breakdowns - LEP and EDA' from 'Apprenticeships and traineeships', November 2022, Gov.uk

Apprenticeship starts in the West Midlands by age, 2016/17-2021/22



Source: Gov.uk, Apprenticeships and traineeships, Geographical breakdowns - LEP and EDA, 2022

At a national level, the achievement rate was highest among 19-23 year olds in 2020/21 at 62.9%, with rates in the two years prior to that being highest for 16-18 year olds⁴⁸.

Apprenticeship achievements nationally by age between 2018/19 and 2020/21

	2018/19	2019/20	2020/21
16-18	70.3%	63.5%	59.5%
19-23	68.4%	63.0%	62.9%
24+	60.9%	52.2%	54.9%

Source: Gov.uk, Apprenticeship Achievement Rates Detailed Series, 2022

Ethnicity

As stated in the WMCA Local Skills Plan Evidence Report in 2020, apprenticeship provision is currently successful in reaching people of different ethnic backgrounds, with the ethnicity of apprenticeships at each level closely matching that of the general population. This illustrates the critical role of Apprenticeships in inclusive growth in the region, if we can better support apprentices into higher level qualifications and more effectively into jobs.⁴⁹

Intermediate and Advanced Apprenticeship achievements nationally among ethnicity groups between 2016/17 and 2021/22

	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22
Asian/ Asian British	12.6%	14.8%	12.4%	14.2%	13.3%	14.0%

⁴⁸ 'Achievement Rate for 'Apprenticeship Achievement Rates Detailed Series' for 16-18, 19-23, 24+, Advanced, Gender and 1 other filter in England between 2018/19 and 2020/21', November 2022, Gov.uk

⁴⁹ Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

Black/African/Caribbean/Black British	5.8%	6.6%	5.9%	5.0%	6.0%	4.7%
Mixed/ Multiple Ethnic Group	4.4%	4.2%	4.2%	4.7%	5.0%	4.0%
Other Ethnic Group	1.0%	1.3%	1.2%	1.0%	0.9%	0.6%
White	76.2%	73.2%	76.4%	75.2%	74.8%	76.7%

Source: Gov.uk, *Advanced Apprenticeship and Intermediate Apprenticeship Achievement Rates - Geographical breakdowns - LEP and EDA, 2022*

There is also a national achievement gap where ethnicity is concerned, although this doesn't appear to be the case at a local level. The achievement rate for white learners was 58.5% in 2020/21 compared to 53% for ethnic minority learners. The only subject area where the achievement rate was higher for ethnic minority learners was Leisure, Travel and Tourism (70.3% for ethnic minority learners vs. 63.5% for white learners). No data was available for the 2020/21 academic year for ethnic minority performance in Science and Mathematics, but in 2019/20 ethnic minority achievement rates outstripped white achievement rates by over 10% (83.3% and 73.2% respectively).⁵⁰

Other Technical Qualifications

Regional data is not currently available on provision of Traineeships – ESFA funded courses to help young people qualified below Level 3 to prepare them for work or an apprenticeship.

In regards to other technical qualifications, data on both Sector-based Work Academy Programmes and T Levels are also publicly available at a regional level.

Sector-based Work Academies were first launched in August 2011 in England and the scheme was relaunched as 'SWAP's in July 2020 as part of the government's Plan for Jobs. Data for the financial years 2020/21 and 2021/22 shows that as of 13th March 2022, there were a total of 146,480 starts to a Sector-based Work Academy Programme (SWAP) across the country, 11,920 of which were in the West Midlands.⁵¹

T Levels are relatively new qualifications that the government is looking to expand across the country.⁵² Provisional figures indicate that the total number of learners in receipt of T Levels results in 2021/22 was 1,029 across the UK, with 92.2% of learners achieving a 'pass' or above for their overall T Level grade. 94.0% of learners completed an industry placement as part of their T Level qualification.⁵³ Ofsted's interim report on the review of the quality of T-Level courses referenced challenges for providers in finding employers for learner placements. In particular, the report highlighted that 'providers of digital, construction, and health and science courses in particular were struggling to find employers.'⁵⁴ Greater Birmingham Chambers of Commerce research, conducted on behalf of Birmingham City Council Cabinet Office in 2021 found that 68% of Birmingham businesses

⁵⁰ 'Apprenticeship Achievement Rates Detailed Series' for Agriculture, Horticulture and Animal Care, Arts, Media and Publishing, Business, Administration and Law, Construction, Planning and the Built Environment, Education and Training and 10 other filters in England between 2018/19 and 2020/21', November 2022, Gov.uk

⁵¹ Sector-based Work Academy Programme, Department for Work and Pensions written question – answered on 21st March 2022, They Work For You

⁵² T Level Action Plan: 2021, Education and Skills Funding Agency, 2021

⁵³ Provisional T Level results, Academic Year 2021/22, Gov.uk, 2022

⁵⁴ A review of the quality of T-level courses: interim report, Ofsted, 2022

were unaware as T Level placements as means of recruiting 16-24 year olds for work experience and employment, suggesting a lack of business awareness and understanding of this area of technical education, certainly in Birmingham.⁵⁵

Education and Training Funding and Provision by the WMCA

The regional Adult Education Budget (AEB), available to fund course fees for adults aged 19+, was devolved from the Education and Skills Funding Agency (ESFA) to the West Midlands Combined Authority from August 2019.⁵⁶ This allows the region flexibility to upskill and retrain both the future and current workforce, growing the economy and maximising inward investment opportunities.

The WMCA has also developed technical training pathways together with employers and providers to upskill and retrain residents in areas including digital, retrofit and net zero which directly relate to their Plan for Growth cluster priorities.

This year, the combined authority secured a further £11.25 million from the government's National Skills Fund expansion to expand bootcamp delivery in key sectors of the regional economy. The bootcamps are free of charge for learners and equip West Midlands residents with digital skills, giving them to access roles in areas like coding, cybersecurity, AI, data analysis and software. Bootcamps have been successfully delivered within the West Midlands region since 2019, with over 1,000 residents achieving a positive outcome after receiving training, this includes 50% participants from Black, Asian and minority ethnic backgrounds. Based on this success the WMCA has bolstered its bootcamp provision with more funding, intended to support a further 3,500 West Midlands residents to upskill and reskill in some of the regions priority sectors and key areas for growth.⁵⁷

Further, the WMCA set up an apprenticeship levy transfer service in March 2019 which has since generated £38 million of donations of unspent levy funds from large employers, offering SMEs that don't currently pay the Apprenticeship Levy help with funding to train apprentices for their organisation.⁵⁸

The Board of the West Midlands Combined Authority has also recently approved its UK Shared Prosperity Fund (UKSPF) investment plan, triggering the Government's release of the money to the region over the next three years. The Board agreed that £42 million of the £88 million core UKSPF funding should be targeted at helping local businesses. More than half the £42 million allocated for business support will be used to deliver specialist programmes that help firms decarbonise their operations, boost productivity and secure additional investment to grow their businesses going forward.⁵⁹ The WMCA will also receive £16 million of funding for the UKSPF Multiply programme to increase adult numeracy skills.⁶⁰

The WMCA is also working to develop higher skills offerings with universities and colleges through modular training aligned to the WMCA Priority Growth Clusters (as set out in the 2022 Plan for

⁵⁵ Breaking Down Barriers, Working Towards Birmingham's Future, Birmingham City Council, 2021

⁵⁶ Adult education budget (AEB) devolution, Education and Skills Funding Agency, 2020

⁵⁷ WMCA awarded £11.25m to deliver free digital, green and health skills bootcamps, West Midlands Combined Authority, 2022

⁵⁸ Innovative WMCA Apprenticeship Levy Fund hits £38m, West Midlands Combined Authority, 2022

⁵⁹ Local businesses and communities to get £88m of support to help drive economic growth and improve quality of life, West Midlands Combined Authority, 2022

⁶⁰ UKSPF Allocations, Department for Levelling Up, Housing & Communities, 2022

Growth) to develop knowledge, skills and behaviours in both upskills and retraining of the current workforce.⁶¹

Through the West Midlands Trailblazer Devolution Deal the WMCA has also recently secured greater responsibility and oversight of post-16 and post-19 education and skills, careers advice, and the establishment of a unique partnership with Department for Work and Pensions to target employment support.⁶²

Education and training in the West Midlands is also facilitated by collaborations between the WMCA and the private sector, including provision delivered by BT, PWC, Lloyds Bank, Google, Coursera and Microsoft, among others.⁶³

⁶¹ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

⁶² Delivering a Deeper Devolution Deal for the West Midlands, West Midlands Combined Authority, 2023

⁶³ West Midlands Digital Roadmap, West Midlands Combined Authority, 2021

LSIP Focus Areas

The West Midlands and Warwickshire Local Skills Improvement Plan (WMW LSIP) focusses on the cross-cutting themes of digital and green skills and associated leadership and management capabilities in the region.

Digital Skills

The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines digital skills as “as a range of abilities to use digital devices, communication applications, and networks to access and manage information.”⁶⁴

The term ‘Digital skills’ represents a spectrum, from the entry-level “digital foundation skills,” as outlined by the Department for Education’s Essential Digital Skills Framework⁶⁵ that are increasingly required to access any work, to those termed by UNESCO as ‘advanced digital skills,’⁶⁶ allowing users to make use of digital technologies in transformative ways, such as Artificial Intelligence (AI), automation, machine learning, big data analytics and the convergence of technologies.

An Employer Skills Survey carried out in 2017 and published in 2018 highlighted strong demand by employers for digital and analytical skills. 55% of employers in the Black Country anticipate that digital skills need enhancing in the future, compared to 47% in Coventry & Warwickshire LEP and 49% in the Greater Birmingham & Solihull LEP, and 48% nationwide.⁶⁷

The West Midlands lags significantly behind the rest of the UK in basic digital skills. The Essential Digital Skills Survey for 2022, conducted by Ipsos MORI on behalf of Lloyds Bank found that the West Midlands has a high proportion (15%) of people with Zero of the Essential Digital Skills for Work as defined by the Department for Education Framework (compared to 8% nationally). Further, 18% have only partial Essential Digital Skills for Work (1-4 skills), compared to 14% nationally. Just 66% of West Midlands residents were found to have Work Essential Digital Skills (5 skills), compared to a UK average of 78%. Of the skills listed, those respondents were least likely to have were: “I can improve my own and/or the organisation’s productivity using digital tools (e.g. Trello, Microsoft Projects and Planner, Slack)” (57%); “I can access salary and tax information digitally (e.g. password protected payslips, P60, P45)” (65%); and “I can update my device software/ operating systems when necessary to prevent viruses and other risks (e.g. enabling automatic updates, or installing when prompted to do so)” (66%).⁶⁸

The WMCA’s 2020 Local Skills Plan Evidence Report cites evidence collected by a 2019 Employer Skills Survey, on the proportion of skills-shortage vacancies which are reportedly made difficult to recruit to due to a lack of specific IT skills. Surveying found that basic IT skills such as Microsoft Office were still cited as a major constraint in the Black Country (39% of posts), but less so in Greater Birmingham (30%) and Coventry and Warwickshire (20%). Greater Birmingham also had a notable shortage of data analysis and data science skills, likely reflecting its concentration of professional services firms. The density of game development firms in Leamington Spa in Coventry and Warwickshire appears to

⁶⁴ Digital Skills Critical for Jobs and Social Inclusion, UNESCO, 2022

⁶⁵ Essential Digital Skills Framework, Department for Education, 2019

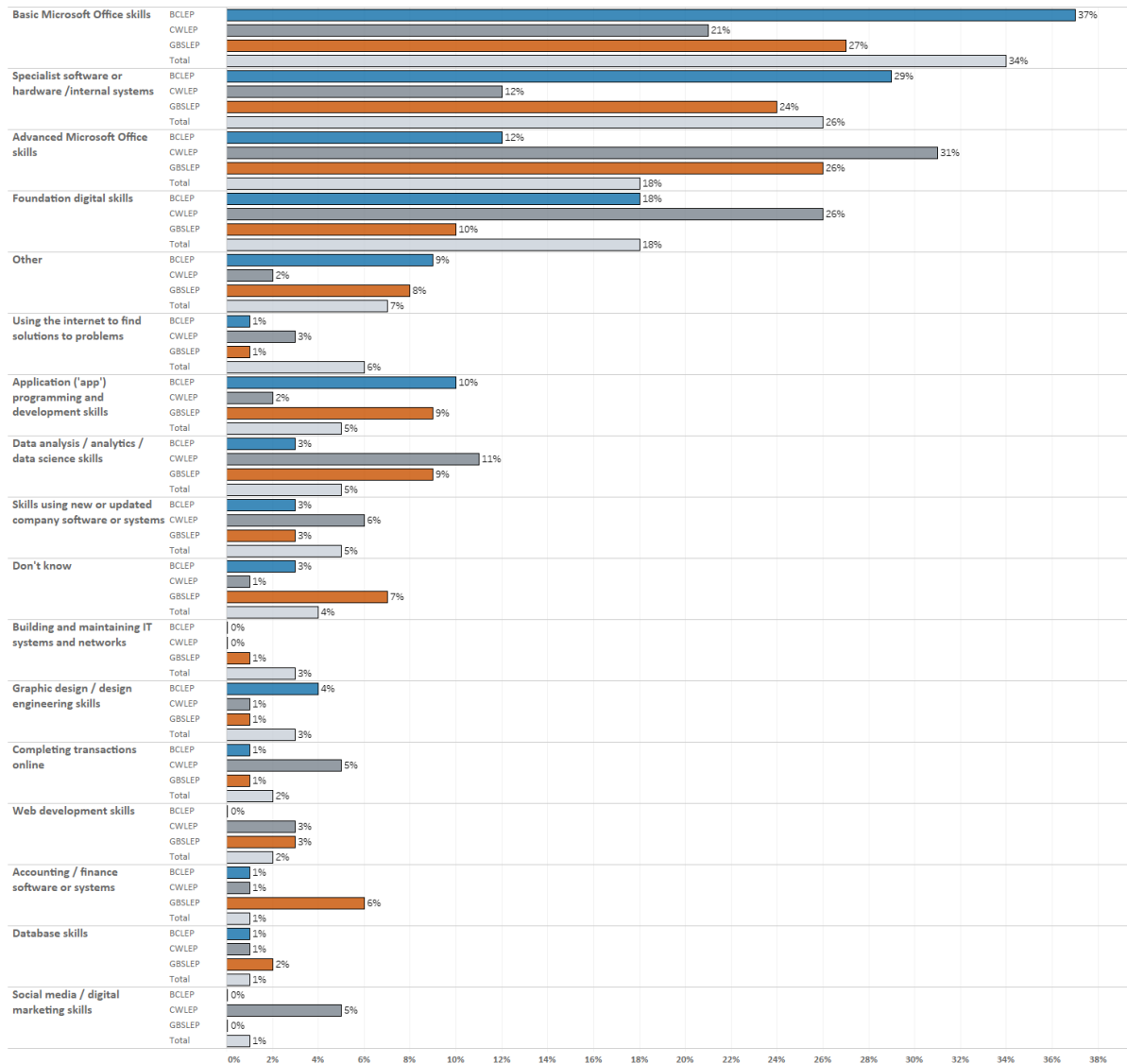
⁶⁶ Digital Skills Critical for Jobs and Social Inclusion, UNESCO, 2022

⁶⁷ Employer Skills Survey, Department for Education, 2018, as cited by West Midlands Local Skills Report Evidence Base, West Midlands Combined Authority, 2021

⁶⁸ Essential Digital Skills Data Tables, Lloyds Bank, Accessed 24th November 2022

have contributed to a far greater shortage of skills in online transactions, data science, and social media/marketing in this LEP area than Greater Birmingham or the Black Country.⁶⁹

Specific IT Skills Responsible for Skills-Shortage vacancies in each of the West Midlands LEP areas (2019)



Source: Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

Data provided by LinkedIn regarding the top 20 most in-demand jobs across any job function (based on the LinkedIn active membership) demonstrates increasing demand for digital skills across the WMCA area, and (to a lesser extent) Warwickshire.

Top Most In-Demand Jobs in the West Midlands (Combined Authority area), based on LinkedIn active membership

Top 20 Most In Demand	Job Name	Emergence Metric (Compound annual growth rate in % Share of Hiring by Job -
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⁶⁹ Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

Jobs		2017 to 2021)
1	Legal Researcher	38.75%
2	Supply Chain Associate	37.08%
3	Data Engineer	31.88%
4	Social Media Coordinator	24.06%
5	Material Handler	23.13%
6	Business Development Representative	21.80%
7	Content Coordinator	21.02%
8	Laboratory Assistant	20.83%
9	Supply Chain Assistant	19.05%
10	Full Stack Engineer	18.42%
11	Talent Acquisition Manager	17.94%
12	User Experience Designer	17.88%
13	Scrum Master	17.29%
14	Clinical Pharmacist	17.19%
15	Engagement Manager	17.01%
16	Content Producer	16.94%
17	Data Scientist	16.45%
18	Academic Tutor	16.17%
19	Social Media Marketing Specialist	15.75%
20	Talent Acquisition Specialist	15.48%

Source: LinkedIn, 2022 (unpublished)

Top Most In-Demand Jobs in Warwickshire, based on LinkedIn active membership

Top 20 Most In Demand Jobs	Job Name	Emergence Metric (Compound annual growth rate in % Share of Hiring by Job - 2017 to 2021)
1	Supply Chain Coordinator	18.66%
2	Supply Chain Associate	18.06%
3	Laboratory Assistant	15.84%
4	Server Assistant	15.36%
5	Recruitment Coordinator	14.50%
6	Office Administrator	13.08%

7	Mechanical Design Engineer	12.95%
8	Food and Beverage Server	12.75%
9	Frontend Developer	12.03%
10	Chief Technology Officer	10.89%
11	Legal Assistant	10.82%
12	Brand Associate	10.49%
13	Support Team Lead	10.10%
14	Information Technology Consultant	8.87%
15	Material Handler	8.68%
16	Shop Manager	8.45%
17	Director Of Engineering	7.56%
18	Account Executive	7.06%
19	Compliance Manager	6.98%
20	Financial Assistant	6.92%

Source: LinkedIn, 2022 (unpublished)

In regard to advanced digital skills requirements specifically, in 2021, the West Midlands region was reported to have the country's fastest-growing tech sector, with the region predicted to create an additional 52,000 roles in the sector over the next four years - an increase of 55 per cent since 2019. Tech growth in the region grew by an average of 7.6 per cent a year between 2014 and 2019, the fastest region in the UK.⁷⁰ Dashboards produced by the Department of Digital, Culture, Media and Sport show the top digital occupation demands ranked by location quotient (LQ) in the West Midlands Combined Authority Area for 2019-2020 were Management Consultant (831 job postings, 1.41 LQ), IT Consultant (2,310 job postings, 1.40 LQ), Network Engineer (2,367 job postings, 1.33 LQ), Field Service Engineer (2,200 job postings, 1.31 LQ) and IT Service Manager (1,909 job postings, 1.29 LQ).⁷¹

Data from Tech Nation and Adzuna shows that nationally, Data and Architecture are the most in demand advanced digital skills, having seen growth in demand of over 1000% respectively from 2019 to 2021.⁷² This reflects the sentiment of the UK's National Data Strategy, which emphasises the role of data skills in driving productivity and R&D investment and cites DCMS-commissioned analysis of 9.4 million online job adverts predicts that data analysis skills will be the fastest growing digital skills cluster over the proceeding five years as characterising the exponential growth in the demand for

⁷⁰ Assessing the UK's regional digital ecosystems report, Department of Digital, Culture, Media, and Sport, 2021

⁷¹ Assessing the UK's regional digital ecosystems: Appendix C: NUTS2 dashboards, Department of Digital, Culture, Media, and Sport (DCMS), 2021

⁷² People and Skills Report 2022, Tech Nation, 2022

advanced applications of data science and machine learning across all sectors of the economy, from cyber to construction.⁷³

Across the country, tech jobs have continued to grow well into 2022. Tech Nation report that Tech jobs reached the top spot for UK hiring from May 2021 to 2022, attributing this ‘boom’ in hiring to a 130% increase seen in venture capital investment into UK tech companies in 2021 and the ‘increasing permeation of tech roles across the economy leading to a rising tide of tech positions across the labour market’. Tech Nation highlight that while there are a wide variety of roles in the tech economy, a further 33% of all roles may be considered technical, but are outside of the tech sector. Tech Nation found that while London continued to have the highest number of tech and digital jobs available, and the highest average advertised salary for these (£75,223), highly-paid tech jobs were also available elsewhere: five regions across the UK also have average advertised tech salaries of over £50,000 – Scotland, South East, North West, South West and the West Midlands.⁷⁴

Research by Tech Nation and YouGov in 2022 further found that 44% of UK respondents (from all sectors) believe having tech skills are essential for job security and 26% believe upskilling themselves in a new digital/tech skill will allow them to earn more in the future.⁷⁵

Stakeholders across the West Midlands have done extensive research into digital skills demand, utilising this to inform education and training provision.

This research includes that by the West Midlands Combined Authority, contributing to the 2021 Digital Skills Roadmap and supplemented digital skills provision (included in the outline of education and training funding and provision by the WMCA above). The WMCA’s Digital Skills Roadmap highlights nine significant challenges across the region. These include a relatively high proportion of non and limited internet users in the region, infrastructure limitations (namely low broadband connectivity, particularly in the Black Country and limited mobile connectivity), the highest proportion of employers saying they find digital skills difficult to obtain from applicants of any UK region (38%), limited data analytic capacity and capability within local government and ad-hoc approach to data sharing and limited equity investment.⁷⁶

The 2021 Roadmap reflects that the acceleration of digitisation across businesses because of the impact of Covid-19, presents opportunities for growth, but also challenges for firms who struggle to ‘catch-up’ and to growing companies who cannot find necessary digital skills.⁷⁷

With business priorities changing at pace in the current economic circumstances, the West Midlands LSIP presents a critical opportunity to deepen understanding of employer needs in regard to evolving digital skills, and encourage further, innovative solutions and collaborations where providers may understand demand but face other barriers to delivering appropriate training.

⁷³ National Data Strategy Policy Paper, Department for Digital, Culture, Media, and Sport, 2020

⁷⁴ People and Skills Report 2022, Tech Nation, 2022

⁷⁵ People and Skills Report 2022, Tech Nation, 2022

⁷⁶ West Midlands Digital Roadmap, West Midlands Combined Authority, 2021

⁷⁷ West Midlands Digital Roadmap, West Midlands Combined Authority, 2021

Green Skills

The United Nations Industrial Development Organisation (UNIDO) defines Green Skills as “the knowledge, abilities, values and attitudes needed to live in, develop and support a sustainable and resource-efficient society.”⁷⁸

In a similar vein, the national Green Jobs Taskforce report in 2021 identified the term ‘green job’ to signify “employment in an activity that directly contributes to - or indirectly supports - the achievement of the UK's net zero emissions target and other environmental goals, such as nature restoration and mitigation against climate risks.”⁷⁹

These are the definitions that have been applied for the purposes of this Local Skills Improvement Plan.

The UK can be seen as a leader in clean growth having achieved a 44% reduction in territorial emissions between 1990 and 2019 whilst the economy grew 76%⁸⁰, and having been the first major economy to legislate for an 80% reduction by 2050.⁸¹ Nevertheless, making the net zero transition successfully by this date poses a huge challenge for business and society more widely.

Businesses across the region have been making good progress to decarbonise their own operations and supply chains but must go further. The West Midlands Region’s industrial emissions have fallen by 44% since 2005, in line with the England average.⁸²

Based on data from the British Chamber of Commerce, 14% of West Midlands businesses have targets on reducing their carbon or greenhouse gas (GHG) emissions, with 13% measuring their carbon or GHG emissions and 90% not having a net zero policy. The highest drivers for change include environmental concerns (81%), efficiency gains or cost savings (59%) and competitive or reputational advantage (37%). All these increased in significance between 2020 and 2021.⁸³

Research by the Greater Birmingham and Coventry and Warwickshire Chambers of Commerce in 2021 found that 65% of businesses have taken measures to reduce their environmental impact, 35% have not. Of those businesses that have taken measures, 40% of them have done so in the past 12 months. The percentage of companies by size not taking measures to reduce environmental impact is 42% for micro, 30% for small and 20% for medium sized businesses. 68% of businesses intend to introduce future environmental measures but 32% do not. Those intending to implement measures aim to within the next 12 months (36%) and 12 months plus (32%). Although, 39% of micro, 30% of small and 11% of medium sized businesses have no plans to introduce environmental measures in the future.⁸⁴

⁷⁸ What Are Green Skills? Charles Arthur, UNIDO, 2022

⁷⁹ Report to Government, Industry and the Skills Sector, Green Jobs Taskforce, 2021

⁸⁰ Reducing UK Emissions, 2019 Progress Report to Parliament, Committee on Climate Change, 2019

⁸¹ UK becomes first major economy to pass net zero emissions law, Department for Business, Energy & Industrial Strategy and The Rt Hon Chris Skidmore MP, 2019

⁸² UK local authority and regional greenhouse gas emissions national statistics, 2005 to 2020 – Table 1.1, Department for Business, Energy & Industrial Strategy, 2022

⁸³ Net Zero Survey, British Chambers of Commerce, 2021

⁸⁴ Data from Greater Birmingham Chambers of Commerce Quarterly Business Report Q3 2021 and Coventry and Warwickshire Chambers of Commerce QES Q2 2021

2021 research by the British Chambers of Commerce found that over the following 12 months, the percentage of surveyed businesses planning to reduce consumption (of, for example, paper, plastics, food) was 60%, reduce energy usage of travel (e.g. low emission vehicles, fewer journeys) was 45%, and reduce the energy usage of office/premises or remote working locations (e.g. heating systems, lighting) was 42%. Other notable measures included investing in energy efficient technology or machinery (34%) and using renewable energy suppliers (29%). The percentage of measures planned in July 2021 increased in five out of five of these categories from March 2020.⁸⁵

The top three barriers to reducing environmental impact for businesses in Greater Birmingham and Coventry and Warwickshire were lack of time (35%), lack of grant funding (25%) and not sure of the options available (23%). The lowest three barriers for reducing environmental impact were: not valued by employees (6%), not valued by customers/suppliers (16%) and a lack of benchmark data (16%). Interestingly, the highest barriers changed depending on whether a company had already taken measures to reduce their environmental impact and their sector. Barriers relating to knowledge, information and skills are higher for those who have not taken measures. Finance and cost barriers are ranked higher by those that have taken measures for longer periods of time. A greater proportion of manufacturers faced barriers to reducing their environmental impact over services companies in 11 out of 13 (85%) categories.⁸⁶

According to Make UK, almost half of UK manufacturers are either implementing or developing a net zero strategy for their organisation, driven primarily by energy cost reductions, although a quarter also recognise the benefits of accessing higher value 'green' commercial opportunities.⁸⁷

The transition to net zero represents a major opportunity for growth given the city's industrial legacy, world class automotive cluster, leading business services and emerging strengths in clean tech and green energy.

The ONS estimates that the UK's Low Carbon and Renewable Energy Economy (LCREE) accounted for £41.2bn of turnover and 207,800 full-time equivalent employees in 2020.⁸⁸

Segmenting turnover by LCREE group and sector reveals the importance of the manufacturing sector, which generates more than a third of LCREE turnover and is of particular importance for energy efficient products and low emission vehicles. Almost 90% of turnover from low emission vehicles comes from the manufacturing sector.⁸⁹

Low carbon & renewable energy economy turnover in the UK by sector in 2020 (with sectors accounting for 25% or more of LCREE group turnover highlighted)

⁸⁵ Net Zero Survey, British Chambers of Commerce, July 2021

⁸⁶ Data from Greater Birmingham Chambers of Commerce Quarterly Business Report Q3 2021 and Coventry and Warwickshire Chambers of Commerce QES Q2 2021

⁸⁷ COP26: 6 Months on: Where are manufacturers with their net zero journey?, Make UK, 2022

⁸⁸ Low Carbon and Renewable Energy Economy, UK: 2020, ONS, 2022

⁸⁹ Low carbon and renewable energy economy estimates, ONS, as cited by the Birmingham Economic Review for 2022, Greater Birmingham Chambers of Commerce and City REDI, University of Birmingham, 2022

LCREE Group	Estimated Turnover UK, 2020 (£bn)	A: Agriculture, forestry and fishing	B: Mining and quarrying	C: Manufacturing	D: Electricity, gas, steam and air conditioning supply	E: Water supply; sewerage, waste management and remediation	F: Construction	G: Wholesale and retail trade; repair of motor vehicles and motorcycles	H: Transportation and storage	J: Information and communication	L: Real estate activities	M: Professional, scientific and technical activities	N: Administrative and support service activities	P: Education	S: Other activities
All groups	41.2	0%	-	36%	30%	1%	19%	6%	-	0%	-	7%	-	0%	0%
Low carbon electricity	12.6	1%	0%	8%	48%	0%	10%	0%	0%	0%	0%	4%	2%	0%	0%
Low carbon heat	1.5	1%	0%	-	14%	0%	47%	-	0%	0%	0%	9%	-	-	0%
Energy from waste and biomass	4.3	2%	0%	1%	56%	12%	2%	22%	0%	0%	0%	5%	0%	0%	0%
Energy efficient products	15.2	0%	0%	48%	1%	0%	36%	6%	0%	1%	0%	2%	-	0%	0%
Low carbon services	0.6	-	0%	5%	0%	-	0%	-	0%	0%	2%	82%	8%	3%	-
Low emission vehicles	7.0	0%	0%	87%	1%	-	1%	2%	0%	-	0%	8%	1%	0%	-

Source: *Low carbon and renewable energy economy estimates, ONS, as cited by the Birmingham Economic Review for 2022, Greater Birmingham Chambers of Commerce and City REDI, University of Birmingham, 2022*

The Greater Birmingham and Solihull LEP’s Priority Sectors Skills Research suggests that there could be as many as 694,000 direct jobs (relating to designing, manufacturing, constructing, operating and maintaining a particular technology or energy source directly) employed in the LCREE by 2030 in England, rising to over 1.18 million by 2050. The contribution to these figures made by the West Midlands is estimated to be a total of 97,000 in 2050, accounting for 8.2% of the total number of Low Carbon jobs in England that will be required in the future.⁹⁰

The LEP’s interviewing of local businesses already operating in the sector revealed that the expansion of the market is anticipated to drive two categories of skills needs in the coming years. Firstly, there will be a greater need for retrofit skills - encompassing engineering, energy assessment and monitoring, product life cycle assessment, and climate change risk management - to be able to meet the expected surge in demand from consumers to increase the energy efficiency of homes. Secondly, digital skills will have increasing prominence; there are anticipated to be increases in demand for workers skilled in AI, automation, and software engineering skills, as well as data analysis and modelling skills, particularly as homes move to becoming “smart” homes with smart energy solutions, demonstrating the interconnectivity between digital and green skills needs. Specific technologies for the sector that businesses expect to be critical for the sector to embrace include heat pumps, hydrogen power, electric vehicles, smart buildings, and battery technology. Employers believe that core engineering skills will still be required, and these will be integrated with new and emerging technologies, so that these new processes will be implemented in context and with a broader understanding of the context of its use. Attracting individuals into the sector is a priority for local firms in regard to future growth.⁹¹

⁹⁰ Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

⁹¹ Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

The WMCA's Local Skills Plan Evidence Report estimates that the core Low Carbon & Environmental Tech sector contributed £3.6bn in GVA and 22,750 jobs to the WMCA economy in 2020, with 740 businesses in the WMCA that operate directly in the sector. GVA per employee in the sector was £156,764 – the highest of any WMCA sector. The Plan suggests it is likely that additional activity takes the number of jobs associated with Low Carbon & Environmental Tech to above 50,000 in the WMCA area. It further cites research that key skills in the sector locally include understanding the planning process, AutoCAD, building information modelling, ecology, risk analysis, business development, auditing, environmental resource management, landscaping, and environmental consulting.⁹² The scale of the sector in Warwickshire is unknown.

The UK's automotive industry has become increasingly concentrated in the West Midlands, with 32.6% of jobs located in the region as of 2018, more than double the next region. This was up from 29% in 2008 whilst the overall number of jobs grew by 19% over that period.⁹³ As a leading region for the manufacture of motor vehicles, the transition to low emission models is both a risk and opportunity. The region's leading brands have already announced plans for electrification of future models, including Jaguar Land Rover⁹⁴, Bentley⁹⁵ and Aston Martin⁹⁶.

Low carbon heat is also a key growth area for the region. Domestic sector emissions, primarily driven by residential heating, account for 24% of total UK emissions.⁹⁷ Although only accounting for £1.5m or 3.5% of LCREE turnover in 2020, low carbon heat is considered to be one of the most scalable interventions with strong potential for upskilling, job creation and emissions reduction. The opportunity is of significance to the construction sector but would also benefit the manufacturing sector further up the supply chain. Retrofit activity is already gathering pace across the region through Net Zero Neighbourhood Demonstrators and the 3 Cities initiative, both potentially supported by the National Centre for Decarbonisation of Heat which is the subject of a Levelling Up Fund bid.⁹⁸

However, despite significant and increasing demand for green skills to meet commitments and maximise on LCREE opportunities, a YouGov poll jointly published by IEMA and Deloitte at the end of April 2022, found that 56% of the British public had not heard of green jobs, with 62% not understanding what the term green skills meant, and 65% reporting they didn't have any access to green skills training.⁹⁹ Research by IEMA and Deloitte identified four shifts in the transition to green jobs and green skills, including an increased need for green skills in non-specialist roles, a transition of workforces from unsustainable sectors – which can often be geographically concentrated and as such highlights a need to help communities to prosper through green transformation - and demand for green skills in new green industries.¹⁰⁰

⁹² Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

⁹³ The UK motor vehicle manufacturing industry: 2008 to 2018, [ONS, 2020](#)

⁹⁴ Jaguar Land Rover Prepares For Advanced Electrified And Connected Future With New Testing Facility, Jaguar Land Rover, 2022

⁹⁵ Beyond100 Strategy, Bentley, 2020

⁹⁶ Aston Martin to develop high performance battery technology with Britishvolt, Aston Martin, 2022

⁹⁷ BEIS, UK local authority and regional GHG emissions, 2020 – [End User Emissions, Table 4.1c, Department for Business, Energy & Industrial Strategy, 2022](#)

⁹⁸ Birmingham Economic Review, Greater Birmingham Chambers of Commerce and City REDI, University of Birmingham, 2022

⁹⁹ All Jobs Greener – workforce transformation for a sustainable future, Martin Baxter, IEMA, published by Futurebuild, 2022

¹⁰⁰ A blueprint for green workforce transformation, Deloitte, 2022

The national Green Jobs Taskforce report to government in 2021¹⁰¹ cited research by the Place-based Climate Action Network's Just Transition Jobs Tracker that one in five jobs in the UK (approximately 6.3 million workers) will require skills which may experience demand growth (approximately 10% of UK jobs) or reduction (approximately 10%) as a result of the transition to net zero¹⁰², and that the latter will likely need reskilling, upskilling, or to use their current skills differently¹⁰³.

The Taskforce report emphasises the importance of both industry-specific and cross-, multi- and interdisciplinary skills in some sectors to deliver the net zero transition, highlighting the importance of STEM skills underpinning jobs critical for driving a green recovery from the recent pandemic and delivering net zero, as well as digital and data analytics, project management, education communication and change management, and leadership, management and communication skills. Among other things, the report recommends that employers, industry bodies, government and unions work together to tackle barriers to retraining and upskilling so that no worker is left behind by the transition to net zero, and that employers and sector bodies should set out business and skills plans for the net zero transition, engaging unions and workers.¹⁰⁴

Analysis by LinkedIn suggests that the fastest growing UK 'green jobs' are Energy Auditors (with a 34% growth rate between 2016-2021), Wind Turbine Technicians (32% growth rate) and Sustainability Managers (32% growth rate). LinkedIn attribute some of the growth in these roles to the impact of recent major policy and economic shifts in recent years - the growth of Energy Auditors being possibly explained by the introduction of the UK Emissions trading scheme, Wind Turbine Technicians linked to the UK's commitments around both offshore and onshore wind, and the rise in Sustainability Managers reflecting the broader business focus in the UK on sustainability and the drive to Net Zero. Industries with the highest share of green talent hires in the UK in 2021 are reported to be Construction, Manufacturing, Corporate services, Education and Software and IT services. However, certain heavy polluting sectors, most notably Transportation & Logistics, are assessed as currently lagging significantly behind other sectors, with less than half the green skills penetration as compared to the global average. LinkedIn highlight that the impact and challenges sectors such as Transportation & Logistics represent to UK emissions and decarbonisation efforts will only be further impeded if there is a lack of green skills in such sectors.¹⁰⁵

The UK Green Skills Report further assesses that 'there has been rapid growth in green hiring in the UK since 2019, with the change in the share of green hires almost double the global average. However, the low starting base in the UK pre-2019 means the total share of hiring across job types aligns with the global average.' The report finds job postings in the UK requiring green skills to be growing at 35% whilst green talent in the country has only grown at 26%, and that this mismatch has accelerated in recent years (last year job postings requiring green skills were reported at 12% whereas green talent grew at 9%, compared to an annual average over the five-year period of 7% and 5%). While there is now significant growth in green hiring rates, 2.1 times the level of 2016 green hiring, compared with 1.2 times the 2016 level globally, at the levels beneath green jobs, the share of

¹⁰¹ Report to Government, Industry and the Skills Sector, Green Jobs Taskforce, 2021

¹⁰² Green economy: how the transition to net-zero could affect UK jobs across the country, LSE Grantham Institute, 2021

¹⁰³ Investing in a just transition in the UK: How investors can integrate social impact and place-based financing into climate strategies, LSE Grantham Institute, 2019

¹⁰⁴ Report to Government, Industry and the Skills Sector, Green Jobs Taskforce, 2021

¹⁰⁵ UK Green Skills Report, LinkedIn Economic Graph, Accessed 2022

hiring for ‘greening’ and ‘greening-potential’ jobs is stagnating or declining and the share of non-green jobs is continuing to grow.¹⁰⁶

LinkedIn conclude the UK Green Skills report by encouraging policy makers to: ‘connect skills providers with businesses so future skills reflect economic need’ (supporting LSIP pilots in this area); ‘target policies and funding geographically to reflect on the ground realities in the UK’s geographically diverse economy’; and ‘address systemic economic inequalities and deliver an equitable green skills revolution.’¹⁰⁷

The Treasury’s 2021 Net Zero Review highlights that “global action to mitigate climate change is essential to long term UK prosperity,”¹⁰⁸ however, the demand for green skills by both the public and private sectors – particularly at a local level - is not yet fully understood. The West Midlands LSIP presents a key opportunity at a critical juncture for the region to gain a better picture of current and future green skills needs to make the most of local opportunities associated with a just transition.

Leadership and Management Capabilities

Through conversation with the West Midlands Combined Authority, it was acknowledged that a significant amount of informal research has been conducted in regard to the digital skills needs of regional employers in particular.

It was identified that the LSIP presents a vital opportunity to further this work by, in particular, developing a better understanding of the strategic priorities of regional employers and whether they have the leadership and management capabilities in order to meet these priorities and overcome challenges and/or maximise opportunities associated with digitisation and the advancement of new technologies and the transition towards net zero within the foreseeable future.

The WMW LSIP has therefore incorporated a supplementary focus on leadership and people management capabilities, as they pertain to digitisation and the advancement of new technologies and the transition to net zero.

¹⁰⁶ UK Green Skills Report, LinkedIn Economic Graph, Accessed 2022

¹⁰⁷ UK Green Skills Report, LinkedIn Economic Graph, Accessed 2022

¹⁰⁸ Net Zero Review, Analysis exploring the key issues, HM Treasury, 2021

LSIP Focus Group Clusters

The West Midlands and Warwickshire Local Skills Improvement Plan gathers both quantitative and qualitative insights into the strategic priorities and digital and green skills needs across the sectoral composition of the regional business community.

However, through online focus groups, the LSIP also gathers qualitative insights into specific 'Priority Growth Clusters' identified by the West Midlands Combined Authority, in which the West Midlands is assessed to have a comparative regional advance and attract confident business investment. It is proposed in the Plan that the region may be able to stimulate levels of growth in these clusters above those currently forecasted.

The West Midlands Combined Authority's Plan for Growth sets out ambitions to leverage both the public and private sectors to return the region to its position as the fastest growing in the country (outside of London) by 2030.¹⁰⁹

The Plan for Growth states that additional GVA of between £750m and £1bn will need to be generated over the period for the West Midlands to be the fastest growing region outside of London, while the additional gap to match London is £2.7-3.1bn. The base scenario of the Plan for Growth states that the WMCA expects targeted interventions in the eight primary clusters to deliver additional GVA of £2.9-3.2bn within the West Midlands, raising the regional growth rate above the UK average and delivering 40,300-44,800 additional jobs.¹¹⁰

The eight primary clusters identified by the Plan represent between 10.0-15.5% of current employment concentrations in the Black Country, Greater Birmingham and Solihull and the Black Country, but the Plan proposes that additional growth in the mid-to-high-value clusters in the region will generate direct, indirect, and induced gains in prosperity to be shared across communities.¹¹¹

The Plan for Growth seeks to drive integration across six 'critical and cross-cutting' interventions in ways that will deliver more targeted support and secure long-term business growth. These include investing in regionally specific skills development, with a view to developing a future skills pathway with a 'single pot' skills fund that brings together a specific view of required skills and provides funding linked to an attractive pathway for learners and employees and links to employers and potential job opportunities once trained. The Plan for Growth Framework also identifies the need to identify training capacity and demand available in the region at a granular level in close collaboration with industry 'to understand exactly which skills are required now and expected to be required in the future.'¹¹²

Further, the Plan for Growth Framework highlights a need to target training, including apprenticeship training, towards primary growth clusters, and ensure that apprentices are developed to the levels required by the clusters (identified to be Level 4+ by an associated skills reconciliation exercise). In regards to digital skills specifically, the framework identifies a need to 'transform the scale and focus of precise digital skills identified as important to industry, through introducing a WM Digital

¹⁰⁹ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹¹⁰ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹¹¹ West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

¹¹² West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

Programme that builds upon and consolidates existing offerings and provides a range of skills from level 4+.¹¹³

“The post-pandemic recovery has created a tight labour market and for the first time in the West Midlands, job vacancies outstrip the number of those looking for work. Developing our residents’ skills delivers more inclusive growth by maximising their earnings potential, and it is also good for the economy as a whole as it helps the region’s firms to undertake more complex, higher value-added work – particularly across the West Midlands Plan for Growth clusters.” – West Midlands Plan for Growth, West Midlands Combined Authority, 2022

As detailed further in Annex B of this report, Chamber-led focus groups and one to one calls with employers throughout January and February sought to further understand and compare the green and digital and leadership and management skills needs of the priority growth clusters identified by the WMCA and relevant to Warwickshire where clusters were recognised in the Plan for Growth to represent medium-to-very-high regional strengths. These are as follows. Please note, smaller clusters (by current total employment), where deemed appropriate, have been combined with others to ensure that the current size of those clusters represented by each focus group feasibly allows for identification and engagement of relevant employers:

- Manufacturing of electric light vehicles and associated battery storage devices and Aerospace (including manufacturing alternative fuel) (combined)
- Logistics and distribution
- Health Tech and med tech
- Professional and financial services and supply chain
- Modern and low carbon utility and manufacturing of future housing (combined)

These areas cover seven of the largest (by current total employment) of the eight priority growth clusters identified by the WMCA Plan for Growth. They are each ranked by the Plan for Growth as representing Medium to Very High regional strengths (relative the UK average) and Medium to Very High relative growth potential.

Existing evidence regarding each of these areas are as follows.

Manufacturing of electric light vehicles and associated battery storage devices and Aerospace (including manufacturing alternative fuel)

The Plan for Growth estimates that manufacturing of electric light vehicles and associated battery storage devices represents an additional growth opportunity of a further £850-950m of output and 11,200-12,400 jobs by 2030, by matching the growth trajectory of the leading UK region for similar clusters.¹¹⁴

The current average salary in the manufacturing of electric light vehicles and associated battery storage devices is reported to be between 33k and 50k and the Plan indicates that the cluster represents relatively high total employment in the region. It is also stated to be a very high regional strength in comparison to the UK average, with: established original equipment manufacturers (OEM) and automotive supply chains, national assets based in the West Midlands, including the UK Battery Industrialisation Centre and Advanced Propulsion Centre, translational expertise in WMG at Warwick University and the Manufacturing Technology Centre, local university expertise in

¹¹³ West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

¹¹⁴ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

associated chemicals and battery processing and recycling and the future British Volt facility at Hams Hall (in North Warwickshire).¹¹⁵

Further, the Plan for Growth suggests that the Manufacturing of electric light vehicles and associated battery storage devices represents very high relative growth potential for the West Midlands, of up to £950m of additional GVA and 12,400 additional jobs by 2030¹¹⁶, with opportunities in supporting the transition of manufacturing capacity and supply chains from internal combustion to electric vehicle (EV) volume production.

Geographically, The Manufacturing of electric light vehicles and associated battery storage devices is concentrated in Sandwell and Walsall in the Black Country LEP area, Solihull and Birmingham in Greater Birmingham and Solihull LEP area and Stratford and Coventry in the Coventry and Warwickshire LEP area.¹¹⁷

Analysis by Black Country Consortium identifies existing sector alignment of this cluster with Automotive, Metals and Materials and Rail.¹¹⁸

The Plan for Growth estimates that Aerospace (including manufacturing alternative fuels) represents an additional growth opportunity of £80-90m of output and 900-1,000 jobs by 2030 by outpacing the average growth profile in the UK for similar clusters. It is assessed to be a medium regional strength (compared to the UK average), with connections to OEMs and large airports nearby, strengths in dependent industries such as metals and materials and propulsion technology, strong leadership locally from the Midlands Aerospace Alliance and a good critical mass of skilled workers in advanced engineering. The current average cluster salary is reported by the Plan to be greater than £50k.¹¹⁹

The Plan for Growth identifies Aerospace to be of medium relative growth potential also, with opportunities associated with major market disruption in pursuit of net zero and embedding new technology, and local expertise in related industries such as metals and materials. Opportunities identified by the plan also include taking a greater share of the military aerospace market, which is associated with higher R&D (which could bring high GVA jobs to the region). There may additionally be opportunities for lower-tier specialist aerospace suppliers to pivot technologies into new industries.¹²⁰

The Plan for Growth Framework references a need to ensure that, through cross-cutting interventions, there is a better matching of skills supply and industry demand, and that focus is also on ensuring the skills base is particularly transferable and agile to match the shifting operations and fortunes of companies (e.g. through focus on disruptive technologies such as batteries and alternative fuels).¹²¹

Geographically, Aerospace (including manufacturing alternative fuels) is said to be concentrated in Wolverhampton and Dudley in the Black Country LEP area and Nuneaton & Bedworth in Coventry and Warwickshire.¹²²

¹¹⁵ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹¹⁶ West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

¹¹⁷ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹¹⁸ West Midlands Plan for Growth Cluster Matrix, Black Country Consortium, 2022 (unpublished)

¹¹⁹ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹²⁰ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹²¹ West Midlands Plan for Growth Cluster Matrix, Black Country Consortium, 2022 (unpublished)

¹²² West Midlands Plan for Growth, West Midlands Combined Authority, 2022

Aerospace is itself an existing sector and analysis by Black Country Consortium also associates this cluster with Metals and Materials.¹²³

Analysis in the WMCA Local Skills Plan Evidence Report in 2020 estimates that 2,850 jobs and £272 million GVA can be attributed to aerospace manufacturing in the Combined Authority. However, the Plan recognises that these figures understate the extent of aerospace activity in the area, as it only reflects the SIC code: 30.30 Manufacture of air and spacecraft and related machinery. The Plan cites figures from the national aerospace trade organisation ADS, which estimate UK aerospace turnover of £35 billion, of which the West Midlands represents approximately 10% (c.£3.5 billion turnover). This outstrips the region’s share of the UK population. ADS estimate GVA to be 30% of turnover in aerospace, which would make aerospace GVA in the West Midlands approximately £1 billion. The organisation further estimates that there are 123,000 direct aerospace jobs in the UK, and double this when including indirect jobs. The plan therefore suggests that Aerospace contributes approximately 25,000 jobs in the West Midlands.¹²⁴

As Aerospace (including manufacturing alternative fuels) is estimated to represent one of the lowest total employments of the primary Plan for Growth clusters, it will be collated with the Manufacturing of electric light vehicles and associated battery storage devices cluster for the purposes of LSIP focus groups in reflection of supply chain crossover and as such anticipated alignment of skills needs. Nonetheless, where distinct green and digital skills needs are identified the Chambers will recognise these also.

Data provided by LinkedIn enables filtering by local area, job function and individual jobs to provide insights on not only the roles most in-demand, but also skills required by these roles compared with skills listed by members occupied with the role(s). LinkedIn advise that insights on the skills most in demand are more accurate and actionable as filters are narrowed down into listing similar or individual roles. There is significant disparity between LinkedIn job functions and priority growth clusters – in some instances, businesses identified as part of a growth cluster may employ individuals in most or all of the distinct job functions identified by LinkedIn. Therefore, in initial assessment of the skills needs among the priority growth clusters the WM LSIP will conduct focus groups with, skills needs have been assessed – where appropriate – where singular broad job functions are closely aligned with priority growth clusters. Further analysis of the data provided by LinkedIn, for example, in regards to specific job roles, may be utilised conjunction with LSIP focus groups, surveying and meaningful engagements to support understanding of the digital and green skills needs of employers across the region.

Regarding the manufacturing of electric light vehicles and associated battery storage devices and aerospace (including manufacturing alternative fuel) in the West Midlands, LinkedIn data identifies a number of potential digital skills mismatches in Engineering.

Top Most In-Demand Jobs in the West Midlands Combined Authority area in Engineering, based on LinkedIn active membership

Top Most In Demand Jobs	Job Name	Emergence Metric (Compound annual growth rate in % Share of Hiring by Job - 2017 to 2021)
1	Full Stack Engineer	18.42%

¹²³ West Midlands Plan for Growth Cluster Matrix, Black Country Consortium, 2022 (unpublished)

¹²⁴ Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

2	Scrum Master	17.29%
3	Data Scientist	16.45%
4	DevOps Consultant	14.06%
5	Quality Assurance Engineer	9.40%
6	Software Test Engineer	5.80%
7	Software Engineer	4.82%
8	Information Technology Architect	4.77%
9	Engineering Manager	3.40%
10	Frontend Developer	3.39%
11	Automation Engineer	0.88%
12	Technical Architect	0.06%

Source: LinkedIn, 2022 (unpublished)

LinkedIn analysis ranks the skills most frequently required by job advertisements for these jobs, in comparison with the skills listed by LinkedIn members in the West Midlands occupied with these jobs. Potential digital skills mismatches in Engineering in the West Midlands Combined Authority Area include Test Automation, Node.js and Amazon Web Services (AWS), as illustrated in the below table.¹²⁵

Skill Ranking Among the Top Most In-Demand Jobs in the West Midlands Combined Authority area in Engineering, based on LinkedIn active membership (non-duplicate skills highlighted)

Skill Rank	Top 10 List of Skills Needed for the Job(s)	Top 10 List of Skills Listed by Members in West Midlands CA area occupied with the Job(s)
1	Git	SQL
2	Agile Methodologies	Agile Methodologies
3	JavaScript	Git
4	React.js	JavaScript
5	Test Automation	Jira
6	Node.js	Microsoft Azure
7	SQL	Cascading Style Sheets (CSS)
8	Jira	React.js
9	Amazon Web Services (AWS)	Solution Architecture

¹²⁵ LinkedIn, 2022 (unpublished)

10	Solution Architecture	Manual Testing
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Source: LinkedIn, 2022 (unpublished)

In Warwickshire, the most in demand job roles in Engineering are fewer and slightly different, as demonstrated in the below table.

Top Most In-Demand Jobs in Warwickshire in Engineering, based on LinkedIn active membership¹²⁶

Top 20 Most In Demand Jobs	Job Name	Emergence Metric (Compound annual growth rate in % Share of Hiring by Job - 2017 to 2021)
1	Mechanical Design Engineer	12.95%
2	Frontend Developer	12.03%
3	Director Of Engineering	7.56%
4	Software Engineer	4.84%
5	Information Technology Architect	4.32%
6	Engineering Team Lead	4.09%
7	Technical Architect	3.30%
8	Engineering Manager	2.55%
9	Test Engineer	0.43%

Source: LinkedIn, 2022 (unpublished)

LinkedIn analysis reveals different potential skills mismatches in Engineering in Warwickshire, compared to the WMCA area. Potential Engineering skills mismatches in Warwickshire identified by LinkedIn include Agile Methodologies, Solution Architecture, SOLIDWORKS and Git.¹²⁷

Skill Ranking Among the Top Most In-Demand Jobs in Warwickshire in Engineering, based on LinkedIn active membership (non-duplicate skills highlighted)

Skill Rank	Top 10 List of Skills Needed for the Job(s)	Top 10 List of Skills Listed by Members in Warwickshire occupied with the Job(s)
1	Engineering	Engineering
2	Manufacturing	Automotive
3	Mechanical Engineering	Product Development
4	Product Development	Failure Mode and Effects Analysis (FMEA)
5	Agile Methodologies	Computer-Aided Design (CAD)

¹²⁶ Minimum thresholds applied, so that the number of professionals that currently hold a job title has reached a "critical mass" to ensure data highlights jobs experiencing real and continued growth

¹²⁷ LinkedIn, 2022 (unpublished)

6	Continuous Improvement	Continuous Improvement
7	Solution Architecture	Manufacturing
8	Computer-Aided Design (CAD)	Mechanical Engineering
9	SOLIDWORKS	Project Management
10	Git	Automotive Engineering

Source: LinkedIn, 2022 (unpublished)

Logistics and Distribution

The Plan for Growth estimates that Logistics and Distribution represents an additional growth opportunity of a further £280-290m of output and 5,500 to 6,000 jobs by accelerating already high growth prospects by an additional 1% per annum.¹²⁸

The current average cluster salary is estimated by the Plan for Growth to be less than £33k, however, the Plan indicates the cluster represents the highest total employment in the region of all eight priority growth clusters. It is also reported to be an area of high-to-very-high regional strength in comparison to the UK average, with strong demand from the local manufacturing base, advantageous geographical positioning for road and rail freight, links to local airports and seaports around the UK, headquarters of major logistics firms in the region, Coventry's trial of a first urban drone airport and a strong local tech and service economy that helps with smart utilisation of distribution capacity.¹²⁹

Looking ahead, the Plan for Growth suggests that evolution of logistics and distribution represents very high relative growth potential for the West Midlands of up to £290m in additional GVA and 6,000 additional jobs by 2030, with opportunities in market growth and disruption driven by the boom in ecommerce and new customer behaviours as a result of the Covid-19 pandemic, as well as disruption associated with net zero and clean air commitments and trade frictions with the EU. It is proposed in the Plan that the West Midlands might increase the market share and productive capacity of the cluster by providing high-quality infrastructure, improving connectivity and raising the productivity of the existing workforce. Priority projects for the growth of the cluster identified in the Plan for Growth include collaborating with industry and training providers to increase supply of skills (including HGV drivers) and commercial development of brownfield land in the West Midlands Investment Prospectus, which creates new logistics and distribution facilities with greater technologies and higher-level skills.¹³⁰

Geographically, the Logistics and Distribution cluster is concentrated in Walsall in the Black Country Cannock Chase, Tamworth and Solihull in Greater Birmingham and Rugby and North Warwickshire in the Coventry and Warwickshire LEP area.¹³¹

Analysis by Black Country Consortium identifies existing sector alignment of this cluster with Logistics, Rail and Food and Drink.¹³²

¹²⁸ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹²⁹ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹³⁰ West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

¹³¹ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹³² West Midlands Plan for Growth Cluster Matrix, Black Country Consortium (unpublished)

The WMCA Local Skills Plan Evidence Report outlines that Transport and Logistics represents £5.0 billion in GVA, 109,335 jobs and 10,445 businesses in the local economy currently. It cites research suggesting that key skills for the sector include warehousing, forklift truck operation, trucking and digital communication, mechanics, collections, KPIs, palletizing, personal protective equipment, vehicle maintenance, and manual handling.¹³³

As referenced above, LinkedIn's UK Green Skills Report emphasises that sectors such as Transportation and Logistics represent particularly significant challenges in the UK's transition to net zero require and an increase in green skills in these sectors will be critical to achieving a just transition.¹³⁴

Health-Tech and Med-Tech

The Plan for Growth suggests that the Health-tech and Med-tech cluster in the West Midlands represents an additional growth opportunity of up to £400-430m of output and 5,300-5,900 jobs by 2030 by matching the growth trajectory of the leading UK region for similar clusters. It is reported to be a cluster of medium regional strength but high relative growth potential. The current average Health-tech and Med-tech salary is estimated by the Plan for Growth to be between £33k and £50k.¹³⁵

The competitive advantages of Health-tech and Med-tech in the West Midlands identified by the Plan for Growth include the large and diverse demography of the region, a concentration of several large medical research facilities and the Centre for Translational Medicine at the University of Birmingham, local engineering and materials expertise directly relevant to the development and manufacturing of medical devices, the high volume of medical science graduates produced by the region's universities annually (c.11,000), and aligned high-level skills in engineering and data, and the attraction of private and public sector investment into world-class facilities, including the Birmingham Health Innovation Campus, due to open in 2023¹³⁶, and the Rosalind Franklin Laboratory in Leamington.¹³⁷

Opportunities outlined for growth in the cluster include a major increase in public and private sector R&D funding outside of the Greater South East, as part of the Government's commitment to the 2.4% target, Government commitment to invest in diagnostics and early intervention hubs, the embedding of medical technologies in lifestyle devices and international trade deals opening up new markets and regulatory freedoms.¹³⁸

Certain barriers, however, are identified as preventing the industry from reaching its full potential. These include supply-chain fragmentation, limited access to private investment and time constraints. The Plan for Growth Framework refers to findings by the Midlands Engine's 2021 MedTech report. This found that the MedTech sector in the Midlands (East and West Midlands combined) contributes an estimated £1.6bn annually to the area. With around 1,000 companies in the industry, the Midlands has the largest number of MedTech businesses in the UK, and is the second-largest employer with a workforce of 23,600. The report however cites a lack of skills as a key barrier to growth for Med-tech in the Midlands – in particular, skills for supporting manufacturing and R&D, and for technical and commercial business roles. 40% of firms surveyed for the report reported this

¹³³ Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

¹³⁴ UK Green Skills Report, LinkedIn Economic Graph, Accessed 2022

¹³⁵ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹³⁶ Birmingham Health Innovation Campus, Birmingham Health Partners, 2022

¹³⁷ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹³⁸ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

to be an issue in regards to recruiting new staff. Further, 15% stated skills of existing staff were a key barrier to growth.¹³⁹

Geographically, Health-tech and Med-tech in the region are concentrated in Birmingham and East Staffordshire in the Greater Birmingham LEP area and Rugby in the Coventry and Warwickshire LEP geography.¹⁴⁰

Analysis by Black Country Consortium identifies existing sector alignment of this cluster with Life Sciences and Health and Care.¹⁴¹

Whilst the WMCA's Local Skills Plan Evidence Report attributes £8.8 billion of GVA, 244,940 jobs and 6,730 businesses to Life Sciences and Healthcare Industries in the WMCA area in 2020, this is heavily weighted by Human Health activities. The Evidence Report cites 3,290 jobs and 255 businesses primarily engaged in scientific research and development.¹⁴²

The Greater Birmingham and Solihull LEP's Priority Sectors Skills Research provides a 'deep dive' into Health technologies and life sciences, through interviews and group work with local businesses. The research identifies six SIC codes, and three subsectors within the sector: Pharmaceuticals, Medical Technology and Research and Development. These, as the report explains, may also be identified as 'Core Biopharma' and 'Core Med-Tech.'¹⁴³

The LEP research references Office for Life Sciences Statistics to demonstrate that in the West Midlands region 18,800 employees were hired in the life sciences sector in 2020, and the sector saw a net turnover of £6.49 billion in the year prior. Life sciences in the region saw a 13% increase in employment between 2015 and 2020, however, overall, the Midlands has seen a slight decrease in the percentage share of the UK's life sciences employment, as shown in the below table.¹⁴⁴

West Midlands life sciences employment data with comparison to UK total

Year	Pharmaceuticals		Medical Technology		Total Life Sciences	
	Employees	% of UK total	Employees	% of UK total	Employees	% of UK total
2015	4,310	4.0%	12,373	10.8%	16,683	7.5%
2016	4,538	4.0%	12,949	10.8%	17,487	7.5%
2017	4,251	3.6%	11,717	9.6%	15,968	6.6%
2018	5,521	4.6%	11,626	9.1%	17,147	6.9%
2019	6,200	5.0%	11,120	8.4%	17,320	6.8%
2020	7,200	5.5%	11,600	8.4%	18,800	6.9%

Source: Bioscience and Health Technology Sector Statistics 2019, Office for Life Sciences, 2020, as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹³⁹ Midlands Engine MedTech Sector Analysis Report, February 2021, as cited by West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

¹⁴⁰ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁴¹ West Midlands Plan for Growth Cluster Matrix, Black Country Consortium (unpublished)

¹⁴² Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

¹⁴³ Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁴⁴ Bioscience and Health Technology Sector Statistics 2019, Office for Life Sciences, 2020, as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

The Greater Birmingham and Solihull LEP refer to Office for Life Sciences predictions that average annual growth rates of 1.2% and 3.6% for Pharmaceuticals and Medical Technology respectively are to be expected over the next coming years in the West Midlands.¹⁴⁵ To sustain this anticipated growth, it is calculated that a potential 6,181 new employees will be needed to meet expansion demand and a further 3,756 to replace retirees, coming to a total of 9,937 new jobs within the region by 2030. In terms of economic contribution, the LEP research cites that the West Midlands region generated 8% of the UK's total life sciences turnover in 2019, with a little under 7% of the total employment and a total of 611 pharmaceutical and medical technology businesses of varying size in the West Midlands.¹⁴⁶

The Greater Birmingham and Solihull LEP report additionally cites the Science Industry Partnership (SIP)'s 2020 Life Sciences 2030 Skills Strategy in regards to the overarching needs of the UK life sciences sector. The Strategy notes an apparent gap between US and UK capabilities in digital, computational and statistical literacy, and suggests a generalised upskilling of staff in data science skills to keep up with international competition and the modern age of digitalisation. The SIP also sets out six further key skills for the advancement of the sector: skills updates to reflect technological and regulatory change (such as additive manufacturing, robotics, and advanced manufacturing techniques); skills for cross-team and cross disciplinary working; leadership skills; communication skills; translation and commercialisation skills; and holistic sales and marketing skills. Alongside this, the SIP note that contingency succession planning for an aging workforce is required to avoid and prevent potential shortcomings and skills gaps within the sector.¹⁴⁷

Life Sciences is a particularly highly skilled sector; Greater Birmingham and Solihull LEP cite ONS statistics demonstrating that more than 62% of the employees within the life sciences sector hold a degree or equivalent level qualification (Level 6+), which is almost double the UK workforce average of 36%.¹⁴⁸ Research conducted by the LEP and SIP West Midlands found that from 2015/16 to 2020/2021, the intake of apprentices starting in the health and life sciences sector steadily increased year on year, despite the pandemic.¹⁴⁹

Research by the LEP highlights that a major market driver for businesses in health technologies and life sciences (HTLS) in Greater Birmingham and Solihull continues to be the ongoing impact of EU Exit, and in particular, the financial costs and stifling of innovation associated with regulatory divergence. Previously, the LEP note, firms had also been able to rely on recruiting highly skilled labour from the EU, which is no longer available, resulting in a smaller talent pool and increased competition for skilled staff. Interviewed firms primarily reported sourcing talent by upskilling staff, taking them on as apprentices or trainees to tutor them on the job and ensure their skillsets adapt to the needs of the business. Senior staff are recruited at a national level through specialist agencies.¹⁵⁰

¹⁴⁵ Life Sciences: Industrial Strategy, Office for Life Sciences, 2017, as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁴⁶ Bioscience and health technology sector statistics 2019, Office for Life Sciences, 2020, as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁴⁷ Life Sciences 2030 Skills Strategy, Science Industry Partnership, 2020, as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁴⁸ Labour Force Survey 4 Quarter Average, ONS, 2019, as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁴⁹ Life Sciences Skills Report, Greater Birmingham and Solihull Local Enterprise Partnership and Science Industry Partnership West Midlands, 2021 as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁵⁰ Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

LEP research finds that as a result of new and emerging technologies, life sciences firms in Greater Birmingham and Solihull are anticipated to require increased digital skills, including programming and coding over the next few years. The recent shift towards flexible working seen as a result of the pandemic, is also driving the demand for workers to have adequate IT skills, for example to make best use of the Cloud and the Internet of Things. A predicted upswing in automation – while impacting on the need for existing jobs – is anticipated by businesses to lead to greater demand for data analysis, data management and data interpretation skills, meaning workforces will move into other, different/new roles. While local life sciences firms interviewed broadly consider training to be keeping pace with change, it was suggested that more multi-disciplinary training, incorporating practical lab skills, a working knowledge of digital technology (such as AI and automation in data handling) and experience of user design and interface, is the future for the sector. Interestingly, interview participants suggested this may be offered through ‘degree equivalent’ apprenticeships and work placements to attract individuals from diverse backgrounds to the sector.¹⁵¹

Of the 20 businesses interviewed by Greater Birmingham and Solihull LEP for the purposes of this research, half (10) referred to a lack of locally available training courses that meet their business needs. To overcome this, several interviewed firms noted setting up their own in-house training schemes, offering bespoke learning for new entrants to the business. Other barriers to training included an inability to release staff from work. Drivers for training staff most typically included business expansion/diversification, annual staff appraisals, and boosting business performance.¹⁵²

With the UK aiming to transition to net zero by 2050, the LEP reports that the HTLS sector appears unconcerned currently that the low carbon agenda will have an impact of changing skills needs. There was some uncertainty among HTLS firms interviewed as to how to plan for changes associated with the transition to net zero. One nominal group participant suggested that expertise will be required to be able to transform clinical waste into raw materials, as one example of how the sector will move towards a circular economy.¹⁵³

Just five job functions within Research are assessed by LinkedIn to be in demand in the West Midlands Combined Authority Area, however, these relate closely to the Health-tech and Med-tech priority growth cluster and highlight potential digital skills mismatches for the cluster in the region.

Top Most In-Demand Jobs in the West Midlands Combined Authority area in Research, based on LinkedIn active membership

Top 20 Most In Demand Jobs	Job Name	Emergence Metric (Compound annual growth rate in % Share of Hiring by Job - 2017 to 2021)
1	Laboratory Assistant	20.83%
2	Medical Laboratory Scientist	11.41%
3	Analytics Manager	8.85%

¹⁵¹ Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁵² Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁵³ Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

4	Analytics Consultant	4.04%
5	Chemist	1.10%

Source: LinkedIn, 2022 (unpublished)

LinkedIn analysis ranking the skills required by job advertisements and those identified by LinkedIn members occupied with the same jobs in Research reveals several potential digital skills mismatches in regards to analytics, data visualisation and programming languages Python and R, as illustrated by the table below.¹⁵⁴

Skill Ranking Among the Top Most In-Demand Jobs in the West Midlands Combined Authority area in Operations, based on LinkedIn active membership (non-duplicate skills highlighted)

Skill Rank	Top 10 List of Skills Needed for the Job(s)	Top 10 List of Skills Listed by Members in the West Midlands (CA area) occupied with the Job(s)
1	Laboratory Skills	Laboratory Skills
2	Tableau	Data Analysis
3	Analytics	SQL
4	Data Visualization	Chemistry
5	SQL	Microsoft Power BI
6	Chemistry	Tableau
7	Microsoft Power BI	Analytical Chemistry
8	Python (Programming Language)	Data Analytics
9	R (Programming Language)	Laboratory Techniques
10	Laboratory Medicine	Haematology

Source: LinkedIn, 2022 (unpublished)

There are just two job roles in Research in Warwickshire assessed by LinkedIn as being in high demand; Laboratory Assistant (which reflects that most in demands across the WMCA area) and Business Analyst.¹⁵⁵

Top Most In-Demand Jobs in Warwickshire in Research, based on LinkedIn active membership

Top 20 Most In Demand Jobs	Job Name	Emergence Metric (Compound annual growth rate in % Share of Hiring by Job - 2017 to 2021)
1	Laboratory Assistant	15.84%

¹⁵⁴ LinkedIn, 2022 (unpublished)

¹⁵⁵ LinkedIn, 2022 (unpublished)

2	Business Analyst	1.49%
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Source: LinkedIn, 2022 (unpublished)

There are several potential skills mismatches identified by LinkedIn analysis ranking skills required by Research jobs and reported by Warwickshire LinkedIn members currently employed in Research jobs. However, in comparison to those identified in the WMCA area, in Warwickshire, the most frequently identified potential skills mismatches appear to be less digitally focussed, and more specific to laboratory work (though that is not to say digital skills mismatches are not present in regards to these job roles in Warwickshire).¹⁵⁶

Skill Ranking Among the Top Most In-Demand Jobs in Warwickshire in Operations, based on LinkedIn active membership (non-duplicate skills highlighted)

Skill Rank	Top 10 List of Skills Needed for the Job(s)	Top 10 List of Skills Listed by Members in Warwickshire occupied with the Job(s)
1	Requirements Gathering	Business Analysis
2	Laboratory Skills	Requirements Analysis
3	Business Analysis	Requirements Gathering
4	Good Laboratory Practice (GLP)	Business Process Improvement
5	Requirements Analysis	Business Process Mapping
6	Laboratory Technicians	Stakeholder Management
7	Business Requirements	Agile Methodologies
8	Microbiology	Business Requirements
9	Business Process Mapping	Business Process
10	Laboratory Safety	Visio

Source: LinkedIn, 2022 (unpublished)

Professional and Financial Services and Supply Chain

The Plan for Growth suggests that the Professional and Financial Services and Supply Chain cluster in the West Midlands represents an additional growth opportunity of a further £580-630m of output and 8,500-9,400 jobs by matching the growth trajectory of the leading UK region for similar clusters.¹⁵⁷

The current average Professional and Financial Services and Supply Chain salary is estimated to be greater than £50k, and the cluster is reported by the Plan for Growth to be of medium regional strength (in comparison to the UK average) and medium relative growth potential in relation to other priority growth clusters.¹⁵⁸

¹⁵⁶ LinkedIn, 2022 (unpublished)

¹⁵⁷ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁵⁸ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

Regional advantages for the cluster, as outlined by the Plan for Growth, include connections to a sizeable labour pool for large professional and financial services businesses, a large and diverse economic base, offering firms the opportunity to develop products to be sold abroad and a significant private sector investment pipeline which includes major global brands.¹⁵⁹

Key opportunities for this local cluster recognised by the Plan for Growth include the UK's strong global position, subjecting service industries to fewer trade restrictions than goods, a large regional base of professional and financial services firms already in the region which have opportunities to move up the value chain through strategic relationship management, to showcase regional capabilities and help secure higher-value activity, and the potential to strengthen connections between industry and academia to develop and apply new digital approaches quickly, sparking growth in nascent clusters such as EdTech.¹⁶⁰

The Plan for Growth Framework identifies an opportunity for WMCA to help deliver growth ambitions for this priority growth cluster by supporting innovative trials by further education institutions to deliver courses demanded by industry and suitable for the modern working world. The Framework also emphasises a need to focus on the development of technical skills applicable to the FinTech sub sector, such as coding (by supporting FE in innovation), as well as retaining and attracting those with skills suitable for moving the region up the Financial Services/Professional Services value chain (e.g. M&A and investment appraisal). In order to retain skilled talent in and attract senior roles to the region, the Framework also highlights that skills interventions in this cluster must be tied with the region's wider placemaking agenda.¹⁶¹

Across the West Midlands, this cluster has concentrations in each of the three LEP areas, specifically in Birmingham, Coventry and Wolverhampton.¹⁶²

Analysis by Black Country Consortium identifies existing sector alignment of this cluster with Business, Professional and Financial Services (BPFS).¹⁶³

The WMCA's Local Skills Plan sets out that £27.8 billion of GVA and 354,600 jobs in the WMCA area can be attributed to BPFS, equivalent to 26.5% of the local economy and 19.2% of overall employment, making it the largest sector in the Combined Authority area in both regards. The sector is responsible for £28.8bn in GVA to the wider region as a whole. GVA per employee is calculated to be £78,364, above the average of £56,908. The Plan states that BPFS represents 41,865 businesses in the WMCA area (28.9% of the total), making it the largest of any sector locally. The Plan further references research suggesting that the most demanded skills among these firms were accounting, business development, auditing, KPIs, agile software development, forecasting, selling techniques, customer relationship management, chartered accounting qualification, and SQL coding.¹⁶⁴

The Greater Birmingham and Solihull LEP's Priority Sectors Skills Research cites analysis that an estimated 39% of work activities in the UK are already technically automatable, and as such the BPFS sector will be drastically disrupted by technological advancements in the next 20 years.¹⁶⁵ The LEP

¹⁵⁹ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁶⁰ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁶¹ West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

¹⁶² West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁶³ West Midlands Plan for Growth Cluster Matrix, Black Country Consortium, 2022 (unpublished)

¹⁶⁴ Local Skills Plan Evidence Report, West Midlands Combined Authority, 2020

¹⁶⁵ A Future That Works: Automation, Employment and Productivity, McKinsey Global Institute, 2017, as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

research sets out expectations that low-skill roles within BPFS industries – such as administrative, repetitive jobs – will likely be eliminated via the introduction of digitalised, automated systems, with new roles involving advanced technologies such as artificial intelligence, machine learning and robotics likely being created to compensate.¹⁶⁶ The LEP reference Industrial Strategy Council expectations that most existing roles will remain, but job descriptions and involved skills will need to adapt in recognition of technological changes.¹⁶⁷

The LEP highlight the Financial Services Skills Commission (FSSC)'s Future Skills Framework, which categorises eight priority skills for this sector where there are significant acute skills shortages or rapid, growing demand. Technical skills gaps identified are User Experience (including research, design, analysis and selling skills), Agility (with skills involved related to navigating a fast paced work environment and managing different aspects of projects); Cyber Security (including skills associated with threat management, risk assessment and digital skills); and Machine Learning and AI (including high level skills such as computer science fundamentals, programming, probability and statistics and data science). Behavioural skills needs identified by the FSSC can be summarised as: Adaptability (involving personal skills, such as embracing change, and learning from experience); Empathy; Relationship Management (involving communication skills in particular) and Teamwork.¹⁶⁸

The Greater Birmingham and Solihull LEP report also features analysis by the Professional & Business Services Council (PBSC) and FSSC, illustrating that within the West Midlands over half of employees in the BPFS sector had qualifications at Level 4 and above in June 2019-July 2020 - significantly less than London which is over 80% at the higher qualification level.¹⁶⁹

Following interviews with a number of BPFS firms, the LEP's research suggests that Greater Birmingham and Solihull BPFS businesses anticipate that the fast pace of technological change will be the largest driver of changing skills needs in their industry. In terms of current levels of knowledge and understanding of advanced digital technology, surveyed BPFS firms in the LEP area typically had a low knowledge of most listed technologies (e.g. AI, robotics) which they did not use in their day-to-day, core business activities. However, understanding of big data was much higher, reflecting its wider, current use by businesses in the sector. The LEP continues to explain anticipation among local BPFS firms that, as automation gathers pace, some roles undertaken by people will be replaced by machines such as data entry and processing, and individuals will require skillsets around programming and coding to be able to run these processes. In addition, skillsets will need to adapt to become more focused on data analysis, innovation, and creativity. Overall, interviewed BPFS firms believed that there will be a greater need for IT and digital skills as the sector embraces new technologies. For instance, the LEP suggests, the accountancy sector is anticipated to have more automated data processing, and media technology is already undergoing a switch to digital platforms.¹⁷⁰

¹⁶⁶ Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁶⁷ UK Skills Mismatch in 2030, Industrial Strategy Council, 2019 as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁶⁸ Future Skills Framework, FSSC, 2021 as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁶⁹ Skills for Future Success: How financial, professional, and business services can address skills challenges to deliver recovery and growth in UK regions and nations, PBSC and FSSC, 2021 as cited by Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁷⁰ Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

The Greater Birmingham and Solihull LEP's Sector Deep Dive research suggests that while qualifications are keeping pace with the emerging skills needs of the BPFs sector, and firms are positive about the shift to greater online provision, allowing for greater accessibility of training, there may be a demand for more blended and modular skills delivery. Local BPFs employers surveyed believed that the most important action required currently, pertaining to skills, was in doing more to encourage young people into the workplace. Actions suggested included incentivisation by central government and promotion/awareness through Careers Information, Advice and Guidance at schools and colleges.¹⁷¹

Modern and low carbon utility and manufacturing of future housing

Modern and low carbon utility and manufacture of future housing are both relatively small (by current total employment) priority growth clusters. However, not only do they represent opportunities for future growth, but also significant importance in overcoming critical causes and circumstances of the ongoing economic crisis across the country.

The Plan for Growth suggests that the Modern and Low Carbon Utility cluster represents an additional growth opportunity of a further £420-470m of output and 4,400-4,900 jobs by 2030, by matching the growth trajectory of the leading UK region for similar clusters. It is reported by the Plan for Growth to be an area of very high regional strength in comparison to the UK average and high-to-very-high relative growth potential (relative to other priority growth clusters). The current average Modern and low carbon utility salary is estimated to be between £33-50k.¹⁷²

The Plan for Growth states that the nature of the comparative advantage for the modern and low carbon utility cluster involves the region's concentration of energy and utilities firms, research assets like Tyseley Energy Park and academic research base, as well as manufacturing and engineering capabilities including supply chains for wind, solar PV and biomass in the region. There is also a detailed blueprint for energy security for the energy-intensive industry base through the Repowering the Black Country project and the cluster reportedly benefits from the West Midlands Circular Economy Routemap with its case for industrial symbiosis programmes.¹⁷³

Key opportunities set out in the Plan for Growth to boost growth in this area include net zero priorities consumer behaviour and new technologies disrupting established markets, recent spikes in energy prices changing cost-benefit assessments for investments, the major investment plans utilities firms have over the next decade, prioritising new technologies and the creation of a potential new Innovation Accelerator to enhance investment, collaboration and innovation across the cluster. Priority projects also include targeting funding and investment towards new low carbon skills focussed on smart grid technologies, project management, sustainable construction and manufacturing methods and energy data systems.¹⁷⁴

The Plan for Growth Framework proposes that among other interventions to facilitate growth in this sector, a skills mapping exercise be undertaken to understand the training capacity and current and anticipated skills demand among the industry. It further advises that this should take account if the

¹⁷¹ Priority Sectors Skills Research, Final Report, Greater Birmingham and Solihull Local Enterprise Partnership, 2022

¹⁷² West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁷³ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁷⁴ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

utilisation of available training, identifying and addressing areas of low course popularity despite availability of training capacity.¹⁷⁵

The cluster is identified to be concentrated in the region in Coventry and Warwick in the Coventry and Warwickshire LEP area, Sandwell in the Black Country and Solihull in Greater Birmingham and Solihull.¹⁷⁶

Analysis by Black Country Consortium identifies existing sector alignment of this cluster with Low Carbon.¹⁷⁷

Manufacturing of future housing is acknowledged by the Plan for Growth to be an area of high regional strength in comparison to the UK average and medium relative growth potential (relative to other priority growth clusters) and though the current average Manufacturing of future housing salary is estimated to be below £33k, the Plan suggests that the cluster represents an additional growth opportunity of up to £220-320m of output and 3,400-3,700 jobs by 2030, by outpacing the average growth profile in the UK for similar clusters.¹⁷⁸

The Plan for Growth recognises that region holds comparative advantages for this cluster, including expertise from over £200m of public investment in brownfield development and the Future Homes Standard linked to the region's Single Commissioning Framework, the situation of the National Brownfield Institute in Wolverhampton and public and private expertise in land remediation and planning, and an engineering and manufacturing skills base that underpins modular housing manufacturing supply chains.¹⁷⁹

Critical opportunities for manufacturing of future housing in the region set out by the Plan for Growth include net zero priorities, new technologies and the supply of traditional trades, driving need for new techniques, technologies established and needing scale in the UK, relating to the opportunities for large-scale brownfield redevelopment (which is particularly concentrated in the Black Country) and significant opportunities for advanced manufacturing in construction in the retrofit market.¹⁸⁰

Major cross-cutting interventions for this cluster identified by the Plan for Growth include developing the future skills pathway, and priority projects include locating a centre of excellence in the region allied to intensive skills programmes.¹⁸¹ The Plan for Growth Framework acknowledges that there is a shortage of skills in a wide range of technical construction roles which impact current/legacy construction methodologies, as well as those required for the manufacturing of future housing. The framework lists Building envelope specialists, Plumbing and HVAC Trades and Plasterers & dry liners as examples of these.¹⁸²

While, as the framework identifies, a number of national initiatives already target the cluster, including the Construction Gateway (part of the National Retraining Scheme), T Levels and Apprenticeships, as well as local training facilities such as Black Country & Marches IoT and Coventry

¹⁷⁵ West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

¹⁷⁶ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁷⁷ West Midlands Plan for Growth Cluster Matrix, Black Country Consortium, 2022 (unpublished)

¹⁷⁸ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁷⁹ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁸⁰ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁸¹ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁸² West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

College, it is suggested that these need to be coordinated for the region to ensure they're successfully creating the jobs demanded by industry. It's proposed that this should include:

- Creating clearer pathways to level 4+ qualifications, with particular focus on the skills needs of local industry which are in short supply;
- Establishing a route for those learners (often in low activity groups) who require further support at age 16 before accessing a route; and
- Facilitating a flexible apprentice sharing scheme based on that trialled by Preston City Council, to improve apprenticeship completion rates by allowing apprentices to continue their education within their locality with new firms where large projects end and firms previously employing them move out of the area.¹⁸³

The Plan for Growth identifies that Manufacturing of Future Housing is concentrated in Wolverhampton and Dudley in the Black Country LEP area, the Wyre Forest, part of the Greater Birmingham and Solihull LEP area and Coventry in the Coventry and Warwickshire LEP area.¹⁸⁴

Analysis by Black Country Consortium identifies existing sector alignment of this cluster with Construction.¹⁸⁵

These clusters - Modern and Low Carbon Utility and Manufacturing of Future Housing - have been combined in recognition of their close practical alignment in the current economic circumstances. As with the Aerospace (including manufacturing alternative fuels) and Manufacturing of electric light vehicles and associated battery storage devices clusters, through focus groups, Chambers have sought to identify both aligned and distinct green and digital skills needs between the two.

¹⁸³ West Midlands Plan for Growth Framework, EY, 2022 (unpublished)

¹⁸⁴ West Midlands Plan for Growth, West Midlands Combined Authority, 2022

¹⁸⁵ West Midlands Plan for Growth Cluster Matrix, Black Country Consortium, 2022 (unpublished)

Contact Us

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