Staffordshire County Council

Stoke-on-Trent & Staffordshire Enterprise Partnership

Stoke-on-Trent and Staffordshire Economy, Skills and Labour Market Information

September 2022

Overview

- Provide an overview of the pre-COVID economy and labour market position (core datasets and Government KPIs)
- Discuss the impact of COVID and War in Ukraine/Rising Inflation on the local economy
- Identify COVID recovery opportunities
- Consider economic renewal & transformation opportunities including priority sectors and skill areas
- Provide detailed priority sector information including SWOT analysis

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Pre-COVID Economy and Labour Market Position

Strong jobs growth saw record low unemployment and the LEP economy grew prior to COVID…

57,000 more jobs since 2011, equivalent to 12% growth and similar to increase seen regionally & nationally

Record low unemployment at below **2%** claiming JSA or Unemployment Universal Credit, lower than regional and national averages

Economy in 2019 worth **£25bn** increased by £6bn since 2011

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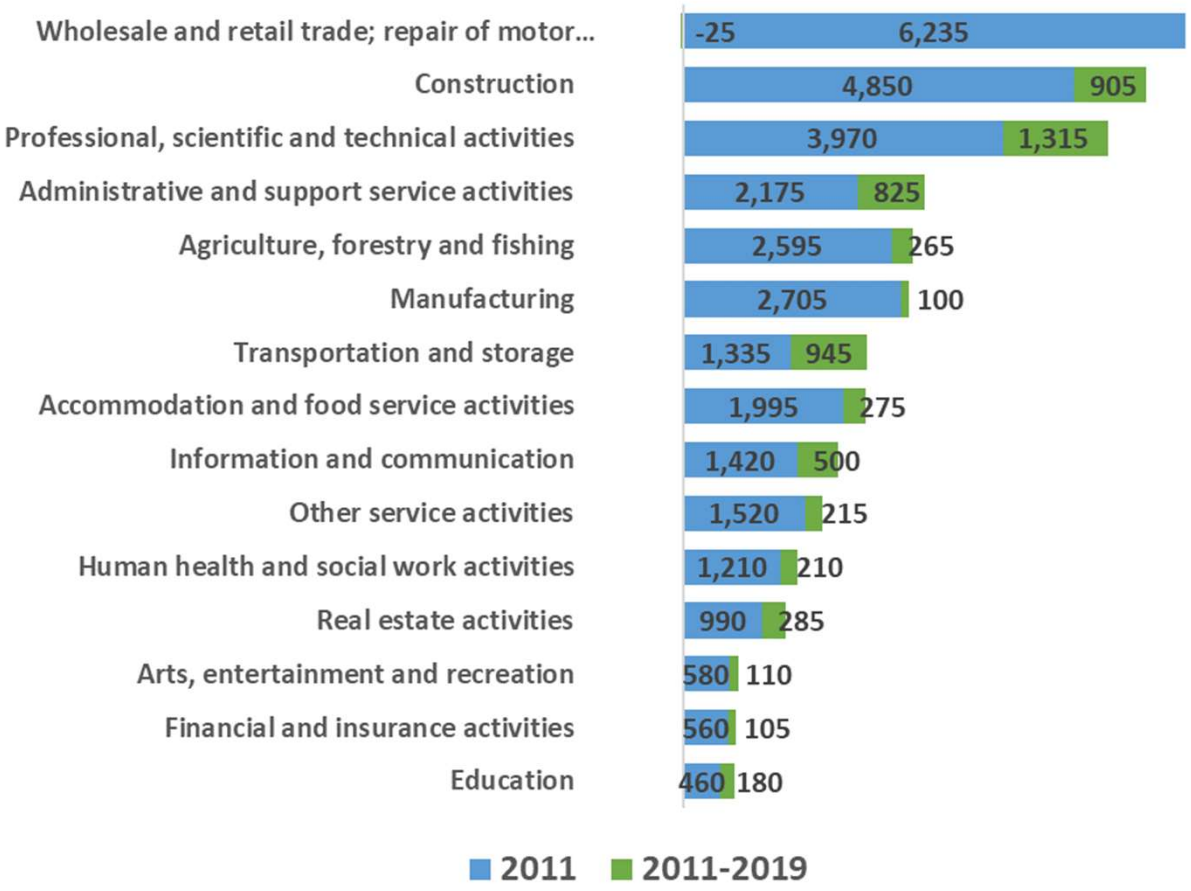
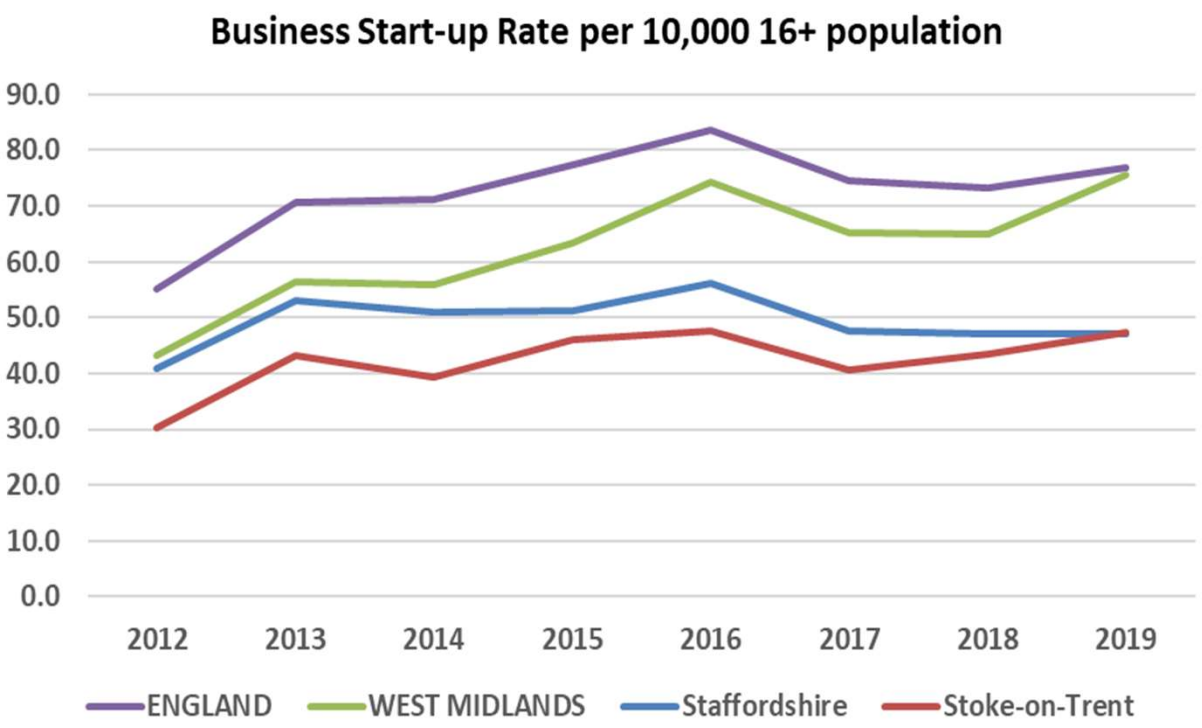
SSLEP saw an increase of 6,355 businesses choosing to operate in the area between 2011-2019

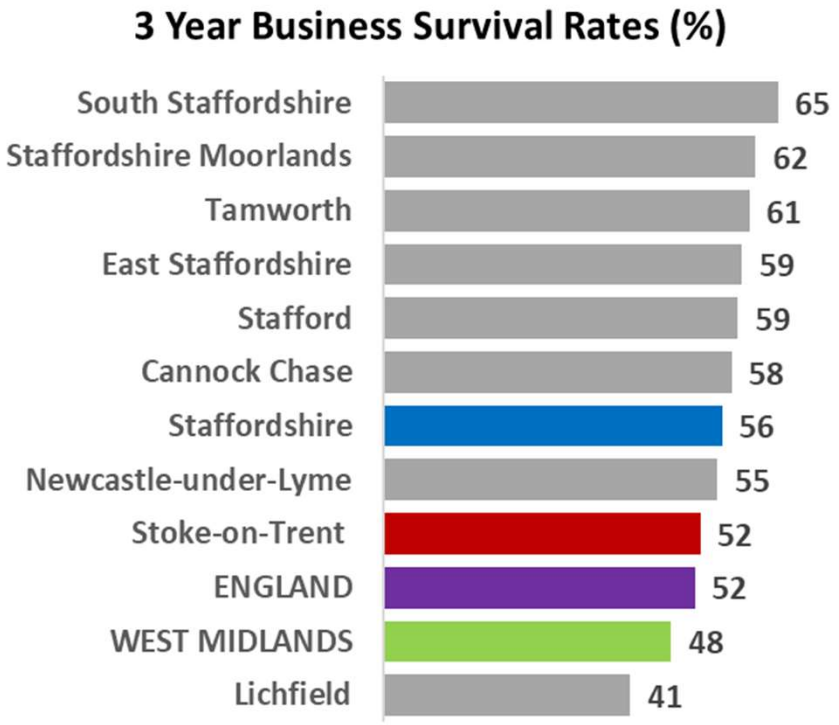
2011 businesses and change in businesses, 2011-2019



- Largest increases in South Staffordshire (+26%), East Staffordshire (+23%) and Stoke-on-Trent (+22%)
- Sectoral growth has been strongest in ‘Professional, scientific and technical activities’ (+1,315) and ‘Transport and storage’ (+945)
- 89% of LEP businesses employ less than 10 employees

Rate of business start-ups improved but remains below national and regional averages…





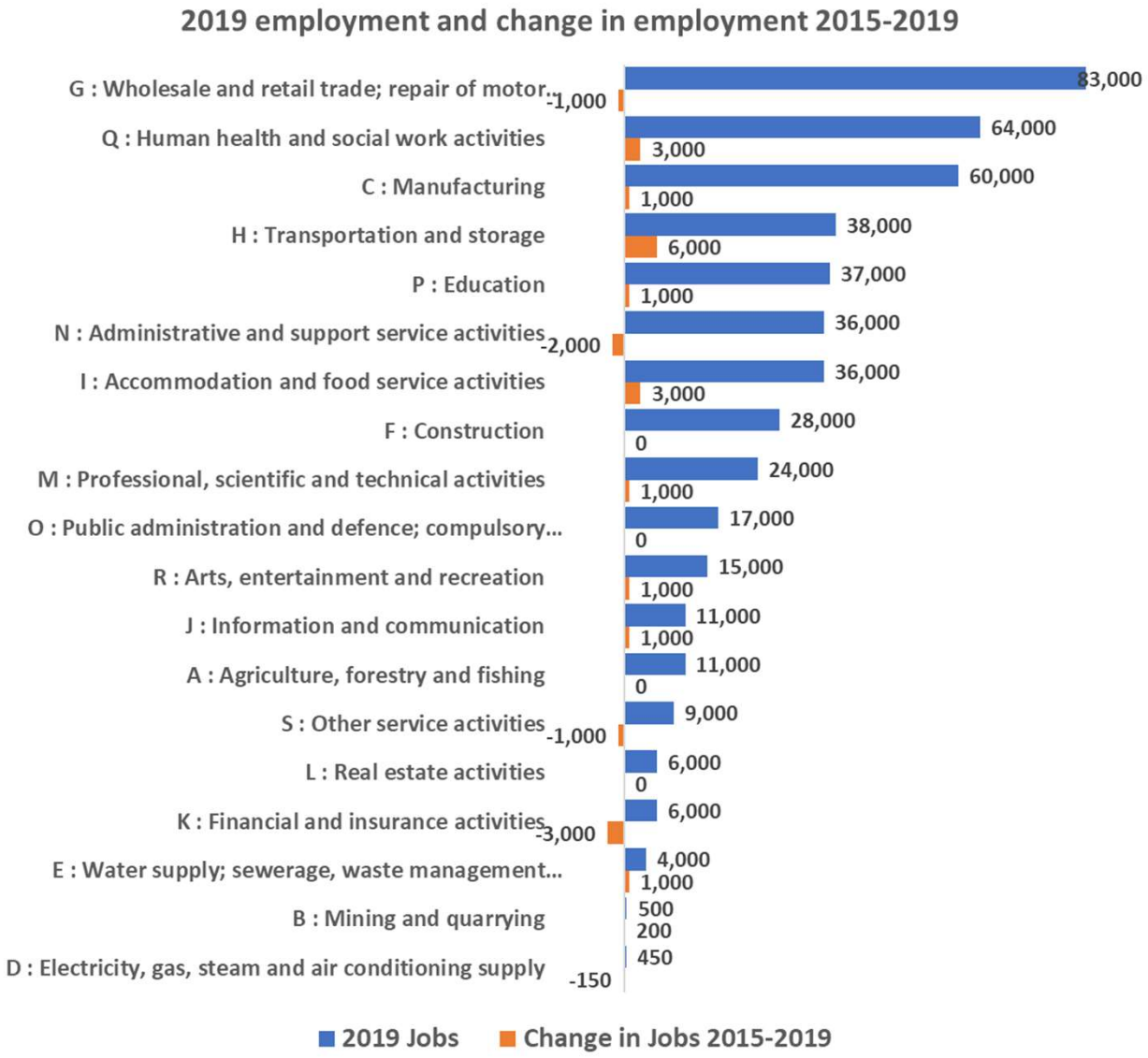
…however businesses are more likely to survive in SSLEP than the national and WM averages

Comparatively Strong Labour Market Position Entering the Crisis in Staffordshire

	Staffordshire		Stoke-on-Trent		West Midlands	England
	Number	%	Number	%		
Economic activity rate	429,100	82%	121,600	76%	78%	79%
Employment rate	416,400	80%	116,400	73%	74%	76%
% who are economically inactive	94,600	18%	37,500	24%	22%	21%

- Staffordshire saw decent improvement in economic activity with figures for Apr 2019-Mar 2020 showing that **82% economically active in Staffordshire above both the regional (78%) and national (79%) rates. While Stoke-on-Trent economic activity rate stood at 76%, below both the regional and national averages.**
- Similarly, the **Staffordshire employment rate for the same period stood at 80% compared to 74% regionally and 76% nationally. While Stoke-on-Trent employment rate stood at 73%, below both the regional and national averages.**

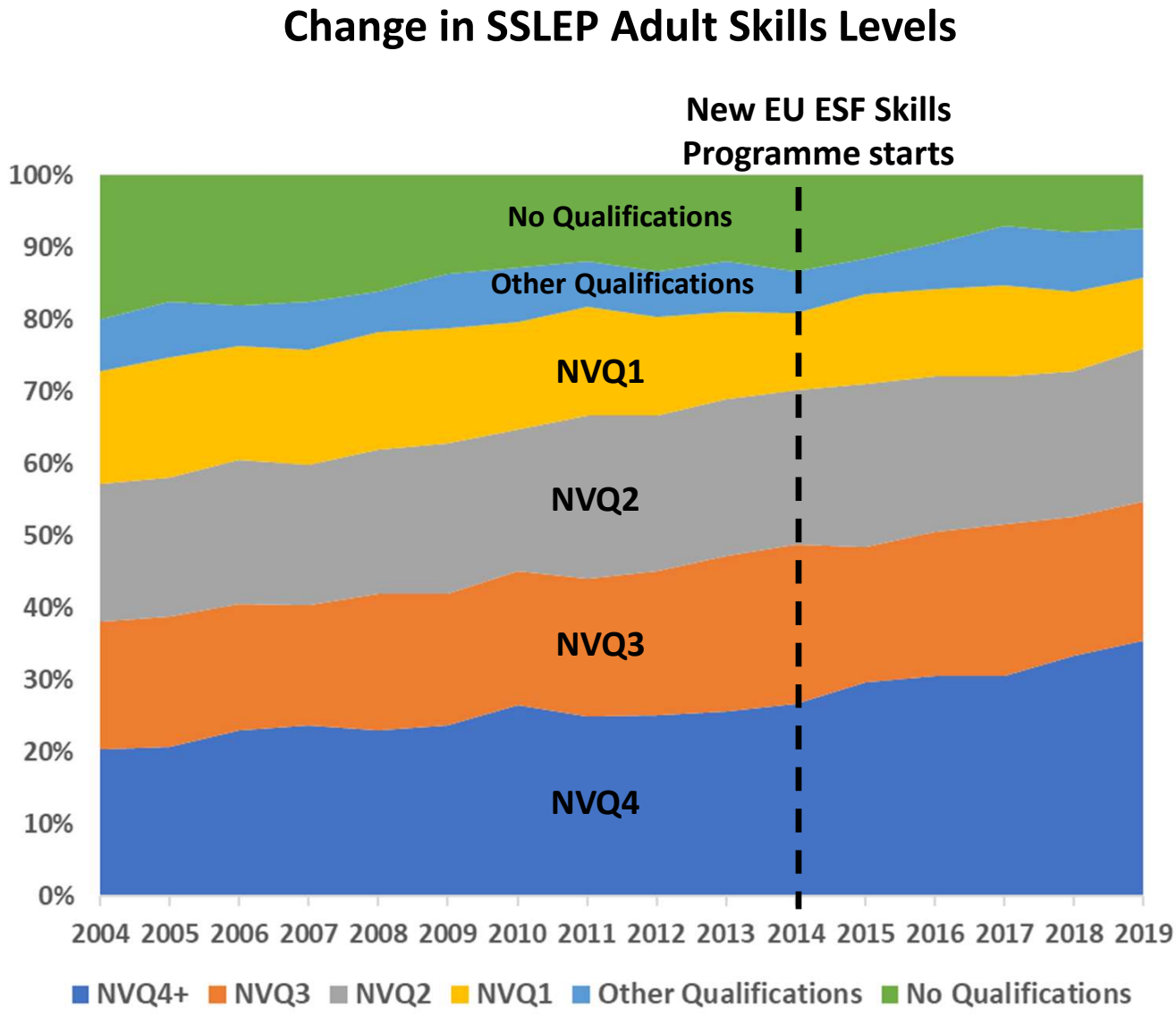
Change in jobs producing a more balanced economy with growth in professional & service based industries



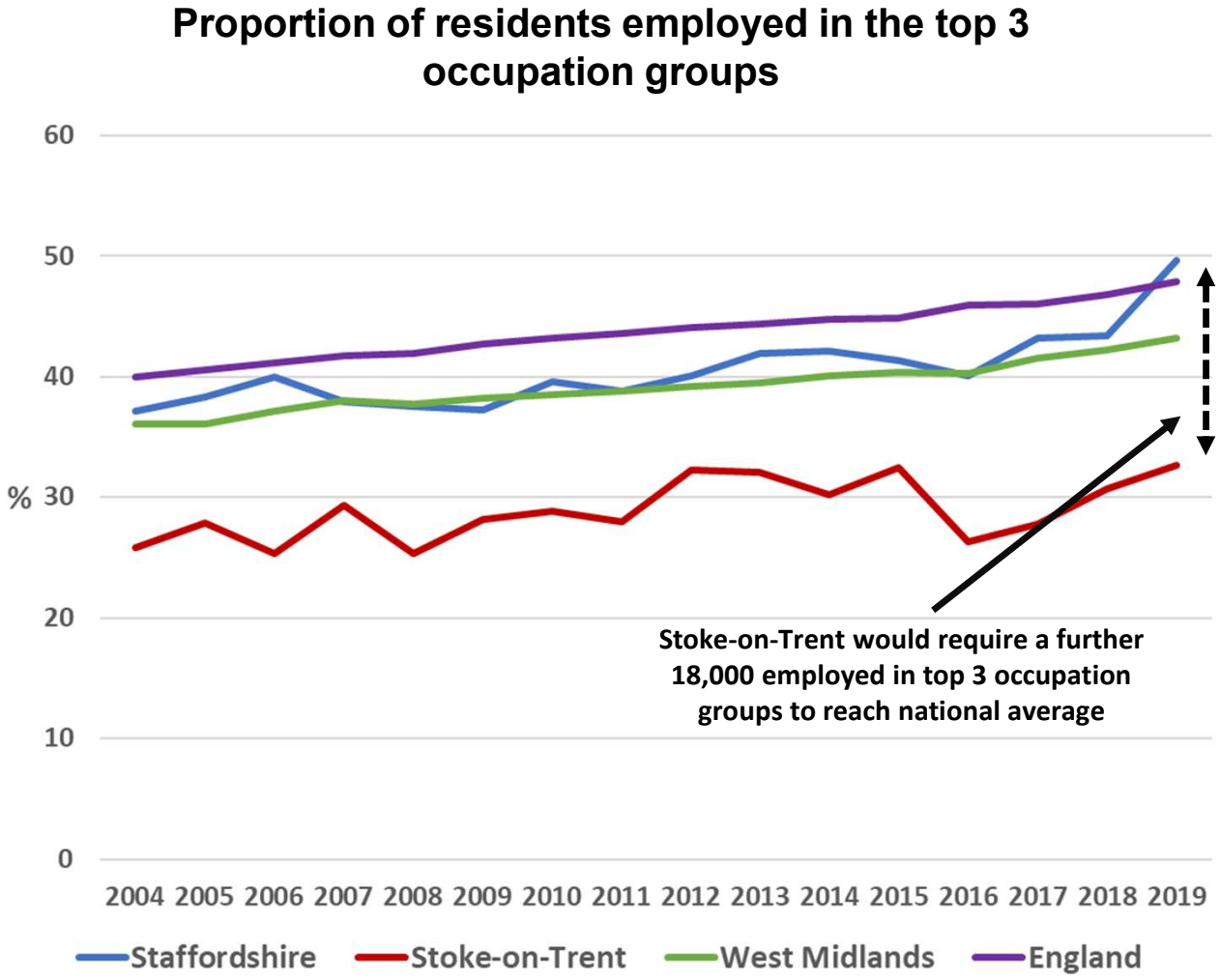
- Largest sectors ‘wholesale & retail’ (83,000), ‘health & social care’ (64,000) and ‘manufacturing’ (60,000 jobs)
- Greatest growth in jobs since 2015 have been **in ‘transport & storage’** (+6,000), followed by **‘health & social care’ and ‘hospitality’** with both seeing an increase of 3,000 jobs
- Largest declines in jobs have been in ‘financial & insurance’ (-3,000) and ‘admin and support services’ (-2,000)

Fast Improving Skill Levels to help Drive Growth and Productivity

- SSLEP saw faster improvement in those with no qualifications between 2009-2019 to 7.3% in 2019 compared to 7.5% nationally and closed the gap at Level 4+ with 35.5% compared to 40.0% nationally.

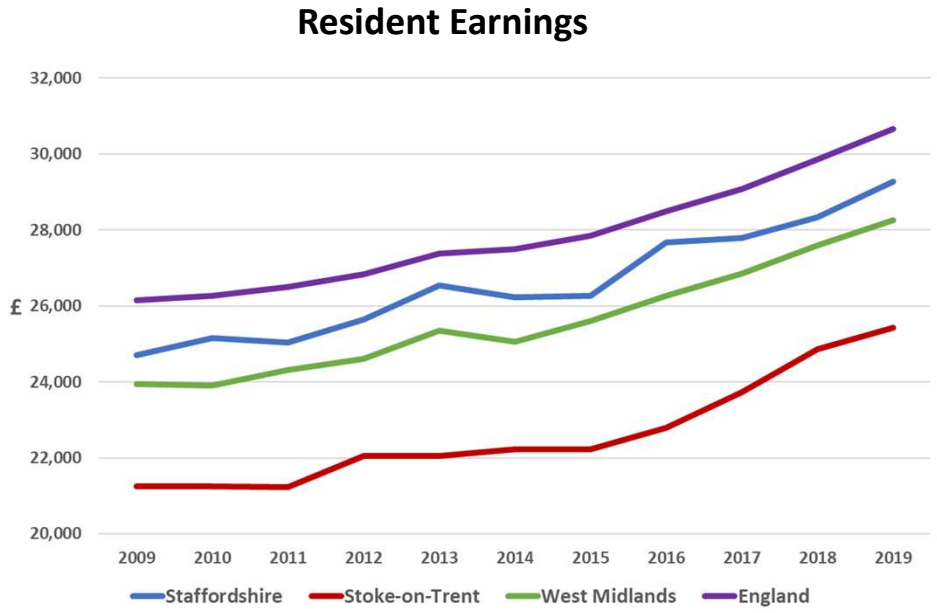


The proportion of residents employed in one of the top 3 occupation groups increased in Staffordshire to above the national average but remains well below in Stoke-on-Trent



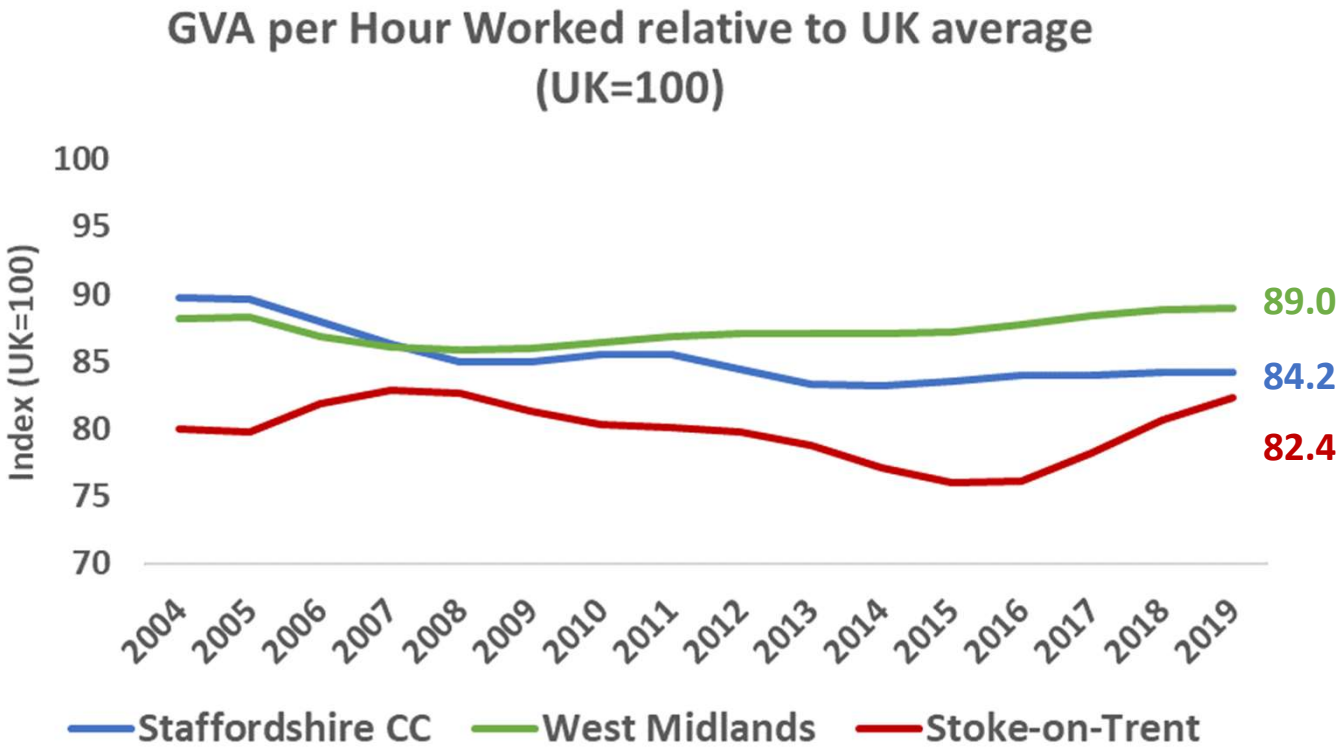
- Staffordshire saw an increase in the proportion of jobs in the top 3 occupation groups from 37% in 2009 to 50% in 2019 equivalent to 63,600 more residents employed in these higher occupations and now above the national average of 48%
- Stoke-on-Trent 33% of residents were in the top 3 occupation groups in 2019

Improving wage levels but still lower than average…



- Resident earnings in Staffordshire stood at £29,280 in 2019 and had grown by £4,240 or 17% since 2011
- Staffordshire workplace earnings were at £27,200 and had grown by £3,830 or 16.4% since 2011 – indication of better paid local jobs which is likely to be a key factor in the growth of resident earnings
- **For both measures Staffordshire had seen faster growth than nationally however still below the national averages**
- **Stoke-on-Trent has seen faster growth in both measures than the growth seen nationally, but remains well below both the regional and national averages**

Although saw growth in economy productivity remains one of our biggest challenges...



Potential to add nearly £5bn to SSLEP economy if can close the productivity gap to national average!

- Many of the jobs created since the financial crisis were low value as these were needed to keep residents in employment
- However, this has seen the average level of productivity per job filled grow at a slower rate than regionally and nationally
- Drive through the LIS to address the Productivity Gap – a key part of which is further raising skill levels

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Impact on the Economy from COVID and War in Ukraine/Rising Inflation

National economic impact & recovery from COVID…but heading into a further period of recession

- Since the height of the pandemic the economy has slowly recovered.
- However, the war in Ukraine and rising living costs have halted the recovery with the **UK economy (GDP) shrinking by 0.6% in June 2022.**
- The Bank of England has predicted that the UK will fall into **recession towards the end of this year** and the downturn will last for the whole of next year.

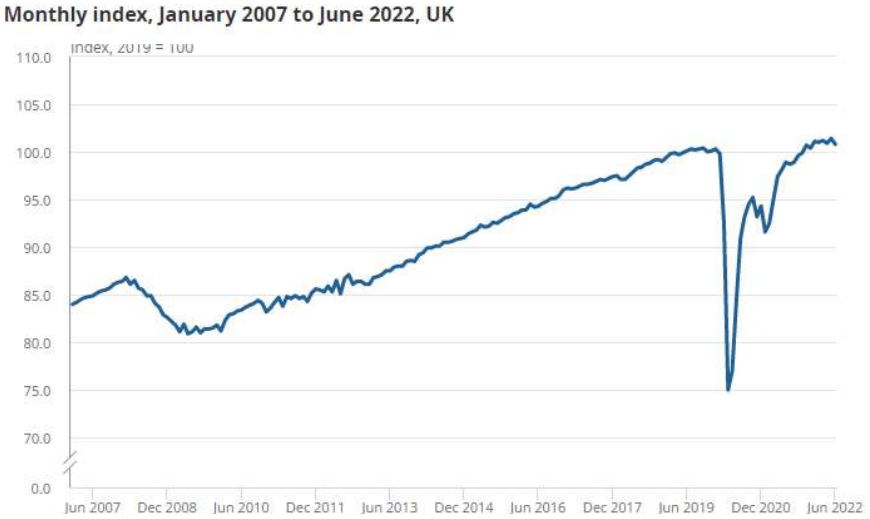
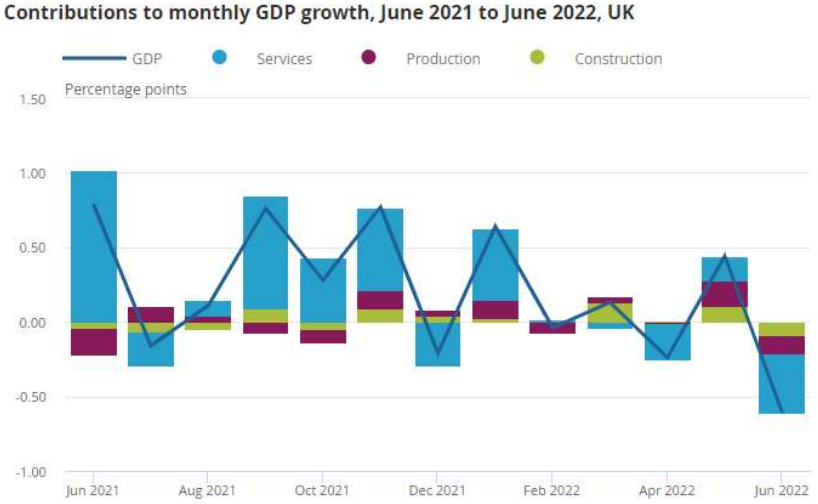


Figure 2: All main sectors contributed negatively to growth in June 2022



Source: Source: Office for National Statistics – GDP monthly estimate

Businesses face lingering issues including commodity costs, wage pressures and supply-chain constraints and persistent labour market challenges

- The most recent data from Wave 62 of the ONS Business Insights and Conditions Survey (BICS), which was live from 25 July to 7 August 2022.
- In June 2022, 7% of businesses were affected by **industrial action**; this percentage was 8% for businesses with 10 or more employees.
- Of the businesses with 10 or more employees affected by industrial action, 34% reported their workforce had to change their working location and 27% reported their workforce were unable to perform their roles.
- Of businesses with 10 or more employees, 23% reported that their **employees' hourly wages** had increased in June 2022 compared with May 2022; for businesses of all sizes, this percentage was 12%.
- Approximately 5% of businesses with 250 or more employees offered a **one-off cost of living payment** to their employees in the last three months; this compares with 1% for businesses with fewer than 250 employees offering a payment.
- Businesses continued to report **input price inflation** as their main concern for August 2022 at 27%, followed by **energy prices** at 20%; these have remained the top two main concerns reported by businesses since the question was first introduced into BICS in late February 2022.
- Of businesses with 10 or more employees, 20% reported experiencing **global supply chain disruption** in June 2022, with the manufacturing industry reporting the highest proportion, at 35%; in contrast, 45% of businesses with 10 or more employees reported not experiencing global supply chain issues.
- In June 2022, 58% of trading businesses with 10 or more employees experienced an increase in **challenges while importing** compared with May 2022, this percentage was 56% for exporting businesses; **changes in transportation costs** was the most commonly reported challenge for importing and exporting businesses with 10 or more employees, at 43% and 37%, respectively.

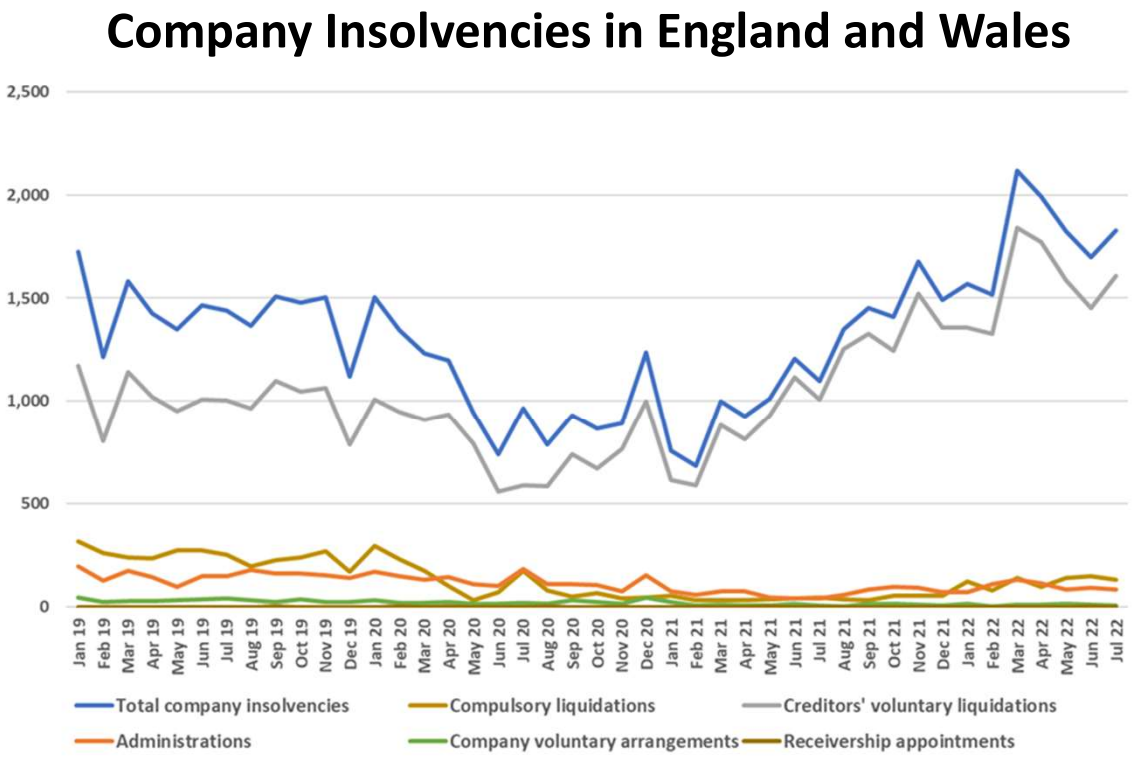
Figure 1: Headline figures from the Business Insights and Conditions Survey

Indicator	Latest data compared with **previous wave**	Latest data compared with **period covering the start of 2022**	Latest data compared with **equivalent period the previous year**	Timeline
Trading status Currently trading Units	-1.4▼	2.5▲	4.1▲	65.9 15/06/2020 — 93.1 07/08/2022
Trading status Temporarily closed or paused trading Units	1.6▲	-2.4▼	-2.7▼	33.4 15/06/2020 — 5.0 07/08/2022
Intra UK Procurement Yes, the business has been able to get the materials, goods or services it needed Units	1.6▲	5.1▲	6.6▲	43.4 01/06/2020 — 48.6 30/06/2022
Intra UK Procurement Yes, but the business had to change suppliers or find alternative solutions Units	1.4▲	3.5▲	6.5▲	19.2 01/06/2020 — 14.9 30/06/2022
Intra UK Procurement No, the business has not been able to get the materials, goods or services needed Units	0.1▲	1.4▲	-1.6▼	9.2 01/06/2020 — 5.3 30/06/2022

Source: Office for National Statistics – Business Insights and Conditions Survey

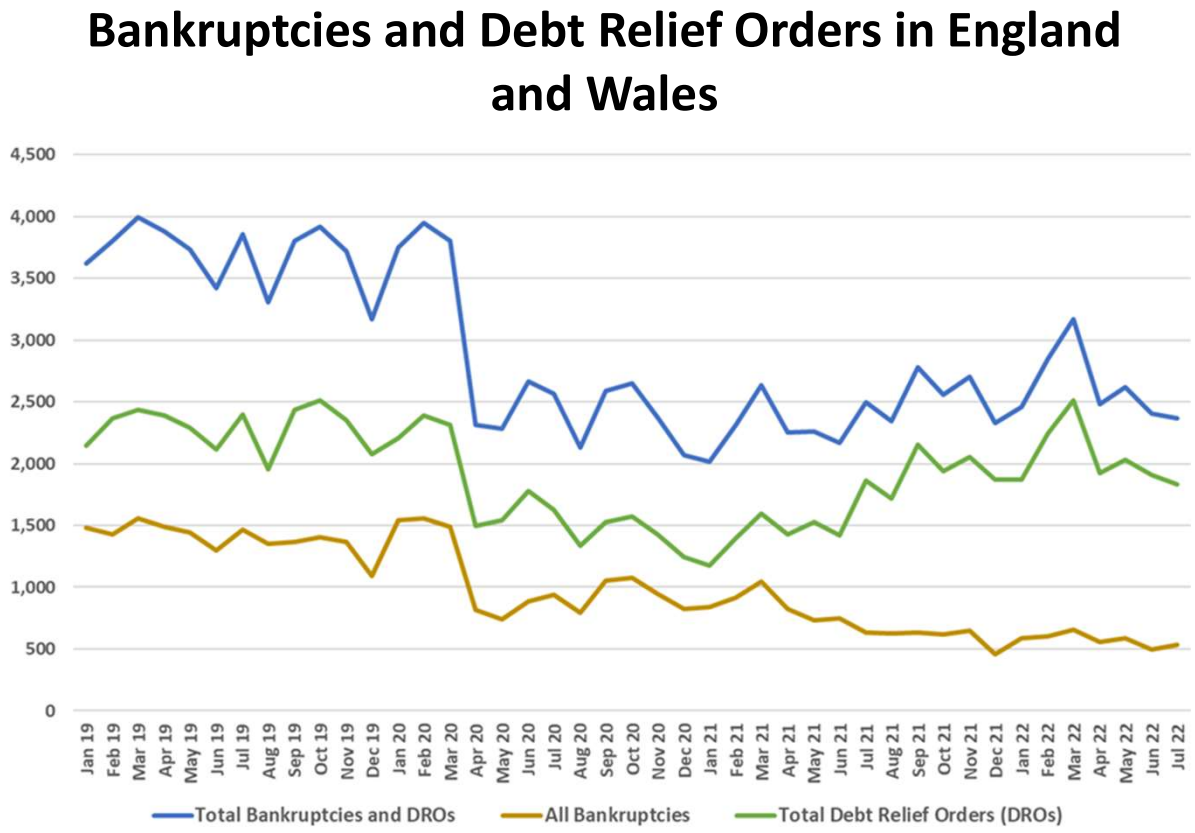
Concern about debt build up and how many businesses will be viable now support has been withdrawn and consumer confidence is low

- In July the overall number of **company insolvencies were 67% higher than in the same month last year and 27% higher than three years previously (pre-pandemic).**
- **Company insolvencies between August 2021 and July 2022 are now 75% higher compared to a year earlier, representing over 8,531 more businesses.**
- We have seen a **rapid increase over recent months** with levels now above pre-COVID due at least in part to government support measures which were put in place to reduce insolvencies in response to the pandemic now ended.
- The main concern is a continued rise in company insolvencies due to **debt build up** now that Government support has been withdrawn.
- In the coming months, the **impact of the energy crisis** and the withdrawal of temporary prohibitions are likely to push corporate insolvencies higher. **Inflationary pressures** also loom, with materially rising input costs such as shipping, haulage, supply chain issues, wages, and commodities impairing cash flows, and few costs dropping to counterbalance those increases.



Concern about individual problem debt and associated issues such as mental health and homelessness

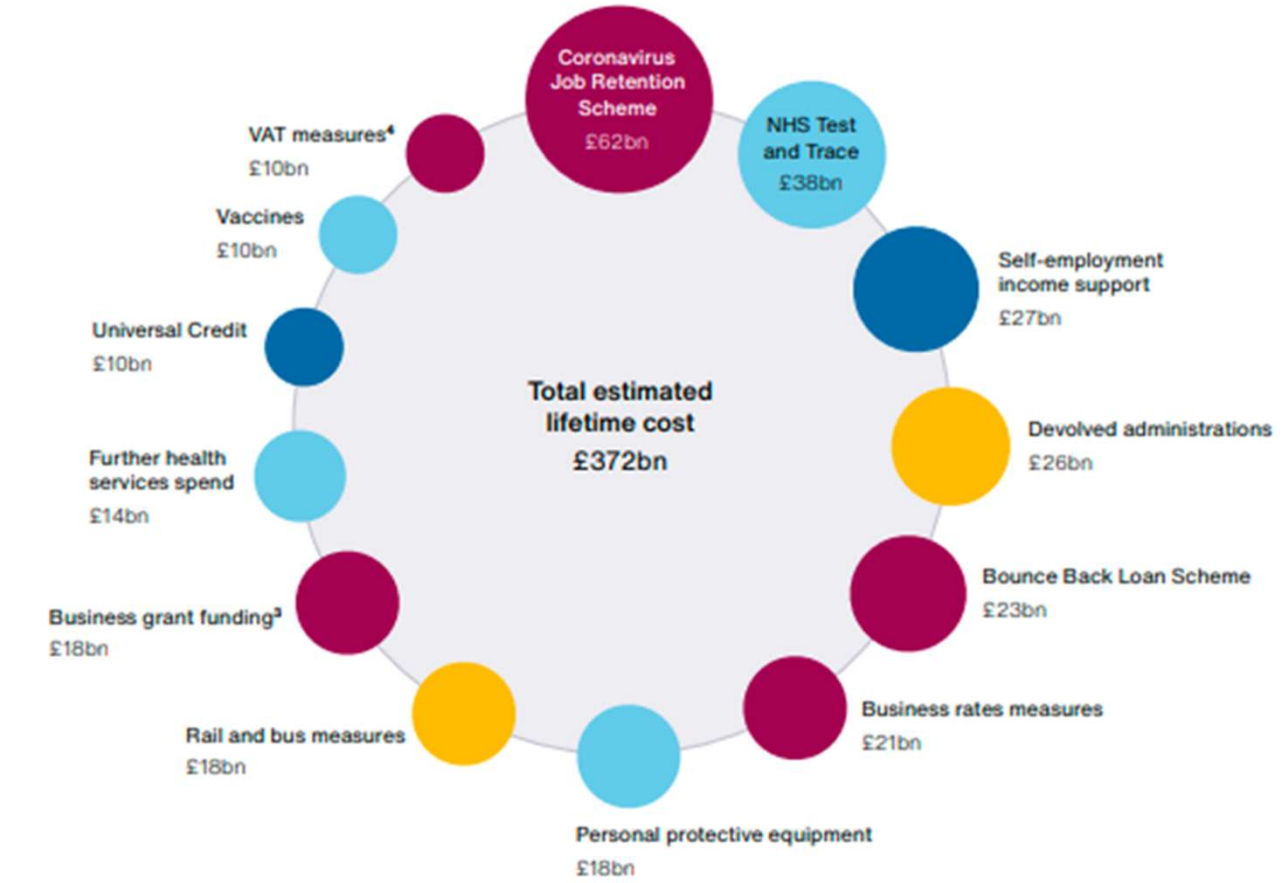
- For individuals, **531 bankruptcies were registered in July 2022** (made up of 461 debtor applications and 70 creditor petitions), which was 16% lower than in July 2021 and 64% lower than July 2019.
- There were **1,835 Debt Relief Orders (DROs) in July 2022**, which was similar to July 2021 but 23% lower than the pre-pandemic comparison month (July 2019).
- **Total bankruptcies and DROs between August 2021 and July 2022 are now 11% higher than the same period a year earlier, representing over 3,100 more.**
- Concern about **individual problem debt caused by COVID** and associated issues such as **mental health and homelessness.**



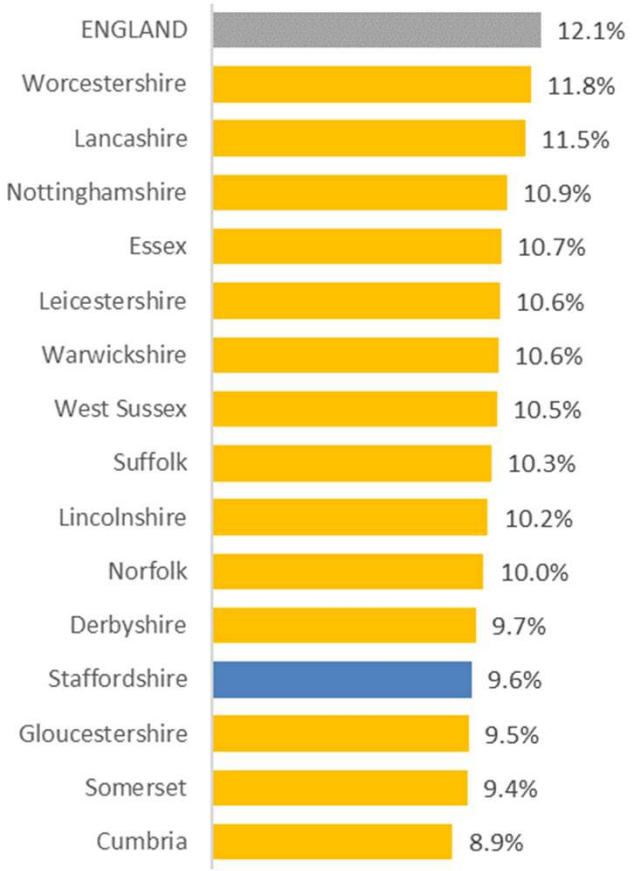
National debt related to COVID-19 likely to be felt for many years

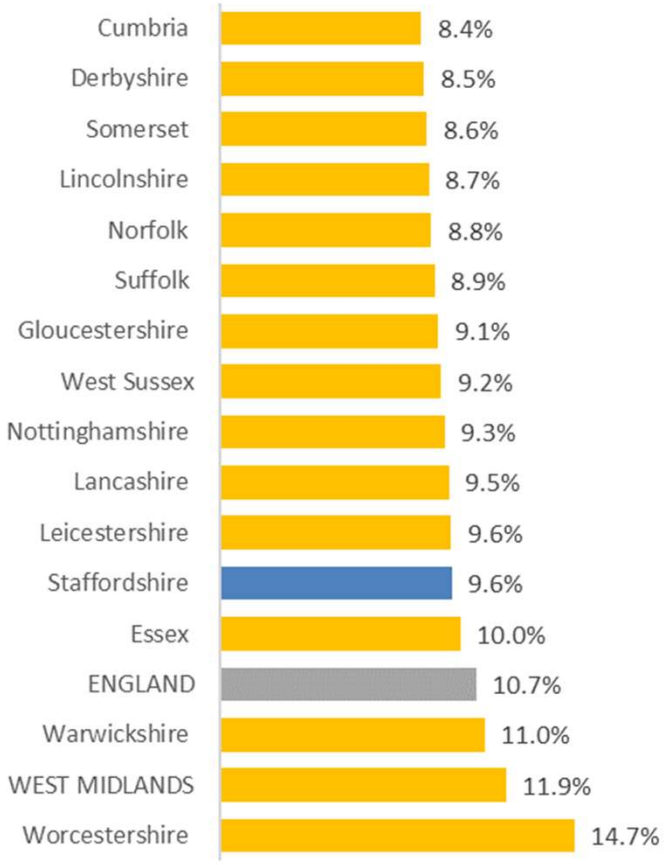
Breakdown of the estimated lifetime costs of the government's response to the COVID-19 pandemic by programme, March 2021

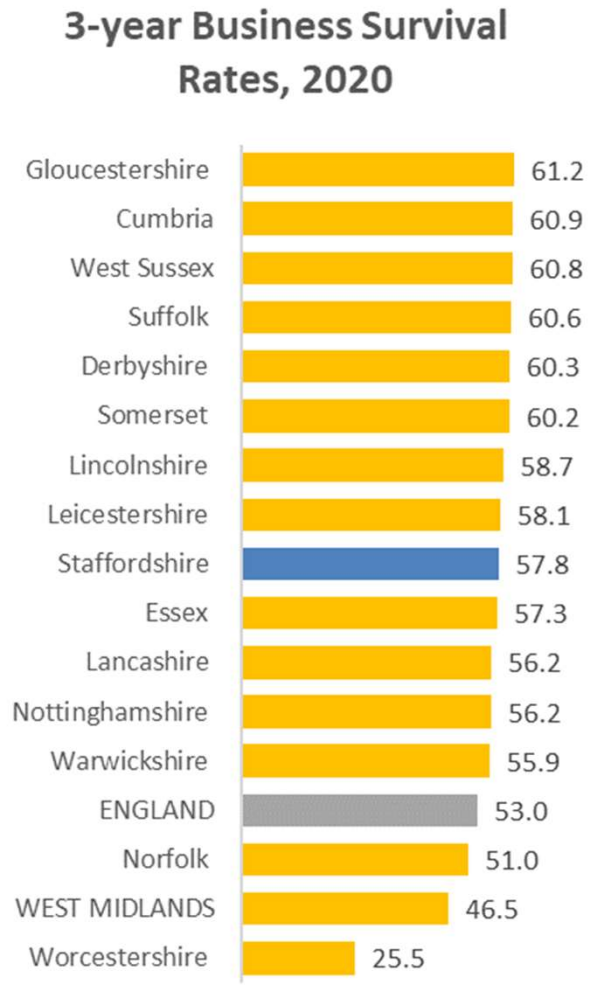
The programmes highlighted in this diagram accounted for 79% of the estimated cost of the government's response announced up to 31 March 2021



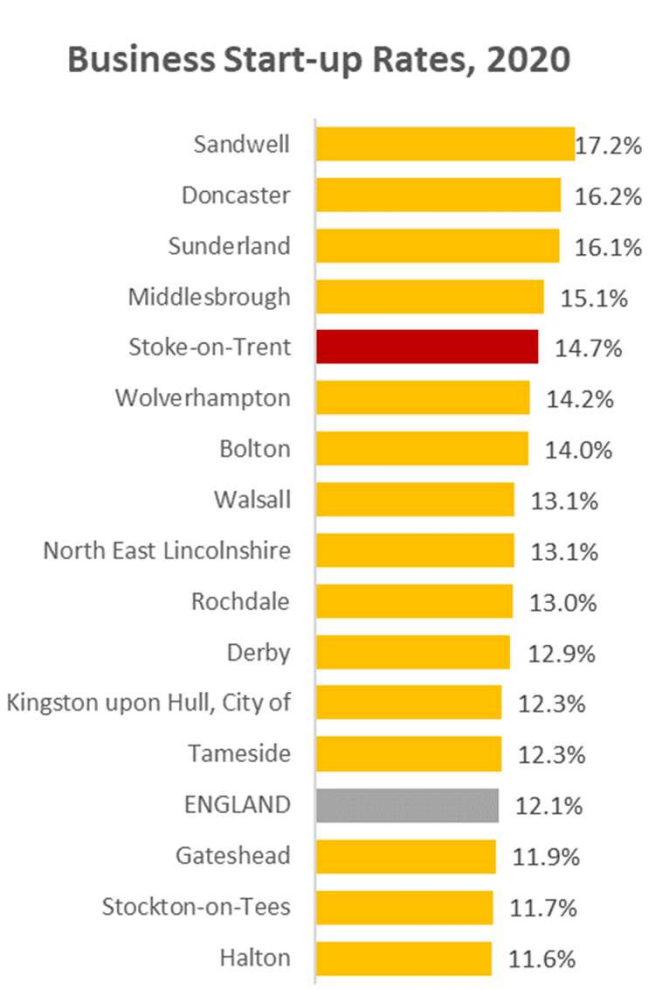
Staffordshire lags behind for business start-ups, but has fewer business deaths due to a better survival rate

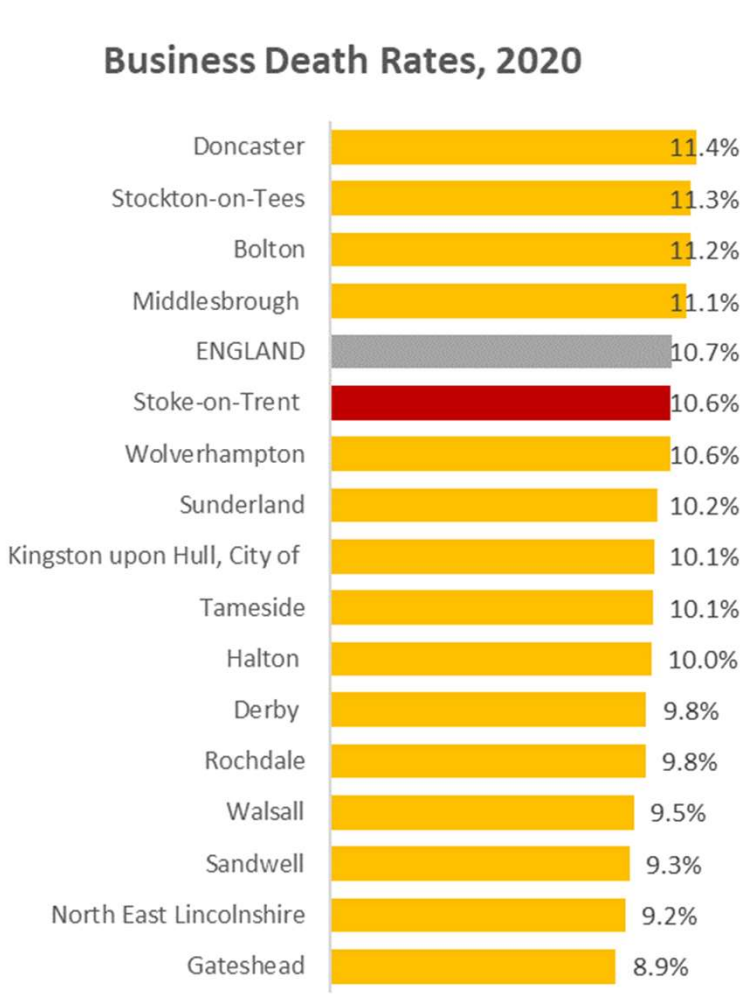


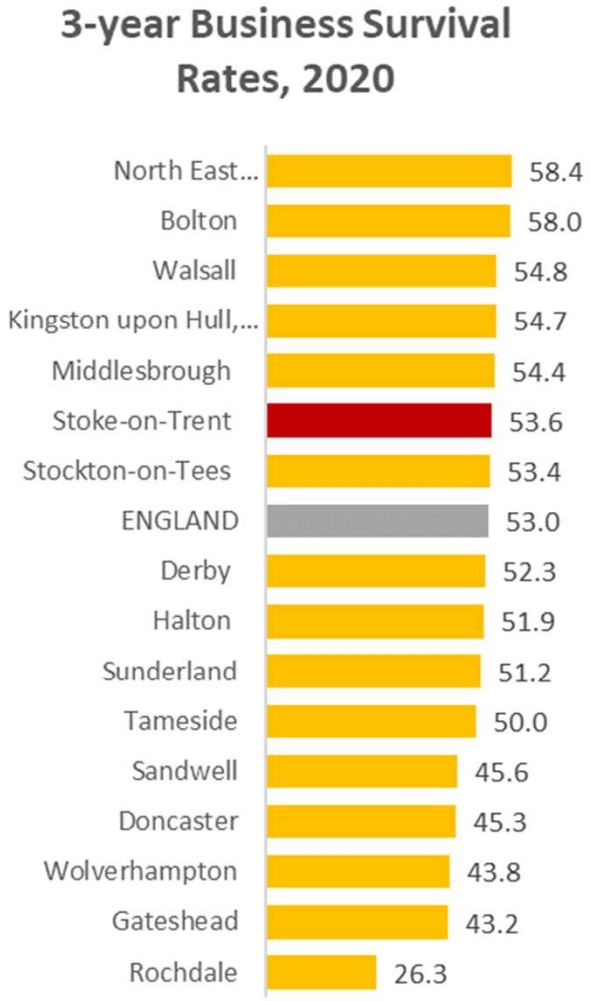




Stoke-on-Trent has above average business start-ups, fewer deaths and a higher survival rate

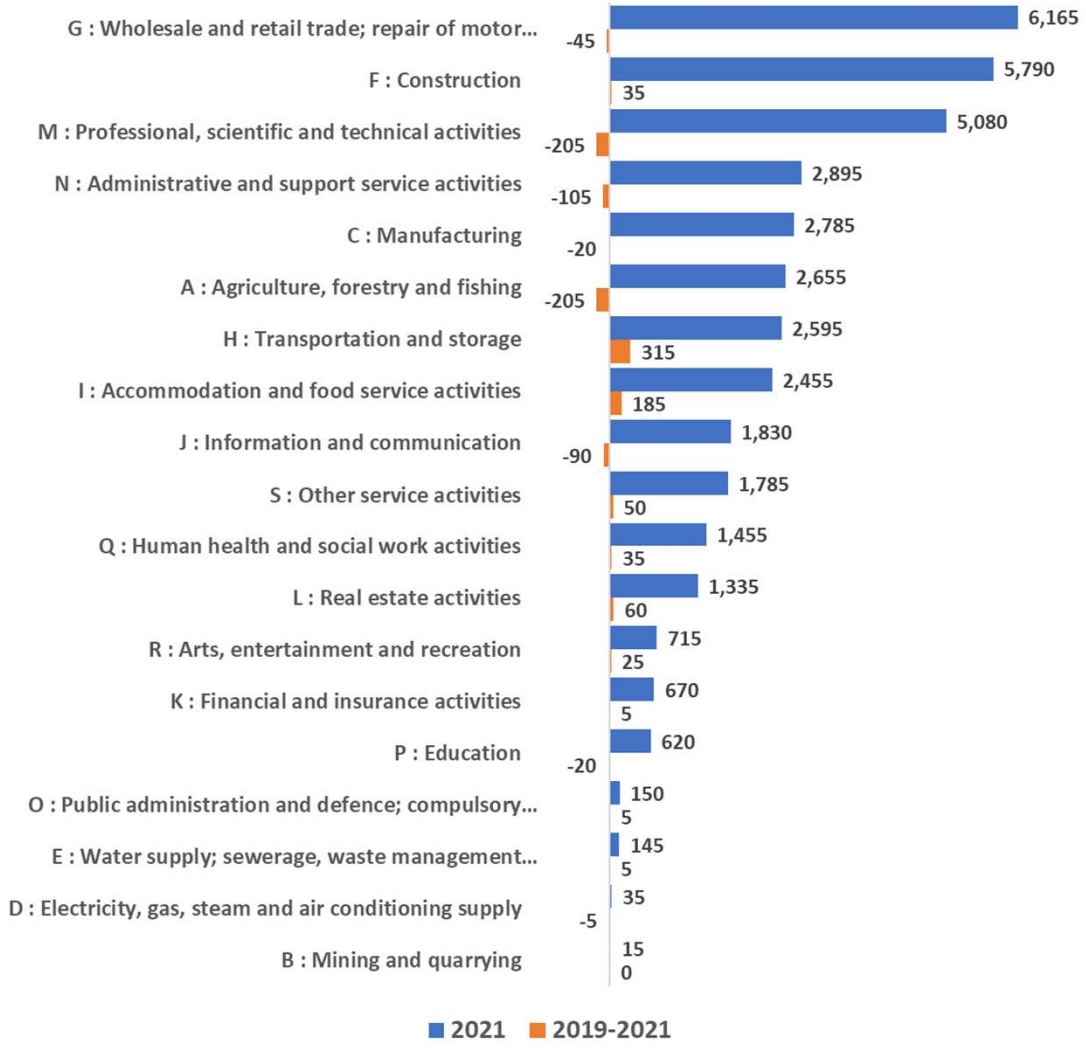






Increase in businesses during the pandemic, with recovery expected to continue due to new growth opportunities

2021 businesses and change in businesses, 2019-2021



- **SSLEP seen a growth of 25 businesses between 2019-2021 or 0.1% of all businesses compared to a 2% increase seen nationally.**
- The main sector **growth** has been in logistics (+315) and hospitality (+185) – new businesses stepping into gaps left by businesses that have failed and new online e-commerce and online retail.
- The sectors to have seen the largest **decline** in businesses are professional services and agriculture (both -205).
- Seen increase in micro (0-9 employees) businesses (+35) but an decrease in medium (50 to 249 employees) and large (250+ employees) businesses (both -5).
- Main growth in Stoke-on-Trent (+290), East Staffordshire (+95) and Newcastle-under-Lyme (+75) with declines in South Staffordshire (-345) and Staffordshire Moorlands (-50).

The UK labour market continues to recover…

- **Payrolled employees** have seen another monthly increase, up 73,000 in July 2022 to a record 29.7 million
- Also the **unemployment rate** has decreased to 3.8% – with close to one job vacancy for each person unemployed

- However…
- Total **employment** remains nearly 280,000 down
- Due to **decline in self-employed workers** –becoming employees/early retirement
- And an **increase in economic inactivity** of 520,000 - with younger workers becoming students and older employees leaving the labour force alongside long-term health issues such as long-COVID/mental health having an impact
- Also lost workers due to **BREXIT**

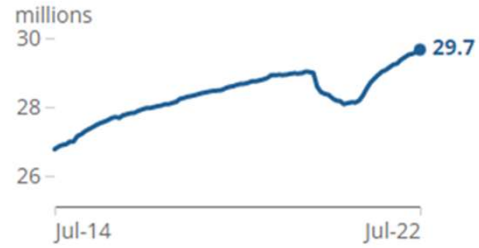
- **Overall smaller pool of labour and skills to support recovery and growth**

Payrolled employees
The number of payrolled employees

Monthly change: ▲ 73,000
Since Feb 2020: ▲649,000

The number of payroll employees is now well above pre-pandemic levels

Source: HMRC PAYE RTI

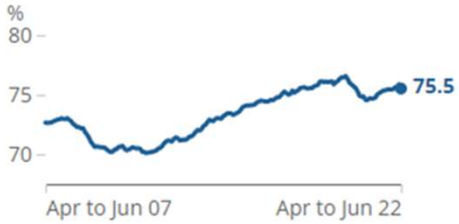


Employment rate
Employment rate (all aged 16 to 64)

Quarterly change: ▼-0.1pps
Since Dec-Feb 2020: ▼-1pps

Employment rate is down on the quarter but up on the year and still below pre-pandemic rates

Source: ONS LFS



Unemployment rate
Unemployment rate (all aged 16+)

Quarterly change: ▲0.1pps
Since Dec-Feb 2020: ▼-0.2pps

Unemployment rate is up on the quarter but down on the year, and are below pre-pandemic rates

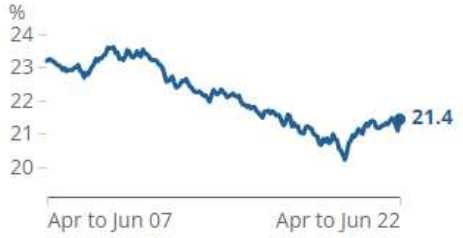
Source: ONS LFS

Inactivity rate
Economic inactivity rate (all aged 16 to 64)

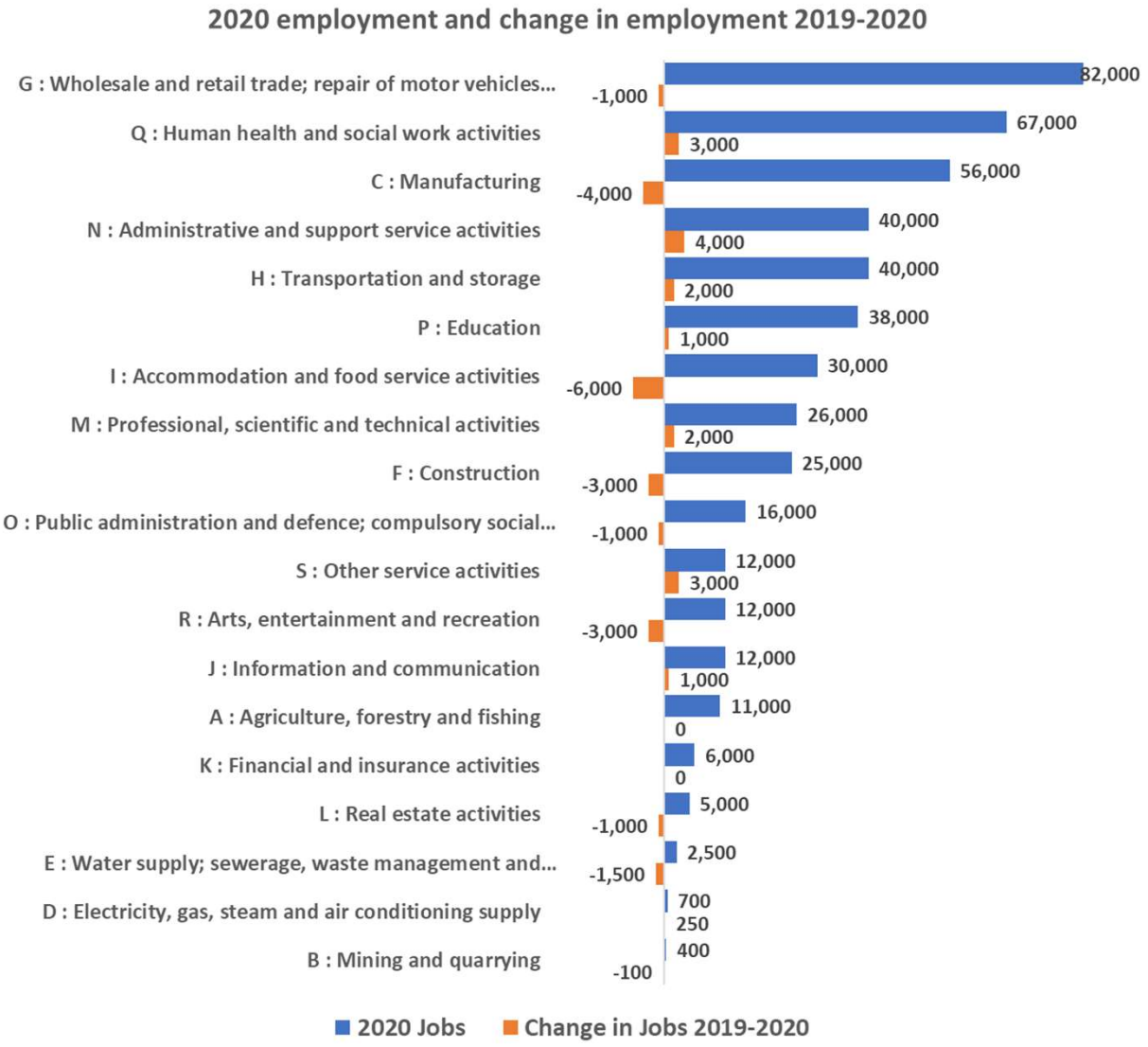
Quarterly change: ◀▶ 0pps
Since Dec-Feb 2020: ▲1.2pps

Economic Inactivity rate is unchanged on the quarter but up on the year and still above pre-pandemic rates

Source: ONS LFS

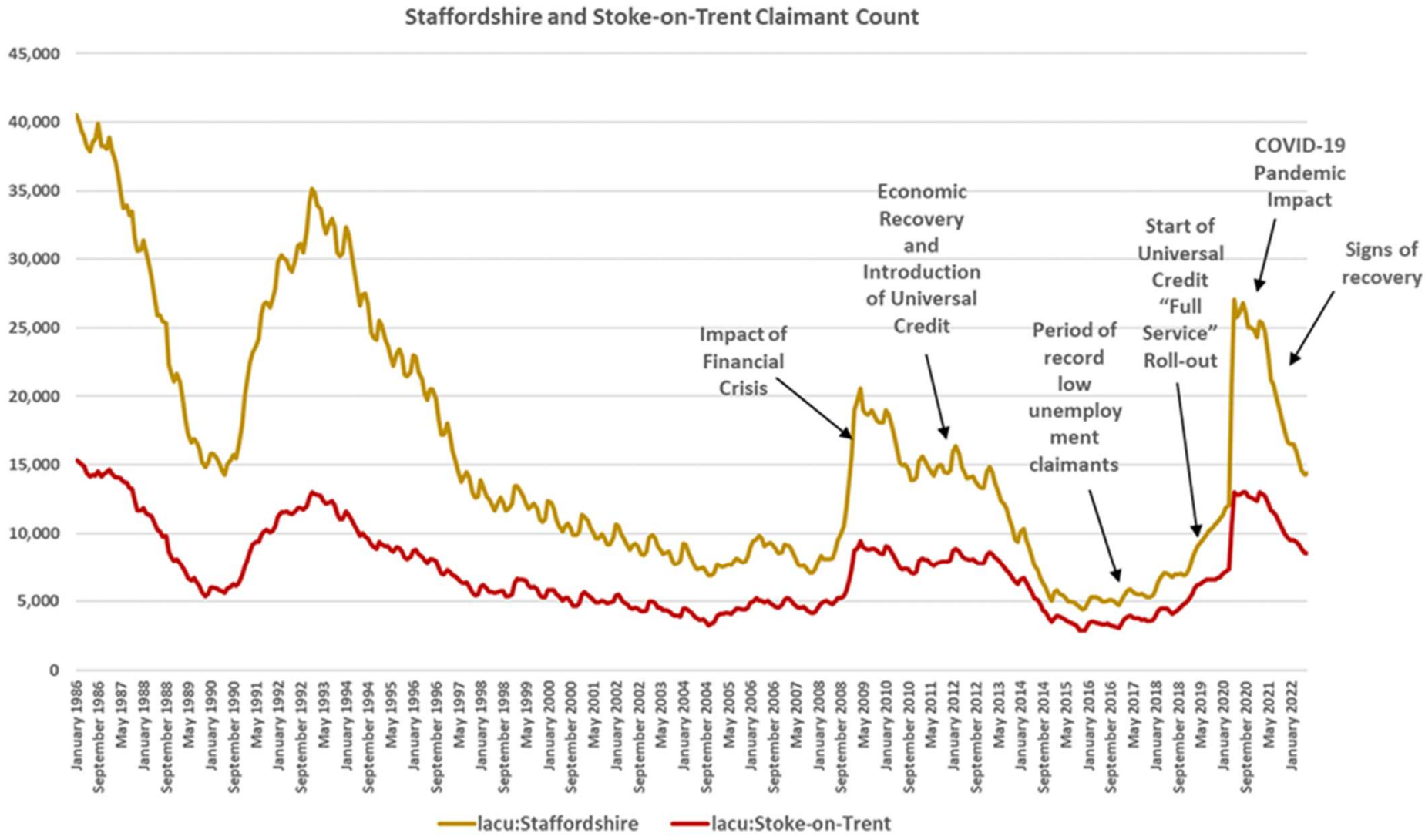


Locally seen a decline in jobs due to the pandemic and resulting depression of the economy, but there is expected recovery and new growth opportunities

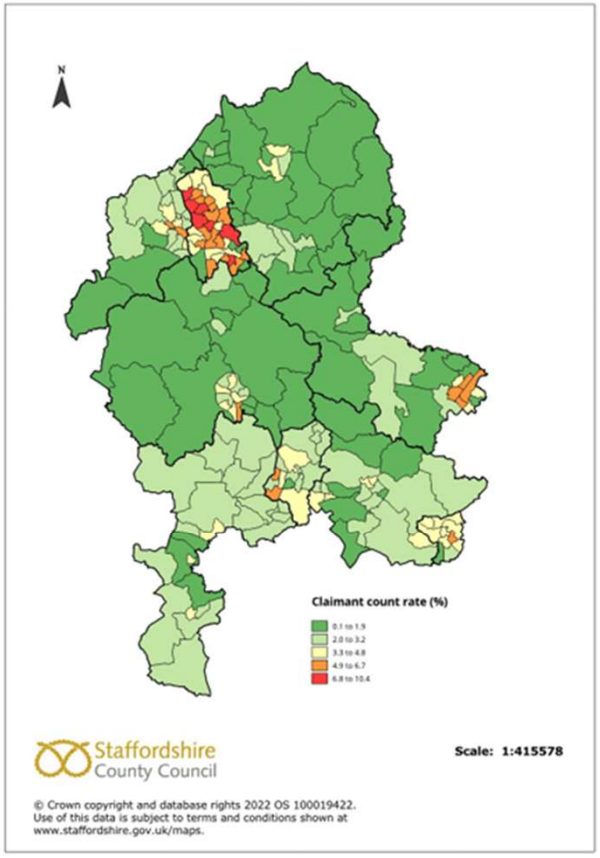


- **SSLEP seen a decline of 6,000 jobs between 2019-2020 or 1% of all jobs – however below the 2% decline seen nationally.**
- The sectors to have seen the **largest decline in jobs are hospitality (-6,000), manufacturing (-4,000) and construction and the arts (both -3,000)** – although it is expected that these sectors will recover to pre-pandemic levels.
- The **main sector growth has been in admin (+4,000), health and social care and other service activities (both +3,000), and logistics and professional services (both +2,000)** – heightened demand for labour and skills to support the health of the population alongside the recovery of the economy in areas of growth such as online retail and e-commerce.

Significant increase in claimant count early in the crisis but continuing signs of recovery…however claimants remain higher compared to pre-COVID



Given strong position pre-COVID claimants remain comparatively low

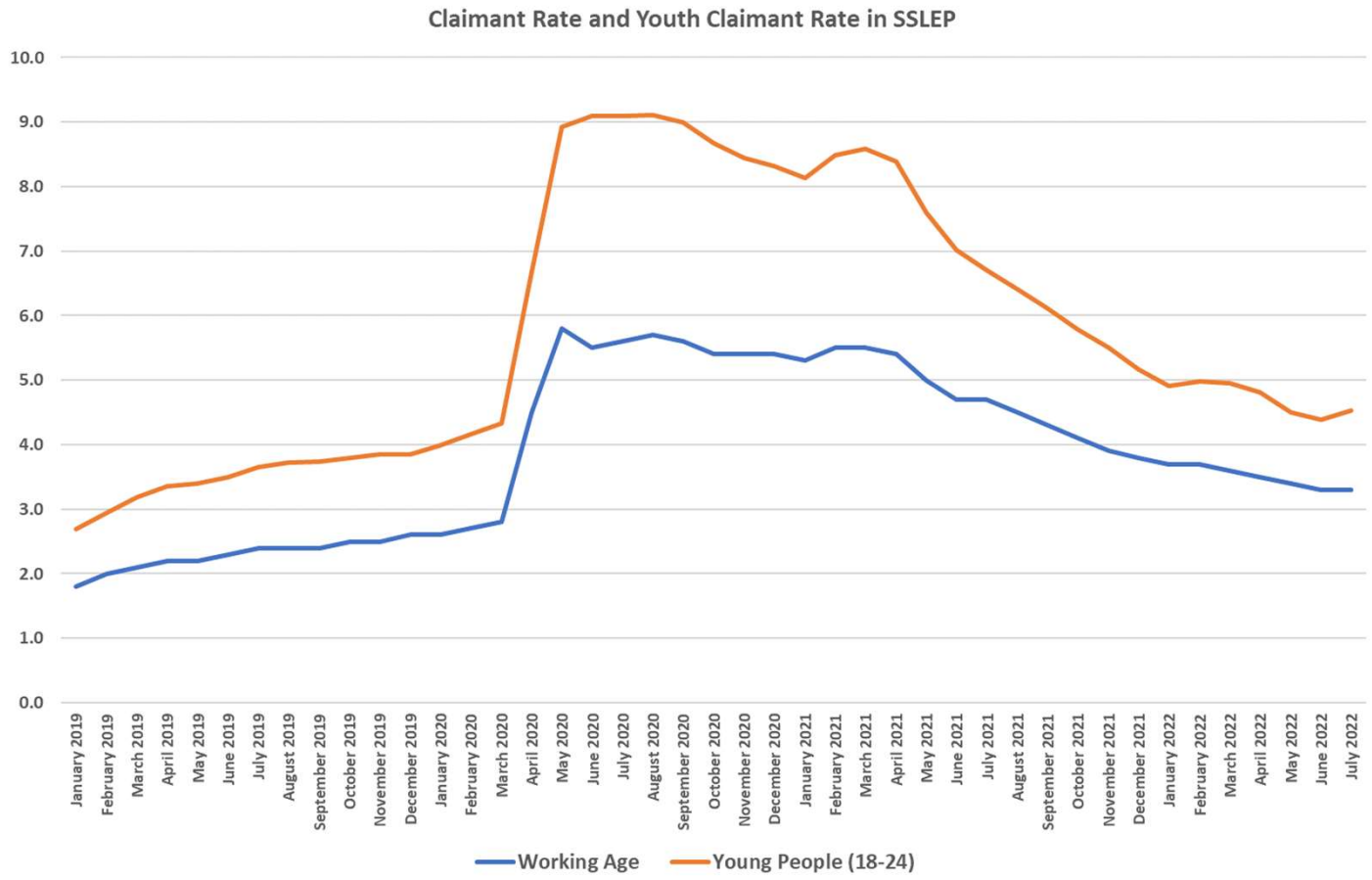


Area	Claimant Count Rate (July 2021)	Claimant Count Rate (June 2022)	Claimant Count Rate[1] (July 2022)	Number of Claimants (July 2022)	Monthly Change in Claimants (Numbers)	Monthly Change in Claimants (%)	Change in Claimants since March 2020 (Numbers)	Change in Claimants since March 2020 (%)
England	5.4	3.8	3.8	1,328,175	-7,585	-0.6%	264,670	24.9%
West Midlands	6.4	4.8	4.8	177,925	-320	-0.2%	33,575	23.3%
SSLEP	4.7	3.3	3.3	22,960	110	0.5%	3,590	18.5%
Birmingham	10.4	8.5	8.5	62,030	-170	-0.3%	12,660	25.6%
Wolverhampton	9.5	7.4	7.4	12,070	20	0.2%	1,690	16.3%
Sandwell	8.5	6.6	6.6	13,515	35	0.3%	2,735	25.4%
Walsall	7.7	5.6	5.6	9,705	15	0.2%	1,100	12.8%
Stoke-on-Trent	**7.3**	**5.4**	**5.3**	**8,530**	-20	**-0.2%**	1,210	16.5%
Dudley	6.3	4.9	4.9	9,500	0	0.0%	985	11.6%
Coventry	5.9	4.6	4.6	11,760	-60	-0.5%	3,760	47.0%
Telford and Wrekin	5.1	3.7	3.6	4,060	-100	-2.4%	630	18.4%
Solihull	4.8	3.4	3.4	4,365	-15	-0.3%	715	19.6%
Worcestershire	4.2	3.1	3.1	11,000	-90	-0.8%	2,695	32.5%
Warwickshire	3.9	2.8	2.8	9,870	20	0.2%	2,040	26.1%
Staffordshire	**3.9**	**2.7**	**2.7**	**14,430**	**130**	**0.9%**	**2,380**	**19.8%**
Shropshire	3.6	2.4	2.4	4,520	-25	-0.6%	510	12.7%
Herefordshire, County of	3.3	2.3	2.3	2,565	-65	-2.5%	455	21.6%
Tamworth	5.1	3.6	3.6	1,715	35	2.1%	225	15.1%
Cannock Chase	4.5	3.0	3.1	1,950	25	1.3%	295	17.8%
East Staffordshire	4.5	3.0	3.0	2,220	20	0.9%	500	29.1%
Newcastle-under-Lyme	3.8	2.7	2.7	2,215	-10	-0.4%	235	11.9%
South Staffordshire	3.7	2.5	2.6	1,710	10	0.6%	400	30.5%
Lichfield	3.6	2.5	2.5	1,555	25	1.6%	235	17.8%
Stafford	3.3	2.4	2.4	1,970	10	0.5%	315	19.0%
Staffordshire Moorlands	2.9	1.9	1.9	1,095	15	1.4%	175	19.0%

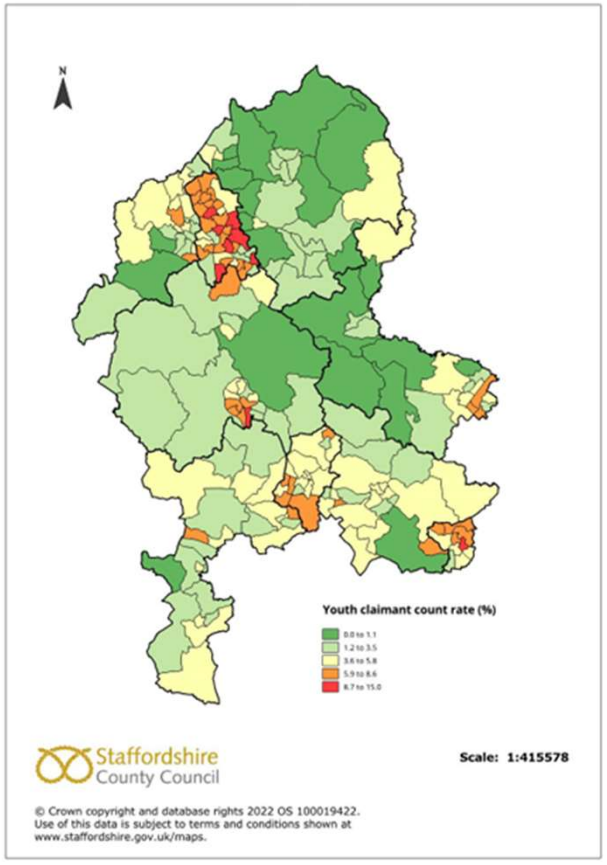
[1] The claimant rate is the proportion of the working age population claiming benefits

Youth claimant rate is now close to pre-pandemic level…however young people continue to be disproportionately impacted by work-related benefits dependency

- The claimant rate for young people in **SSLEP for July 2022 stood at 4.5% compared to 4.3% in March 2020 and 3.3% for the working age population.**
- Encouragingly over much of the last year there has been a decrease in youth claimants, reflective of more young people being able to return to work in hardest hit sectors such as retail and hospitality and the record levels of job vacancies currently available.
- **Remain 4,000 young people claiming benefits.**



SSLEP similar youth claimant rate to nationally but wide variation across our localities



Area	Youth Claimant Count Rate (July 2021)	Youth Claimant Count Rate (June 2022)	Youth Claimant Count Rate[1] (July 2022)	Number of Youth Claimants (July 2022)	Monthly Change in Youth Claimants (Numbers)	Monthly Change in Youth Claimants (%)	Change in Youth Claimants since March 2020 (Numbers)	Change in Youth Claimants since March 2020 (%)
England	7.2	4.4	4.5	210,945	4,120	2.0%	13,215	6.7%
West Midlands	8.3	5.6	5.7	30,195	625	2.1%	2,290	8.2%
SSLEP	6.7	4.4	4.5	4,000	135	3.5%	180	4.7%
Wolverhampton	13.9	9.2	9.6	1,990	70	3.6%	80	4.2%
Sandwell	12.7	8.7	8.9	2,355	60	2.6%	240	11.3%
Walsall	12.1	7.8	7.9	1,815	40	2.3%	-100	-5.2%
Birmingham	10.2	7.4	7.5	10,445	100	1.0%	1,340	14.7%
Dudley	10.3	6.9	6.9	1,635	5	0.3%	-115	-6.6%
Stoke-on-Trent	**9.0**	**6.3**	**6.5**	**1,510**	**50**	**3.4%**	**105**	**7.5%**
Telford and Wrekin	8.3	5.6	5.7	845	25	3.0%	85	11.2%
Solihull	8.4	5.1	5.2	790	10	1.3%	-35	-4.2%
Worcestershire	6.7	4.3	4.4	1,795	45	2.6%	200	12.5%
Staffordshire	**5.9**	**3.7**	**3.8**	**2,490**	**85**	**3.5%**	**75**	**3.1%**
Coventry	4.9	3.6	3.6	1,970	35	1.8%	435	28.3%
Warwickshire	5.3	3.2	3.3	1,535	75	5.1%	200	15.0%
Shropshire	5.7	3.1	3.3	670	30	4.7%	-155	-18.8%
Herefordshire, County of	5.3	3.0	3.0	355	-10	-2.7%	-60	-14.5%
Tamworth	8.9	5.5	5.8	325	15	4.8%	30	10.2%
Cannock Chase	8.0	5.1	5.3	380	15	4.1%	15	4.1%
Stafford	5.2	3.7	4.0	350	25	7.7%	35	11.1%
East Staffordshire	6.9	4.0	3.9	330	-10	-2.9%	10	3.1%
Lichfield	5.6	3.8	3.8	265	0	0.0%	-5	-1.9%
South Staffordshire	5.9	3.6	3.8	295	15	5.4%	45	18.0%
Newcastle-under-Lyme	4.4	2.8	2.9	395	5	1.3%	-30	-7.1%
Staffordshire Moorlands	4.3	2.0	2.3	145	20	16.0%	-30	-17.1%

[1] The claimant rate is the proportion of the working age population claiming benefits

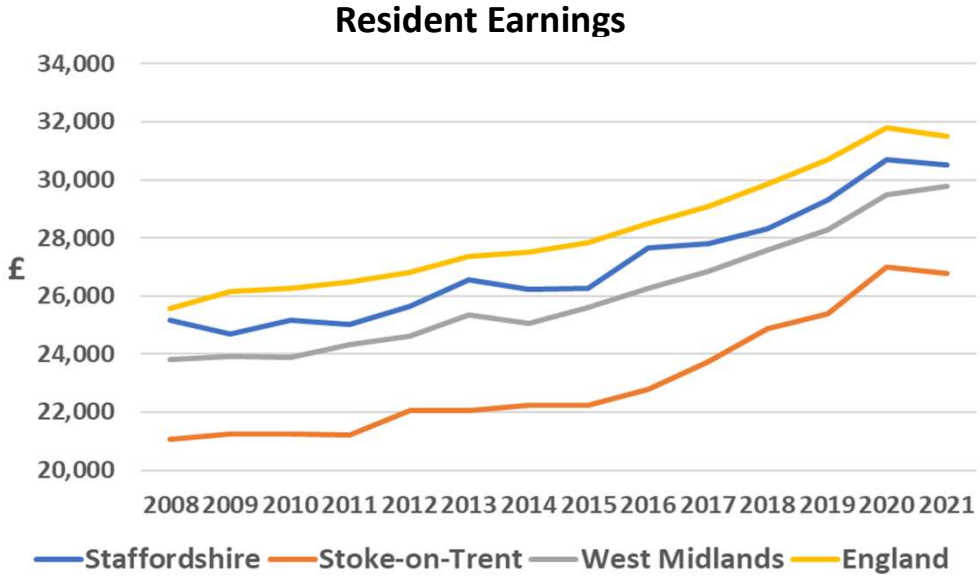
Employment in Staffordshire remains below pre-COVID levels due to increase in economic inactivity, but Stoke-on-Trent has seen the opposite

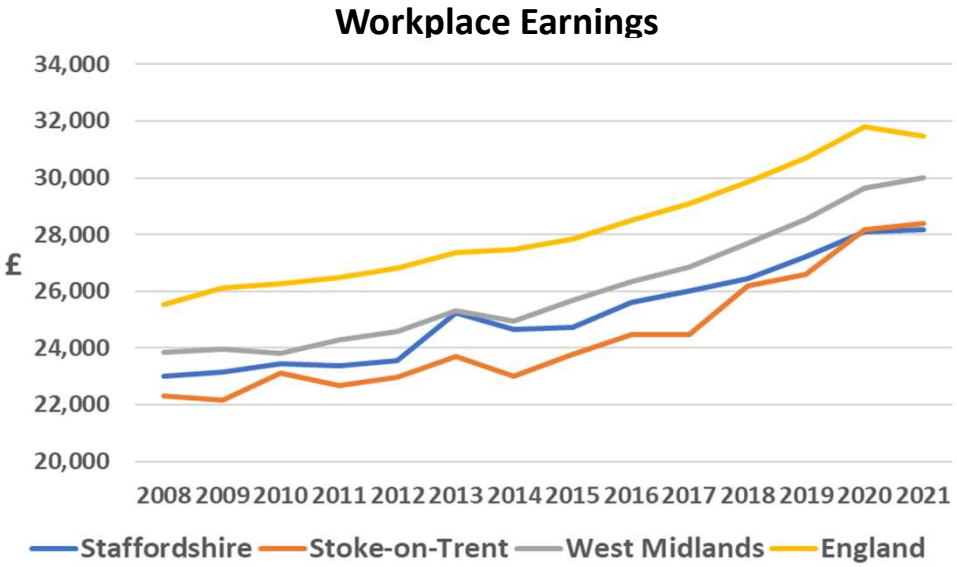
Latest - Apr 2021-Mar 2022	Staffordshire		Stoke-on-Trent		West Midlands	England
	Number	%	Number	%		
Economic activity rate	422,500	80.9%	126,500	80.1%	77.5%	78.8%
Employment rate	405,400	77.6%	122,800	77.8%	73.7%	75.4%
% who are economically inactive	100,000	19.1%	31,300	19.9%	22.5%	21.2%

Change since pre-COVID	Staffordshire		Stoke-on-Trent		West Midlands	England
	Number	%	Number	%		
Economic activity rate	-6,600	-1.0%	4,900	3.7%	-0.3%	-0.6%
Employment rate	-11,000	-1.9%	6,400	4.6%	-0.2%	-0.8%
% who are economically inactive	5,400	1.0%	-6,200	-3.7%	0.3%	0.6%

- **Staffordshire economic activity rate is 1.0% below pre-COVID (Apr 2019-Mar 2020) while the employment rate is 1.9% down, however Staffordshire remains above both the regional and national averages.**
- This is likely to be at least partly reflective of the ageing workforce in Staffordshire and reports that there has been an increase in workers close to retirement who have chosen to take early retirement such as for caring responsibilities or for their own personal health.
- **Stoke-on-Trent economic activity rate is 3.7% above pre-COVID and employment rate is 4.6% above, with Stoke-on-Trent above the regional and national averages –** possibly due to availability of jobs and the need to work due to cost-of-living crisis and inflation.

Wage levels continued to increase in the first year of the crisis but have slowed or fallen back over the last year…





- Average resident earnings in Staffordshire stood at £30,533 in 2021 and had grown by £1,240 or 4% since 2019 / Stoke-on-Trent £26,766 with £1,375 or 5% growth

- Staffordshire workplace earnings were at £28,200 and had grown by £930 or 3% since 2019 / Stoke-on-Trent £28,374 with £1,778 or 7% growth – indication of better paid local jobs which is likely to be a key factor in the growth of resident earnings

- **For both measures Staffordshire and Stoke-on-Trent had seen faster growth than nationally during the crisis however still below the national averages**

Sectors hardest hit by COVID

Seen highest unemployment increase from:

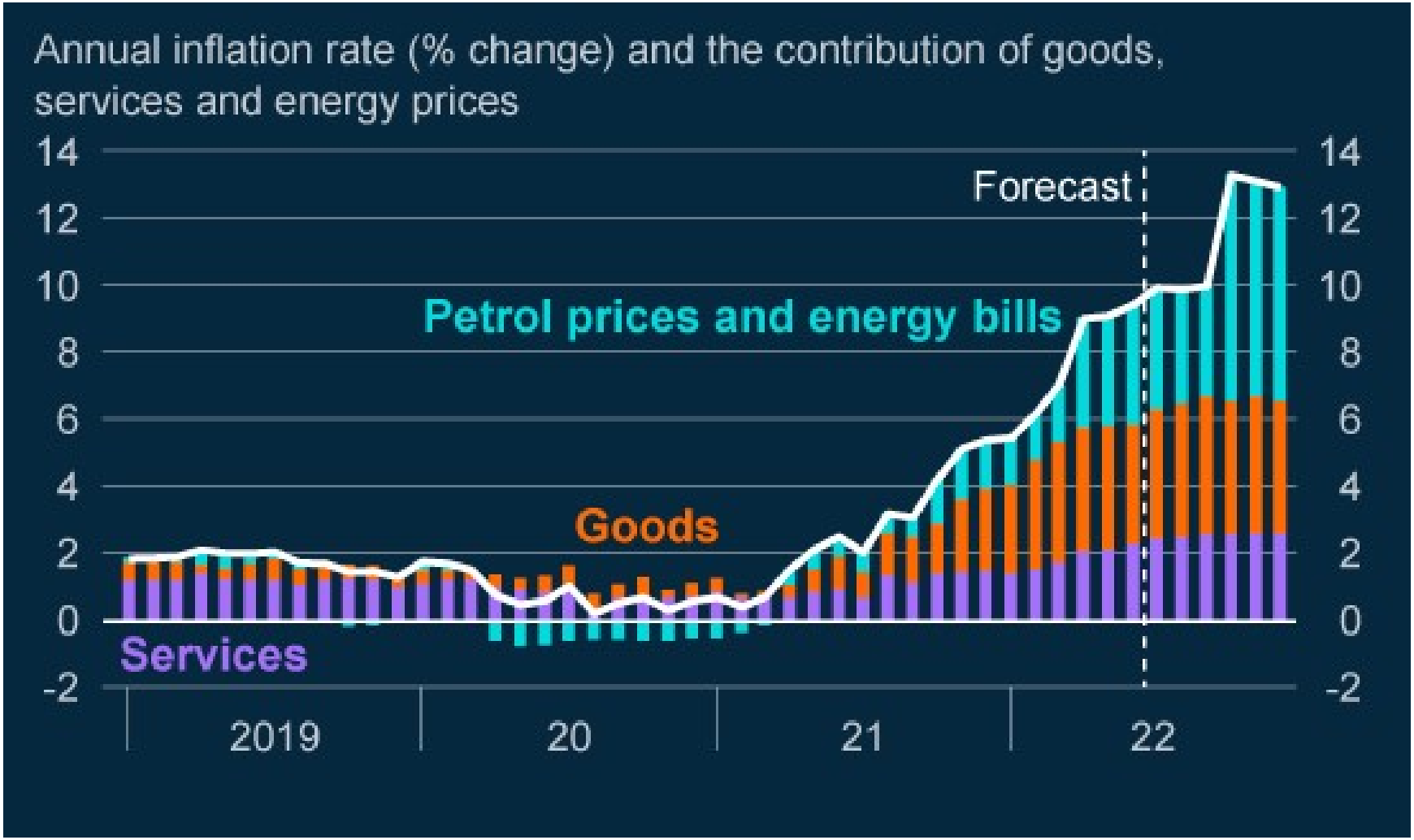
- **Accommodation & food services** (Furlough take-up rate / HR1s)
- **Arts, entertainment, and recreation** (Furlough take-up rate / SEISS / HR1s)
- **Construction** (Furlough take-up rate / SEISS / CCJs)
- **Manufacturing** (Furlough no. jobs furloughed / SEISS / HR1s / BREXIT)
- **Wholesale & retail** (Furlough no. jobs furloughed / HR1s)

Response policy interventions focus on **supporting viable businesses to survive and saving jobs alongside reskilling and upskilling those out of work**

Future Economy

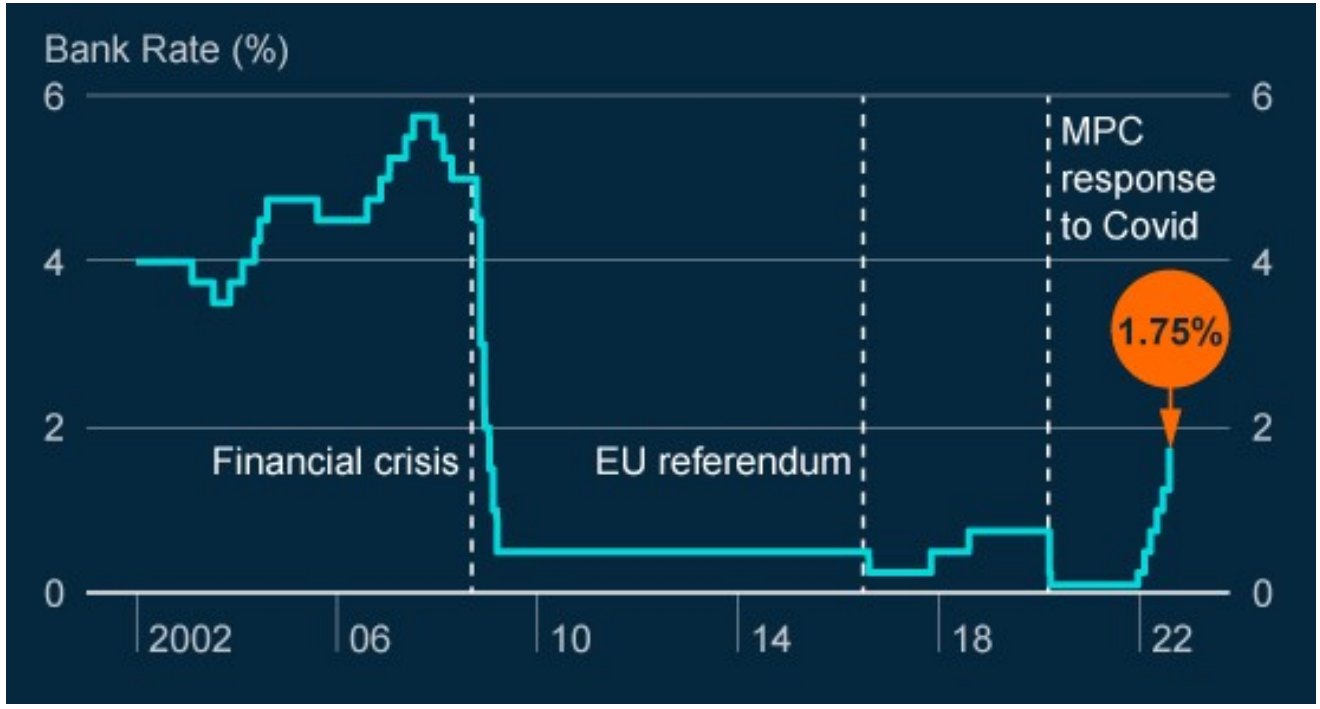
- The **Bank of England (BoE) latest Monetary Policy Report for August 2022** sets out the economic analysis and inflation projections that the Monetary Policy Committee uses to make its interest rate decisions.
- The rate of inflation is the measure of how quickly prices have gone up. In July, prices had risen by 10.1% compared to a year ago. That is well above the BoE 2% target.
- Higher energy prices are one of the main reasons for this. Russia's invasion of Ukraine has led to more increases in the price of gas. Since May, the price of gas has more than doubled. **BoE think those price rises will push inflation even higher over the next few months, to around 13%.**
- Higher prices for the goods that we buy from abroad have also played a big role.
- There is also pressure on prices from developments in the United Kingdom. Businesses are charging more for their products because of the higher costs they face. There are more job vacancies than there are people to fill them, as fewer people are seeking work following the pandemic. That means that employers are having to offer higher wages to attract job applicants. Prices for services have risen markedly.
- The squeeze on households' incomes due to the rise in energy prices has led to slower growth in the UK economy. **BoE expect the size of the UK economy to fall over the next year.**
- BoE know the cost of living squeeze is difficult for many people. If high inflation lasts for a long time that would make things worse.
- What will happen to interest rates in the coming months will depend on what happens in the economy. In particular, BoE will be watching closely what is likely to happen to the rate of inflation in a couple of years' time.
- It's the BoE job to make sure that inflation returns to their 2% target, and that is what they plan to do.
- This month the BoE have **raised our interest rate to 1.75%.**
- In total, since December 2021, BoE have increased our interest rate from 0.1% to 1.75%.

Higher energy prices are expected to push inflation to 13%



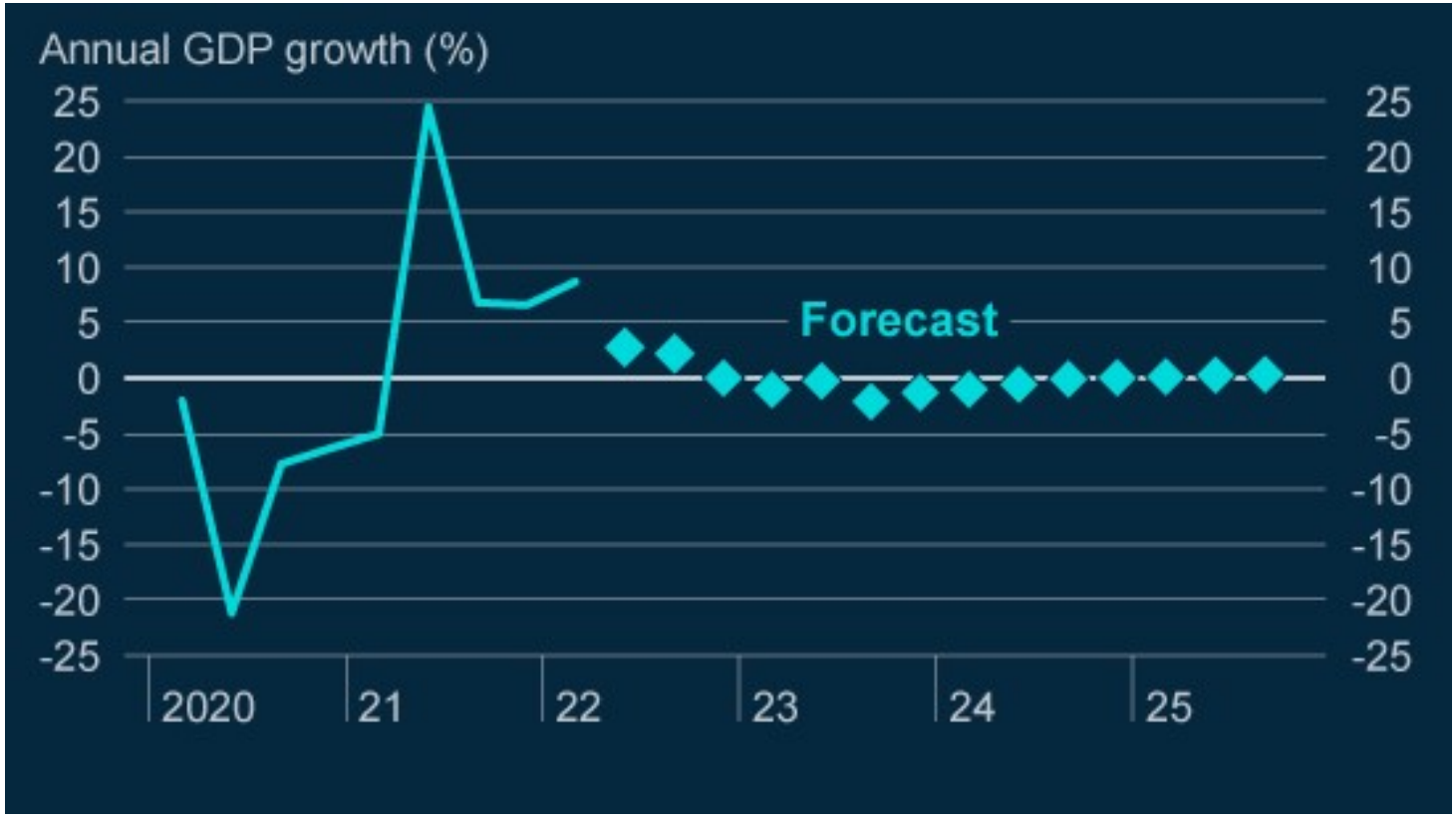
BoE has raised interest rates to help inflation return to its 2% target

- The main way the BoE can bring inflation down is to increase interest rates. Higher interest rates make it more expensive for people to borrow money and encourage them to save. That means that, overall, they will tend to spend less. If people on the whole spend less on goods and services, prices will tend to rise more slowly. That lowers the rate of inflation.



BoE expect the size of the UK economy to fall over the coming year

- The squeeze on households' incomes due to the rise in energy prices has led to slower growth in the UK economy.

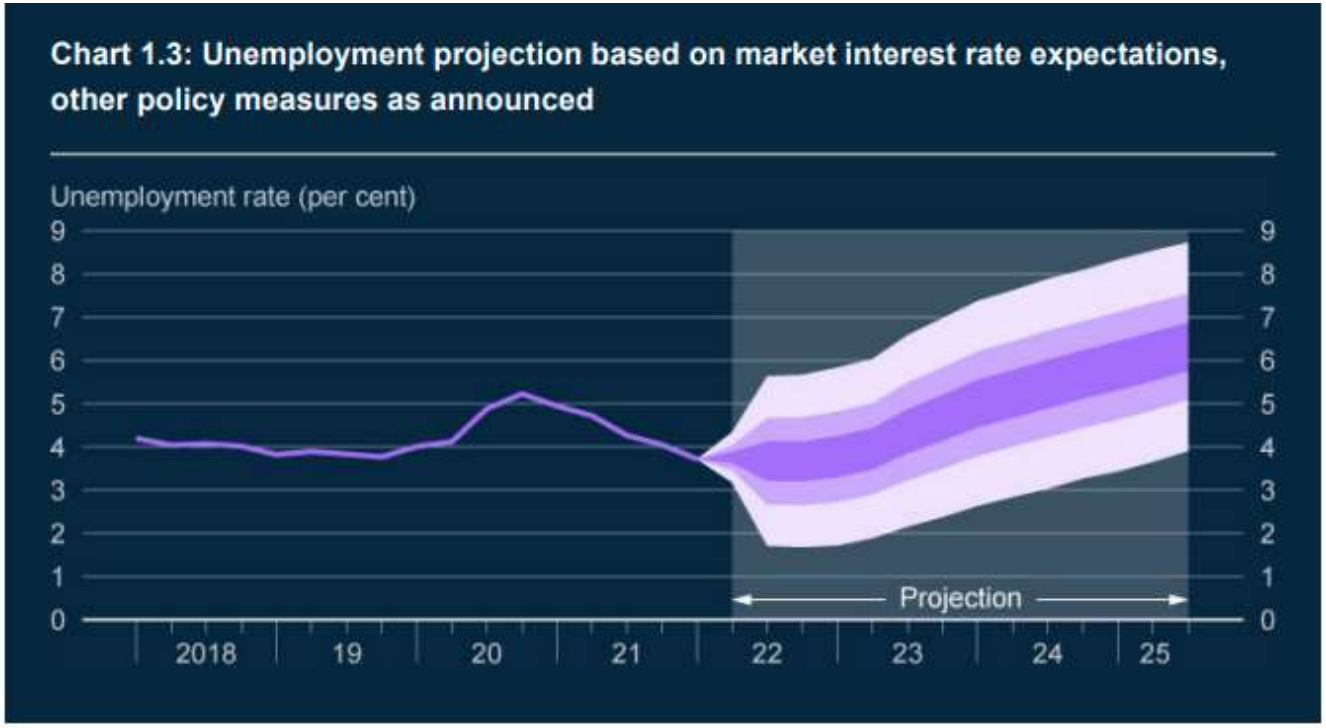


BoE expect inflation to begin to fall next year

- BoE fell it is unlikely that the prices of energy and imported goods will continue to rise so rapidly.
- BoE expect that some of the production difficulties businesses are facing will ease.
- The slowdown in demand for goods and services should also put downward pressure on prices.
- BoE expect inflation will be close to our 2% target in around two years.

BoE expect unemployment to rise to 6.3% by Q3 2025

- Given continued elevated recruitment difficulties due to the fall in the labour force since the start of the pandemic and strong labour demand, firms are forecast to respond initially to the weakness in demand by using their existing inputs less intensively.
- The labour market is expected to remain tight over the next year. Unemployment only starts to rise above its current level from mid-2023, but it reaches 6.3% at the end of the forecast period.



The fan chart depicts the probability of various outcomes for LFS unemployment. It has been conditioned on the assumptions in Table 1.A footnote (b). The coloured bands have the same interpretation as in Charts 1.1 and 1.2, and portray 90% of the probability distribution. The calibration of this fan chart takes account of the likely path dependency of the economy, where, for example, it is judged that shocks to unemployment in one quarter will continue to have some effect on unemployment in successive quarters. The fan begins in 2022 Q2, a quarter earlier than for CPI inflation. That is because Q2 is a staff projection for the unemployment rate, based in part on data for April and May. The unemployment rate was 3.8% in the three months to May, and is projected to be 3.8% in Q2 as a whole. A significant proportion of this distribution lies below Bank staff's current estimate of the long-term equilibrium unemployment rate. There is therefore uncertainty about the precise calibration of this fan chart.

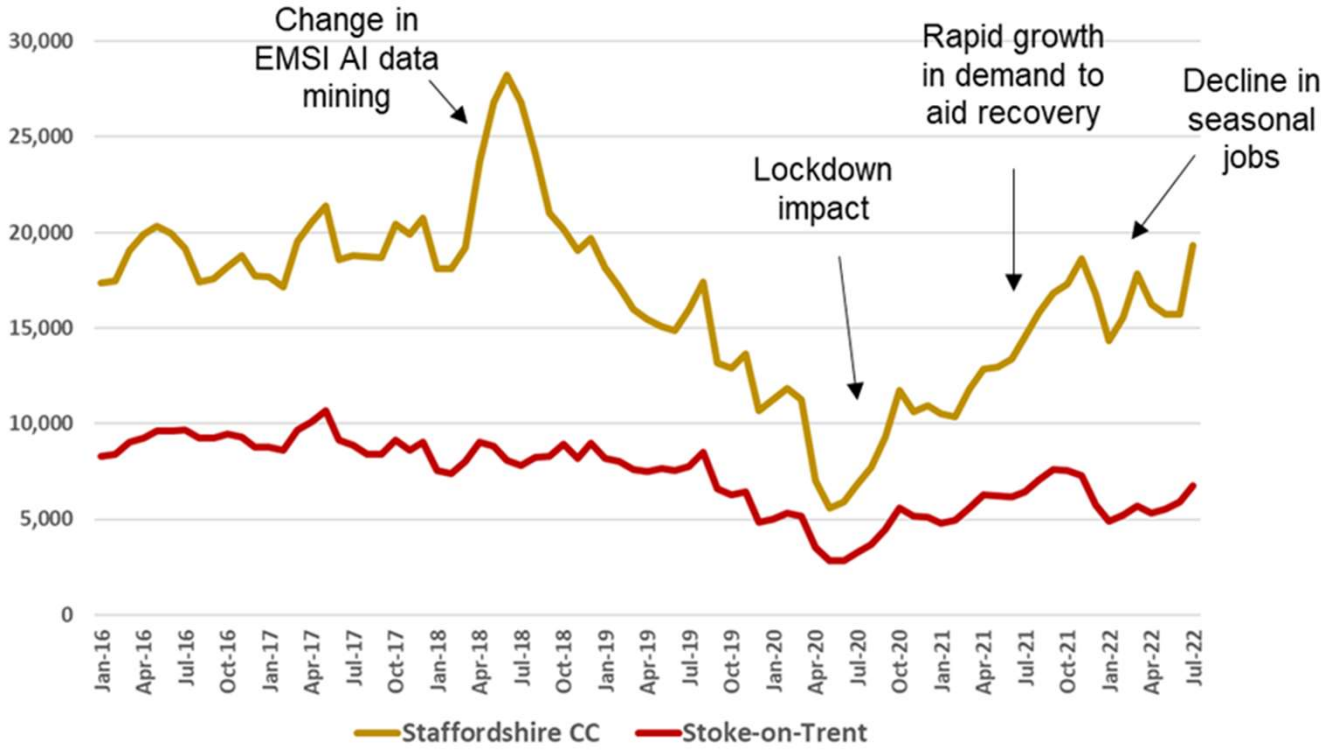
Staffordshire County Council

COVID Recovery Opportunities and Challenges

Increased recruitment demand levels to aid the recovery

- As seen nationally, **job vacancies were heavily hit early in the crisis**, however **overall levels have recovered and are now similar to pre-COVID with record levels in some key sectors**.
- Reflective of the high demand we are seeing for workers across most parts of the economy to **aid the recovery from the pandemic**.

Staffordshire & Stoke-on-Trent Unique Job Vacancies Trend



High Employment Demand in a number of our Priority Sectors

- Demand for roles in health and social care including **care workers and home carers and nurses** remain by far the strongest of all occupations.

Continue to be key labour and skills shortages

- The increase in job vacancies to record levels is resulting in further reports of labour and skills shortages with not enough skilled workers to fill the vacant jobs, especially in **digital/IT roles, social care (both adults and children), hospitality such as chefs and waiting staff, logistics, retail, haulage HGV drivers, and engineering.**
- This has the **potential to slow down the recovery unless the skills gap is quickly and effectively addressed**, clearly skills providers and the Government's Plan for Jobs including the Kickstart and Restart schemes and new Skills Bootcamps has a vital role in upskilling and reskilling jobseekers into areas of demand.

Future of high streets and town centres is reliant on strong local economic growth and prosperity

- Footfall data shows that even with the lifting of most restriction associated to COVID-19 footfall levels are still far lower than pre-lockdown levels (around two thirds) and more high street businesses are closing.
- High street businesses including bricks-and-mortar retail, and to a lesser extent some hospitality and the arts are still struggling due to continued issues with consumer confidence, the rise of E-Commerce and online retail and people not returning to the office leading to reduced footfall and turnover – these businesses have been hardest hit throughout the pandemic and continue to suffer with potential debt build-up and the withdrawal of Government support leading to further business closures and redundancies.
- Business support for such businesses in retail, hospitality and the arts is crucial to stave off business failure and job losses and ensure the sustainability and security for the high street.
- Creating resilient town centres with strong demand for local services can be supported through higher value jobs growth leading to increased disposable income.
- Clearly businesses will wish to locate in vibrant centres which are more likely to have good transport and digital infrastructure, strong business networks, and many skilled workers within commuting distance. Nearby high streets can benefit from increased footfall.
- Repurposing parts of town centres to residential allowing workers to live and work in town centres also has the potential to increase footfall on the high street and to support the night-time economy.

Planning reforms to support town centre transition

- Weaker town centres have been impacted by the rise of e-commerce and online shopping due to there being far too much retail space and not enough high-quality office space which can support the jobs that provide demand for those shops leading to high vacancy rates.
- Shifting to “experiences” and food and leisure will not address these issues either.
- The economic challenge facing weaker town centres is a lack of production, but their commercial space is still too focused on consumption.
- The new ‘E’ commercial use class makes high streets more flexible by merging previous use classes such as Shops, offices, restaurants, and gyms, among other uses into a single use class.
- Allowing occupiers/landlords in commercial buildings to switch between uses e.g. retail to office, without needing to go through the planning process.
- Towns need to embrace economic change, and Class E makes that easier.
- Developers will also need to bring long-vacant space up to modern standards.
- And in the long term, demand for high-quality town centre space will be highest in the towns which are best able to provide what its commercial occupiers need: a large, highly skilled local labour market and good urban mobility.
- The new ‘E’ commercial use class means that the town centre of the near-future has the potential to be a dynamic, high-occupancy place that flexibly combines spaces devoted to retail, office, and food and leisure – a place that could look very different from its recent past.

Current Sectors Growth Opportunities

Increasing employment demand within:

- **Digital** – adoption of new technologies (automation and AI) and ways of working (working from home general digital skills) across virtually all sectors of economy (happening before COVID but has been accelerated)
- **Health and Social Care** - associated to ageing population/COVID/BREXIT
- **Logistics** – increasing inward investment enquiries and relocations associated to e-commerce and online retail e.g. ASOS / Pets At Home
- **Construction -** Get Building Fund Projects / HS2 / WM Freight / Existing Infrastructure Projects such as major employment sites and transport improvement projects / Retrofitting / House building requirements from Government within Local Plans

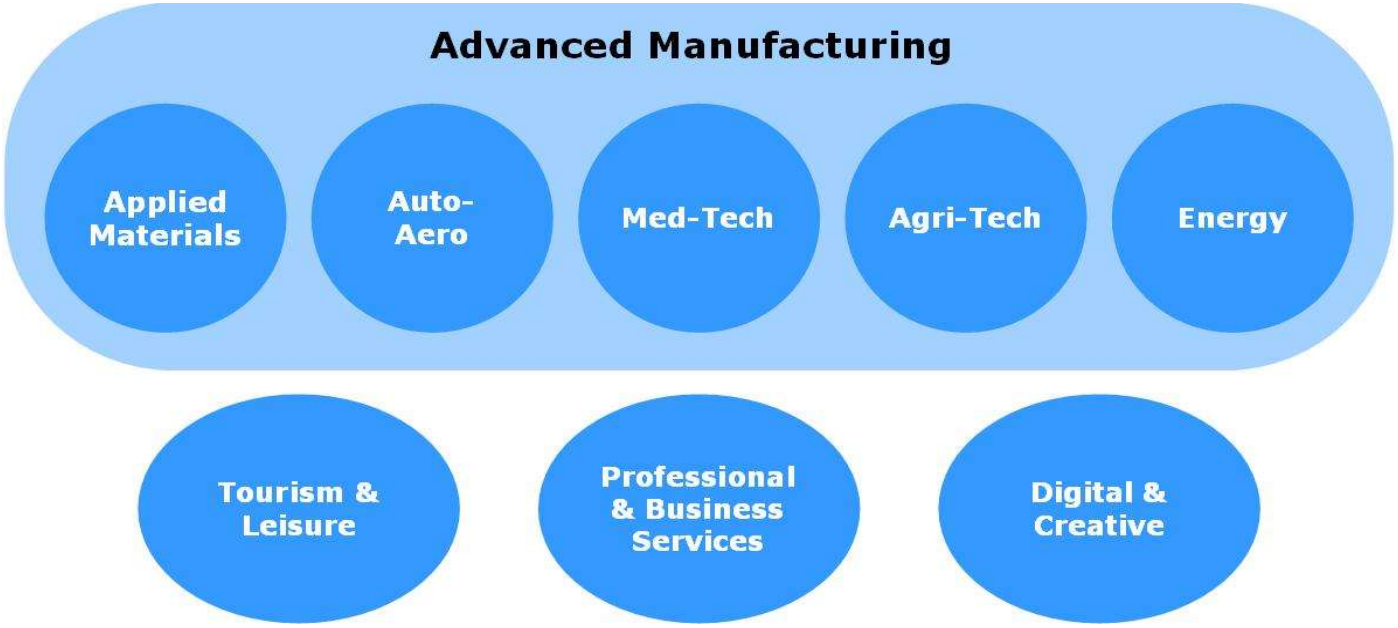
Staffordshire County Council

Economic Renewal & Transformation Opportunities and Challenges

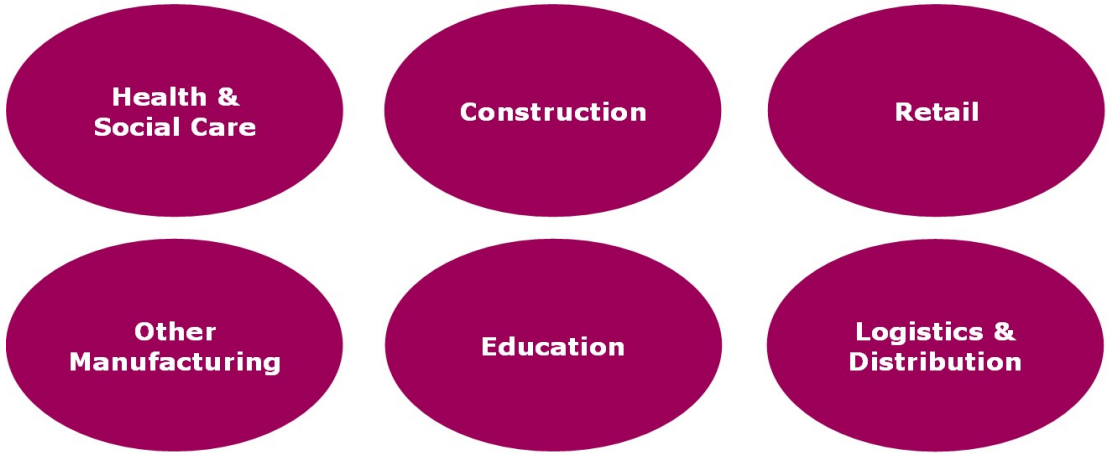
SEP Priority & Locally Important Sectors

Stoke-on-Trent & Staffordshire Enterprise Partnership

Priority Sectors



Other Locally Important Sectors (due to size / recent growth)



Future Growth Opportunities

- Opportunities to recover the losses and improve productivity in the long-term with potential growth in high-skilled high-value jobs in sectors including:
  - **Digital** (cross-cutting - new technologies and ways of working)
  - **The Green Economy/Climate Change/Clean Energy**
  - **Engineering & Advanced Manufacturing** (Automation/AI/Machine Learning)
  - **Modern Methods of Construction** (Automation/AI/Retrofitting)
  - **Advanced Logistics** (Automation/AI)
  - **Health and Social Care** (Digitisation of Services/New Technologies)
- Dependent on how local businesses make use of new technologies such as AI and automation and partners support them to do so, alongside the availability of skills in the local workforce to support this type of high value growth.
- **Reskilling and upskilling residents from declining sectors into priority growth areas of the economy will be key e.g. Kickstart and Restart Schemes.**

Priority Skill Areas

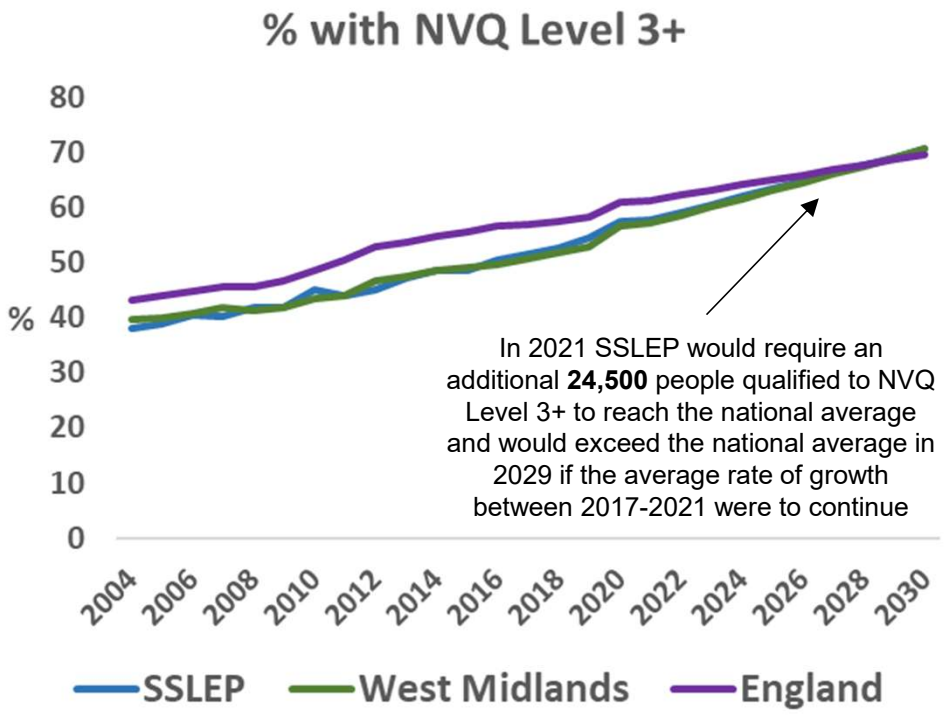
To ensure that the priority growth sectors and existing significant sectors in the LEP area have the skills in the local workforce to drive economic growth, key sector skill areas have been identified as priorities for skills development locally including:

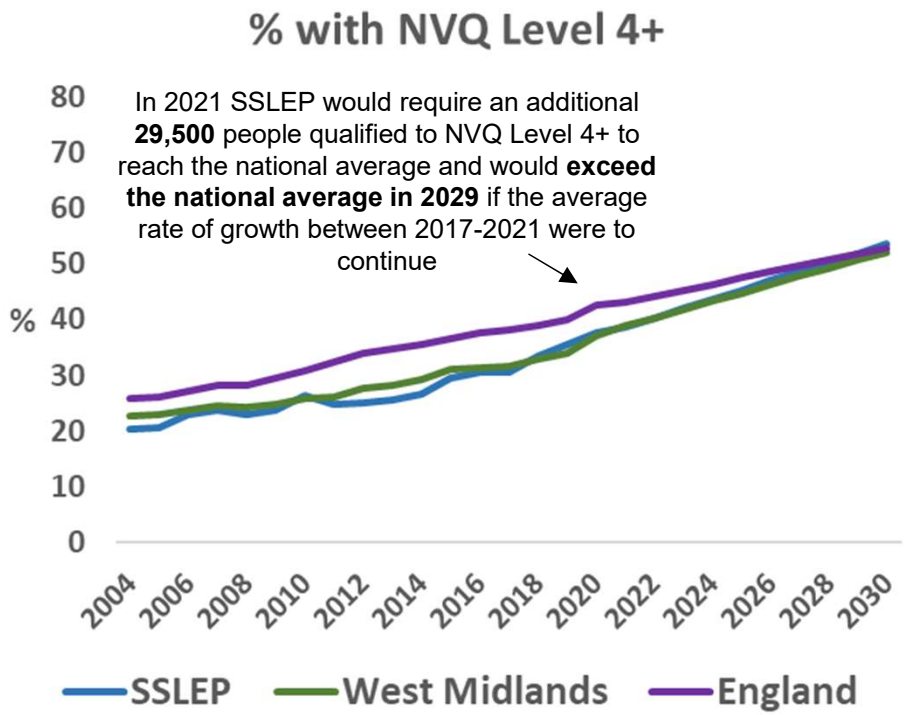
- **Digital –** digitisation of jobs leading to cross-cutting skills supply issues - basic skills gaps e.g. excel to higher level advanced digital skill gaps e.g. coding, computer programming, machine learning, data science
- **STEM –** to support the greenification of jobs and growth in engineering and advanced manufacturing (including auto/aero, med-tech, agri-food and energy)
- **Construction** – trades skill gaps i.e. site ready / higher skill gaps e.g. architects / MMO advanced skills demand / Green skills e.g. retrofit
- **Health & Social Care** – skills supply gaps e.g. nurses and social care workers and pay issues / skills to aid digitisation of services

Detailed sector analysis of the issues, challenges, and opportunities within each sector can be found here: https://www.stokestaffslep.org.uk/sap-priority-sector-and-cross-cutting-themes-report/

Further raising adult skill levels to support higher value, skilled and paid roles and address the productivity challenge remains a priority

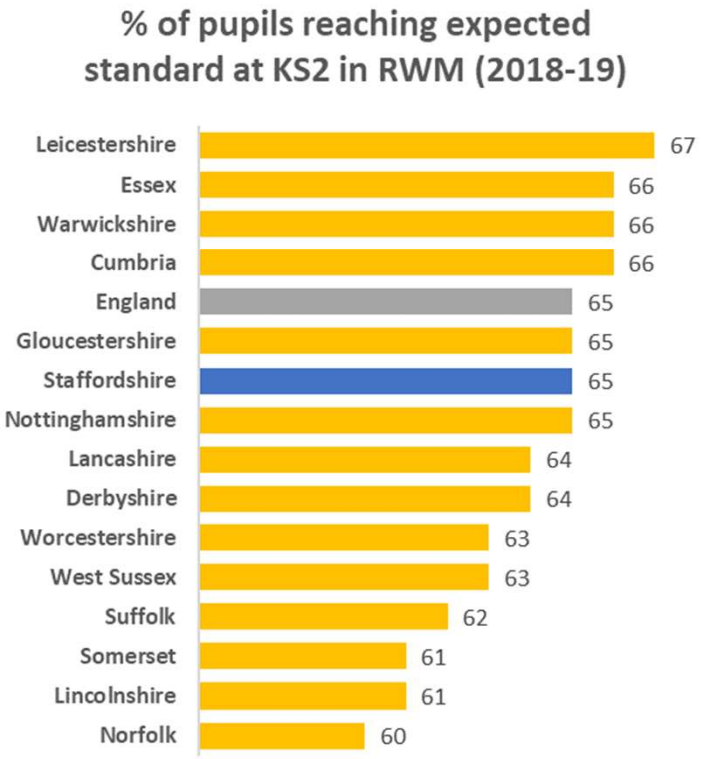
- As well as sector specific skills development we still need to continue our improvement of higher level skills to drive higher value economic growth – based on recent improvement projected to exceed the national average for Level 3+ and 4+ skills in 2029 but COVID and the end of EU (ESF) skills funding may impact further improvement

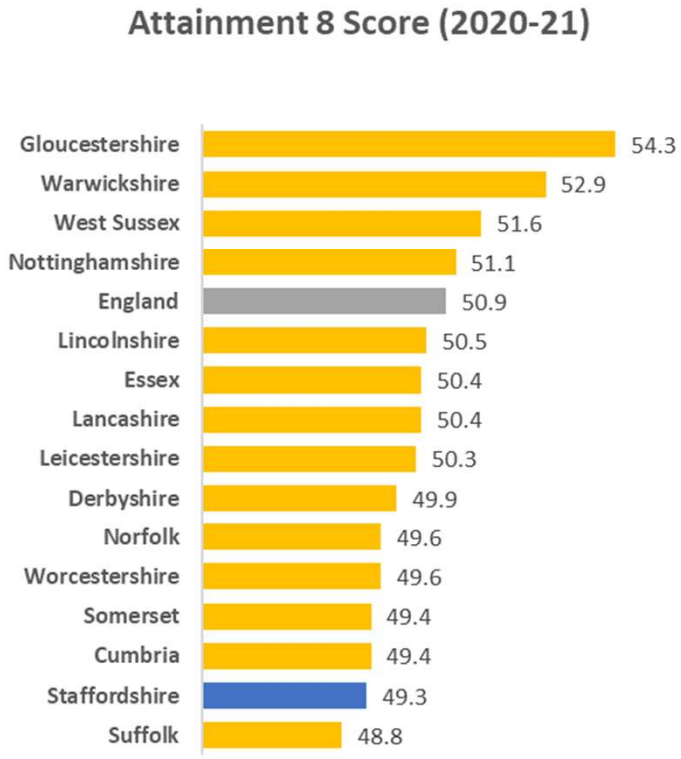


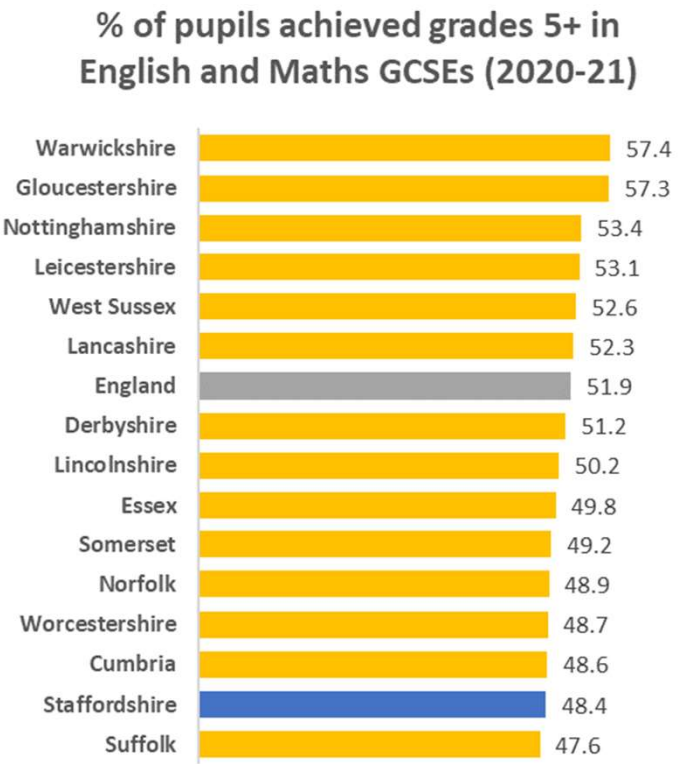


To help close the skills gap Staffordshire needs to address KS4 school underperformance to enable young people to have higher progression pathways in FE/HE which lead to higher skilled jobs

- Generally Staffordshire performs well at Early Years, and to a degree KS2, however KS4 remains an area for improvement
- In 2020-21 Staffordshire was the 2nd worst performing authority out of 15 similar authorities (CIPFA nearest statistical neighbours) for KS4 (A8)

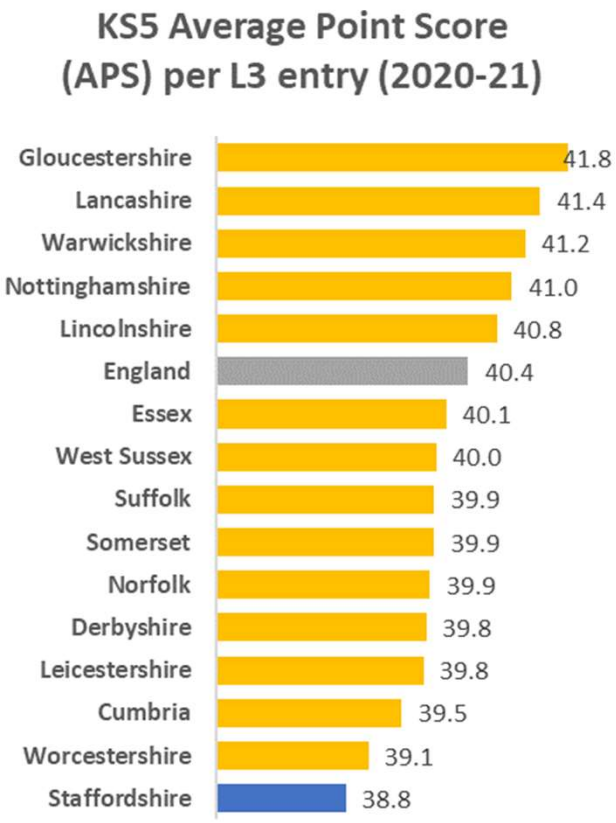


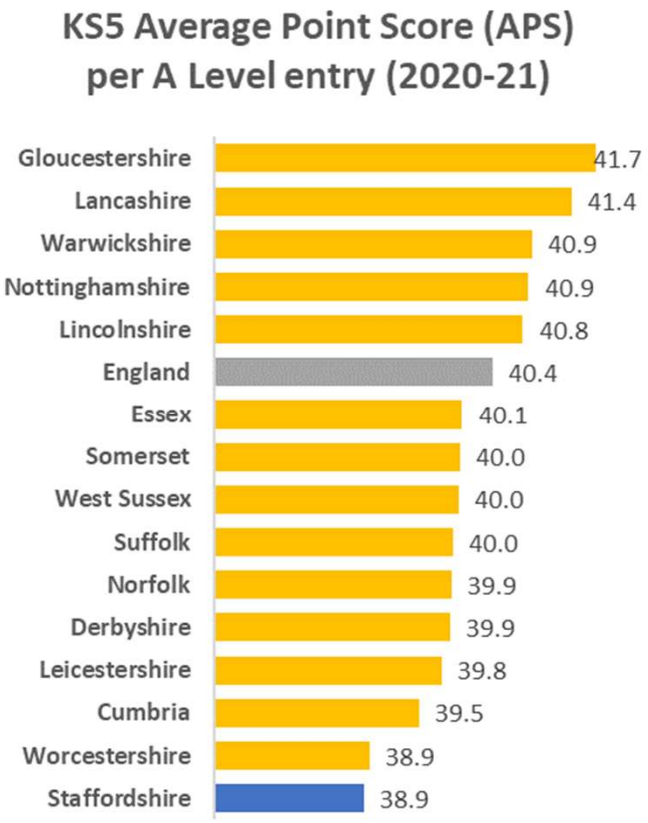


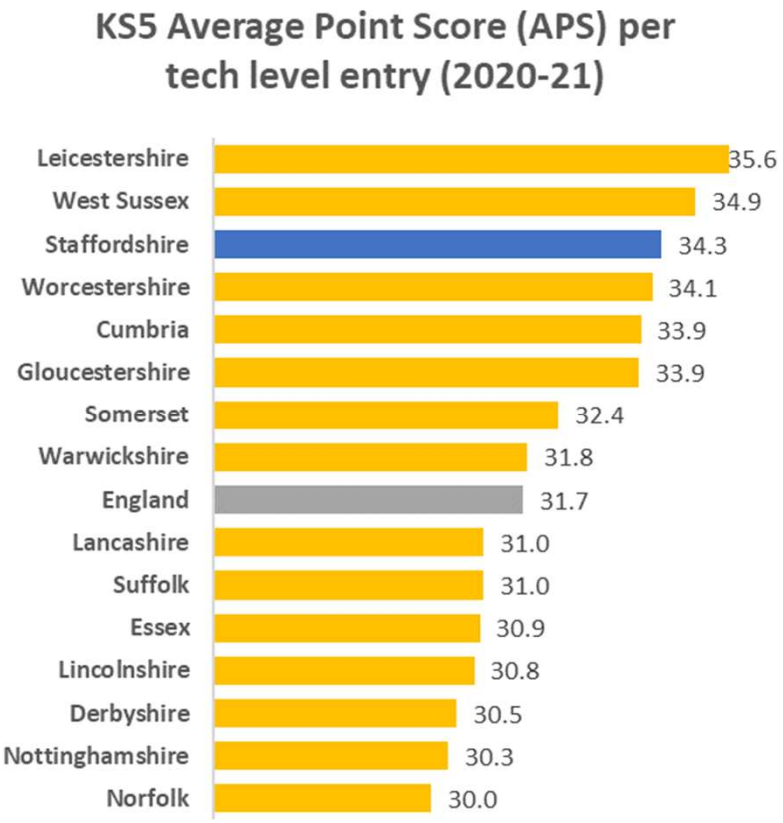


Staffordshire KS4 school underperformance has a knock-on effect at KS5

- Staffordshire KS5 average point score per level 3 entry lags behind the national average and is the lowest of its CIPFA neighbours
- However, Staffordshire does perform better for technical level entry

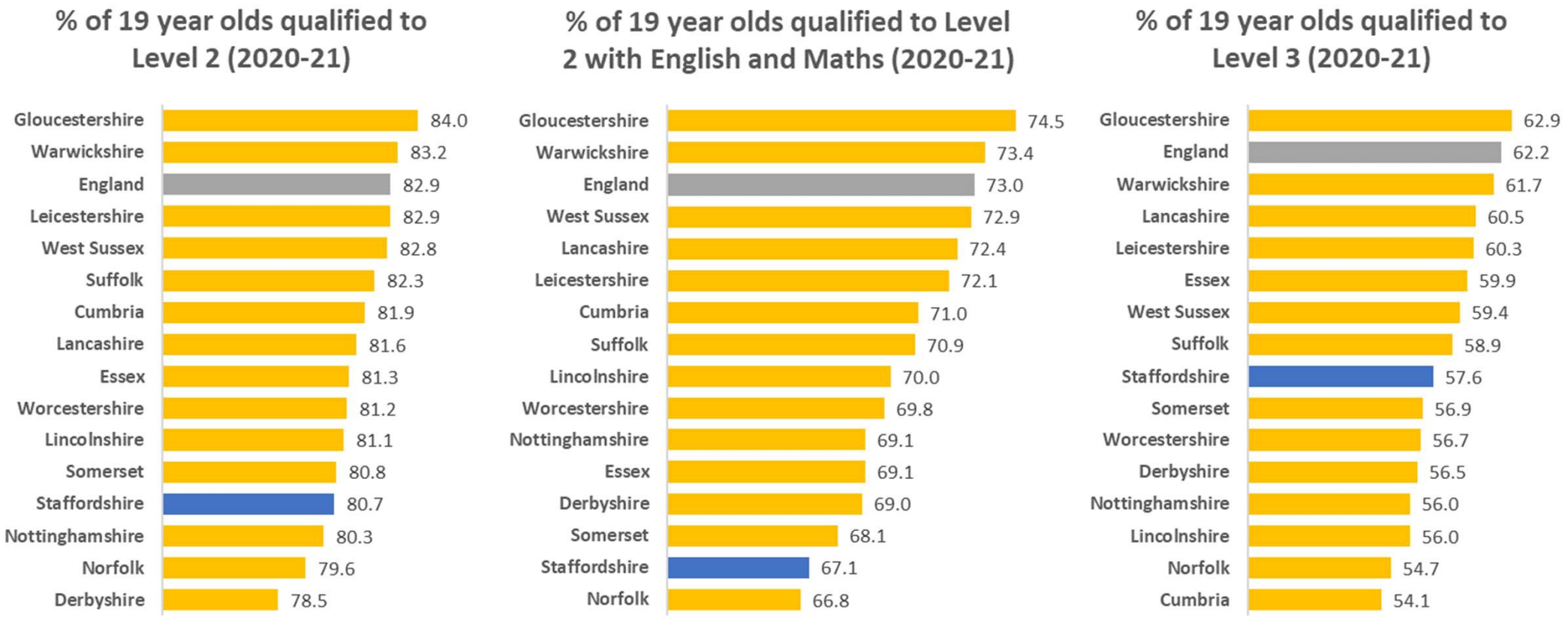






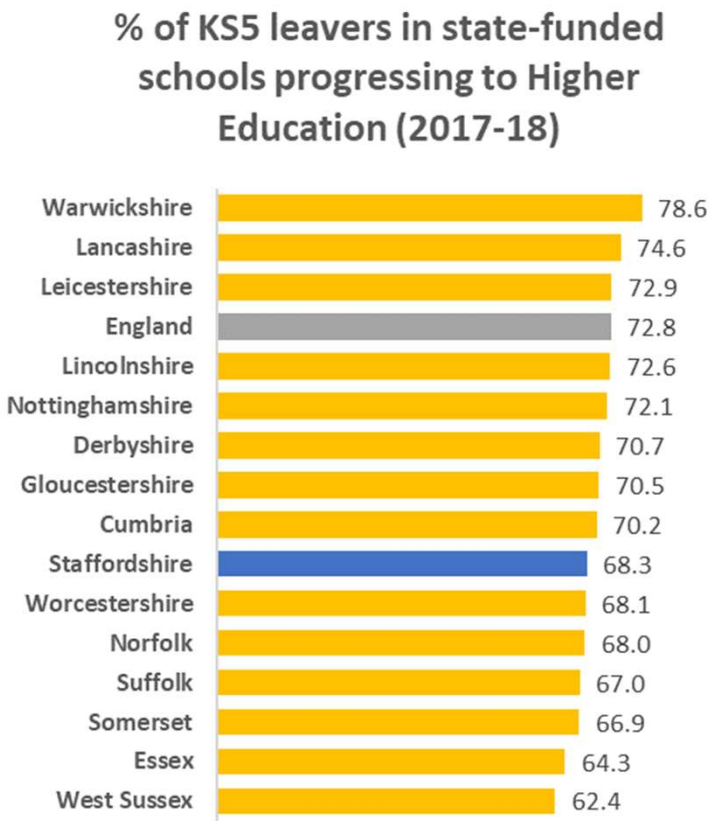
At the end of formal education Staffordshire lags behind the national average for Level 2 and Level 3 achievement

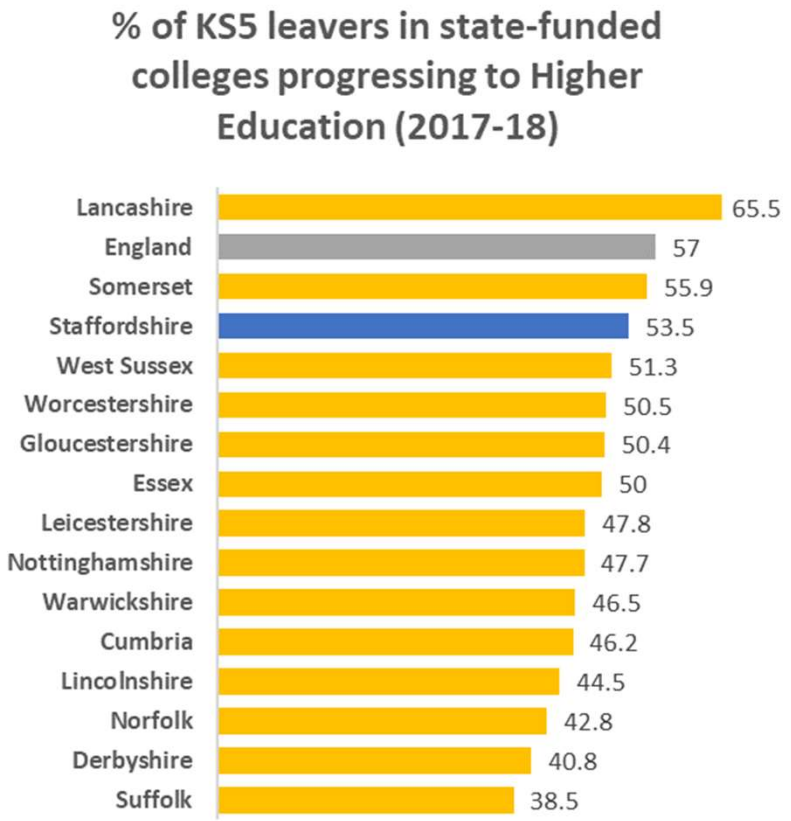
- The proportion of 19 year olds with level 2 and level 3 qualifications in Staffordshire is lower than England average and well behind CIPFA neighbours



Staffordshire has lower levels of young people progressing into higher education than seen nationally

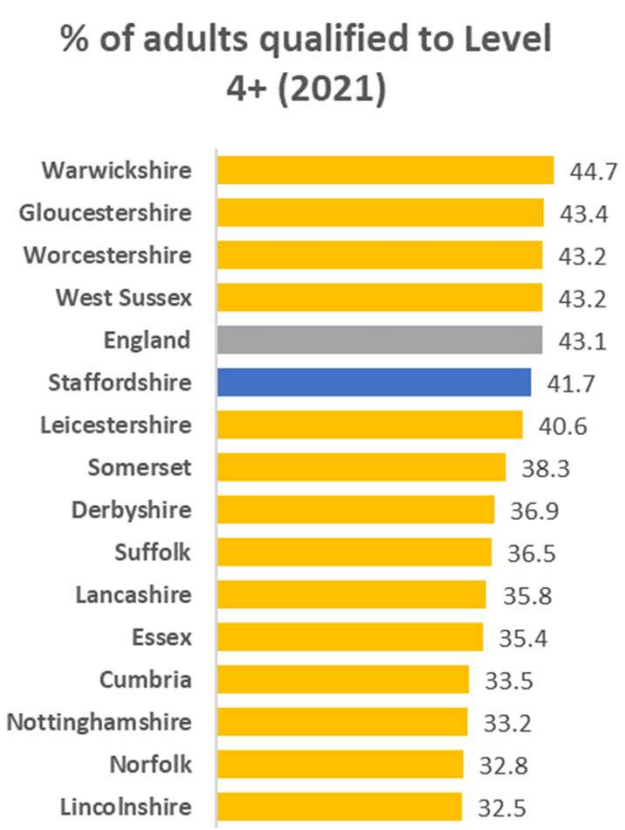
- The proportion of KS5 leavers in Staffordshire schools and colleges progressing to higher education is lower than the national averages and far lower for schools than a number of our CIPFA neighbours

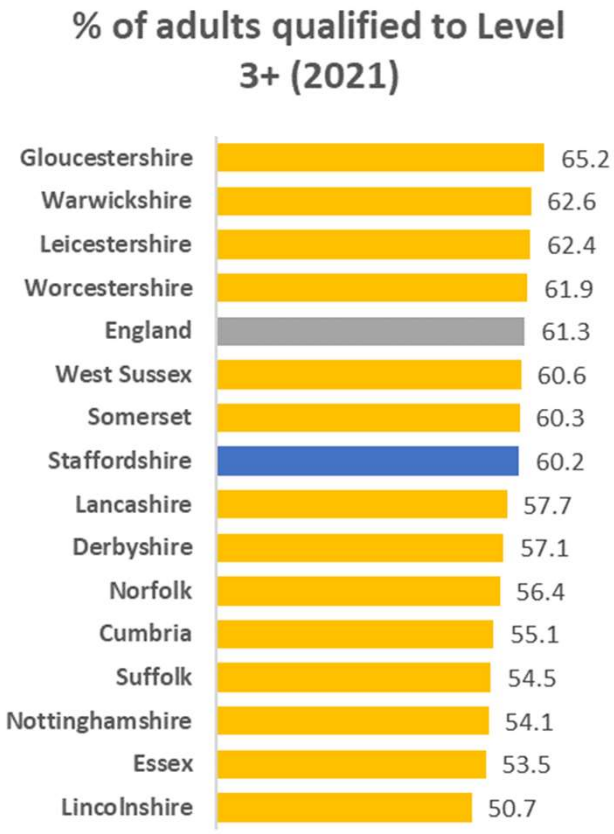


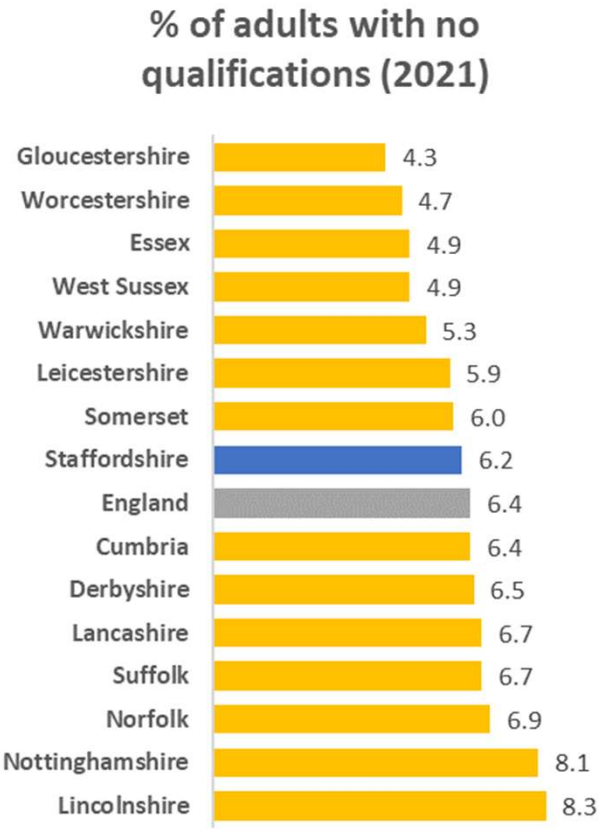


Staffordshire overall adult skill levels lag behind the national averages and far behind some of our nearest neighbours

- Staffordshire has closed the gap to the national average for Level 4+ (degree) and Level 3+ (A Levels) adult qualifications alongside reducing those with no qualifications but still lags behind the national average and far behind a number of our CIPFA neighbours







Staffordshire lags behind for those in higher occupations, earnings and productivity

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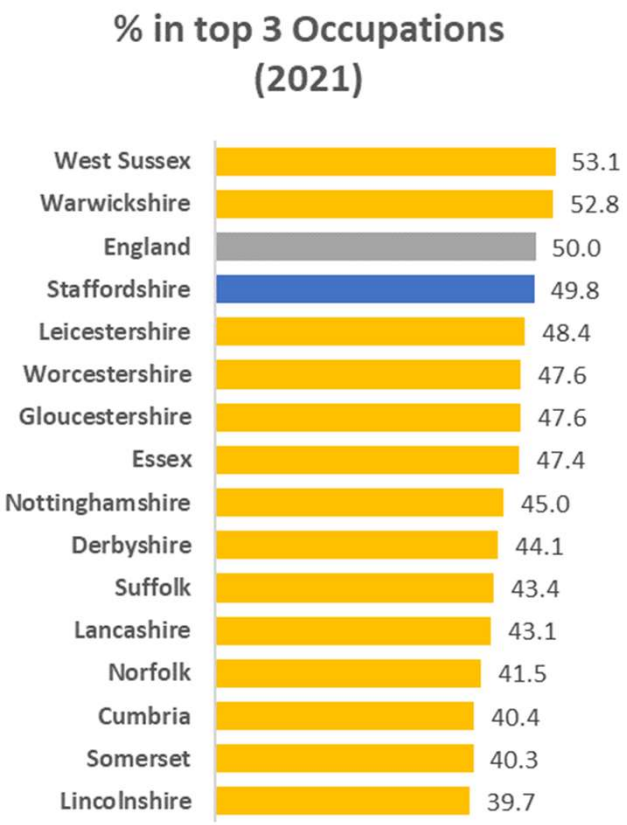
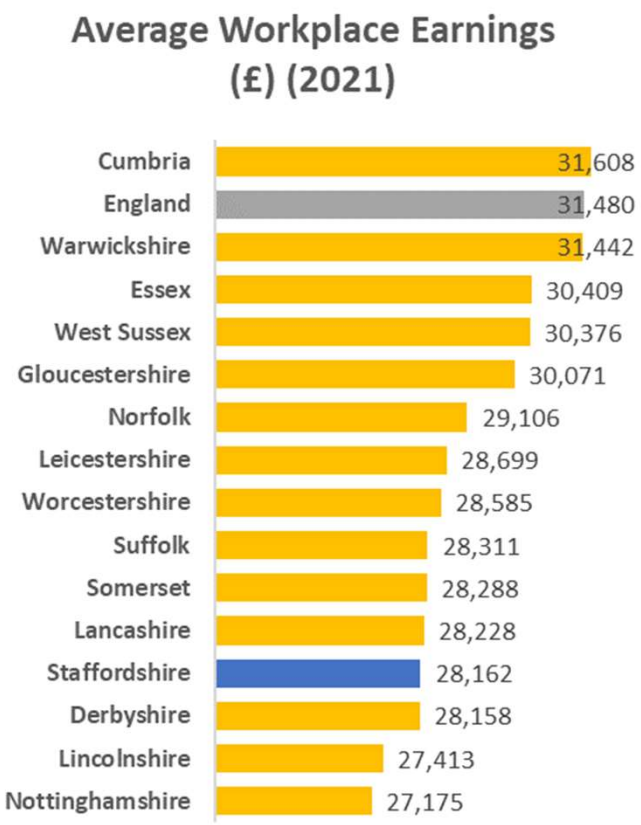
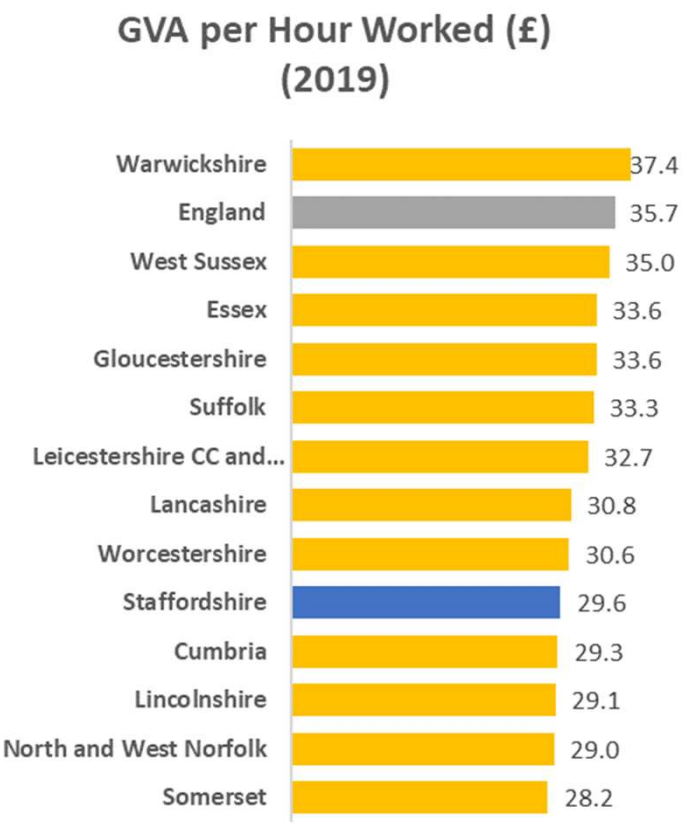
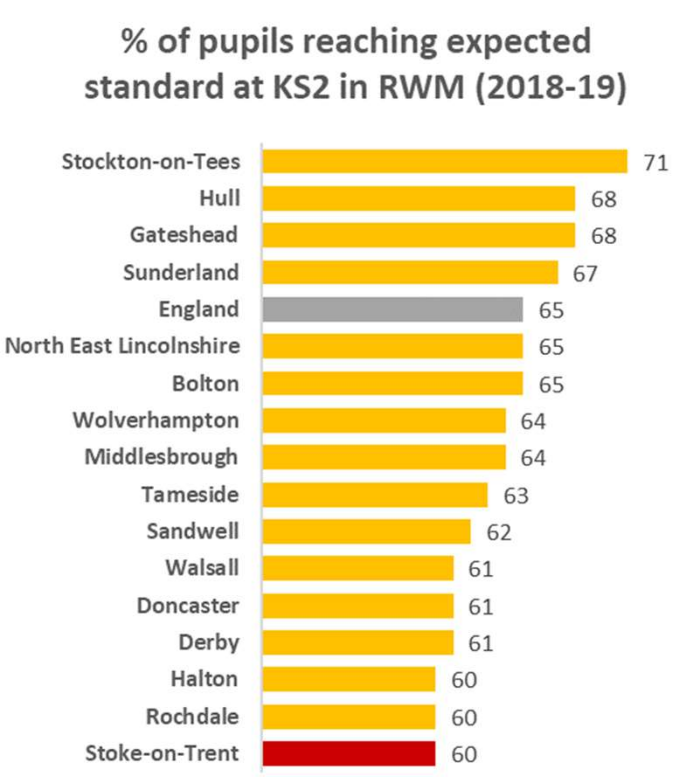


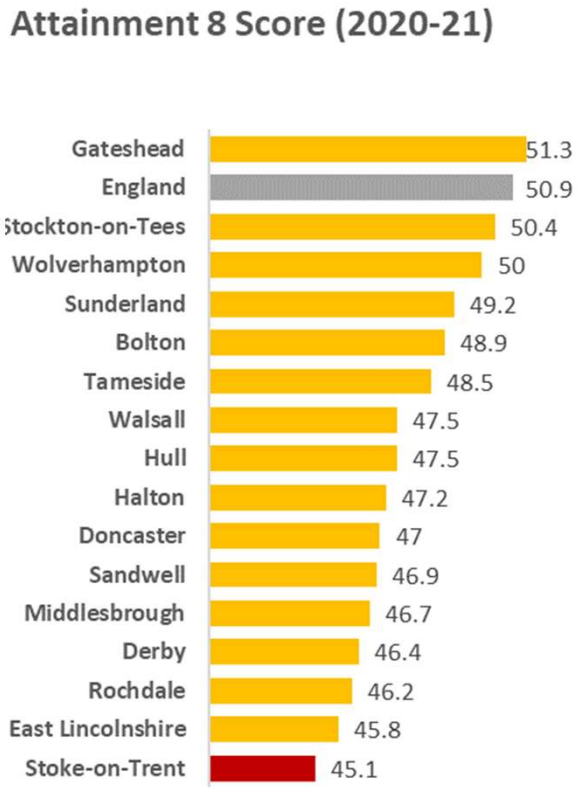


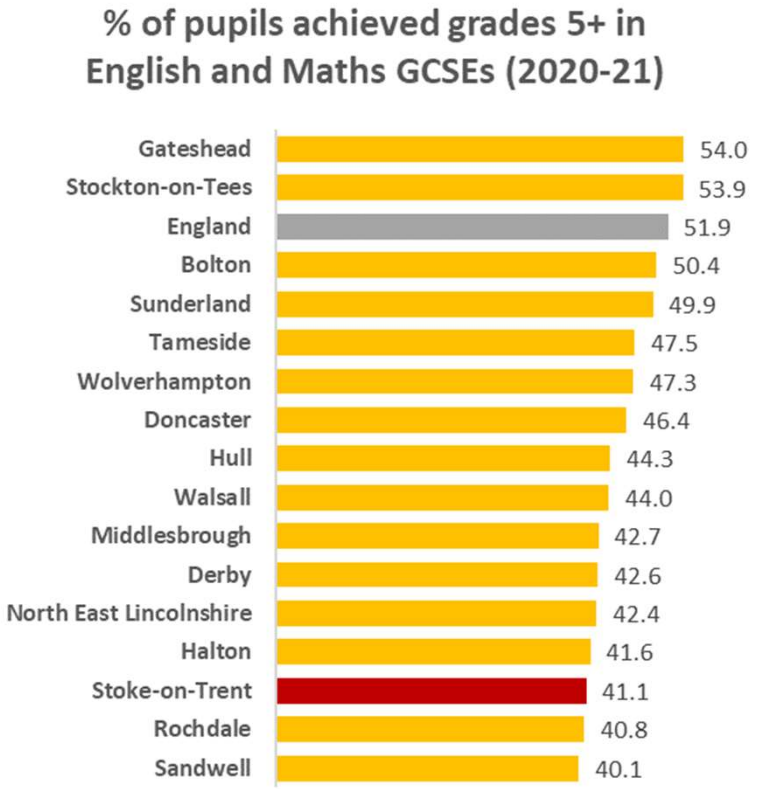


To help close skill gaps Stoke-on-Trent needs to address KS2 and KS4 school underperformance to enable young people to have higher progression pathways in FE/HE which lead to good jobs

- In Stoke-on-Trent KS2 and KS4 remains an area for improvement
- In 2020-21 Stoke-on-Trent was the worst performing authority out of 16 similar authorities (CIPFA nearest statistical neighbours) for KS2 and KS4 (A8)

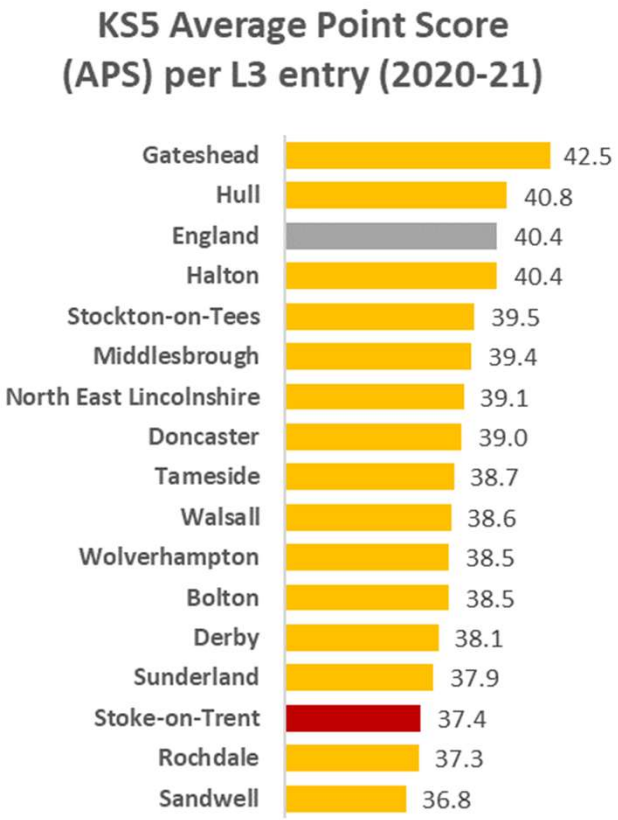


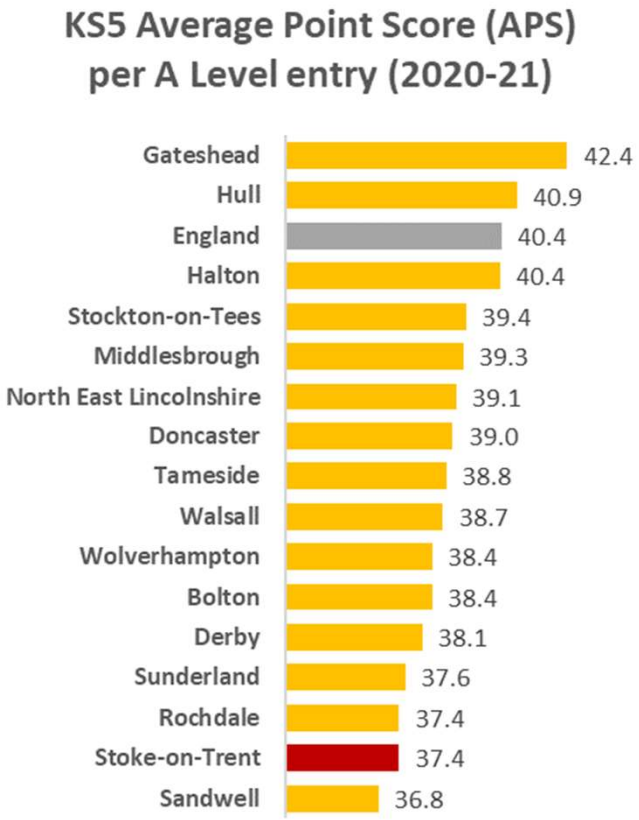


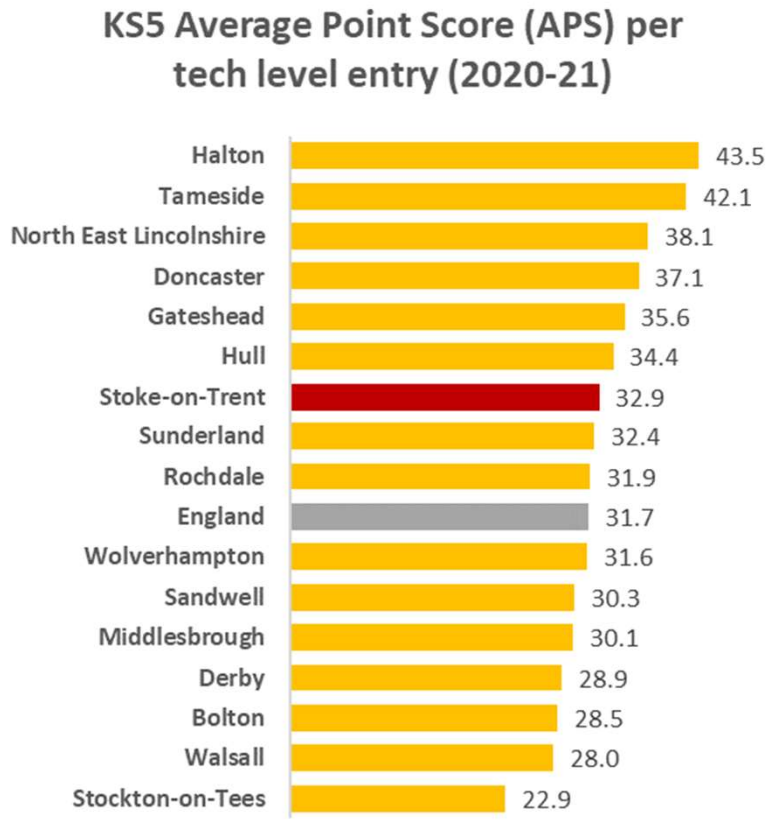


Stoke-on-Trent KS4 school underperformance has a knock-on effect at KS5

- Stoke-on-Trent KS5 average point score per level 3 entry lags behind the national average and is the 3rd lowest of its CIPFA neighbours
- However, Stoke-on-Trent does perform better for technical level entry

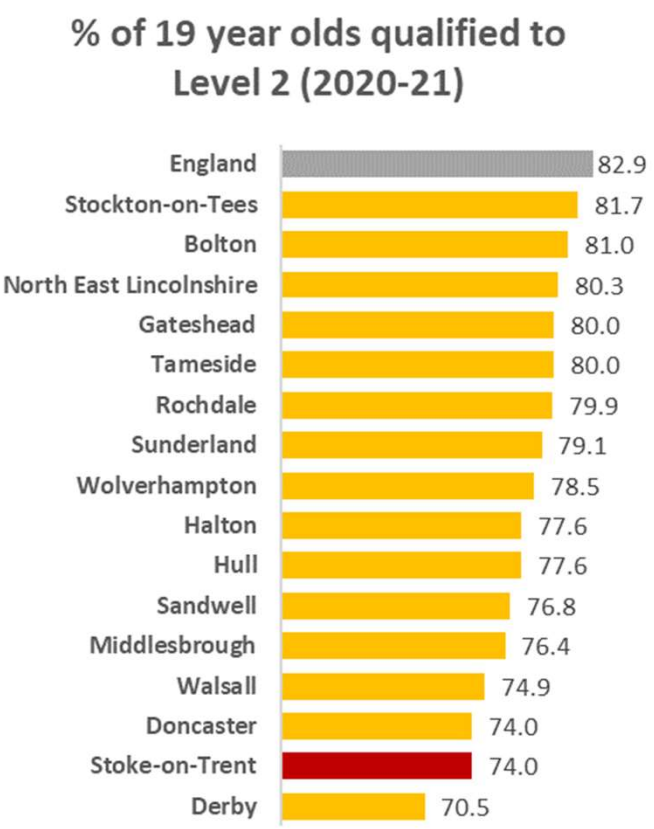


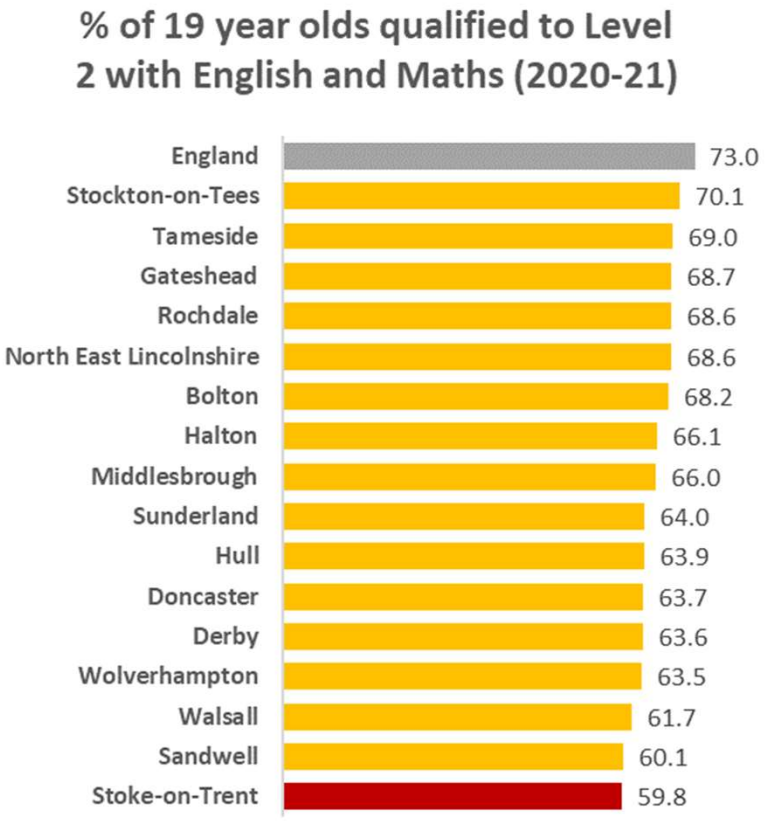


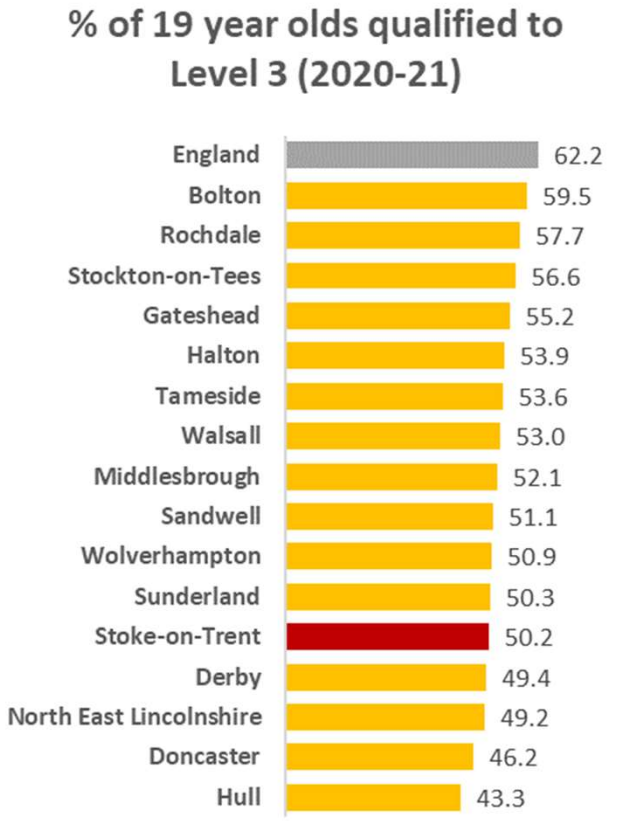


At the end of formal education Stoke-on-Trent lags behind the national average and most CIPFA neighbours for Level 2 and Level 3 achievement

- The proportion of 19 year olds with level 2 and level 3 qualifications in Stoke-on-Trent is lower than England average and well behind CIPFA neighbours

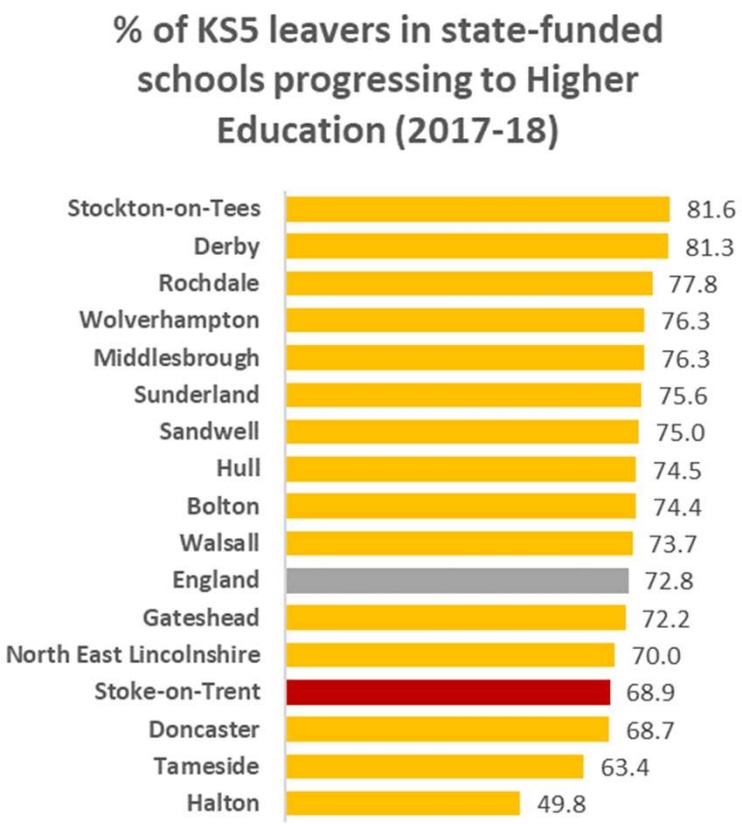


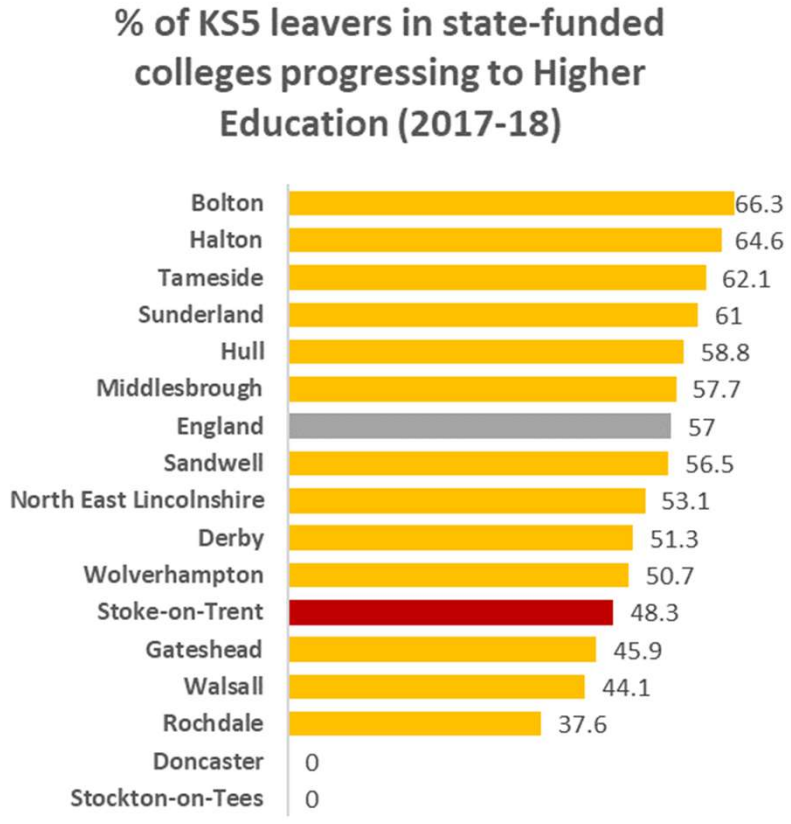




Stoke-on-Trent has lower levels of young people progressing into higher education than seen nationally

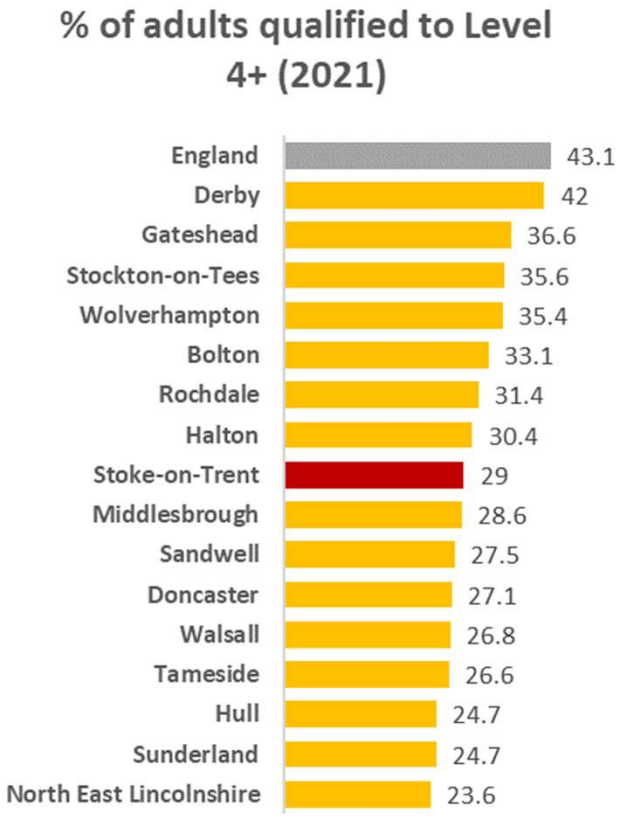
- The proportion of KS5 leavers in Stoke-on-Trent schools and colleges progressing to higher education is lower than the national averages and far lower for schools than a number of our CIPFA neighbours

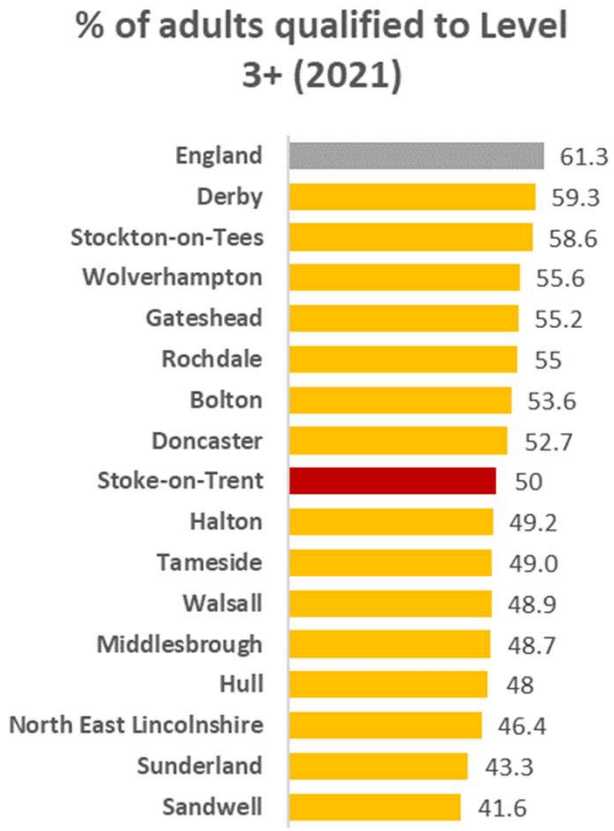


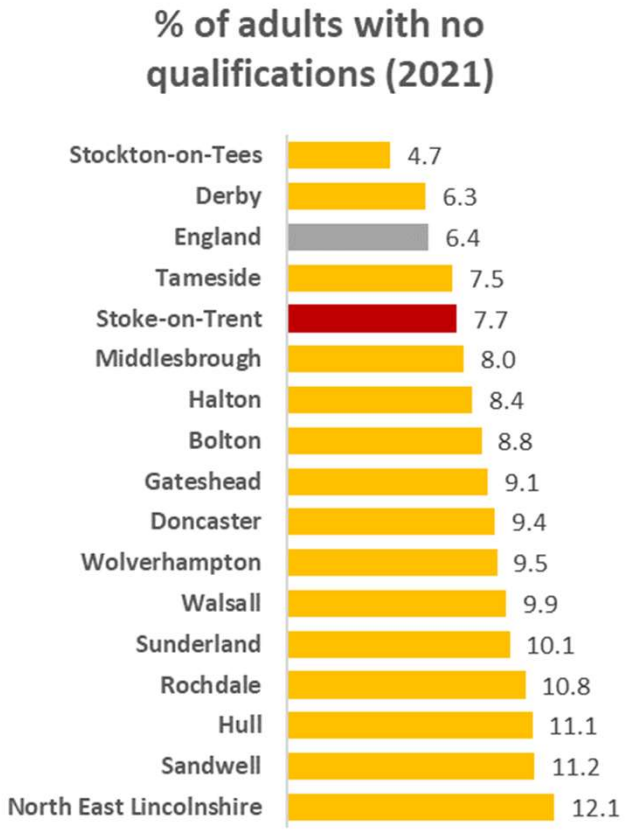


Stoke-on-Trent overall adult skill levels lag behind the national averages and far behind some nearest neighbours

- Stoke-on-Trent has closed the gap to the national average for no qualifications but still lags well behind for Level 3+ (A Levels) and Level 4+ (degree) adult qualifications







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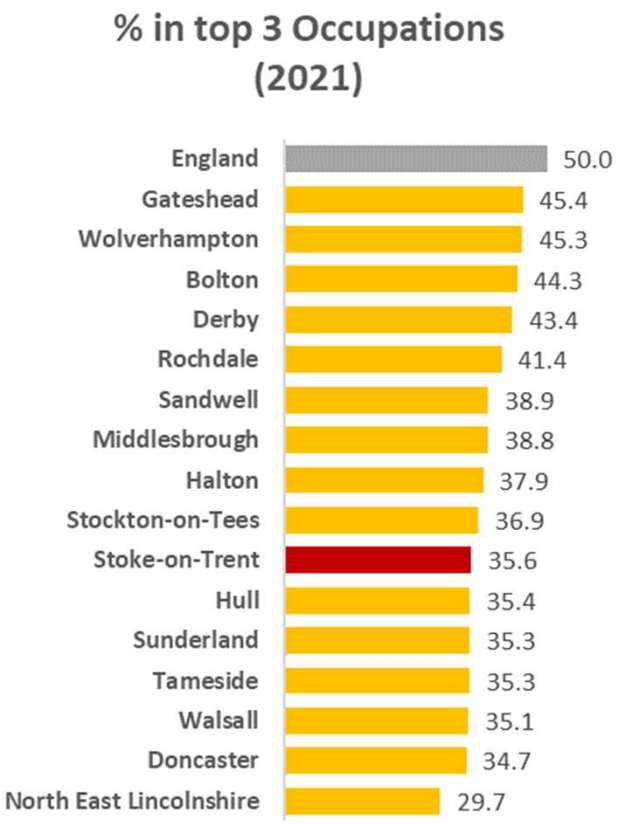
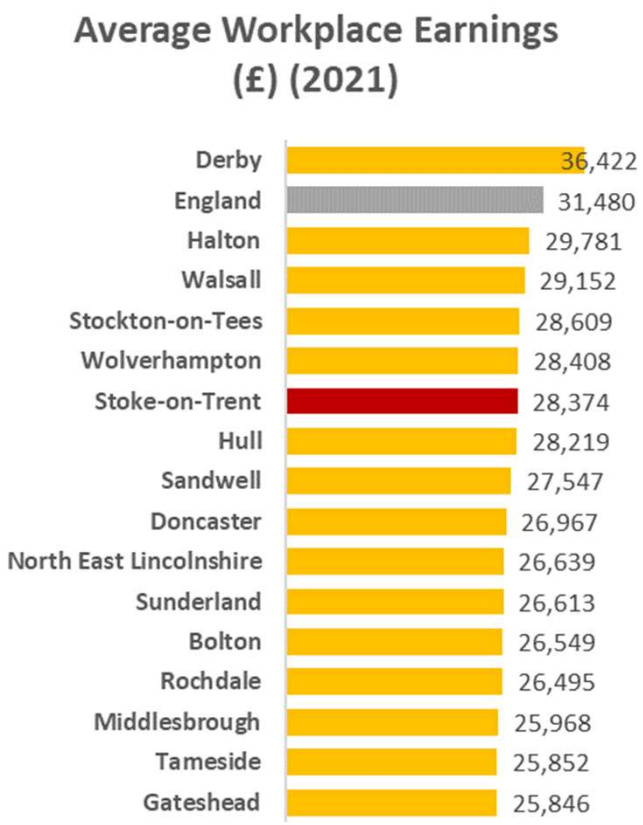
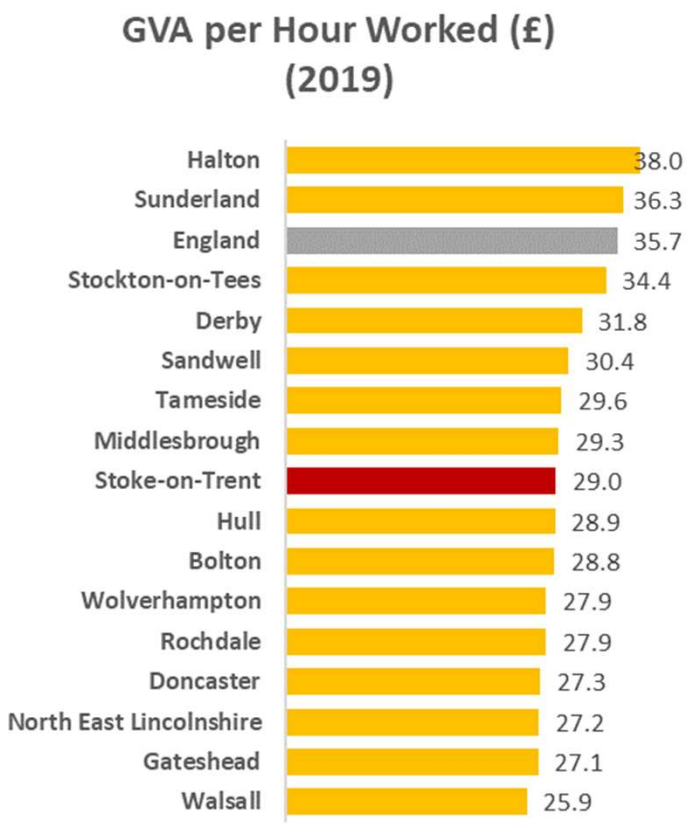






Staffordshire County Council

Priority Sectors / Skill Areas

Digital

Cross-cutting Importance of Digital Skills

- **New digital technologies such as automation and AI alongside making the most of big data** are now becoming increasingly prominent in all parts of the economy and society (connectivity), where even in the midst of the COVID-19 recession there are some 90,000 new digital job vacancies a week nationally.
- There is a **critical need to increase the digital capability of individuals** to take advantage of the growth opportunities that digital technologies present.
- The Government has recognised this urgent need to improve digital skills to drive growth and productivity in recently announcing **new digital bootcamps** to provide **flexible training for in-demand digital skills** (likely to extend to include other technical skills training such as construction and engineering).
- The bootcamps will cover everything from **cloud services, digital for advanced manufacturing and cyber security** to **coding, software development, data engineering, web design and infrastructure** with learners.
- Further to the agenda on essential digital skills, **a digital entitlement** was introduced in August 2020 so that **adults with no or low digital skills are fully funded to undertake improved digital skills qualifications**. The new statutory duty will ensure that adults aged 19+ in England, who do not have the essential digital skills required to operate effectively in work and day to day life, will be eligible for the qualifications based on new national standards.
- The Government has launched the UK'S first National Artificial Intelligence Strategy: a 10-year plan designed to harness the UK's considerable legacy, expertise and innovation, and strengthen our position as a global leader in AI.

Digital Catapult

- Digital Catapult is the UK authority on advanced digital technology and innovation
- Working with a range of organisations – including start-ups and scaleups, established businesses, investors, government and public sector, research and academia – to discover new ways of solving industry challenges, increase productivity and open up new markets.
- Offer a breadth of advanced digital technologies, with specialisation in key areas that are helping to drive innovative businesses forward such as:
  - AI and Machine Learning
  - Future networks (5G & IoT)
  - Distribution systems (Distributed ledger tech and blockchain)
  - Immersive (Haptics and virtual, augmented and mixed reality)
- Particular focus on manufacturing and creative industries
- The UK authority on advanced digital technology - Digital Catapult | Digital Catapult (digicatapult.org.uk)

WM Labour Market and Digital Skills & the Digital Divide

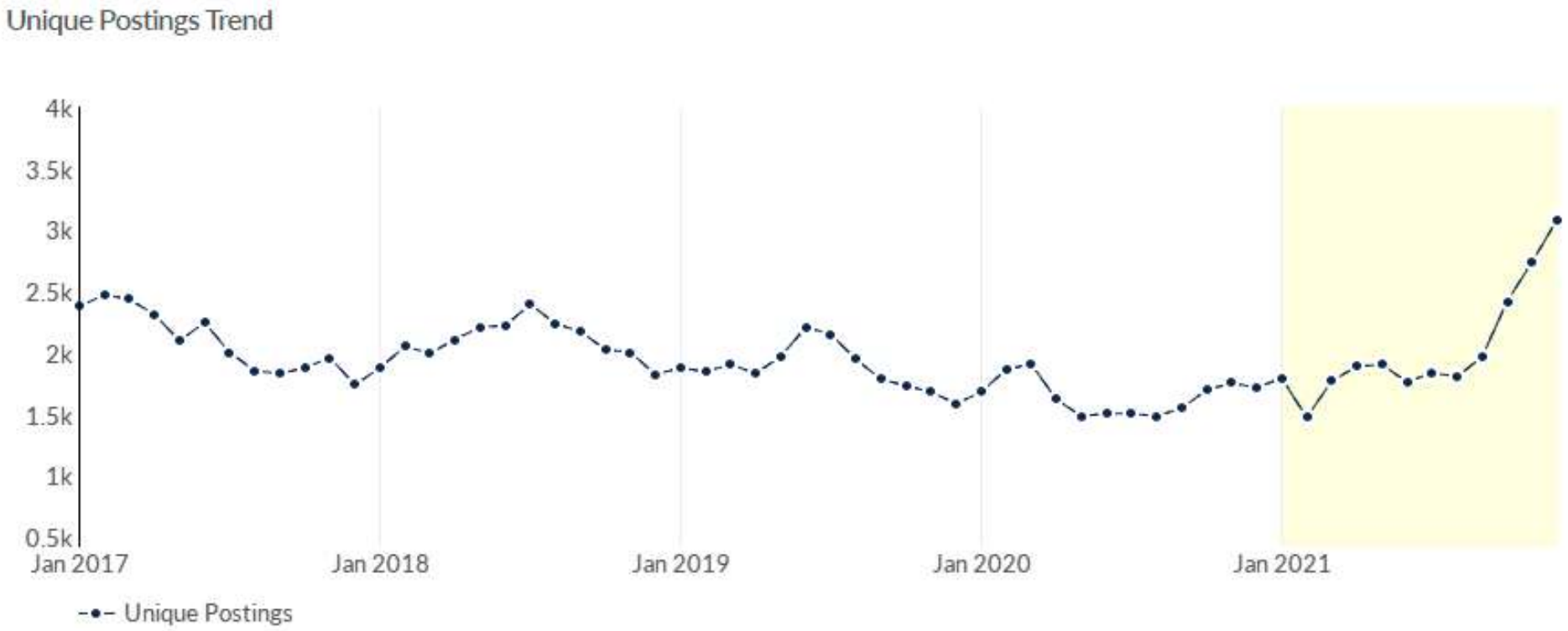
- The Midlands Engine have produced a Digital Deep Dive - PowerPoint Presentation (midlandsengine.org)
- Since the start of 2021 there have been 769,656 total job postings for digital roles of which 120,319 were unique. Job postings have increased by 82% since January.
- Reflecting the heightened demand for digital roles, advertised salaries are 6.8% higher than in March 2020 and 14.6% higher than the long-run average. The top 10 job titles identified account for just 14% of all digital job postings. This low concentration reflects the varied and cross-sectorial nature of digital jobs. Total demand is highest for 'Programmers and Software Development Professionals'.
- The digital divide is real and provides important disadvantages to people who are unable to access or use digital tools and services effectively.
- Both the East and West Midlands have the 3rd highest levels of people with very low digital engagement, at 30%, compared to the UK average of 29%.

Digital Skills in Stoke-on-Trent and Staffordshire

- Growing importance of digital skills across all sectors of economy with such skills now essential to majority of occupations
- Main benefits include improved overall efficiency and better marketing and sales
- Around a fifth of businesses report having digital skills gaps
- All sizes of businesses report digital skills gaps but it is larger businesses (250+ employees) which are most likely to have such issues
- The sectors most likely to have digital skills issues are:
  - Information and communication; Professional, scientific and technical activities; Administrative services
  - Commerce, transport, accommodation and food service
  - Construction
- With 1 in 5 businesses saying it was having a major impact on overall performance
- Only around 1 in 10 businesses have taken action to address digital skills gaps with on the job training being the main action followed by external training and changing working practices
- See SAP Digital Report for a detailed overview of digital

Started to see a rapid increase in digital job vacancies to aid the recovery from COVID

- Just under 9,200 digital job vacancies in SSLEP between Jan 2021 and Dec 2021 which is an increase compared to 6,500 a year earlier.
- The average advertised wage was £35.0K (SSLEP median £29.2K) between Jan 2021 and Dec 2021 compared to £37.1K a year earlier and £32.4K two years earlier.



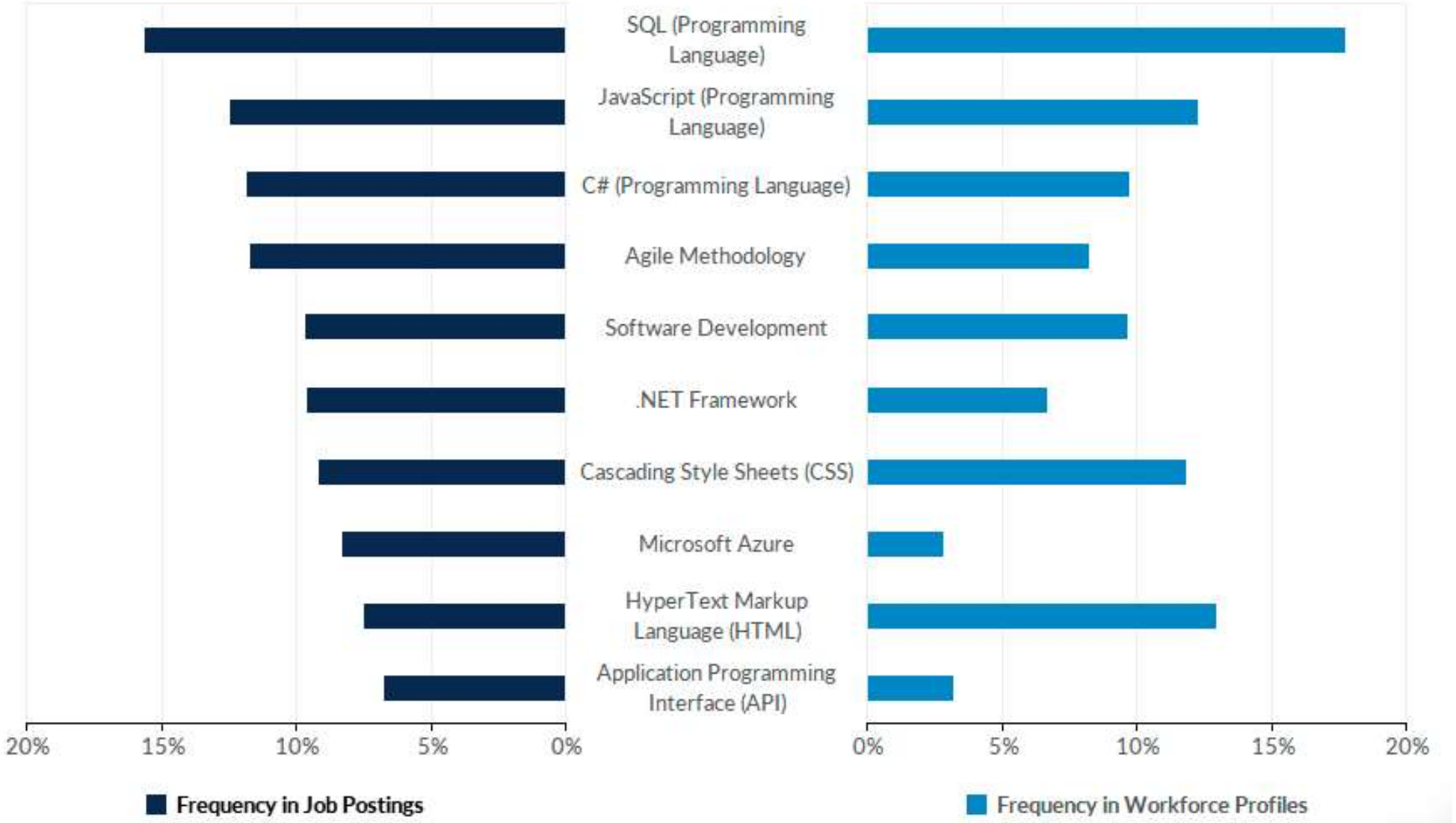
Digital – Occupations in Demand

- As well as seeing an overall increase in digital job vacancies they are also becoming more varied in nature with new occupations emerging.

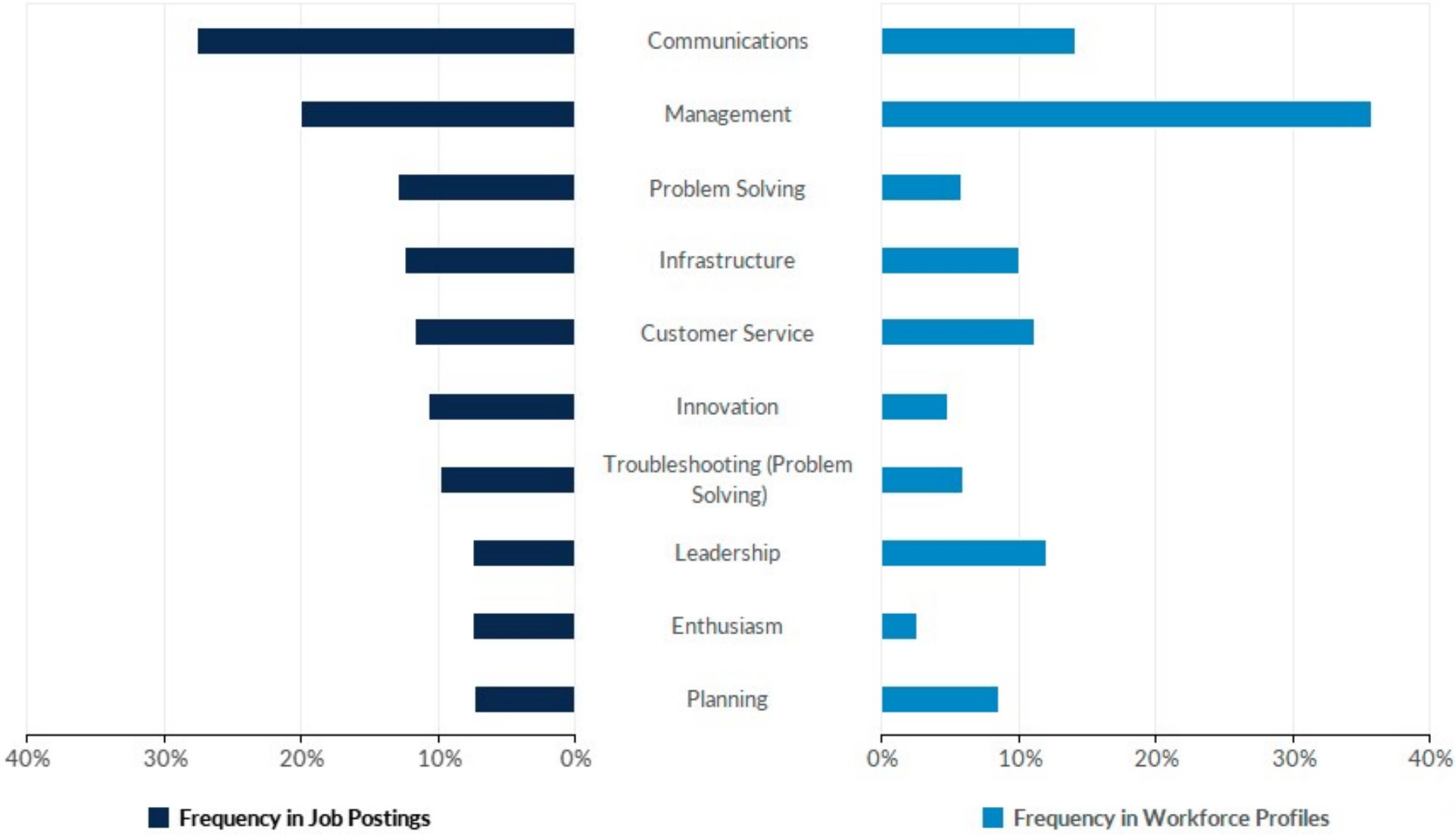
Top Posted Job Titles

Job Title	Total/Unique (Jan 2021 - Dec 2021)	Posting Intensity	Median Posting Duration
Software Developers	1,871 / 234	8 : 1	41 days
PHP Developers	1,247 / 168	7 : 1	37 days
.NET Developers	1,927 / 164	12 : 1	50 days
Software Engineers	1,155 / 162	7 : 1	32 days
Web Developers	657 / 119	6 : 1	35 days
IT Support Engineers	596 / 109	5 : 1	28 days
Administrators	422 / 91	5 : 1	33 days
DevOps Engineers	453 / 86	5 : 1	27 days
Full Stack Developers	581 / 81	7 : 1	35 days
Cybersecurity Technicians	644 / 76	8 : 1	10 days
IT Support Technicians	410 / 70	6 : 1	32 days
Network Engineers	390 / 66	6 : 1	22 days
Cybersecurity Managers	259 / 61	4 : 1	36 days
Help Desk Analysts	510 / 60	9 : 1	34 days
Service Desk Analysts	529 / 58	9 : 1	41 days
IT Support Analysts	452 / 58	8 : 1	30 days
Infrastructure Engineers	579 / 57	10 : 1	46 days
Cybersecurity Engineers	313 / 54	6 : 1	40 days
C# .NET Developers	355 / 52	7 : 1	47 days

Digital – Hard Skills in Demand



Digital – Common Skills in Demand



The Green Economy

Climate Change and Net Zero – Strategy & Plans

- The UK was the first major economy to pass a law requiring the greenhouse gas emissions in the **UK to be net zero by 2050.**
- The UK Government has published its Net-Zero Strategy in a bid to dramatically reduce greenhouse gas emissions and the Energy Security Strategy, both recognise the need to deliver the skilled workforce which will be needed for the future green economy.
- Most big UK businesses and financial institutions will be forced to show how they intend to hit climate change targets, under new Treasury rules. By 2023, they will have to set out detailed public plans for how they will move to a low-carbon future, in line with the UK's 2050 net-zero target.

UK Government Ten Point Plan for a Green Industrial Revolution

The UK government's 10-point action plan for the delivery of net zero:

- Point 1: Advancing offshore wind
- Point 2: Driving the growth of low carbon hydrogen
- Point 3: Delivering new and advanced nuclear power
- Point 4: Accelerating the shift to zero emission vehicles
- Point 5: Green public transport, cycling and walking
- Point 6: Jet zero and green ships
- Point 7: Greener buildings
- Point 8: Investing in carbon capture, usage and storage
- Point 9: Protecting our natural environment
- Point 10: Green finance and innovation

- At a pan-regional level the Midlands Engine - Ten Point Plan for Green Growth outlines the vision for green recovery and growth across the Midlands.

Staffordshire Focus on Climate Change

- The **County Council and partners** recognise the importance of climate change and its impact on the residents and business of Staffordshire.
- In July 2019 we declared a **climate change emergency** to achieve net zero emissions by 2050 across every aspect of our service provision and estate.
- The **County's strategic plan highlights climate change as one of its key principles -** pledging to 'think climate change in all we do to limit our impact on the environment'.
- In the first year since declaring a climate change emergency, the County has **reduced its carbon emissions by 25%.**
- COP2263 Climate Change Strategic Development Framework (staffordshire.gov.uk)
- Climate Change Action Plan (staffordshire.gov.uk)
- Most local authorities in Staffordshire provide **help for householders to repair, improve or adapt their living accommodation**. Thermal insulation is one of the measures covered.

Green Growth Opportunities

New opportunities for low carbon growth in Staffordshire

- Research performed by the West Midlands Growth Company has shown that despite the impact of Covid, that **low-carbon manufacturing is now the West Midlands' fastest-growing sector**; the sector grew by more than 7% in 2020 despite a 9% decline in the wider West Midlands economy as a result of the Covid pandemic.
- This positive news **signposts a direction and signals a nationally leading position**, which creates a **platform to build new sectors which could be pivotal for the growth of the regional economy.**
- Staffordshire plays a key part in the wider low carbon sector and there are **two obvious markets where the County is optimally placed:**
  - **low-carbon heating - greener buildings (retro-fitting)**
  - **low-carbon transport – EV vehicles (and hydrogen)**

1) Low-carbon Heating and Retrofitting Homes

- In the present mix of energy utilisation in the UK, **heating accounts for 40% of the energy consumption and about one-third of the carbon emissions.**
- To date, in contrast to electricity, **very little progress has been made in the decarbonization of how homes are heated and how heat is generated in industrial applications**.
- The **UK generates most of its heat utilising natural gas** and sits at the high end of the spectrum in terms of carbon intensity.
- The reason so little progress has been made in the UK is that **it is extremely challenging to make progress**.
- **Unlike the greening of the electricity grid, where the appliances in the home are immune to changes in the source of generation and the switch from coal to wind can be done without any need for the customer to change behaviour, heat will need a change in 25+ million homes.**

Heat Pumps Installation

- There are **three accepted ways of delivering low-carbon heating**.
- The approach that the UK government has most enthusiastically supported is **heat pumps** which use electricity to extract heat from the external environment, air, or ground and pump it into the building.
- The **UK government's 10-point action plan for the delivery of net zero sets out an ambition to install 600,000 heat pumps a year by 2028.**
- The challenge with a heat pump solution is that it is **expensive compared to a gas boiler**, by a factor of 10 to 20, and is **not a direct one-for-one replacement.**
- The **intensity of heat a heat pump can generate is less than that of a gas boiler** and hence there is a **need for hand-in-hand improvements to the thermal efficiency of the home**.
- The cost and level of disruption are therefore high. Alternatives to this approach are either the **use of hydrogen or district heating**.

National Centre for the Decarbonisation of Heat

- In the Midlands there is a proposal for a National Centre for Decarbonisation of Heat (NCDH), working between local government, academic institutions, innovation Catapults, and industry to coordinate the delivery.
- The NCDH would work on a whole series of activities including driving down the cost of delivering heat.
- As a benchmark of heating installation, the cost of heat pump installation for heat pump and thermal retrofit is £20k per house and 25million homes, so of the order of £500b.
- An innovation program that took just 10% off the installation costs would save £50b, which is staggering and could be redeployed elsewhere in the energy system, or even in healthcare.
- The Midlands has the assets to lead the decarbonization of heat being home to several major companies such as Worcester-Bosch, Baxi, E.on, Engie, and Cadent, state-of-the-art manufacturing expertise through the Manufacturing Technology Centre, the Energy Systems Catapult, and a powerful network of Midlands universities.

2) Electric Vehicles

- Following recent **government announcements on the end of the sale of new petrol and diesel cars and vans from 2030**.
- Almost half of all car buyers in the UK are now looking to purchase a fully electric vehicle, marking a **"tipping point" in the electric car revolution**, research from accountancy firm EY reveals. A total of 49 per cent of drivers looking to buy a car would now choose an electric vehicle, up by 21 per cent compared to just two years ago.
- There is an **opportunity for Staffordshire and the wider Midlands to continue to take a leading role in the introduction of electric vehicles** in the UK and internationally by continuing to innovate, supporting the industry with transitioning to manufacturing for electric vehicles and implementing infrastructure to allow both pilot activity and full-scale deployment of technologies.
- The announcement by **Jaguar Land Rover** that it will develop 6 new electric vehicles in the next 5 years and that all vehicles will be available as all-electric variants by 2030, sets the pace for the region.
- Given Staffordshire's central location with great connectivity there is also the **opportunity for electric motors and battery production through giga factory inward investment**.

Electric vehicles uptake is a central part of future sustainable transport

Super-charging the Midlands in numbers

In 2019, petrol and diesel emissions from road transport made up the vast majority of transport emissions (95%) in the Midlands region, particularly cars (59%).

(As of the end of 2020, 0.74% of registered vehicles in the Midlands Connect region were EVs)

Predicted number of registered EVs in the Midlands (mid-range scenario)

44,909 (0.7%)	418,197 (6.8%)	1,769,855 (28.4%)
2020 (Actual)	2025	2030

2020
>1 in 100 registered vehicles is electric

2030
>1 in 4 registered vehicles could be electric

Over **4x** as many EVs per person in Solihull than anywhere else in the Midlands

On average, there is currently 1 publicly-available electric vehicle charging point per 19 electric vehicles in the Midlands, reflecting the national average of 1 charge point per 20 electric vehicles

To meet the charging requirements of a growing fleet, we must install an average of:

10.8
new charging points every day

75.8
charging points every week

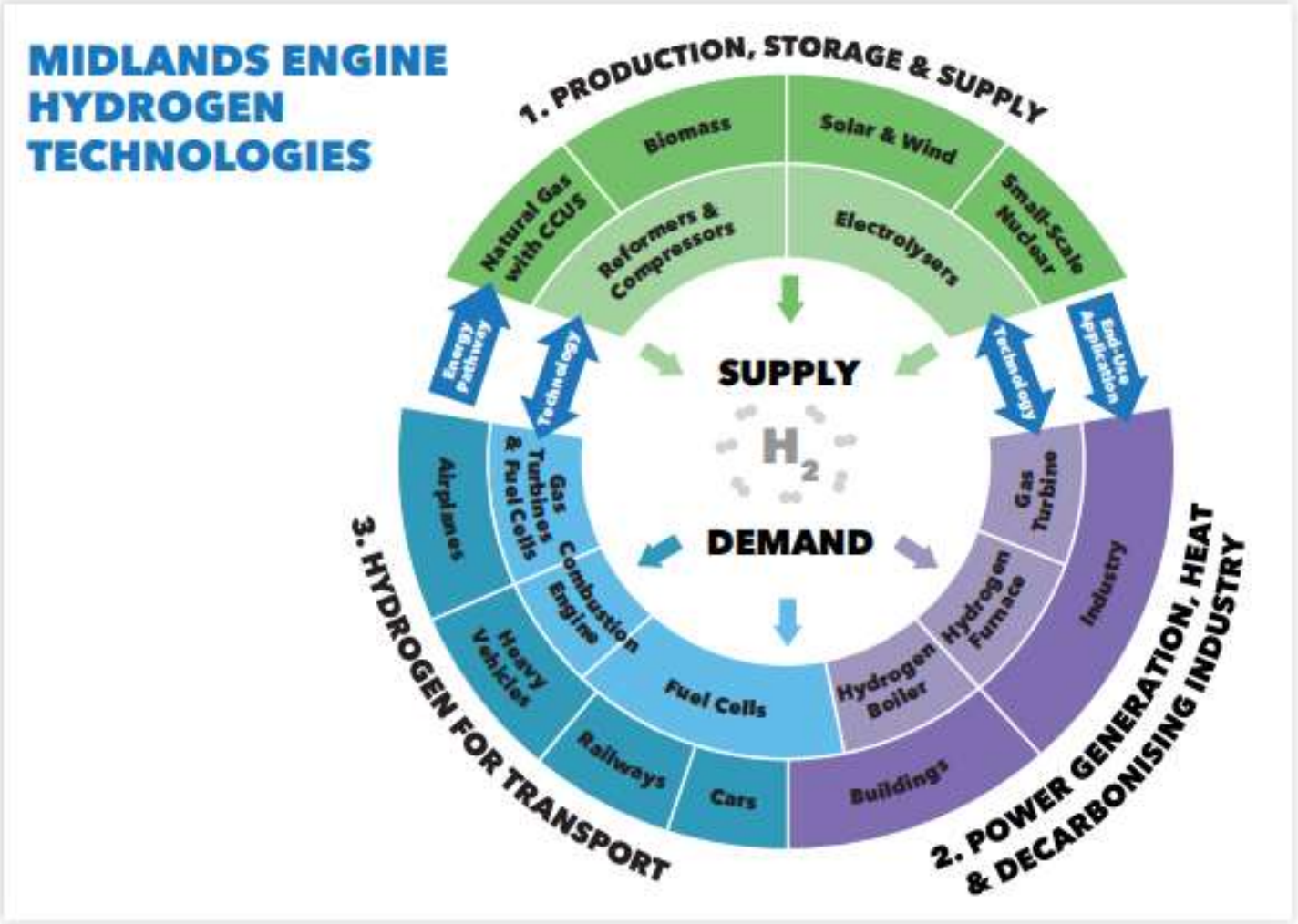
or **3,941**
charging points each year, from 2021-2030

That means installing 6x as many charging points as we do now

Households without access to on-street parking are 3x less likely to have an EV

93% of EV owners currently have access to off-street parking; however, 32% of households across the Midlands Connect region are reliant on on-street parking

3) Midlands Engine Green Growth – Hydrogen Technologies Strategy

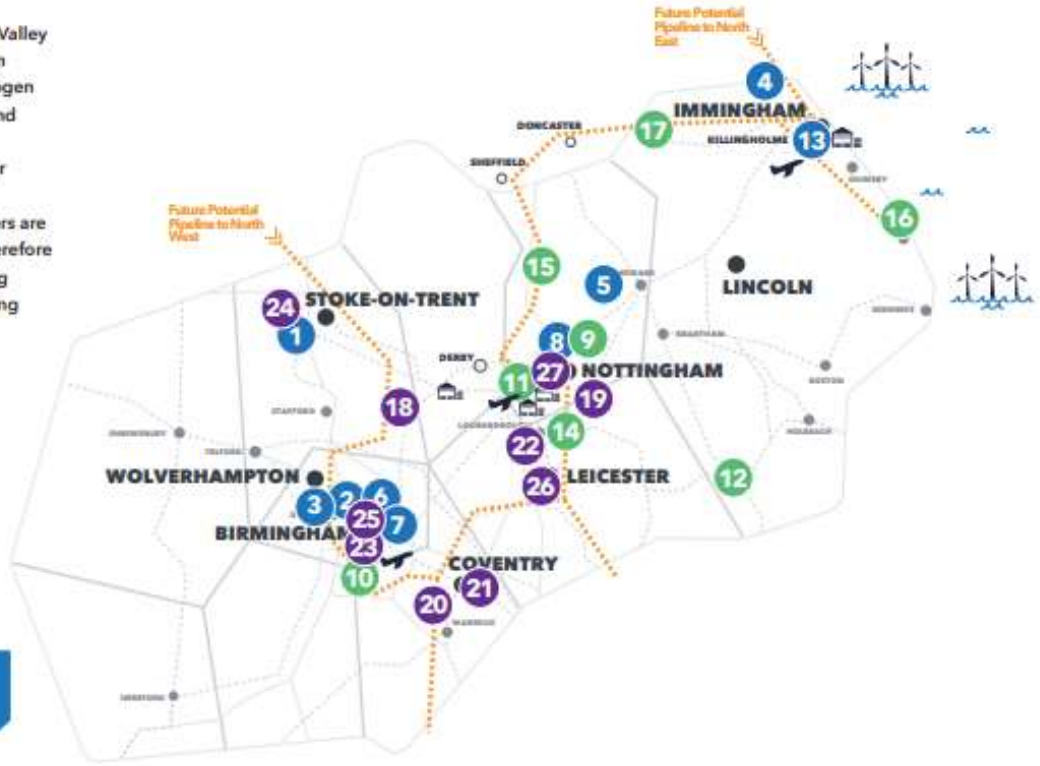


In Staffordshire:

- **Keele Univeristy** is a leader in Energy Research
- **JCB** have already started to develop hydrogen heavy vehicles
- **A50-A500 corridor** is recognised as a potential key hydrogen asset with a number of leading industrial partners in transport, heating and manufacturing technologies

The Midlands Engine Hydrogen Technologies Valley

The Midlands Engine Hydrogen Technologies Valley is an ecosystem that links hydrogen production with end users - based on industrialising hydrogen technologies at scale, enabled via academic and supply chain development support. This map showcases a snapshot of our partners and their projects across our region - local clusters that combine to create a regional capability. Partners are moving rapidly to act on opportunities and therefore this map can only show some of the pioneering and high-potential work that is continually being activated in our region.



Our region is rightly recognised for our advanced engineering expertise and track record of manufacturing excellence. We have the capabilities and strategic intent to develop and industrialise a broad range of hydrogen technologies for power generation, heat and transport applications, as well as extending hydrogen operations across our entire region.

Our Midlands Engine Hydrogen Technologies Valley vision maps the roll out of facilities, demonstration assets and infrastructure along with a supporting innovation ecosystem.

Our partners have identified a host of opportunities to invest in projects that transition our region to a hydrogen-enabled green growth economy. These projects leverage our industrial clusters and transport corridors, as well as the green growth opportunities linked to ongoing investments in clean energy assets.

This willingness to invest is illustrated by a snapshot of example projects in the timeline shown below. The pace of development is rapid with a wide range of opportunities being pursued across power generation, heat and transport.

PURSUING OPPORTUNITIES IN POWER, HEAT & TRANSPORT

2019

1. HYDEPLOY - *Keele*

2020

2. HYDROFLEX HYDROGEN TRAIN - *Birmingham*
3. NET ZERO INDUSTRIAL CLUSTER REPOWERING THE BLACK COUNTRY
4. HUMBER INDUSTRIAL CLUSTER PLAN
5. BILSTHORPE HYDROGEN ENERGY PROJECT - *Nottinghamshire*

2021

6. TYSELEY ENERGY PARK HRS & ELECTROLYSER - *Birmingham (Production)*
7. HYDROGEN BUSES - *Birmingham*
8. H2GVMIDS - *Midlands*

2022

9. EAST MIDLANDS HYDROGEN INNOVATION ZONE - *University of Nottingham*
10. NATIONAL CENTRE FOR DECARBONISATION OF HEAT - *Tyseley Energy Park*
11. • EAST MIDLANDS AIRPORT: GROUND TRANSPORT, EQUIPMENT & AVIATION
    • LIGHT & HEAVY RAIL FREIGHT

2023

12. REGIONAL LOGISTICS DEMONSTRATOR & REFUELLING NETWORK ROLLOUT - *Midlands (End-use, HGVs)*

2027

13. ZERO CARBON HUMBER & HUMBER ZERO - *Immingham, (Production, transport & storage, end-use industry)*
14. LOCAL H2 PIPELINE NETWORK GROWTH *(Industry and transport use)*

2030+

Green hydrogen production ramps up in Trent Valley and Humber Industrial Cluster

15. GAS PIPELINE CONNECTS NOTTINGHAM & SHEFFIELD
16. THEDDLETHORPE POWER STATION
17. KEADBY HYDROGEN POWER STATION *(Potentially one of the UK's first power stations running on 100% blue hydrogen)*

HYDROGEN FACILITIES & RESEARCH

18. ALREWAS GAS COMPRESSOR
19. BRITISH GEOLOGICAL SURVEY
20. WARWICK MANUFACTURING GROUP
21. MANUFACTURING TECHNOLOGY CENTRE
22. LOUGHBOROUGH UNIVERSITY
23. CENTRE FOR FUEL CELL & HYDROGEN RESEARCH - UNIVERSITY OF BIRMINGHAM
24. KEELE UNIVERSITY
25. ASTON UNIVERSITY
26. UNIVERSITY OF LEICESTER
27. UNIVERSITY OF NOTTINGHAM

TEN POINT PLAN FOR GREEN GROWTH IN THE MIDLANDS ENGINE

Point five of our Ten Point Plan for Green Growth sets out our partnership ambitions and consensus around low carbon hydrogen, with a key action to develop this Hydrogen Technologies Strategy.

LOW CARBON HYDROGEN

Pioneer, commercialise and deliver hydrogen solutions

Thanks to exceptional business, industry and academic innovation, the Midlands is already pioneering next generation, cost-effective hydrogen technologies, with powerful potential to scale up. A pan regional hydrogen task force will ensure that the Midlands Engine capitalises on the opportunities presented by hydrogen, playing a national leadership role in decarbonising transport, logistics and heating, creating jobs and accelerating net zero UK.

AIMS

- ***Reduce greenhouse gas emissions***
- ***Capitalise on regional, world-leading hydrogen expertise***
- ***Reduce energy costs and imports***
- ***Improve energy security***
- ***Create high-value jobs***
- ***Increase public and private investment oppotunities***
- ***Strengthen regional leadership in transport, logistics and heating sectors***

PIONEER, COMMERCIALISE AND DELIVER HYDROGEN TECHNOLOGIES

Together, we will identify and advance opportunities for pioneering, commercialising and delivering hydrogen technologies in three key areas, as outlined in the rest of this strategy and as identified in the UK government Hydrogen Strategy.

1. PRODUCTION, STORAGE AND SUPPLY

There is a fundamental need to develop domestic hydrogen production rather than relying on imports, based on both green hydrogen (generated from renewable electricity) and blue hydrogen (derived from steam methane reforming of natural gas in combination with carbon capture, usage and storage).

Initiatives supporting the development of low carbon hydrogen production include the launch of a £240 million Net Zero Hydrogen Fund in 2022[7] for co-investment in early hydrogen production projects. In addition, a consultation on a Hydrogen Business Model[8] will provide longer-term revenue support to hydrogen producers to overcome the cost gap between low carbon hydrogen and higher carbon alternatives.

2. POWER GENERATION, HEAT AND DECARBONISING INDUSTRY

Decarbonisation of industrial processes is anticipated to be a lead sector for hydrogen demonstration projects. Consequently, hydrogen industrial decarbonisation initiatives already underway, such as the £315 million Industrial Energy Transformation Fund[9], will be joined by a new £55 million Industrial Fuel Switching competition[10] to develop and demonstrate innovative solutions for industry to switch to low carbon fuels such as hydrogen.

The potential for hydrogen to decarbonise heat for domestic homes is also recognised and a timetable for safety testing and policy review has been proposed by government.

3. HYDROGEN FOR TRANSPORT

Hydrogen is viewed as the most viable decarbonisation option for heavy duty transport in cases where battery electric operation is not practical. Competitions to investigate and compare hydrogen and other low carbon options in buses, HGVs and shipping are underway. The government Hydrogen Strategy notes that hydrogen could play a role in rail where electrification is not cost-effective and, in the longer term, in decarbonising aviation[11].

[7] Department for Business, Energy & Industrial Strategy, 'Designing the Net Zero Hydrogen Fund - Consultation', [online]. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1011468/Designing_the_Net_Zero_Hydrogen_Fund.pdf [Accessed: September 2021]

[8] Department for Business, Energy & Industrial Strategy, 'Low Carbon Hydrogen Business Model: consultation on a business model for low carbon hydrogen', [online]. Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1011469/Consultation_on_a_business_model_for_low_carbon_hydrogen.pdf [Accessed: September 2021]

[9] Department for Business, Energy & Industrial Strategy, 'Industrial Energy Transformation Fund', [online]. Available at https://www.gov.uk/government/collections/industrial-energy-transformation-fund [Accessed September 2021]

[10] Department for Business, Energy & Industrial Strategy, 'Apply for the Industrial Fuel Switching competition', [online]. Available at https://www.gov.uk/government/publications/industrial-fuel-switching-competition [Accessed: September 2021]

[11] 'UK Hydrogen Strategy', pg. 44

The new hydrogen economy - HyDEX

- **'HyDEX'** puts the Midlands at the forefront of hydrogen innovation
- It brings together seven university partners, with Keele project lead, in the **Energy Research Accelerator (ERA)**, with multinational businesses, SMEs and other partners, in order to **accelerate innovation in hydrogen, build markets and the supply chain, and support the skills needed for the new hydrogen economy.**
- The aim of HyDEX is to address the challenge of building a thriving **new business, industrial and manufacturing sector in hydrogen.**
- The programme will allow businesses to accelerate the development and viability of **new hydrogen products** and associated intellectual property while **supporting the transition from declining industrial sectors and enabling the training and re-skilling** required.
- Supported by the expertise of leading industrial partners in **transport, heating and manufacturing technologies**, who are also involved in HyDEX, these include Worcester-Bosch, Baxi and Cadent (**hydrogen boilers and gas networks**); Intelligent Energy (**fuel cells**); Porterbrook (**hydrogen trains**); Toyota (**hydrogen vehicles**); Caterpillar, Faun Zoeller and JCB (**heavy vehicles**); DVNGL, BSI, Cenex, ENGIE (**Hydrogen Networks**); Progressive Energy, ITM Power and ITM Motive (**hydrogen generation and transport**); Siemens and ENGIE (**hydrogen production and storage**).
- In Staffordshire the **A50-A500 corridor** is recognised as potential key hydrogen asset.

Growth in HGVs

- Since the mid-1990s, the **most significant growth in types of heavy goods vehicles, HGVs, has been in articulated HGVs over 41 tonnes gross vehicle weight**, which was initially allowed on British roads in the early 1990s but only when moving containers to/from rail terminals but were then permitted for all freight traffic from the early 2000s. By 2018 around 115,000 HGVs over 41 tonnes were registered in Great Britain. The Midlands has 30% of the lorry freight in the UK. HGV emissions make up 21% of road-based transport emissions in the Midlands compared with the national average of 17%.
- These HGVs have been the **supply chain backbone, supporting just about every element of how we live our lives**. They transport goods across and into the country, from food to construction materials. It is hard to appreciate the scale of the haulage sector until moments when it grinds to a halt and supplies run scarce and trucks back up at ports for tens of kilometres. They are the lifeline for the UK's economy.
- **Yet, on the other hand, they are heavy, diesel consuming, transport whose impact on CO2 emissions is significant and to achieve net-zero need to be transformed**.

Decarbonising HGVs

- There is a **clear need to decarbonise this extreme end of the HGV spectrum**. Here **fuel cell and hydrogen (FCH) technology is a very promising zero-emission powertrain solution** for the heavy-duty trucking industry.
- It is widely accepted that electric vehicle solutions cannot work at this end of the spectrum as the weight of the battery packs required to power the vehicle's electric engine becomes so heavy that the economics cease to stack up.
- Although there are no 41-tonne hydrogen trucks presently on the UK roads, we are on the verge of seeing this happen.
- There are **a number of international truck manufacturers who have prototype vehicles and there are companies such as Hyundai who have established a small-scale trial of hydrogen-powered trucks in Switzerland**. There is a need for the UK to get on board.
- The UK government has recently run a competition for catalysing regional development of schemes to transition the HGV from diesel.
- The **Midlands has the ambition to establish a hydrogen freight and logistics route which extends from the West Midlands past the East Midlands Airport and through to the South Humber. In the first instance, this could see hundreds of hydrogen trucks on the roads and a national demonstrator.**
- The aim is also to create the right economic environment for hydrogen truck manufacturers to locate in the region. A hydrogen vehicle manufacturing sector would take advantage of the rich automotive heritage of the West Midlands.

Green Jobs and Skills

‘Greenification’ of jobs and new green skills

- **The Green Economy like digital is not a sector it is about the greenification of existing and new jobs across all sectors** similar to the digitisation of roles which we have seen over a number of years now.
- It is about **businesses making the transition to being more green to help achieve climate change targets -** vast changes already happening and will accelerate.
- The Government’s skills agenda has a clear focus on the Green Economy and the vital role it can play in **supporting recovery from COVID**.
- Green innovation will lead to **new green jobs with significant growth expected:**
  - UK government launches new Green Jobs Taskforce to support the creation of 2 million skilled jobs to build back greener and reach net zero emissions by 2050.
  - The Green Jobs Delivery Group has been established to support the delivery of up to 480,000 skilled green jobs by 2030.
  - In 2018 there were 185,000 full-time workers in England’s low-carbon and renewable energy economy. In 2030 across England there could be as many as 694,000 direct jobs employed in the low-carbon and renewable energy economy, rising to over 1.18 million by 2050.
  - Creation of half a million jobs in retrofitting home insulation in existing properties.
  - Green Homes Grant to improve the energy efficiency of buildings supporting 100,000 jobs in green construction for local plumbers, builders and tradespeople across the UK.
- These jobs have the requirement for **new high level green skills** (i.e. energy skills challenges) – **retraining and upskilling existing low and mid-skilled workers alongside recruiting highly skilled workers to fill high skilled jobs.**
- The **‘Plan for Jobs’** recognises the importance of **apprenticeships, traineeships, T levels and The Kickstart Scheme** in helping people obtain the skills needed to fill the jobs required to build a more resilient and green economy.

Green Jobs Taskforce initial findings in identifying skills needs in key green sectors

In November 2020, BEIS and DfE launched the Green Jobs Taskforce - chaired by BEIS and DfE Ministers and made up of experts from industry, academia, the skills sector, and unions. Its report was published in July 2021, setting out evidence on skills gaps in green sectors, together with independent recommendations for government and industry.

Announced: November 2020
Concluded: July 2021

TASKFORCE'S CALL FOR ACTION

1. **Unlock industry investment in good quality green jobs and skills;**
2. **Promote diversity within emerging low carbon sector and ensure pathways exist for people of all ages to go into green careers; and,**
3. **To ensure a just transition for workers in high carbon sectors.**

Key sector findings:

Offshore Wind

According to industry estimates, **by 2026, the offshore wind sector could employ around 70,000 workers** (40,000 direct jobs and 30,000 jobs in the supply chain). This compares to around 26,000 presently (15,000 direct jobs and 11,000 jobs in the supply chain).

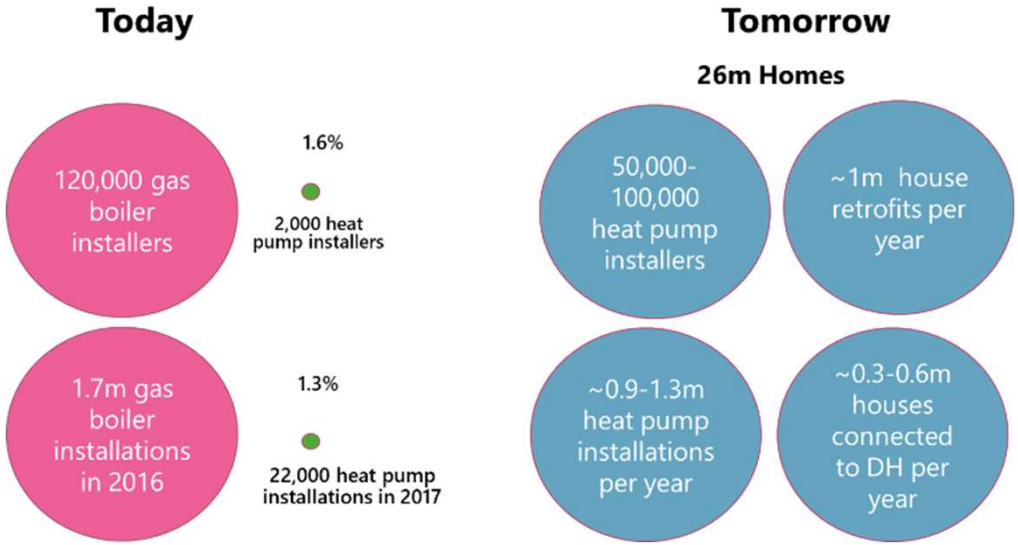
Automotive

It is estimated that the **UK could produce around 1.6 million electric vehicles (EVs) per year by 2040** and establish seven gigafactories in national territory. These gigafactories could **create up to 78,000 new jobs** (both direct and in the supply chain), with **24,500 in battery manufacturing**, **43,500** in the **battery supply chain**, and around **10,000 in EV manufacturing**.

Buildings

According to the Construction Industry Training Board (CITB), improving the building fabric energy efficiency of **every building in the country in need of retrofit will require 12,000 workers to be trained every year for about the next four years**, before the need to **ramp up annual recruitment by up to 30,000 workers between years 2025 and 2030**. This implies an **increased trained workforce of up to 230,000 by the end of the decade**.

Increasing The Quantity Of Tradespeople With Decarbonisation Skills



Above: Industry cannot attract enough candidates for current vacancies yet needs to ramp up activity considerably in future.

Need both retraining and upskilling the current workforce, as well as identifying training programmes and accreditations for a new generation of tradespeople.

- Energy White Paper: "we will use the switch to clean energy to support up to 50,000 jobs across the UK by 2030,"
- CCC 6th CB: the UK must "create over 200,000 jobs in home renovation and heating […] over the next three decades.
- Construction Industry Training Board (CITB): industry will require the equivalent of 350,000 new roles to be created by 2028
- (+ non domestic roles) in energy generation, transmission, manufacturing of equipment, industrial decarbonisation…

Based on a five-day working week of forty hours per week, we will need to decarbonise around **eight homes every minute for the next 29 years**

There remains some debate across the sector as to the exact figures required to meet the challenge of building decarbonisation, but there is industry-wide agreement that more must be done to ramp up the skills agenda

Uncertainty = stalled investment, hampers growth, levelling up etc.

Recognised that local stakeholders will be key in helping deliver a green economy, boosting support for green skills and jobs

Local area input and evidence used to inform work of the Taskforce:

- Economic Recovery Working Group (ERWG) task and finish group proposals
- Engagement with MCAs and LEPs and external stakeholders (e.g., Tees Valley LEP, Liverpool MCA, DAs, and local businesses and skill providers)

Reports used (not exhaustive):

- ***Going green - preparing UK workforce for transition to net zero (Nesta, 2020)*: A thorough examination of the scale of the challenge in the UK regarding employment and adult learning, and offers guidance about the actions needed to achieve an efficient, inclusive and fair transition to a net-zero economy. Regions in industrial transition, including Northern Ireland, the East Midlands and West Midlands – where about 50% of jobs are in high emissions sectors.
- ***Local green jobs - accelerating a sustainable economic recovery (Local Government Association, 2020):*** Articulation of key skill gaps by sector to reduce carbon output.
- ***Green Job Vacancies in the Liverpool City Region (Warwick Institute for Employment Research, 2021):*** Defines green jobs and outlines methodology for identifying green jobs using jobs vacancies. Presents findings on green jobs vacancies including their extent, wages, hiring requirements by Warwick Institute for Employment Research.
- **Humber Strategic Economic Plan 2014-2020 (Humber LEP, 2014):** A plan for growth in the Humber to form the basis of a Growth Deal with Government. It will be a determinant of the Humber's allocation of the Local Growth Fund and the Skills Advisory Panel Report on the analysis and mapping of skills demand and supply.
- ***A just transition: Realising the opportunities of decarbonisation in the north of England* (IPPR, 2020):** Sets out what a just transition is, potential benefits, skills gap in energy sector. This report discussed these challenges to delivering a just transition in detail and make the case for a new approach that puts economic and social justice at the heart of energy and skills policy in the North.
- ***Skills for the Low-Carbon Economy: Building low-carbon skills capacity and capability in London (Think Up, 2010):*** Findings and recommendations from a workshop commissioned facilitated by Think Up which recommended to the Low Carbon Skills forum that it supports a collaborative partnership to deliver low carbon skills capacity to London.

Initial actions announced alongside the Taskforce report

Green apprenticeships: Existing green apprenticeships already up and running e.g., Nuclear Desk Engineers, Wind Turbine Maintenance and Operations Engineering Technicians, Research Scientists and Environmental Practitioners - endorsed by the **Green Apprenticeships Advisory Panel (GAAP).** The **GAAP** is working with employers across England to enhance the current apprenticeships on offer and create new opportunities to adapt to the growing green economy.

Green Skills Bootcamps: Expansion of Skills Bootcamps (Wave 2) to other areas of the country, which deliver free, flexible training courses of up to 16 weeks for adults so they can develop in-demand skills and fast-track to an interview with a local employer. This will include offering technical training in **green home retrofit management**, **solar energy installation**, **sustainable agriculture**, **nuclear energy deployment**, and **green transport**.

Electrification skills boost: **The Emerging Skills Electrification Project**, which aims to encourage the adoption of cutting-edge skills in **electrification technologies**, such as **battery-powered motors** and drives, electric vehicle systems and software, battery maintenance, and recycling. The project will fund the development of short courses, **teacher training** support and free to access 'up-skilling' days for adults in the latest electrification technologies.

Free Courses for Jobs (free Level 3 qualifications): Fully funded offer for any adult without an existing Level 3 qualification - equivalent to A levels. The offer includes qualifications in sectors such as **Agriculture**, **Building and Construction**, **Engineering**, **Horticulture** and **Forestry** and **Science**.

Recognised that evidence for some sectors remains patchy and skills shortages have not yet been clearly articulated at a granular level

Level	Description
Level 1 (best)	Academic report from trusted source or HMG report, with industry input, which robustly models the skills gap in this sector using the proposed CB6 pathways (where known).
Level 2	Industry report being reviewed currently by HMG which fulfils majority of priority areas of interest (skills gaps to 2030).
Level 3	Industry report not being tested by HMG or academia / which does not fulfil priority areas of interest (skills gaps to 2030).
Level 4	Ad hoc and anecdotal evidence.
Level 5	Not aware of any evidence or research in this space. Not aware of any industry or sector team planned research.

The transition to net zero will affect all regions across the UK

- 19% of jobs in London are projected to be affected, compared to 23% in the east midlands.
- Many relevant roles (e.g. in retrofit and rail) **are in sectors which are not region-specific** and will be needed across the UK.
- Although some green sectors are relevant to particular local economies – such as offshore wind in the north east and automotive in the Midlands

Sector	Assessment of evidence gaps
Power: Offshore Wind	Level 2: OWIC report - gives current and forecasted size of workforce **to 2026** including breakdown by job group and skill level, but no assessment of level of shortage. Outlines current regional job breakdown by gender, job group and skill level. Forecasts this **to 2026.**
Power: Nuclear	Level 2: Biennial NWA report (latest release in 2019) - estimates size of workforce (FTE) at 5 year intervals **2020-2035.** Split by existing operations and two new build scenarios (differing capacity assumptions). Breakdown by demand and supply (existing workforce).
Power: Electricity Networks	Level 4: Limited evidence
Power: Smart Systems	Level 4: Limited evidence
Buildings: Heat pumps	Level 2: Heat Pump Association, CITB Reports. Internal analysis available too.
Buildings: Retrofit (Building Fabric)	Level 2: CITB report - estimates additional FTE requirements per annum (2021-2050) including by job role, qualification level and skills requirement.
Buildings: Heat Networks	Level 4: Limited Evidence
Automotive	Level 3: Faraday Institution - Outlines sense of scale. Number needed to reskill in manufacturing by **2025** and number needed in battery cell manufacturing by **2030,** number of technicians that are currently EV qualified.
Public transport: Rail	Level 3: NSAR report - estimates size of current workforce (2021) and number of additional workers needed in over next 5-10 year period. Mentions current unfilled vacancies (gives sense of current supply).
Industry: Hydrogen	Level 4: Limited evidence
Industry: CCUS	Level 4: Limited evidence
Circular Economy	Level 5: No evidence.
Forestry	Evidence under assessment

Next steps

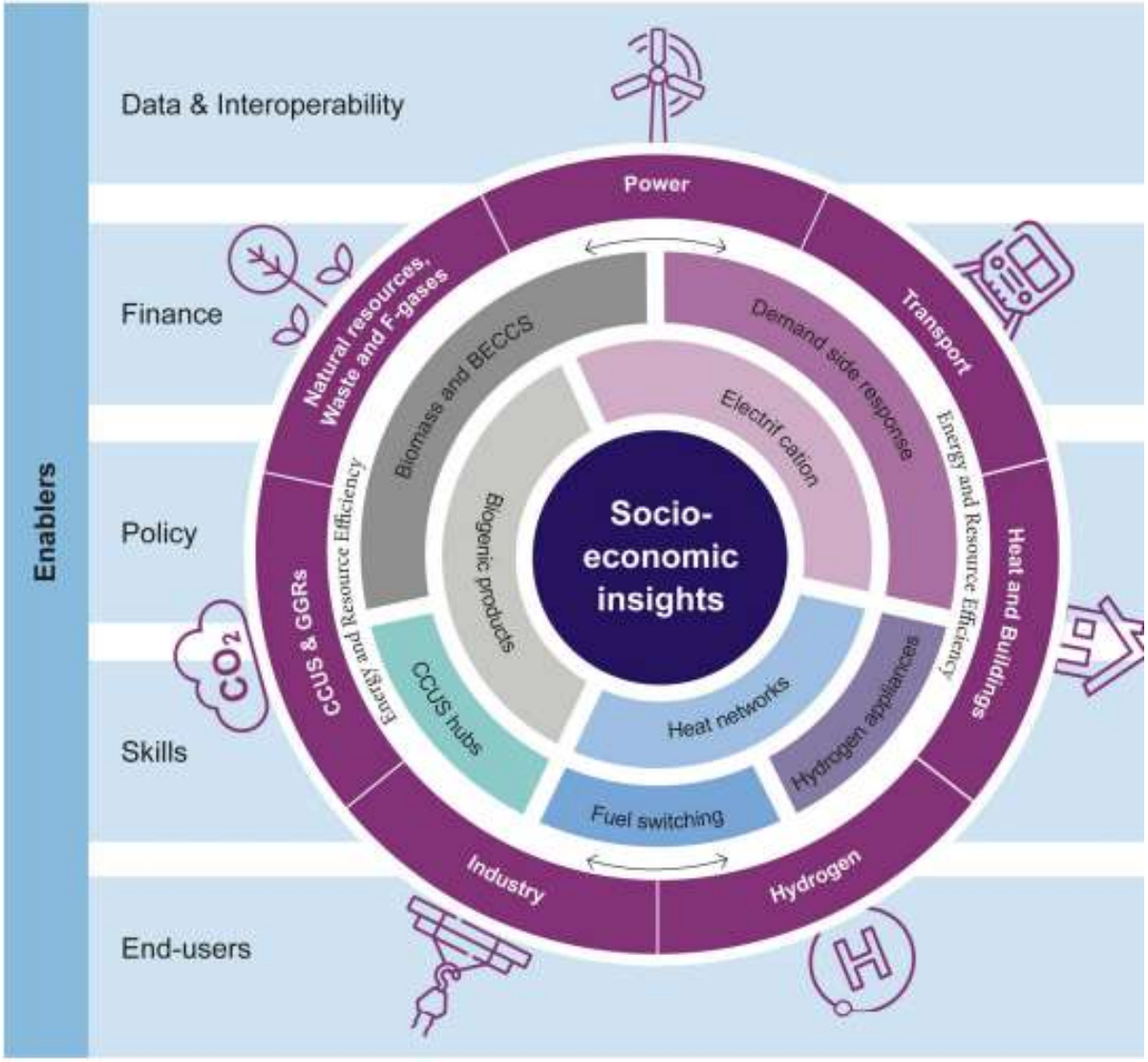
- October: The Net Zero Strategy will represent an initial response to the Taskforce recommendations
- Ongoing: Work to address sectoral evidence gaps
- From December: BEIS research project on job transition pathways and future skills needs in sectors undergoing structural change
- Skills Accelerator pilots announced

Net Zero Research and Innovation Framework

- The UK has an opportunity to be a leader in certain low carbon technologies, services and systems that will be needed globally, with the Government's plan to Build Back Better focussing on the three pillars of infrastructure, skills and innovation.
- The Government's Net Zero Research and Innovation Framework outlines the research and innovation required to support delivery of the UK's Net Zero Strategy. A wide-ranging portfolio will be needed and this Framework details research and innovation challenges across the Carbon Budget and related sectors:
    - **Power**
    - **Industry and low-carbon hydrogen supply**
    - **Carbon Capture Utilisation and Storage (CCUS) and Greenhouse Gas Removal (GGR)**
    - **Heat and buildings**
    - **Transport**
    - **Natural resources, waste and F-gases**
- It also identifies cross-cutting and systems-wide issues and linkages between sectors extending beyond technology to include research and innovation related to skills, infrastructure, technologies, knowledge generation and sharing, and stakeholder engagement.
- Necessary new skills will need to be developed and widely available in time across manufacturing, supply chain and service industries.
- Enabling an integrated, multi-modal transport system requires research into skills which support the transition in transport across the board, some of which are not visible yet.
- Need to understand local / regional needs and opportunities so that decarbonisation approaches build on existing skills to support local economic growth.
- Application of low carbon construction techniques, skills and materials for new transport infrastructure – concrete, steel, road surfaces, etc.
- The framework will look to understand how skills programmes and education strategy can support environmental goals and green growth.

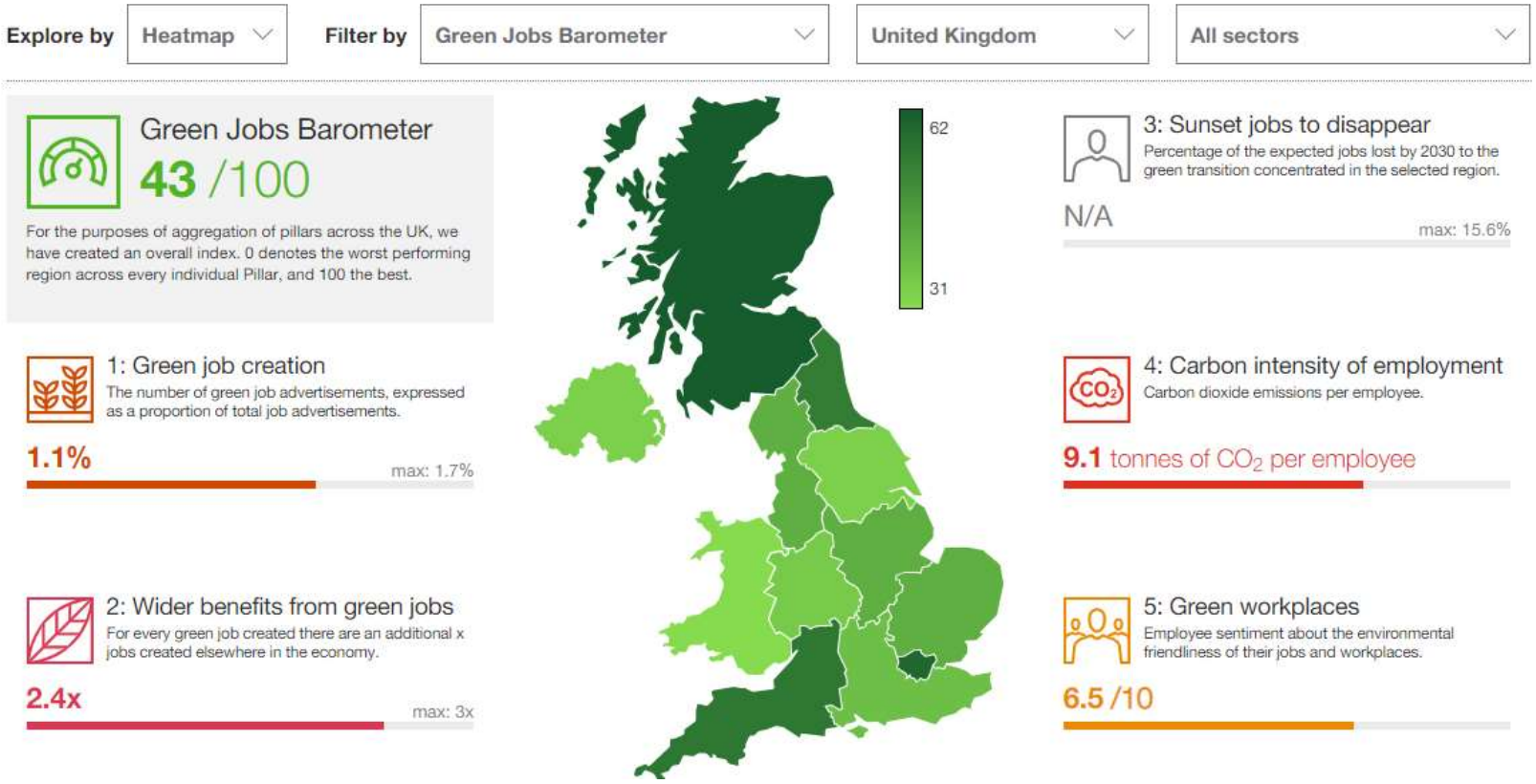
Net Zero Research and Innovation Framework

Figure 8: An integrated approach to net zero: Simplified illustration of key system and sector interlinkages for the net zero transition



PwC new green jobs barometer

- Designed to enable business and government to better identify trends and challenges as we adapt to the green transition, and help determine where support and investment needs to be targeted.
- Tracks movements in green job creation, job loss, carbon intensity of employment, and worker sentiment across regions and sectors.
- The first set of results show that the transformation to a net zero economy is already feeding through to the employment market, but that disparities are arising in how the transition to greener jobs is affecting different parts of the UK.
- This highlights the work that is needed from business, skills providers, and policy makers to ensure the green jobs transition doesn't exacerbate regional inequalities.
- [Green Jobs Barometer - PwC UK]



Low carbon and environmental goods and services sectors

- The Midlands Energy Hub has recently published evidence on the scale and opportunities in the Midlands' low carbon and environmental goods and services sectors - Low Carbon and Environmental Goods and Services Sector… | NCC Energy (energyservices-ncc.co.uk)
- This is the link to the Staffs and Stoke report - LCEGS_Stoke__Staffordshire_LEP_Final_Report.pdf (energyservices-ncc.co.uk)
- Baseline report which highlights our existing strengths and weaknesses (sector growth/jobs/businesses/exports) and skills gaps and training provision requirements

Green Jobs in Stoke-on-Trent and Staffordshire

- The LGA has published 'Local green jobs - accelerating a sustainable economic recovery' which provides analysis of the jobs required for a net zero economy in England, where these will be located in the coming years, and the role that local government could play working with industry to address the sector's skills demands.
- A interactive report showing the low-carbon employment projections by local authority area is available in LG Inform.
- **In Staffordshire it is estimated that 8,500 jobs will be required by 2030 and by 2050 this will rise to 13,900, with high demand in low-carbon heat, solar PV, home insultation and EV transition.**

	2030
Metric type	**Staffordshire**
	2030
	Count
Estimated jobs in Low-carbon electricity	1,295
Estimated jobs in Low-carbon heat	2,486
Estimated jobs in Alternative fuels	687
Estimated jobs in Energy Efficiency	2,276
Estimated jobs in Low-carbon services	384
Estimated jobs in Low emission vehicles & infrastructure	1,440
Metric types total	8,568

Low carbon economy skill gaps

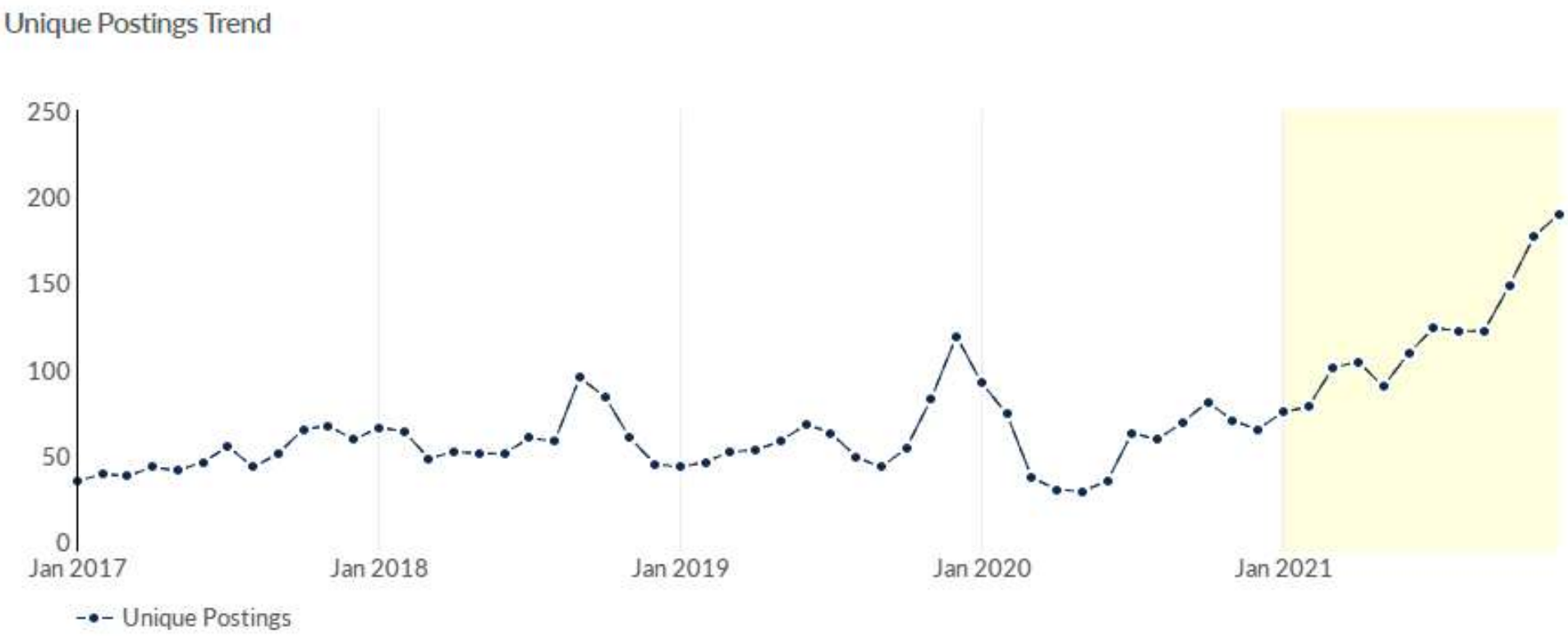
- The following table shows the qualifications required to support the growth in low carbon jobs:

Table 5: Comments on key area of skill level gap for individual sub-sector (corresponding to relevant NVQ Level)			
Sub-sector		**Comment on skill gap areas**	**Time horizon**
Low-carbon electricity	Solar	Supply chain considered relatively secure, however an uptick in demand would require technicians to be trained at **NVQ level 3** equivalent to develop a larger installer base to deliver grid connected solar for utility scale/decentralised generation.	
Low-carbon electricity	Nuclear	Entire supply chain in need of upskilling to meet emerging demand; **NVQ level 1 – 3** for construction; **NVQ level 4+** for design and planning.	
Low-carbon heat	Heat pumps	Key skills gap area to meet increasing demand is in the design, specification and installation of heat pumps; **NVQ level 2 – 3.**	
Alternative fuels	Anaerobic digestion	To meet forecasted demand, higher skill levels would be required **NVQ 4+** to design and connect AD plants to the grid and ensure biomethane is of sufficient quality for DNOs.	
Alternative fuels	Hydrogen fuel cells	Highly skilled jobs (**NVQ level 4+)** for R&I required in future; a good stock of technicians expected to be available from existing automotive sector to meet manufacturing demand (i.e. NVQ 1 – 3).	
Energy efficient products	Smart controls	Highly skilled **NVQ level 4+** in software engineering is considered as a key skill to enable future innovations within the sub-sector; good stock of manufacturing technicians expected to be available (NVQ 1 – 3) for manufacturing demands.	
Low-carbon services	Consultancies and financial services	Highly skilled **NVQ level 4+** demand is ongoing and required to ensure service sector organisations can exploit emerging opportunities.	
Low emission vehicles and infrastructure	Electric vehicles	Sector is expected to preserve jobs across all NVQ levels as existing, large automotive capacity in UK switches to ULEV technology. Ongoing R&I activities demands highly skilled researchers **NVQ Level 4+.**	

Key		
	Sub-sectors that are considered to have key near-term (2020 – 2025) skills gaps	
	Sub-sectors considered to have a skills gap emerging in the longer-term (2025 – 2035)	

Starting to see early signs of growth in green job vacancies to support the transition to Net Zero

- Just under 570 green job vacancies in SSLEP between Jan 2021 and Dec 2021 which is an increase compared to 330 a year earlier and 360 two years earlier.
- The average advertised wage was £35.0K (SSLEP median £29.2K) between Jan 2021 and Dec 2021 an increase compared to £30.0K a year earlier and £29.1K two years earlier.



Green Economy – Occupations in Demand

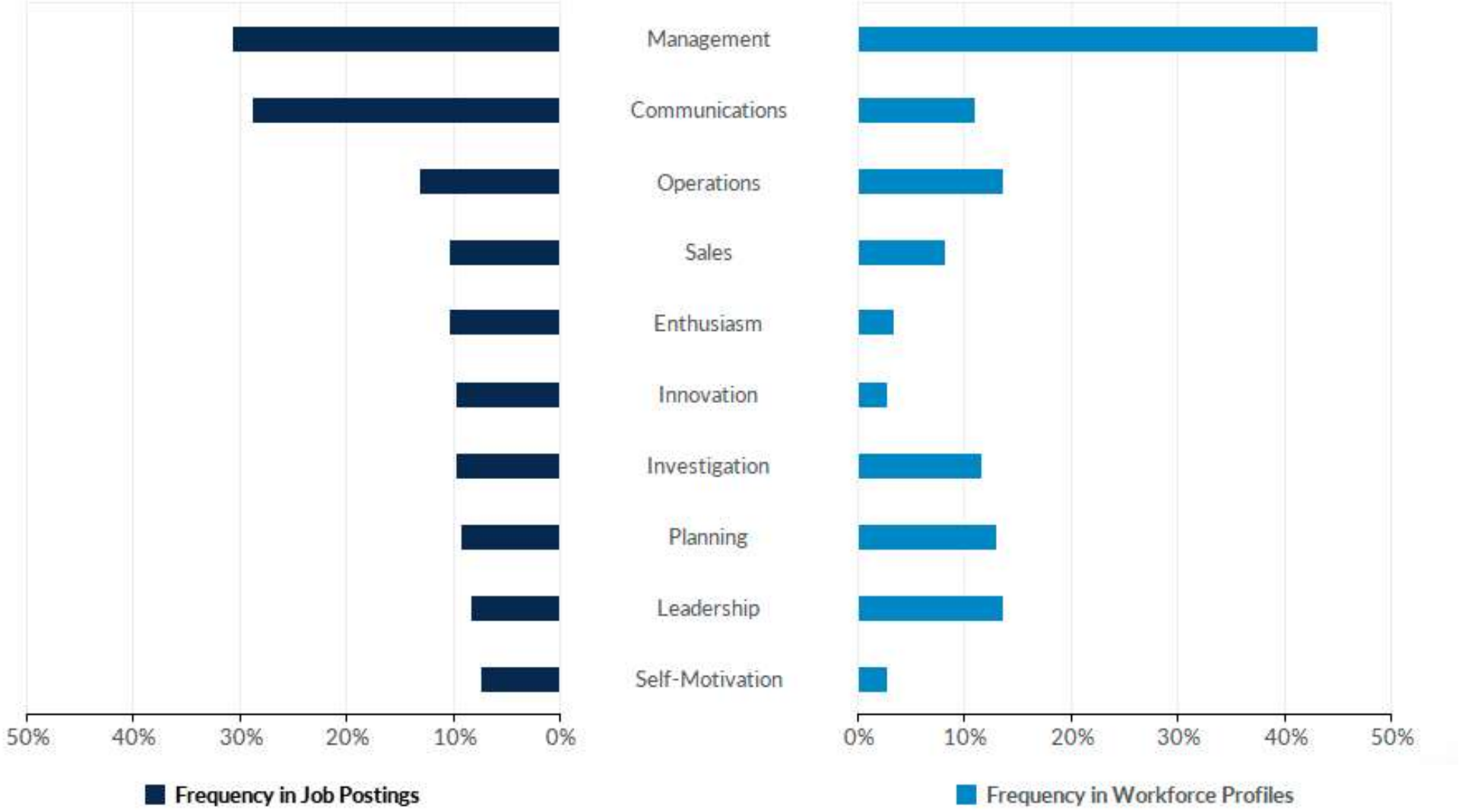
- As well as seeing an overall increase in green job vacancies they are also becoming more varied in nature with new occupations emerging.
- Initially new green jobs were mainly **senior roles to manage the transition** e.g. sustainability and environmental managers but starting to see increase in **high-skilled technical support roles** e.g. environmental engineers etc.

Top Posted Job Titles

Job Title	Total/Unique (Jan 2021 - Dec 2021)	Posting Intensity	Median Posting Duration
Recycling Managers	409 / 79	5 : 1	40 days
Environmental Health and Safety Managers	195 / 31	6 : 1	39 days
Sustainability Managers	150 / 27	6 : 1	43 days
Environmental Health and Safety Advisors	182 / 22	8 : 1	35 days
Environmental Engineers	239 / 21	11 : 1	61 days
Environmental Health Officers	61 / 20	3 : 1	28 days
Environmental Health and Safety Specialists	125 / 17	7 : 1	36 days
Renewable Energy Analysts	85 / 16	5 : 1	35 days
Safety and Environmental Managers	133 / 16	8 : 1	29 days
Environmental and Quality Managers	98 / 15	7 : 1	35 days
Solid Waste Operators	38 / 15	3 : 1	34 days
Environmental Consultants	109 / 14	8 : 1	49 days
Renewable Energy Engineers	72 / 13	6 : 1	26 days
Water/Wastewater Engineers	87 / 13	7 : 1	37 days
Environmental Advisors	19 / 12	2 : 1	30 days
Sustainability Consultants	55 / 10	6 : 1	31 days
Solar Electricians	43 / 10	4 : 1	44 days
Environmental Managers	50 / 9	6 : 1	32 days

Green Economy – Hard Skills in Demand

Green Economy – Common Skills in Demand



Green Growth Requirements

Securing Green Growth for Staffordshire

- Recent **business surveys flag that many local businesses aren't thinking about green growth opportunities and are in danger of getting left behind** (e.g. Northeast already progressing with offshore wind and now the development of a centre of excellence for hydrogen)
- **SSLEP SAP Skills for Growth Survey** – most businesses still reticent to make the transition as the demand is still to come – market forces and government subsidisation
- Require **business support to aid local businesses in making the green transition and developing new low carbon business models which require new green skills**
- Need to **make the changes early to get ahead of the curve and remain competitive**
- Need **higher level technical skills to develop businesses which in turn can increase economic growth and productivity**
- **Better local skills base can increase higher skilled, higher paid jobs in Staffordshire leading to greater prosperity**
- Need for **strong local leadership to grasp the green economic growth opportunities, with employers and providers working more effectively together to ensure that demand drives skills supply – i.e. a representative business panel**

Engineering and Advanced Manufacturing

Engineering and Manufacturing Sector

- There is high demand for talent within this fast-paced sector, which includes roles from designing and building the next generation of **electric cars to pharmaceuticals**.
- While manufacturing and production have been significantly affected by the COVID pandemic and BREXIT, **new technologies such as AI, automation, 3D printing and plastic electronics** are changing the shape of production.
- Future employment growth is expected in areas of advanced manufacturing and specialism areas, such as **automotive, aerospace, advanced materials, med-tech, agri-tech, energy and other technology-intensive industries**.
- The **availability of skilled labour** will be an important consideration for the economic outlook in the long-term.
- See SAP Advanced Manufacturing Report for a detailed overview of engineering and advanced manufacturing.
- The Midlands Engine has also produced a Manufacturing Opportunities Report which details the opportunities presented by Low Carbon, Digital and New Products and Markets. The report focuses on sector clusters including **Future Food & Drink; Next Generation Transport/Mobility; Medical & Pharma; Advanced Metals & Materials; and Low Carbon Goods.**

Digital hesitancy, confusion and lack of knowledge and skills are holding back manufacturing digital adoption

- The Manufacturer/Gain Line recently surveyed 1,000 SMEs in ‘traditional’ manufacturing industries - rail, life sciences, manufacturing, energy and construction — about the use of and attitudes towards digital services/tools within the business.
- 57% of leaders felt they weren’t confident with technology, with more than half lacking the skills needed to move from paper to digital services.
- Despite hesitancy, 40% stated that they have started early stages of digital adoption by moving some services from paper to digital, although 61% believed they could never get to a point where business operations (everything from HR to accounting) were merged to one system.
- The main barriers to going digital cited were:
  - Lack of confidence with technology (50%)
  - Lack of digital skills within leadership and employees 47%)
  - Resistance from leadership 47%)
  - No time of budget to train staff (27%)
  - Lack of budget (26%)
- Of the SMEs that have gone fully digital, 58% said that doing so saved them money, 56% said it improved morale and 52% said it increased revenue.
- There are lots of options for manufacturing businesses to help them go digital including hiring digital apprentices, sending employees on training courses, applying for digital grants and seeking help from a digital transformation specialist/Skills Hub/Growth Hub.

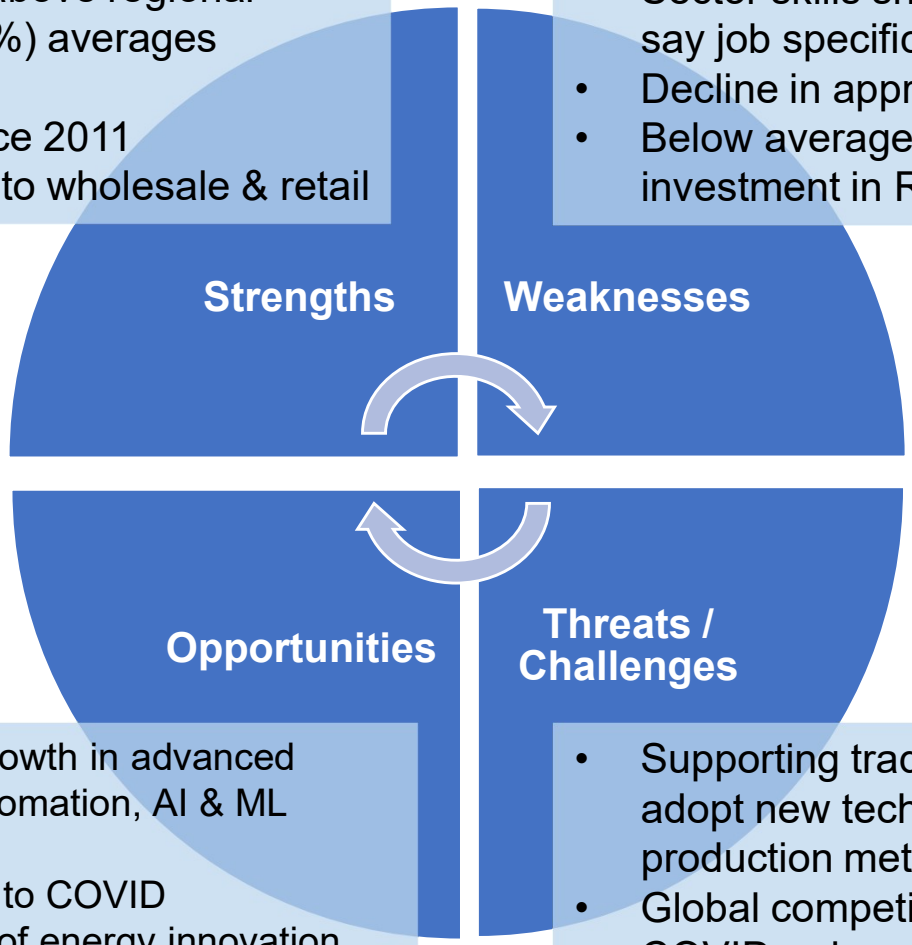
Engineering and Manufacturing SWOT

Strengths

- **2,785 SSLEP Businesses**[1]
- **60,000 SSLEP Jobs**[2]
- 5,000 increase in jobs since 2011
- 12.3% of all SSLEP jobs above regional (11.4%) and national (7.8%) averages
- **£3.9bn in GVA**[3]
- £628m growth in GVA since 2011
- 14% of total GVA 2nd only to wholesale & retail

Weaknesses

- Lower adult skill levels to fill advanced roles
- Hard to fill vacancies – nearly 1 in 10 businesses over last year[4]
- Sector skills shortages – 1 in 3 businesses say job specific skills lacking when recruiting[4]
- Decline in apprenticeships[5]
- Below average innovation including investment in R&D



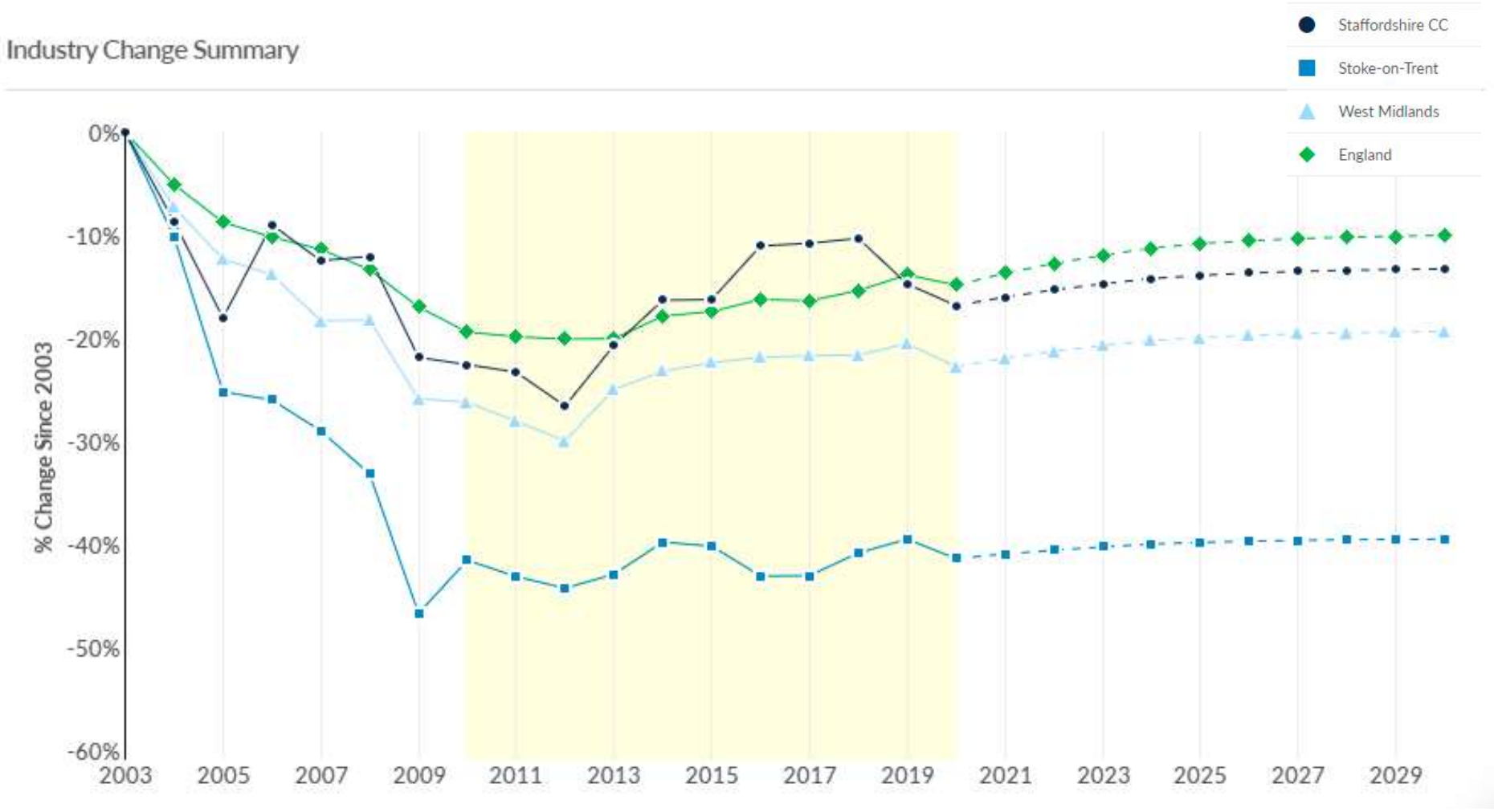
Opportunities

- New technologies driving growth in advanced manufacturing including automation, AI & ML
- New international markets
- Supply chain reshoring due to COVID
- Green Economy – a centre of energy innovation and low carbon adoption/renewable energy/electric cars – environmental sustainability
- Productivity gains to close the gap to national average

Threats / Challenges

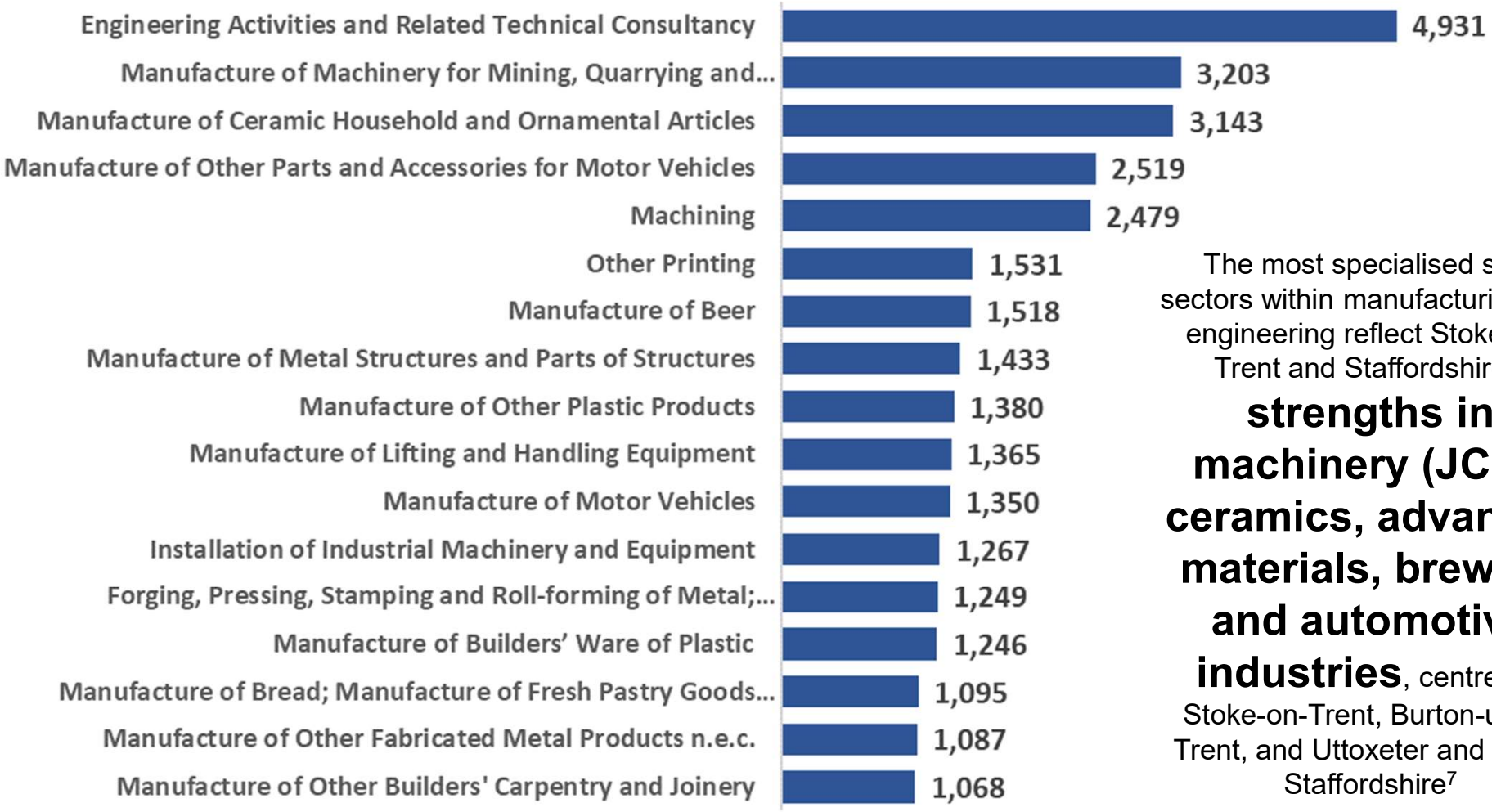
- Supporting traditional manufacturing base to adopt new technologies and efficient production methods to help drive productivity
- Global competition from the likes of China
- COVID – demand and supply chain impact
- BREXIT – trade impact
- Male dominated sector with further female engagement required

Engineering and manufacturing saw a decline in jobs due to the financial crisis but has seen a recovery over recent years with further growth forecast



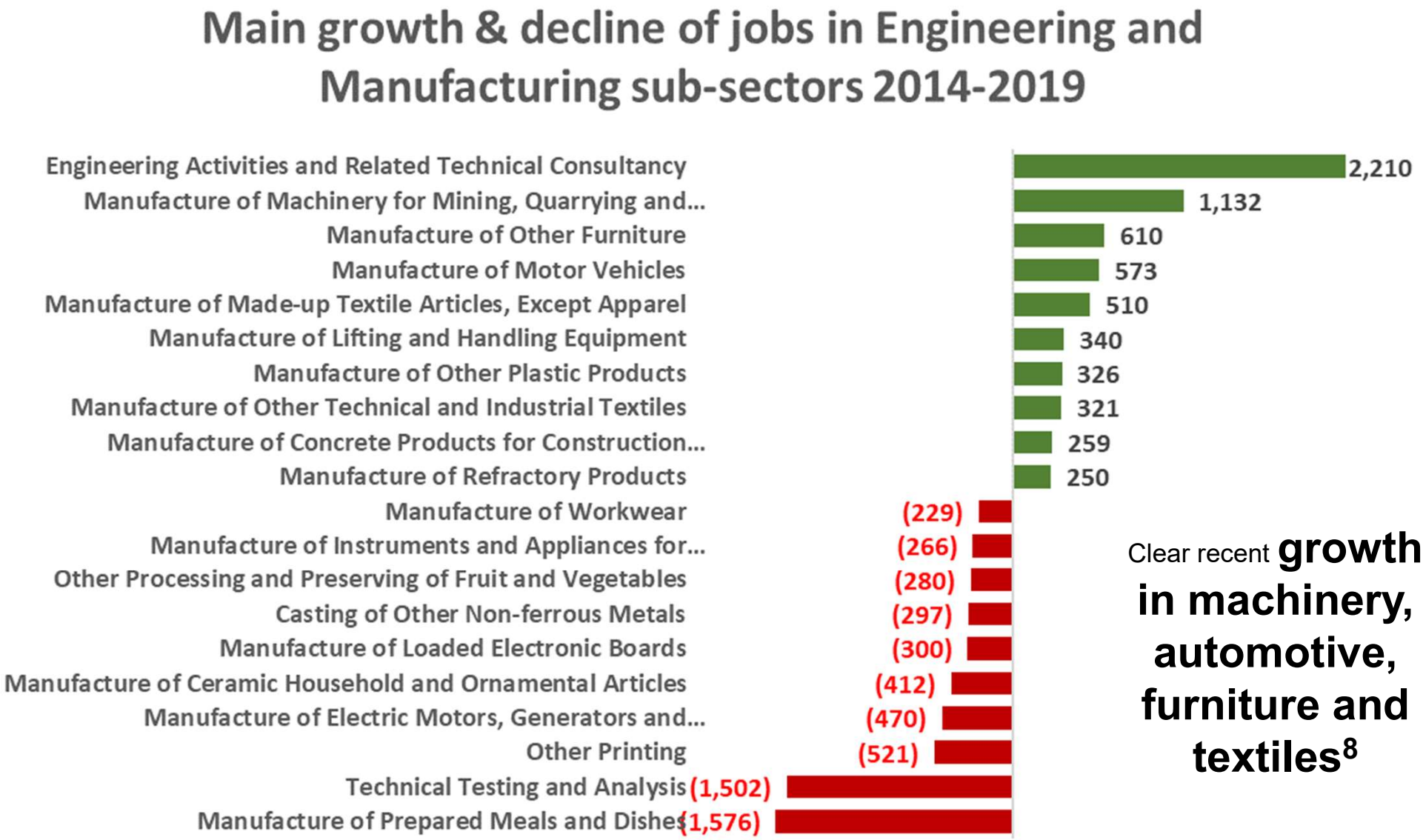
Engineering and Manufacturing – Sector Make-up

Main industry activities for jobs in Engineering and Manufacturing 2019



The most specialised sub-sectors within manufacturing and engineering reflect Stoke-on-Trent and Staffordshire's **strengths in machinery (JCB), ceramics, advanced materials, brewing and automotive industries**, centred in Stoke-on-Trent, Burton-upon-Trent, and Uttoxeter and South Staffordshire[7]

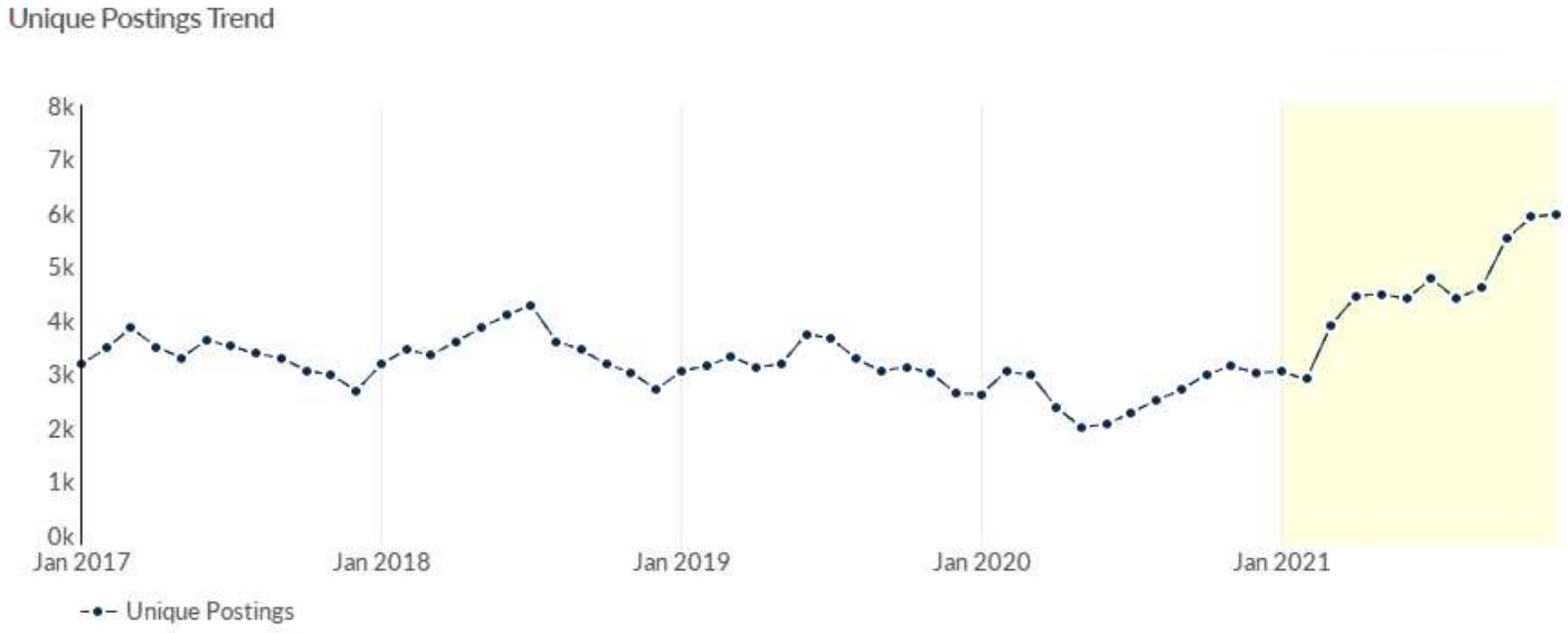
Engineering and Manufacturing – Sub-Sector Growth & Decline



Clear recent **growth in machinery, automotive, furniture and textiles**[8]

Seeing strong growth in Engineering and Electronic Engineering Industries job vacancies as the sector recovers

- Just over 20,500 Engineering and Electronic Engineering Industries job vacancies in SSLEP between Jan 2021 and Dec 2021 which is an increase compared to 11,100 a year earlier and 14,900 two years earlier.
- The average advertised wage was £31.4K (SSLEP median £29.2K) between Jan 2021 and Dec 2021 the same as a year earlier but a slight increase compared to £30.0K two years earlier.



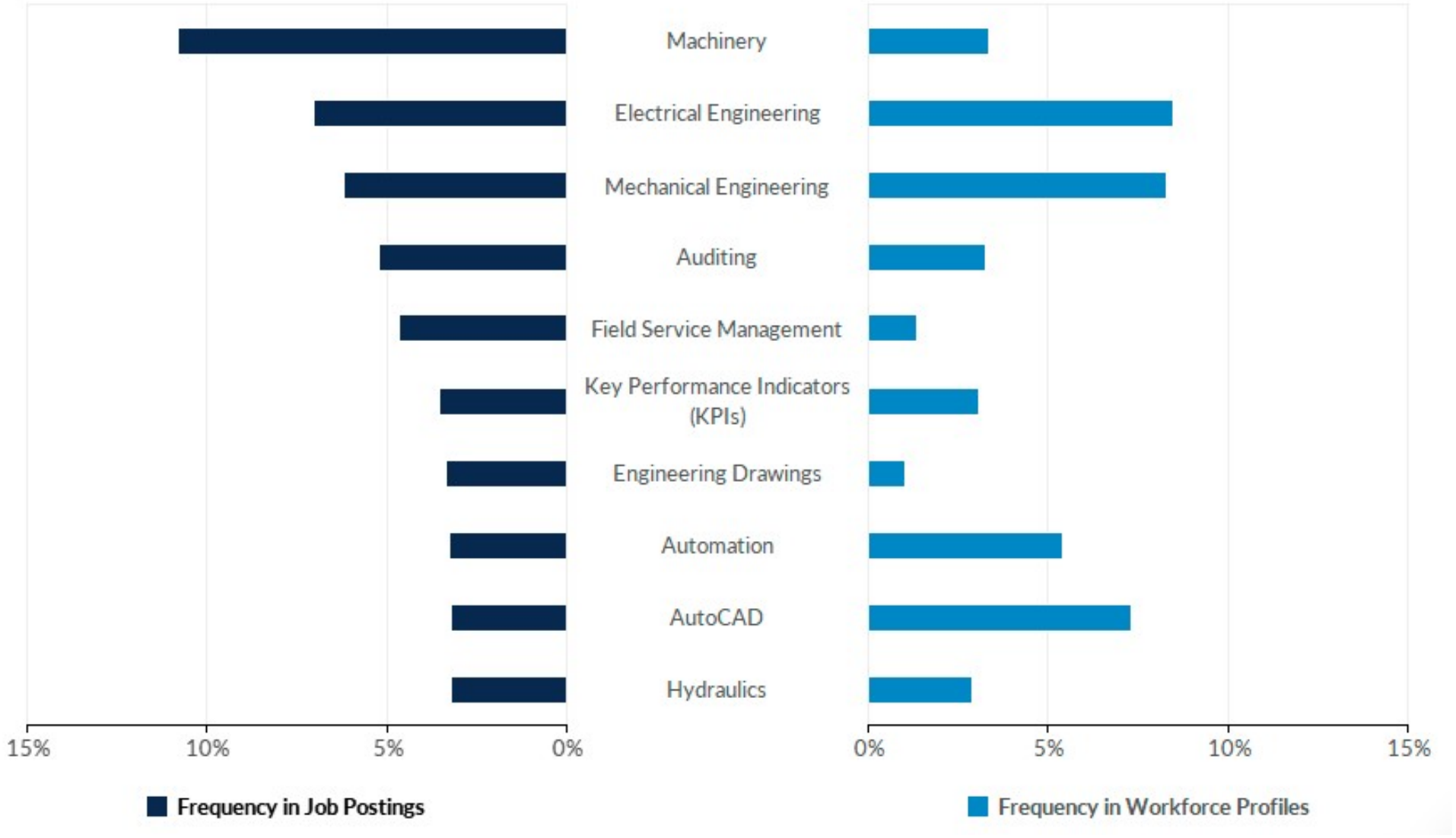
Engineering and Manufacturing – Occupations in Demand

Top Posted Occupations

Occupation (SOC)	Total/Unique (Jan 2021 - Dec 2021)	Posting Intensity	Median Posting Duration
Metal Working Production and Maintenance Fitters	23,804 / 3,659	7 : 1	36 days
Science, Engineering and Production Technicians n.e.c.	10,733 / 2,216	5 : 1	34 days
Electricians and Electrical Fitters	13,442 / 2,088	6 : 1	37 days
Engineering Technicians	10,953 / 1,976	6 : 1	35 days
Electrical and Electronic Trades n.e.c.	10,352 / 1,551	7 : 1	35 days
Production Managers and Directors in Manufacturing	8,618 / 1,547	6 : 1	33 days
Civil Engineers	4,965 / 997	5 : 1	32 days
Production and Process Engineers	4,380 / 853	5 : 1	35 days
Welding Trades	4,046 / 839	5 : 1	33 days
Design and Development Engineers	4,709 / 730	6 : 1	36 days
Quality Assurance and Regulatory Professionals	3,590 / 677	5 : 1	32 days
Electrical Engineers	3,072 / 480	6 : 1	37 days
Metal Machining Setters and Setter-operators	1,934 / 439	4 : 1	33 days
Planning, Process and Production Technicians	1,650 / 400	4 : 1	32 days
Engineering Professionals n.e.c.	1,950 / 369	5 : 1	35 days
Research and Development Managers	1,321 / 338	4 : 1	31 days

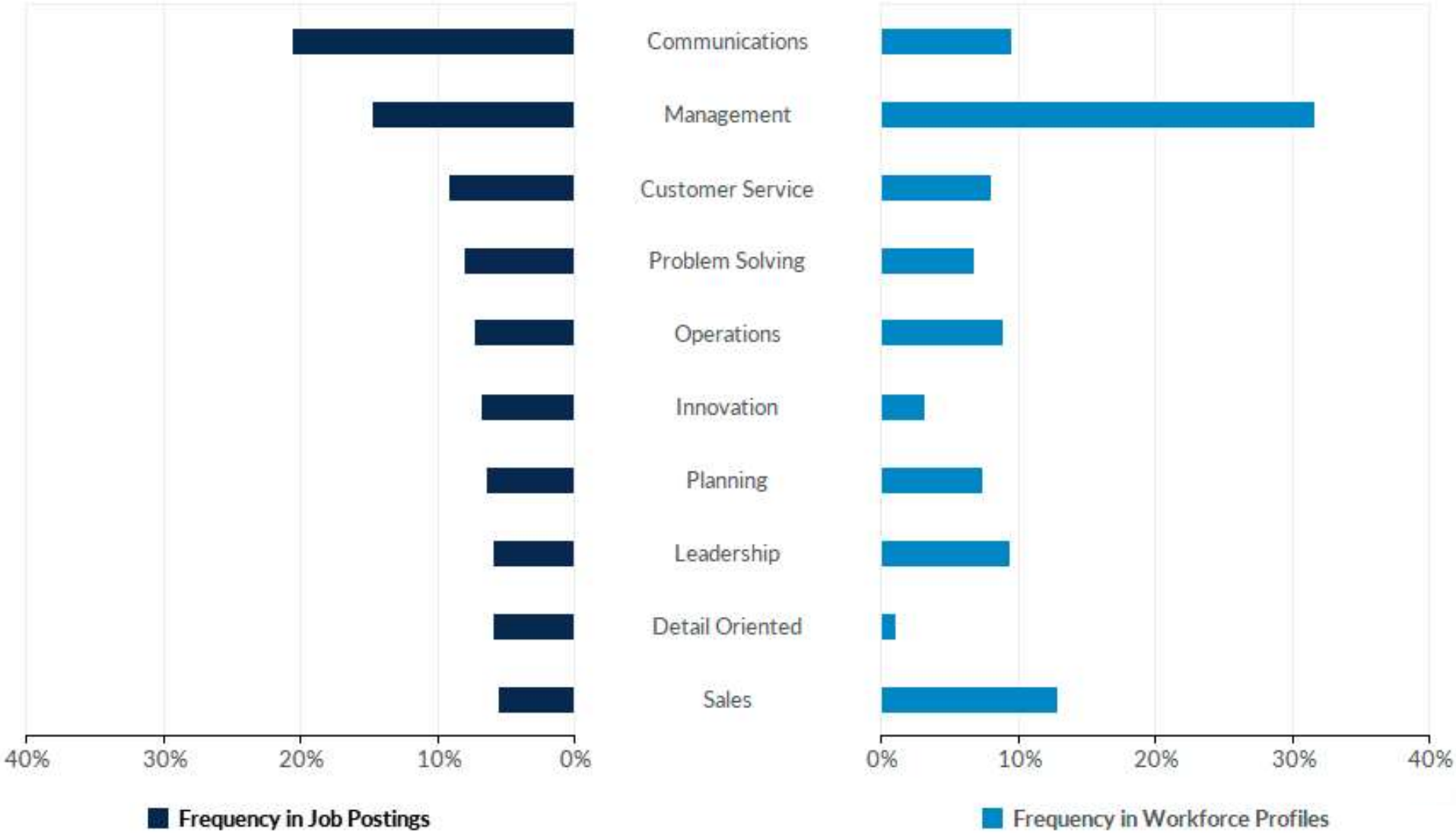
To find out more about what these occupations and more entail please visit the Department for Education (DfE) funded LMI For All website - https://www.lmiforall.org.uk/explore_lmi/

Engineering and Manufacturing – Hard Skills in Demand



Increasing movement towards more advanced and digital roles

Engineering and Manufacturing – Common Skills in Demand



Construction

Construction Sector

- Construction is **one of the largest sectors in the UK economy** – with a turnover of £370 billion, contributing £138 billion in value added to the UK economy and employing 3.1 million people (9% of the total UK workforce)
- The sector continues to be faced with **skill shortages**, and along with the potential restrictions on migration impacting future flows of EU workers caused by BREXIT, which the sector heavily relies on, there is **high demand for talent to support future growth**.
- While construction has been impacted by the COVID pandemic and BREXIT, the sector has several **significant growth opportunities** including:
  - **Population growth** is still expected to lead to increased demand for **construction of infrastructure and housing**, supported by the government's ambitious targets to build new homes.
  - **Long-term major public infrastructure projects, such as HS2 and Crossrail 2**, are also likely to contribute to growth.
- Alongside housing and infrastructure, the sector is also seeing opportunities emerge from **new technologies and ways of working such as Modern Methods of Construction (MMC),** such as offsite manufacturing and prefabricated house building, which are changing the shape of construction and have the potential to significantly increase productivity.
- **The Green Economy** is also key to the sector with opportunities emerging in areas such as **sustainable construction**, **renewable energy** and the creation of half a million jobs in **retrofitting home insulation** in existing properties.
- See SAP Construction Report for a detailed overview of construction.

Construction Sector

FIS

BuildBack

What is the FIS Build Back Programme?

The FIS Build Back Programme helps job seekers /career changers who are serious about developing a career in drylining. The programme puts candidates through two weeks of introduction training in the skills and competencies required for installing drylining, followed by a two-week work placement on-site with a local employer.

How Build Back works

Funded through CITB, Build Back is a collaborative recruitment and induction programme run by FIS that connects employers, funding and candidates to help find the next generation of dryliners.

FIS works with groups of employers across the UK to identify opportunities in a region and then, working with the DWP or charities targeting employment, looks to build a Build Back cohort.

Build Back 2021

jobcentreplus

Department for
Work and Pensions

FIS

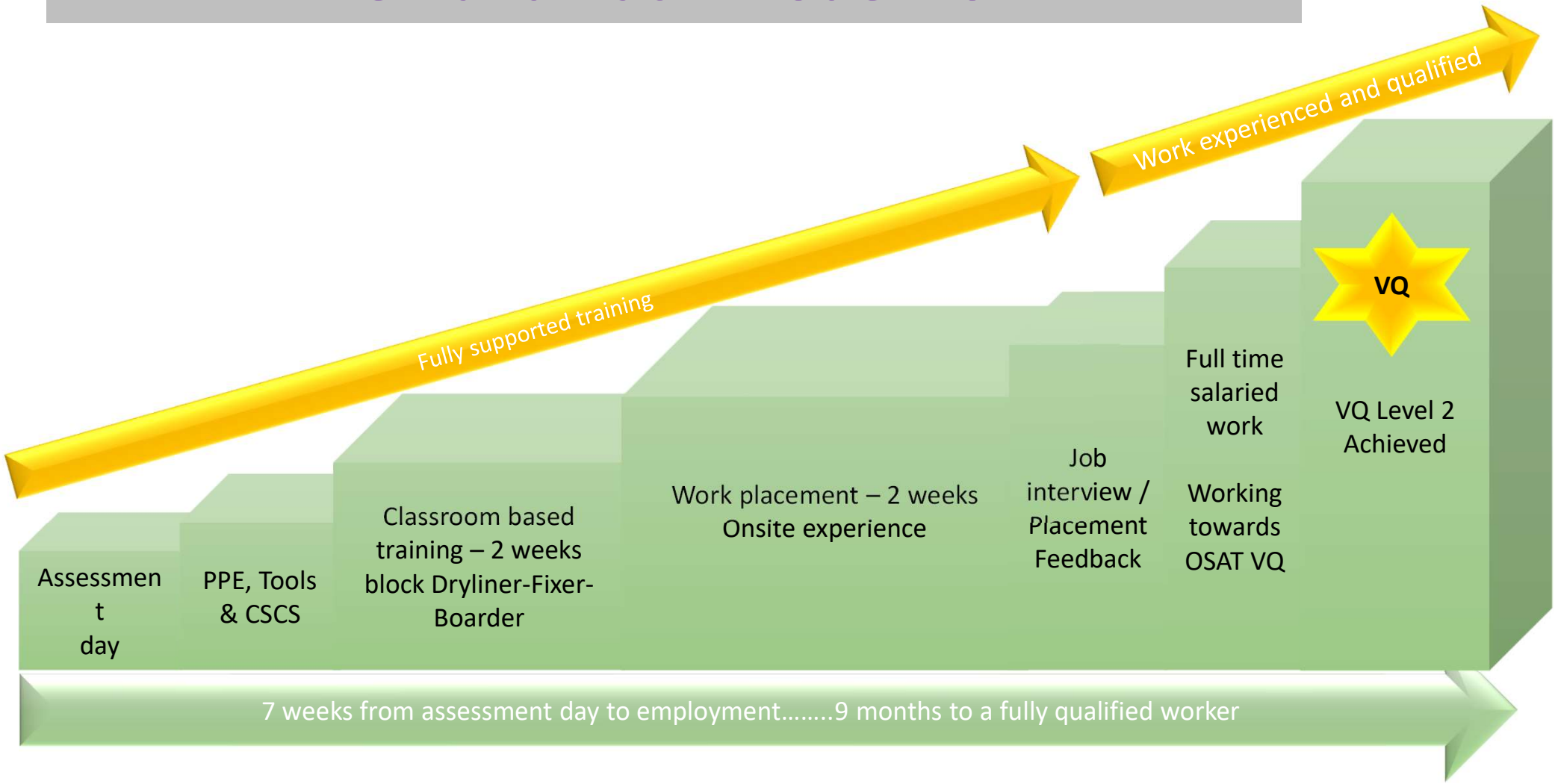
citb

Benefits to Industry

- A proven pathway leading to site ready workers
- Gives real employability skills with a 64% job success rate
- Co-investment which leverages added value funding
- Addresses skills shortages in the sector, including the reduced access to a migrant workforce
- Supports the UK Governments Construction Sector Deal and Plan for Jobs
- Supports the CITB Strategic Plan 2021-2025

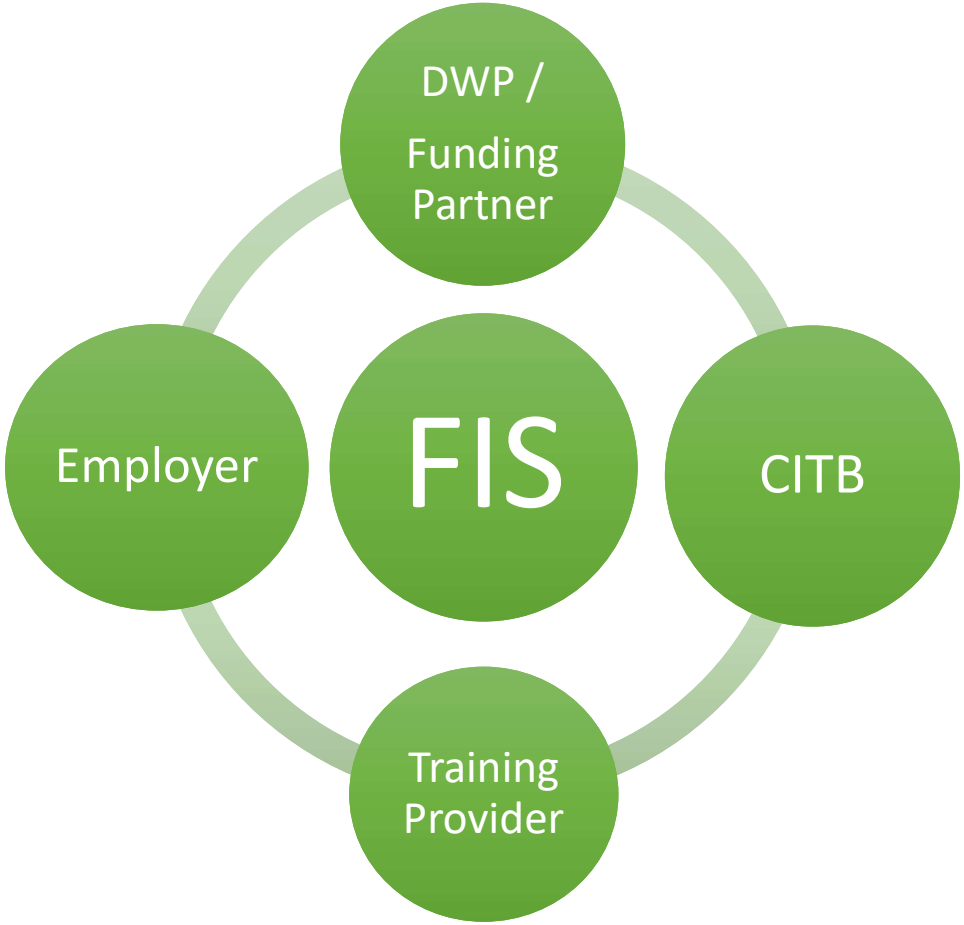
https://www.thefis.org/skills-hub/buildback/

The Build Back Model 2021



The Funding Model 2021

- Co- funded & co-delivered



Construction SWOT

- **5,790 SSLEP Businesses**[1]
- **28,000 SSLEP Jobs**[2]
- 5,000 increase in jobs since 2011
- 5.7% of all SSLEP jobs above regional (4.7%) and national (5.0%) averages
- **£2.1bn in GVA**[3]
- £486m growth in GVA since 2011
- 8% of total GVA 5th highest of all sectors

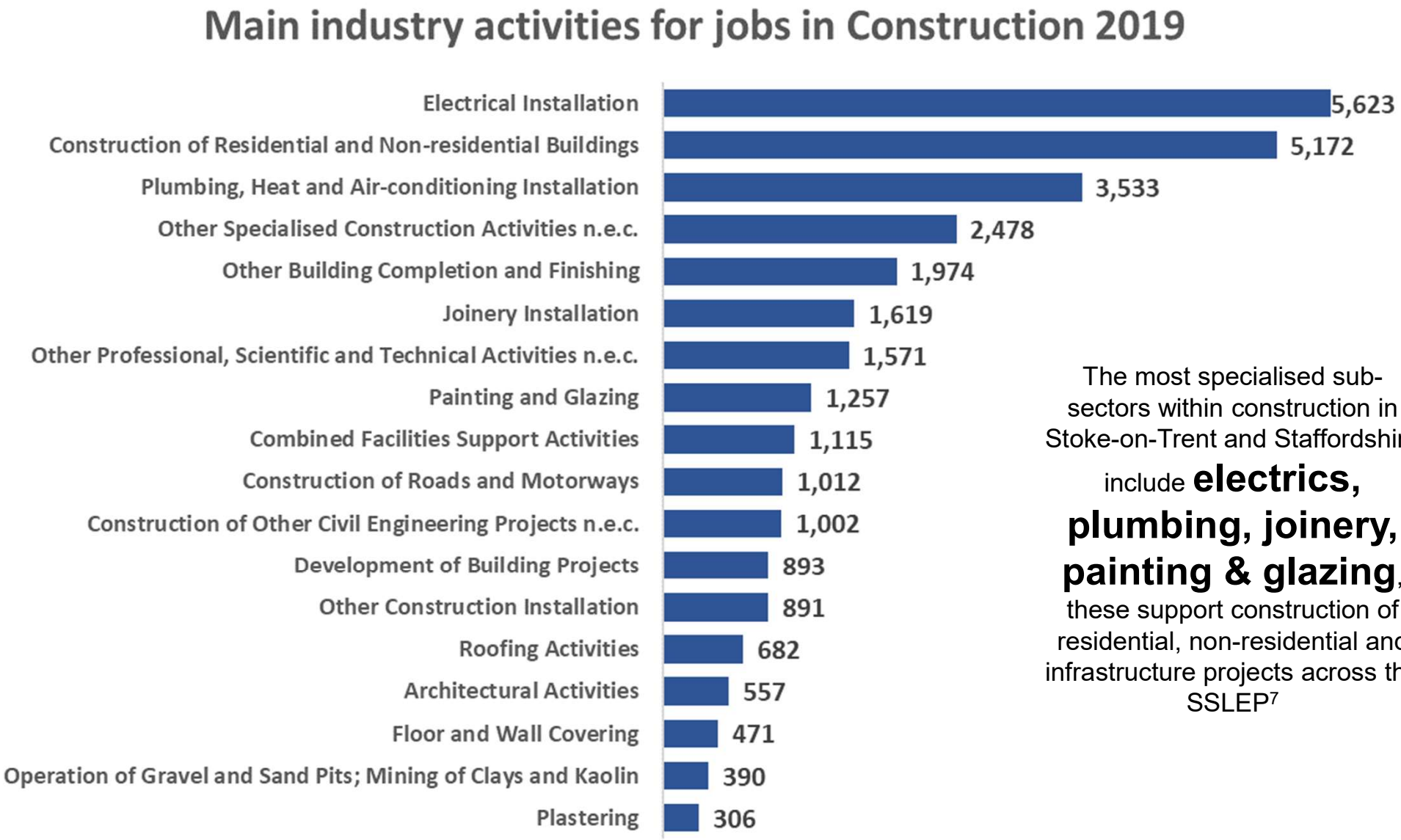
- Low productivity
- Lack of workforce diversity – women / BAME
- Over a fifth (22%) of businesses have workforce skills gaps (14% for all sectors)[4]
- Hard to fill vacancies – nearly 1 in 10 businesses over last year[4]
- Lower adult skill levels to fill advanced roles
- Below average growth in apprenticeships[5]

- New digital technologies driving growth in Modern Methods of Construction including offsite automation & AI
- Housing building – Government targets
- Major Infrastructure projects - transport and energy projects, including HS2 / West Midlands Freight Interchange
- Green Economy – environmentally sustainable construction/renewable energy

- More workers needed in the sector – male dominated
- Ageing workforce with high replacement demand
- Brexit – political uncertainty impacting investment and post-Brexit migration system workforce impact
- Equipping workers with the skills needed to adopt digital technologies to help drive productivity

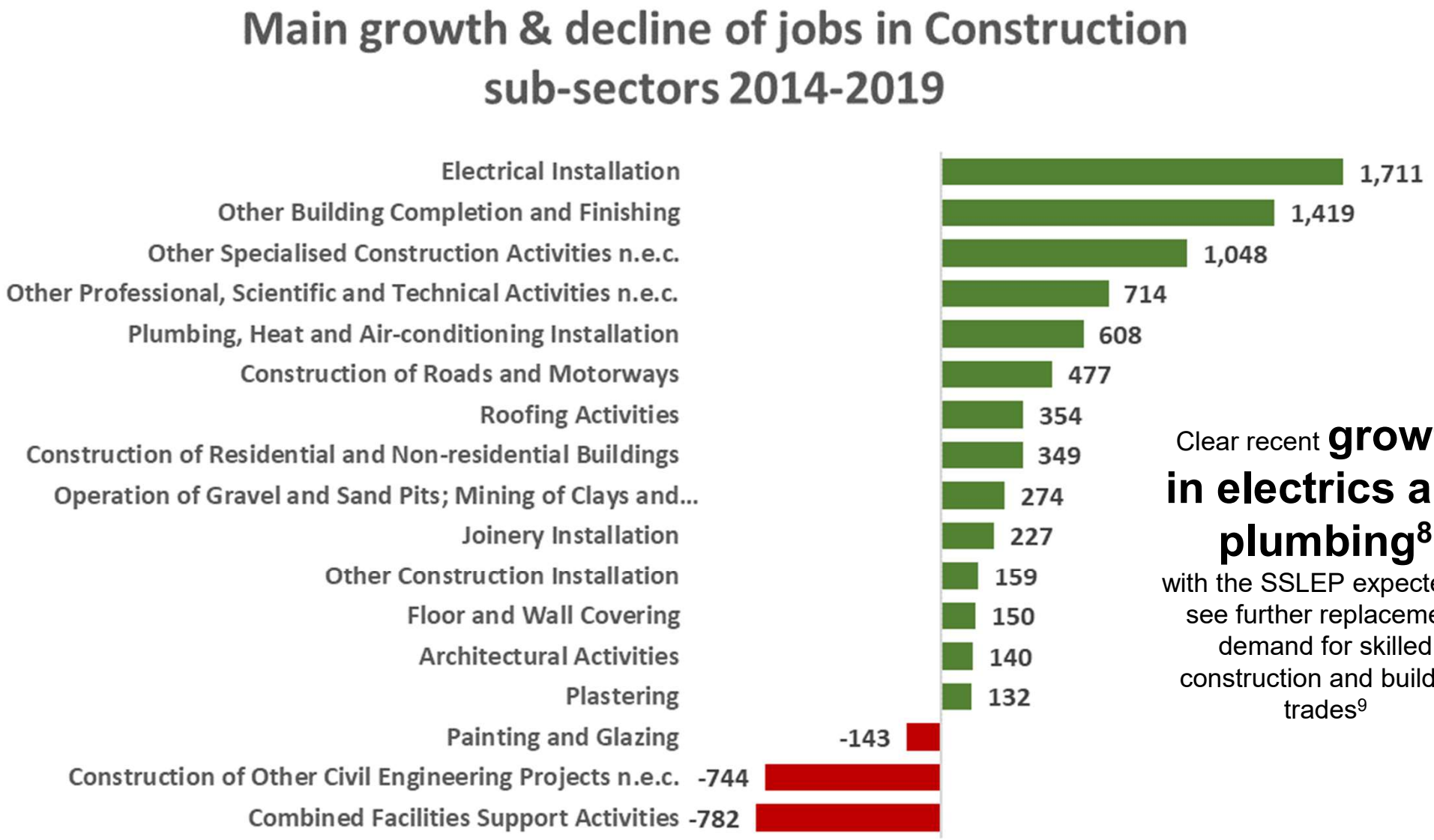
Construction saw a decline in jobs due to the financial crisis but growth going into the pandemic with further growth forecast

Construction – Sector Make-up



The most specialised sub-sectors within construction in Stoke-on-Trent and Staffordshire include **electrics, plumbing, joinery, painting & glazing**, these support construction of residential, non-residential and infrastructure projects across the SSLEP[7]

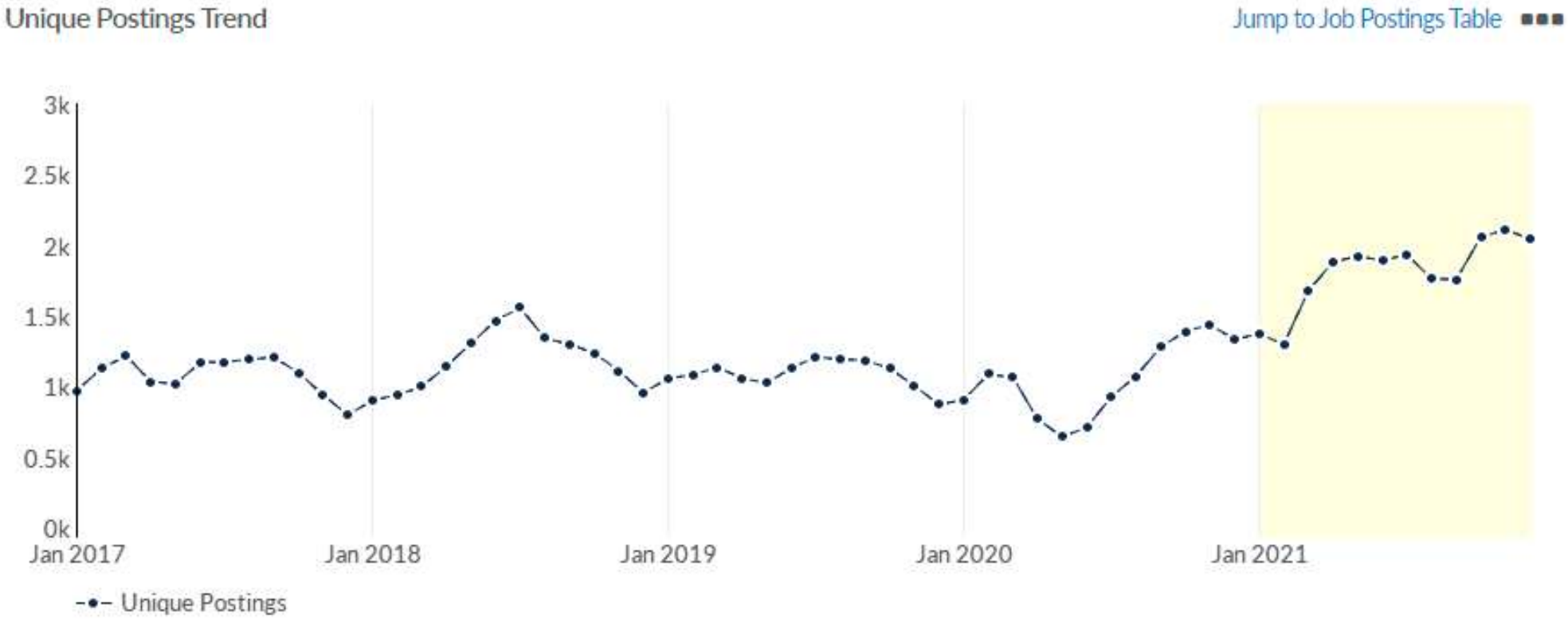
Construction – Sub-Sector Growth & Decline



Clear recent **growth in electrics and plumbing**[8] with the SSLEP expected to see further replacement demand for skilled construction and building trades[9]

Seeing strong growth in Construction job vacancies as the sector recovers

- Just over 8,300 Construction job vacancies in SSLEP between Jan 2021 and Dec 2021 which is an increase compared to 4,800 a year earlier and 5,200 two years earlier.
- The average advertised wage was £33.0K (SSLEP median £29.2K) between Jan 2021 and Dec 2021 a slight increase compared to £32.4K a year earlier and £31.2K two years earlier.



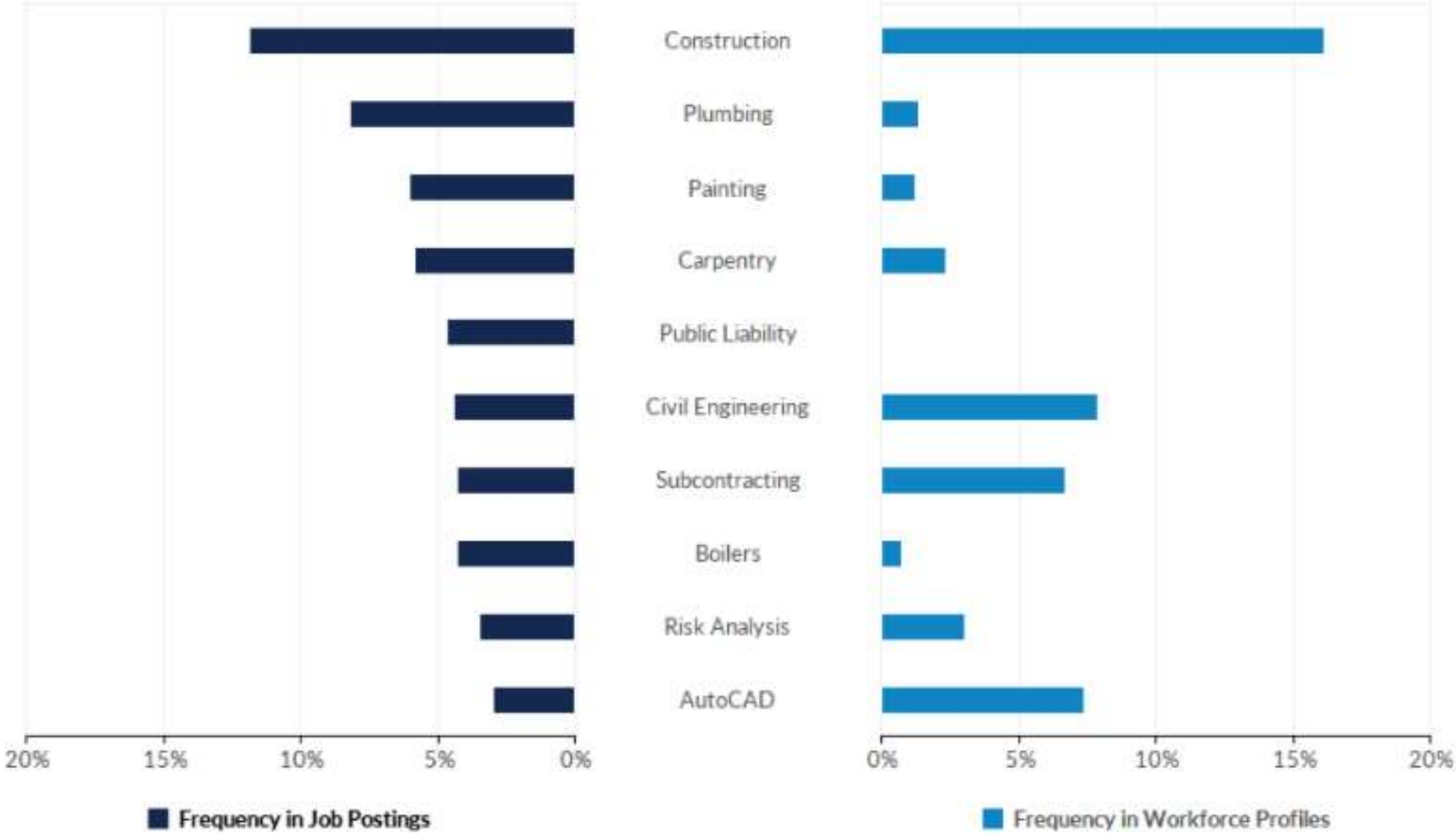
Construction – Occupations in Demand

Top Posted Occupations

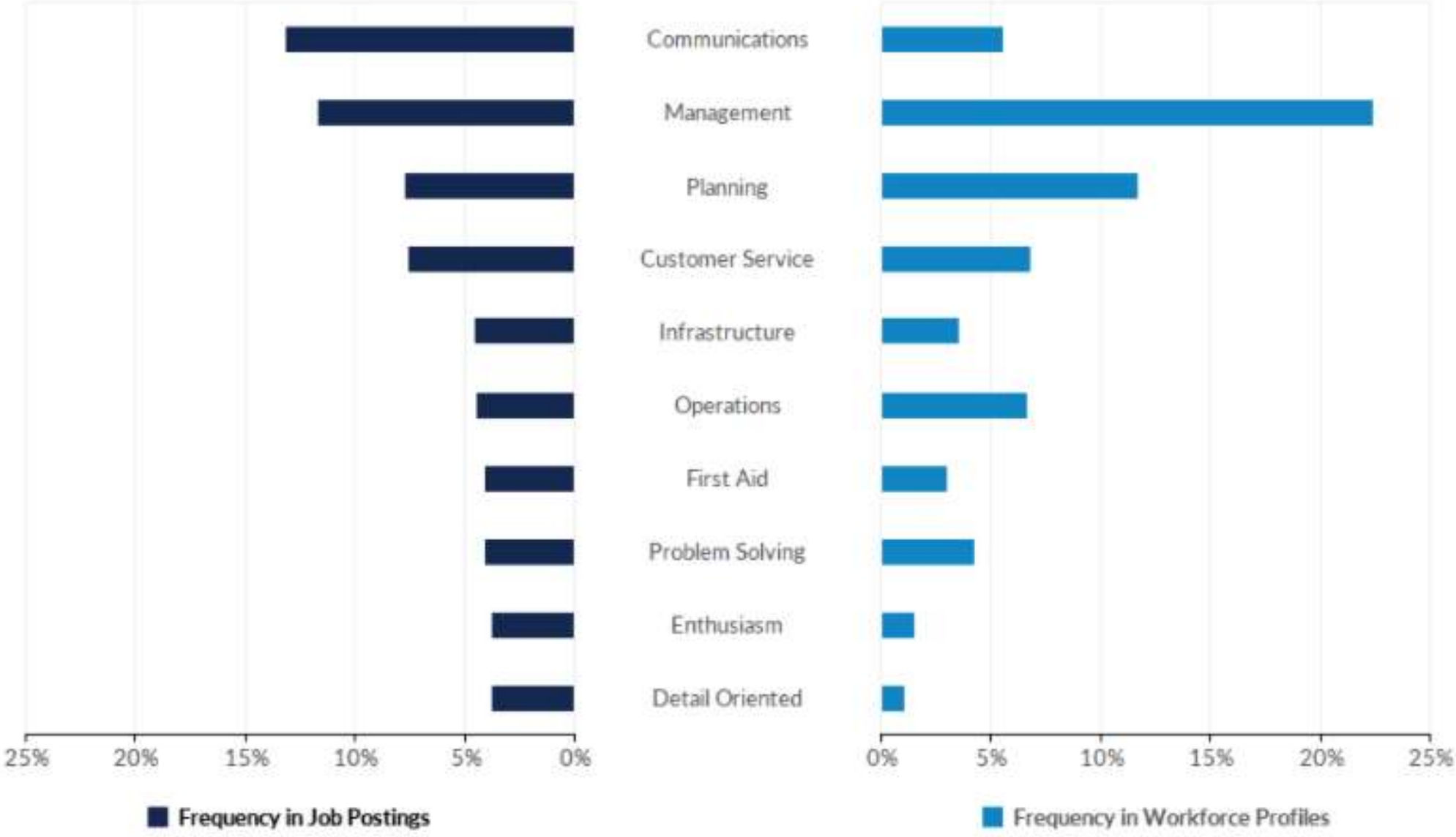
Occupation (SOC)	Total/Unique (Jan 2021 - Dec 2021)	Posting Intensity	Median Posting Duration
Plumbers and Heating and Ventilating Engineers	6,244 / 1,202	5 : 1	34 days
Civil Engineers	4,965 / 997	5 : 1	32 days
Construction Operatives n.e.c.	3,508 / 918	4 : 1	32 days
Production Managers and Directors in Construction	4,301 / 877	5 : 1	33 days
Elementary Construction Occupations	3,444 / 791	4 : 1	33 days
Carpenters and Joiners	2,133 / 584	4 : 1	32 days
Quantity Surveyors	2,481 / 467	5 : 1	42 days
Chartered Surveyors	2,048 / 392	5 : 1	34 days
Construction and Building Trades Supervisors	1,549 / 357	4 : 1	33 days
Painters and Decorators	1,321 / 336	4 : 1	33 days
Construction Project Managers and Related Professionals	1,566 / 321	5 : 1	39 days
Construction and Building Trades n.e.c.	801 / 177	5 : 1	32 days
Roofers, Roof Tilers and Slaters	697 / 165	4 : 1	32 days
Bricklayers and Masons	539 / 152	4 : 1	23 days
Architectural and Town Planning Technicians	516 / 118	4 : 1	33 days
Plasterers	367 / 93	4 : 1	31 days
Building and Civil Engineering Technicians	455 / 90	5 : 1	34 days

To find out more about what these occupations and more entail please visit the Department for Education (DfE) funded LMI For All website - https://www.lmiforall.org.uk/explore_lmi/

Construction – Hard Skills in Demand



Construction – Common Skills in Demand



Logistics

Logistics Sector

- Logistics is a **diverse sector covering road, rail, sea and air industries**, the sector is a **key part of the growing service economy** with other sectors heavily reliant on freight services such as retailers and manufacturers whose businesses depend on the efficient movement of goods.
- **With Brexit, technology and other disruptive forces driving changes in the way goods move across borders and through the supply chain**, logistics has never been more important to the UK economy.
- **One of the largest sectors in the UK economy worth £942.5 billion,** made up of **192,525 businesses** and **2.7 million employees** in the wider logistics industry with sustained growth in the number of people employed in logistics.
- In 2018 jobs in logistics increased by 200,000, mainly in occupations related to storage and warehousing to support **growth in online retail and Brexit stockpiling**, but there is an **ongoing labour shortage in key vocations such as HGV and van drivers.**
- While parts of logistics have been negatively impacted by the COVID pandemic due to **declining demand in sectors such as manufacturing**, the sector has also seen **growth from trends such as the accelerated shift to e-commerce and online retail** with this trend expected to continue.
- Alongside opportunities from changing consumer behaviour, the sector is also seeing opportunities emerge from **new technologies and ways of working such as automation and AI**, which are changing the shape of logistics and have the potential to significantly increase productivity.
- See SAP Logistics Report for a detailed overview of logistics.

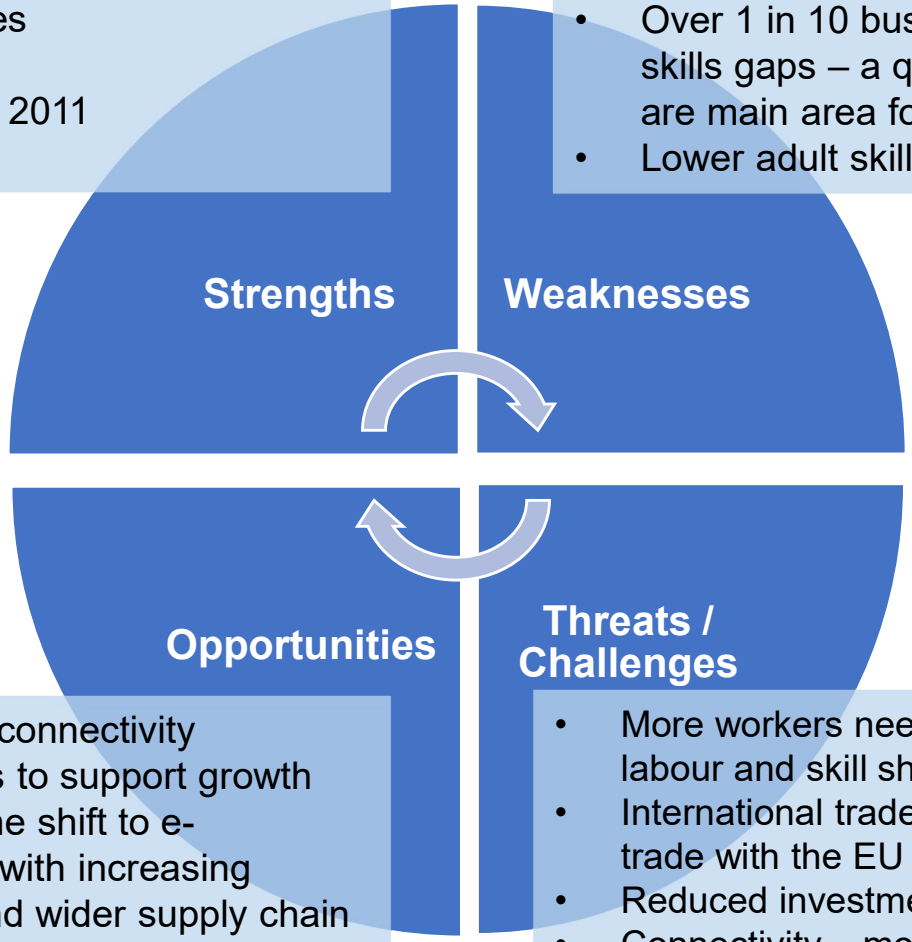
Logistics SWOT

Strengths

- **2,595 SSLEP Businesses**[1]
- **38,000 SSLEP Jobs**[2]
- 14,000 increase in jobs since 2011
- 7.8% of all SSLEP jobs above regional (5.9%) and national (5.0%) averages
- **£1.3bn in GVA**[3]
- £444m growth in GVA since 2011
- 5.5% of total GVA

Weaknesses

- Low productivity aspects of the sector e.g. manual distribution
- A fifth (19%) of businesses have had hard to fill vacancies over the last year (9% for all sectors)[4]
- Over 1 in 10 businesses (13%) have workforce skills gaps – a quarter say customer service skills are main area for improvement[4]
- Lower adult skill levels to fill advanced roles



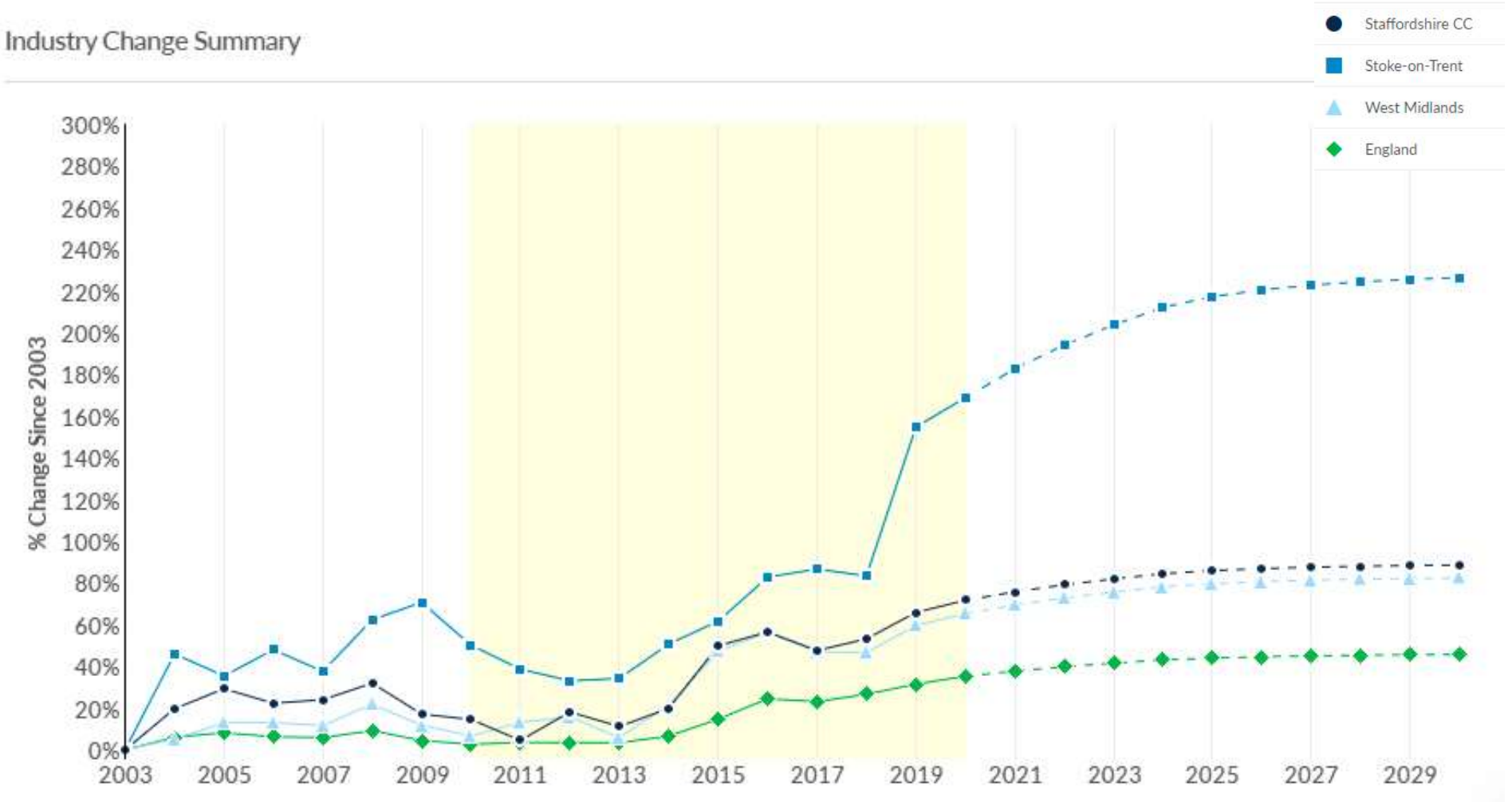
Opportunities

- Central location and strong connectivity
- Available land and premises to support growth
- Covid-19 has accelerated the shift to e-commerce and online retail with increasing demand for warehousing and wider supply chain logistics
- New digital technologies such as automation and AI are driving growth in highly productive advanced logistics

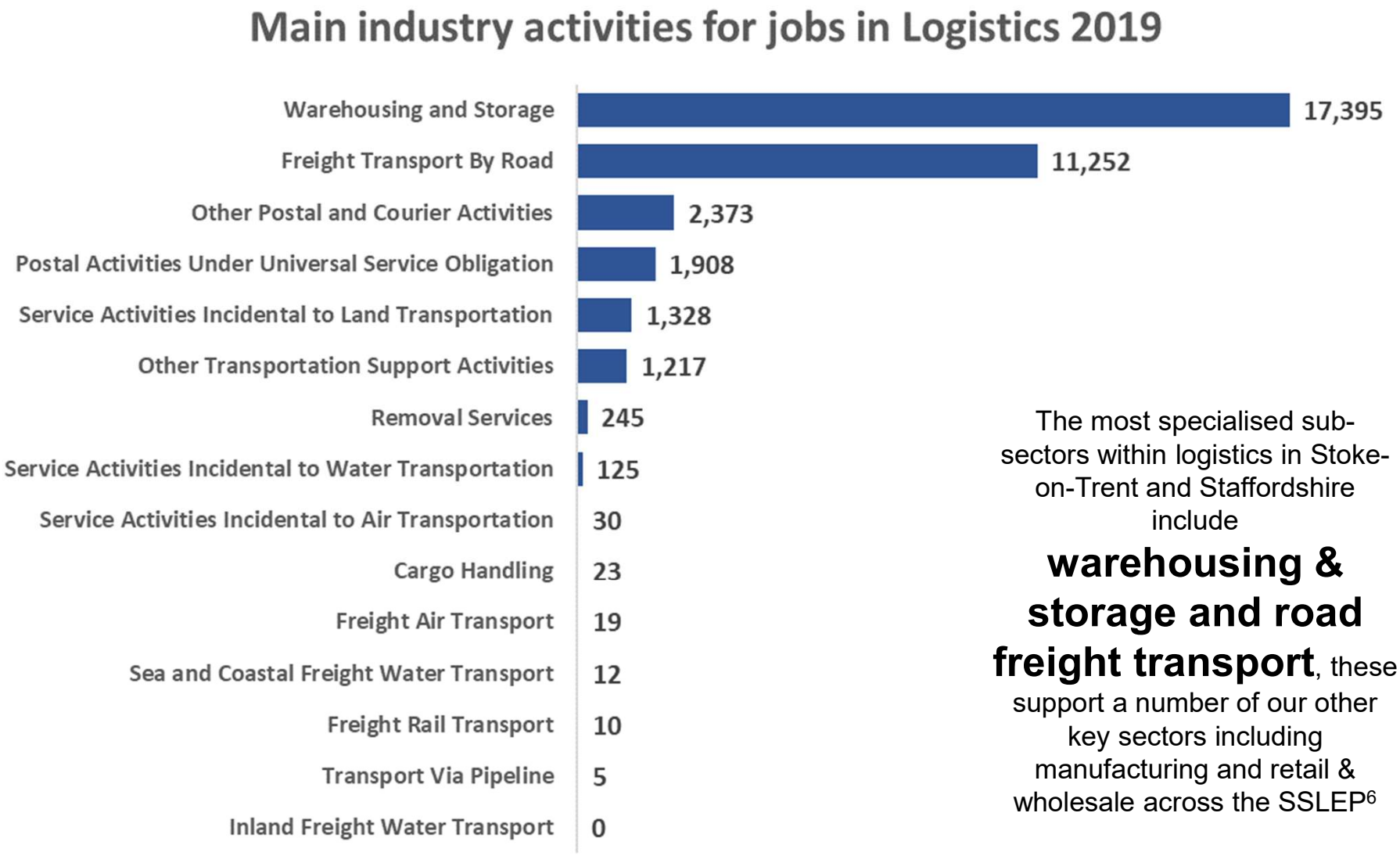
Threats / Challenges

- More workers needed in the sector to address key labour and skill shortages (i.e. ageing workforce)
- International trade (including the need for frictionless trade with the EU and rest of the world post Brexit)
- Reduced investment and access to land/premises
- Connectivity – modern and sustainable transport (e.g. air quality and climate change)
- Innovation – equipping workers with the skills needed to adopt new digital technologies to help drive productivity

Logistics jobs had grown going into the pandemic with further growth forecast due to our central location and rise of e-commerce and online retail

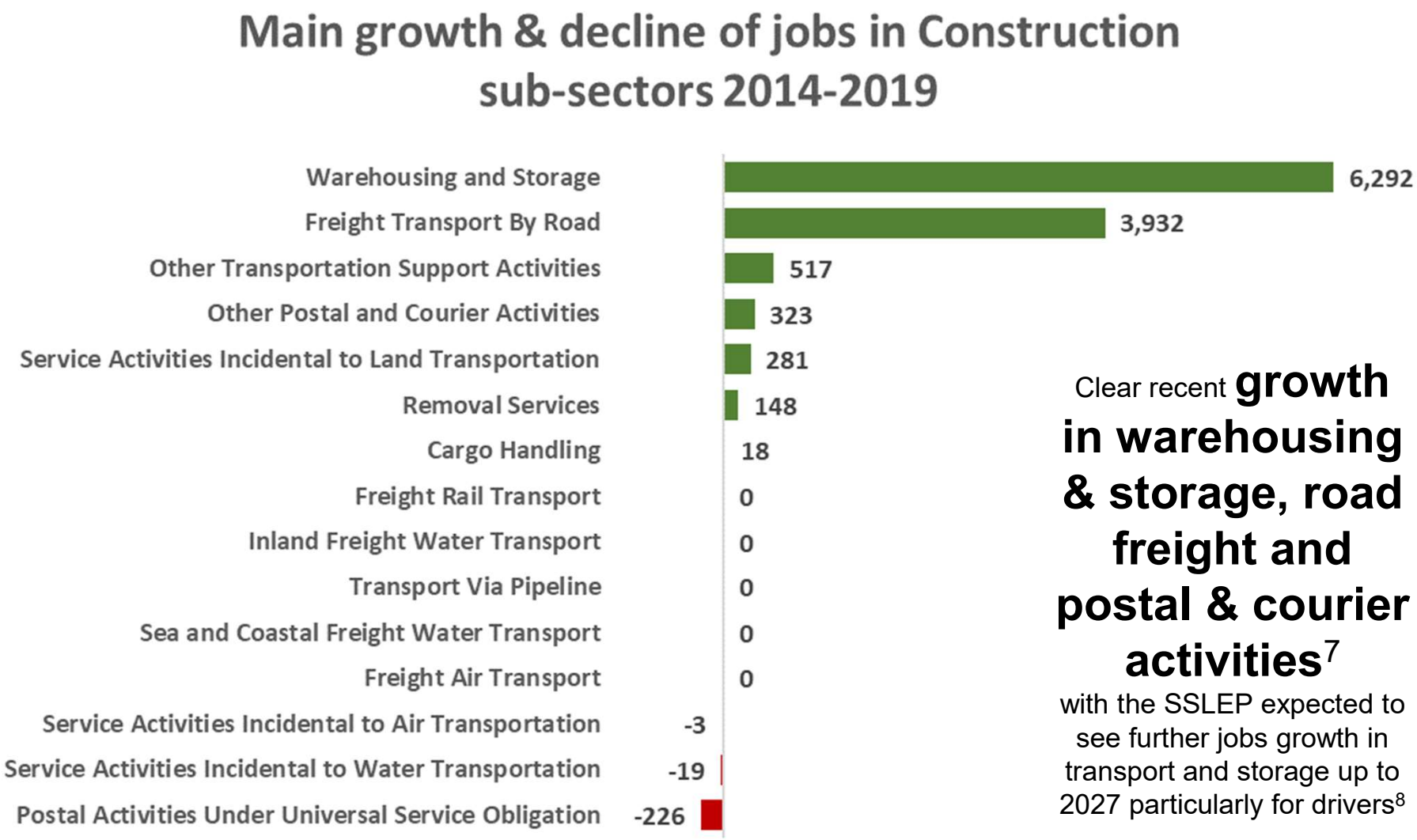


Logistics – Sector Make-up



The most specialised sub-sectors within logistics in Stoke-on-Trent and Staffordshire include **warehousing & storage and road freight transport**, these support a number of our other key sectors including manufacturing and retail & wholesale across the SSLEP[6]

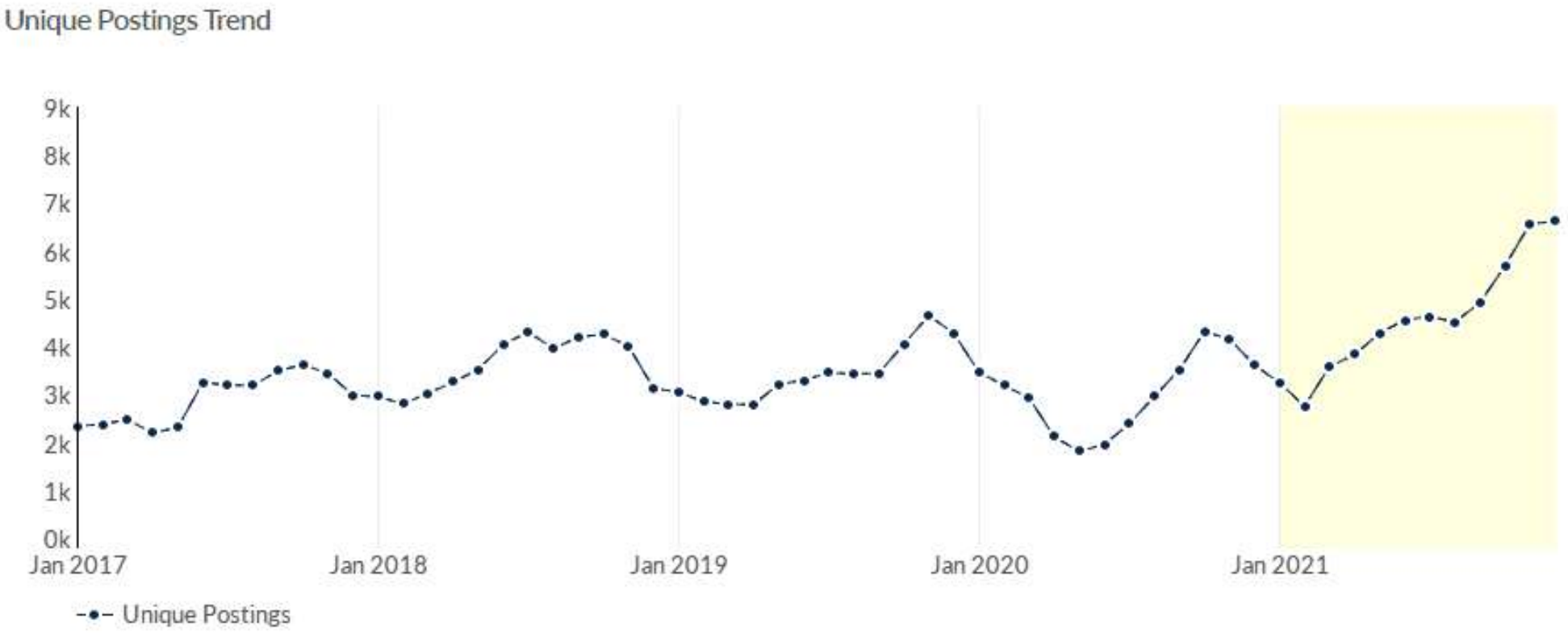
Logistics – Sub-Sector Growth & Decline



Clear recent **growth in warehousing & storage, road freight and postal & courier activities**[7] with the SSLEP expected to see further jobs growth in transport and storage up to 2027 particularly for drivers[8]

Seeing strong growth in Logistics job vacancies as the sector recovers

- Over 21,700 Logistics job vacancies in SSLEP between Jan 2021 and Dec 2021 which is an increase compared to 14,500 a year earlier and 16,700 two years earlier.
- The average advertised wage was £23.6K between Jan 2021 and Dec 2021 compared to £22.8K a year earlier and £22.5K two years earlier.



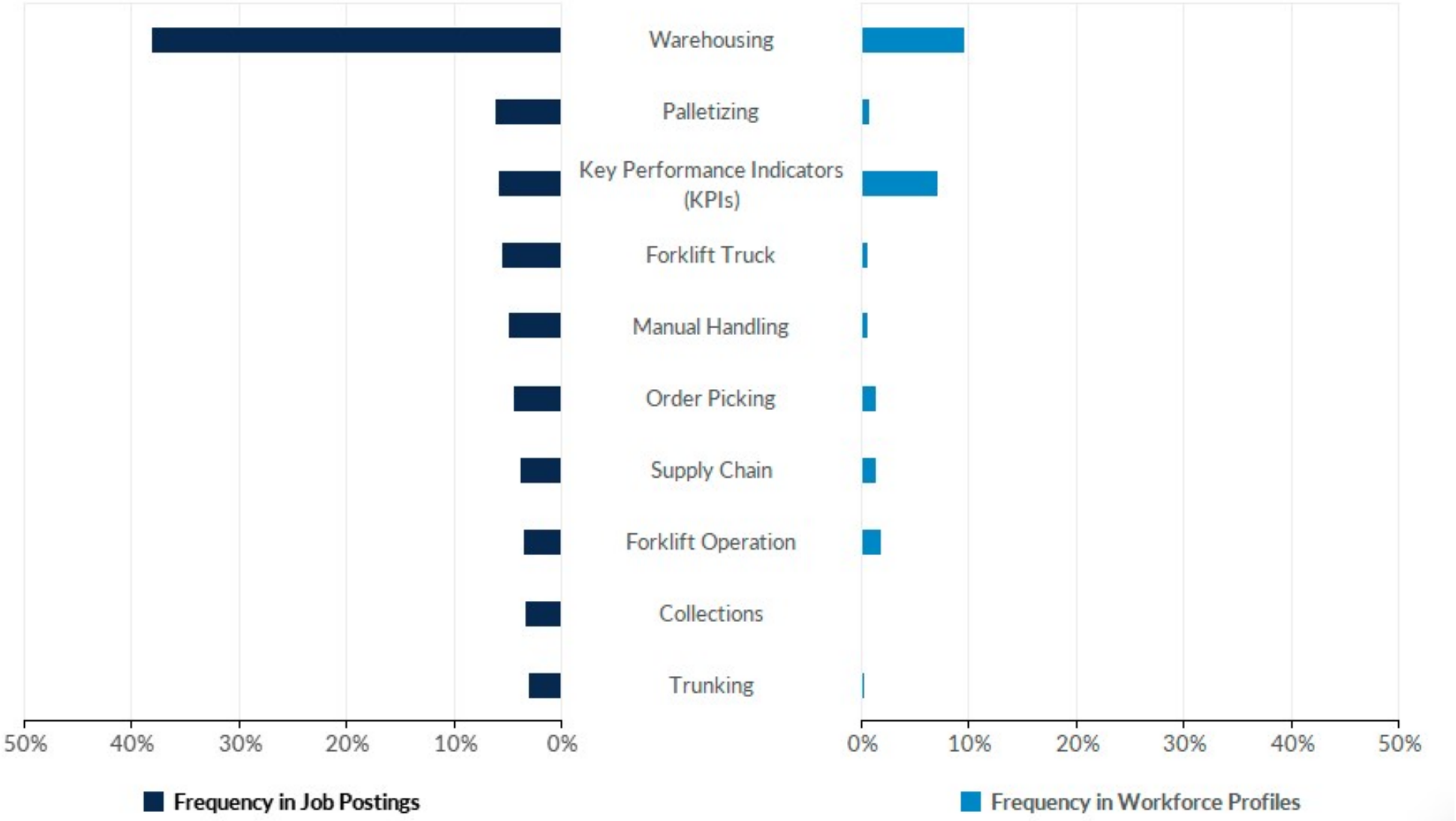
Logistics – Occupations in Demand

Top Posted Occupations

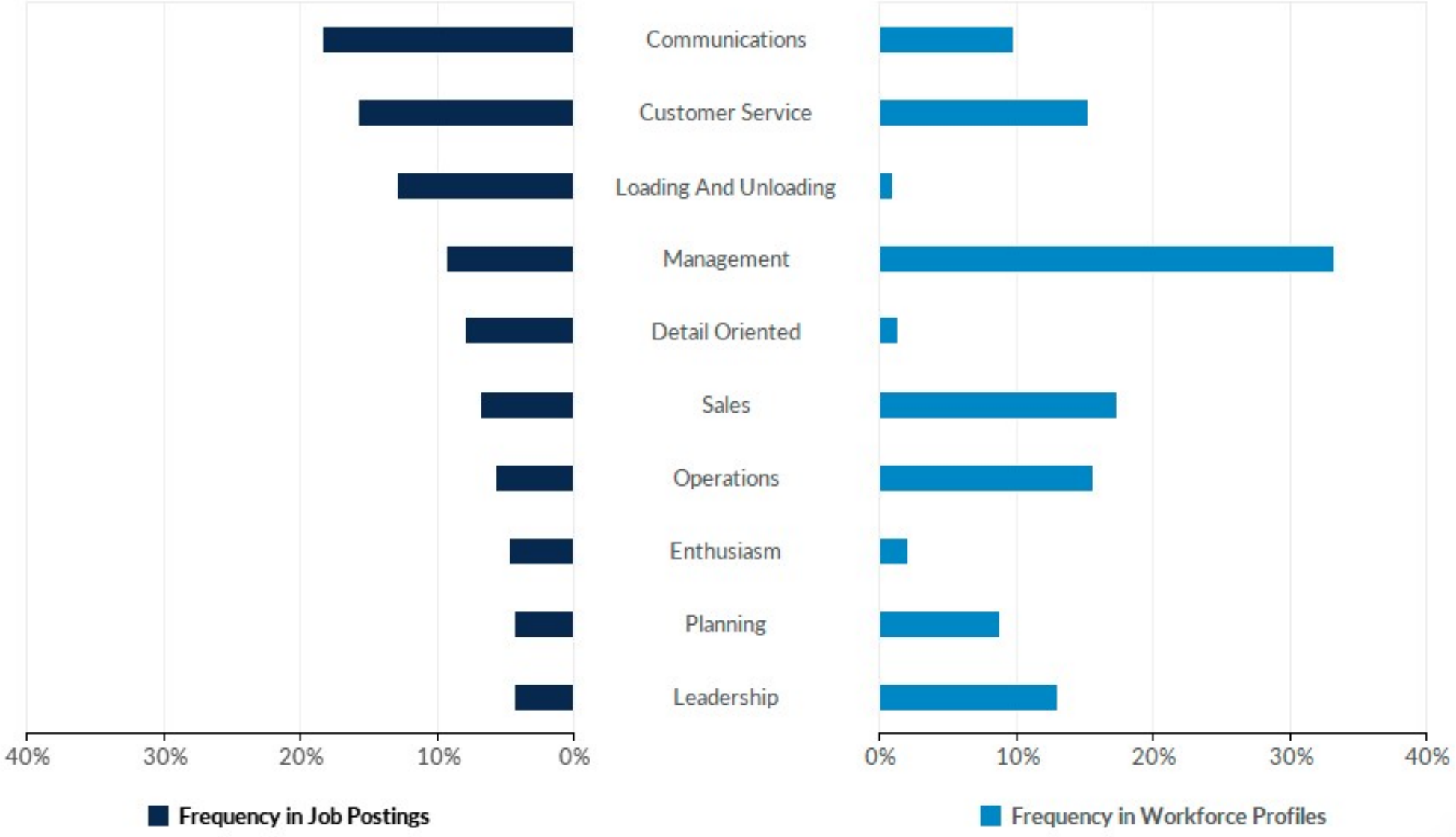
Occupation (SOC)	Total/Unique (Jan 2021 - Dec 2021)	Posting Intensity	Median Posting Duration
Elementary Storage Occupations	49,490 / 7,755	6 : 1	34 days
Van Drivers	29,226 / 6,262	5 : 1	33 days
Large Goods Vehicle Drivers	9,339 / 1,961	5 : 1	33 days
Managers and Directors in Storage and Warehousing	10,900 / 1,910	6 : 1	34 days
Transport and Distribution Clerks and Assistants	9,245 / 1,607	6 : 1	35 days
Fork-lift Truck Drivers	5,785 / 1,048	6 : 1	34 days
Purchasing Managers and Directors	2,917 / 506	6 : 1	41 days
Managers and Directors in Transport and Distribution	1,714 / 383	4 : 1	32 days
Postal Workers, Mail Sorters, Messengers and Couriers	1,458 / 274	5 : 1	33 days
Rail Transport Operatives	86 / 22	4 : 1	46 days
Other Drivers and Transport Operatives n.e.c.	67 / 17	4 : 1	34 days
Importers and Exporters	28 / 8	4 : 1	33 days
Air Transport Operatives	30 / 5	6 : 1	47 days

To find out more about what these occupations and more entail please visit the Department for Education (DfE) funded LMI For All website - https://www.lmiforall.org.uk/explore_lmi/

Logistics – Hard Skills in Demand



Logistics – Common Skills in Demand



Health & Social Care

Health & Social Care Sector

- In health and social care in the UK there are **over 100,000 businesses** and **nearly 4.5 million people working in the sector** and it contributes an estimated **£145 billion** to the economy.
- The Health and Social Care sector consists of any organisation which provides healthcare support to people, for example hospitals, dentists, and specialist support like physiotherapy, and social care support, for example, nursing homes, foster caring, and nurseries. In short, it includes any organisation or service which helps people live more independent, healthier lives. The NHS is Europe's biggest employer and the fifth biggest employer in the world. Nearly 1.5 million patients interact with the NHS every 24 hours.
- There are **over 350 job roles in the Health and Social Care sector**. Workers could choose to provide care for a specific group of people such as adults, children, the elderly, families, or those with mental ill health, physical disabilities, learning disabilities, or alcohol or drug dependency.
- The Health and social care sector is vital to the health of the population in general and our workforce for the whole economy. Given the continued **growth in the population** as a whole and the fact that **the population is ageing** there is **increasing demand for health and social care** services. However, growth in the size of the health and social care sector workforce has not kept pace with this increasing demand and therefore the **sector faces a number of labour shortages and skills gaps.**
- There are **over 100,000 vacancies at any time in the NHS**, including nurses, many types of doctors, allied health professionals and care staff, and **vacancies in adult social care currently total 122,000 and are rising**. This situation has been **exacerbated by the increased demand on the sector from the COVID pandemic.**
- **International recruitment** is a key factor in addressing these vacancies. **Brexit and changes to immigration policy** will have an impact on the ability of the NHS and social care providers to successfully fill these vacancies.
- However, there are opportunities in the sector to make better use of **new digital technologies** to improve quality, efficiency and patient experience as well as supporting more integrated care and improving the health of the population. **Staffordshire University** is aiming to create a healthcare cluster around a new innovation centre. The £5.8m **Centre for Health Innovation** at the University's Stafford campus is due to be completed in December 2021, and it will allow medical products to be tested 'in the field'.
- See SAP Health & Social Care Report for a detailed overview of health and social care.
- Skills for Care dashboard provides useful data on Social Care workforce both nationally and locally.

Health & Social Care SWOT

Strengths

- **1,455 SSLEP Businesses**[1]
- **64,000 SSLEP Jobs**[2]
- 2,000 increase in jobs since 2011
- 13.1% of all SSLEP jobs above regional (13.0%) and national (12.4%) averages
- **£2.3bn in GVA**[3]
- £530m growth in GVA since 2011
- 9.8% of total GVA

Weaknesses

- Around a sixth (16%) of businesses have had hard to fill vacancies over the last year (9% for all sectors)[4]
- Nearly a fifth of businesses (18%) have workforce skills gaps (14% overall) – over a quarter say health & safety and job specific (up to date quals) skills are main area for improvement[4]
- Declining apprenticeships
- Lower adult skill levels to fill advanced roles

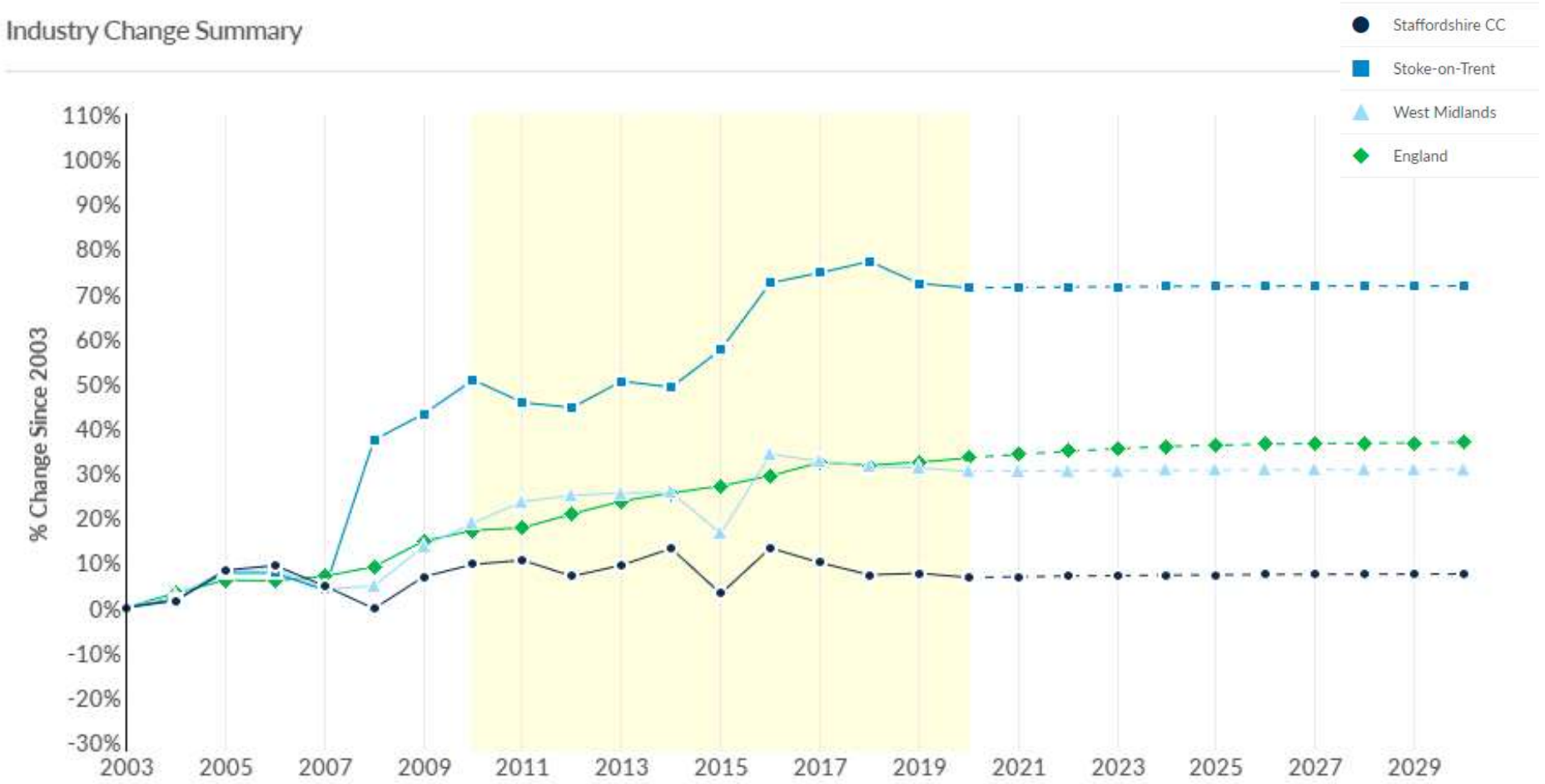
Opportunities

- Increasing demand for health and social care from overall population growth and an ageing population
- Covid-19 has accelerated the shift to new ways of working such as remote working and digital triage which has seen efficiency and productivity gains
- New digital technologies such as automation and AI are driving growth in highly productive advanced health and social care practice

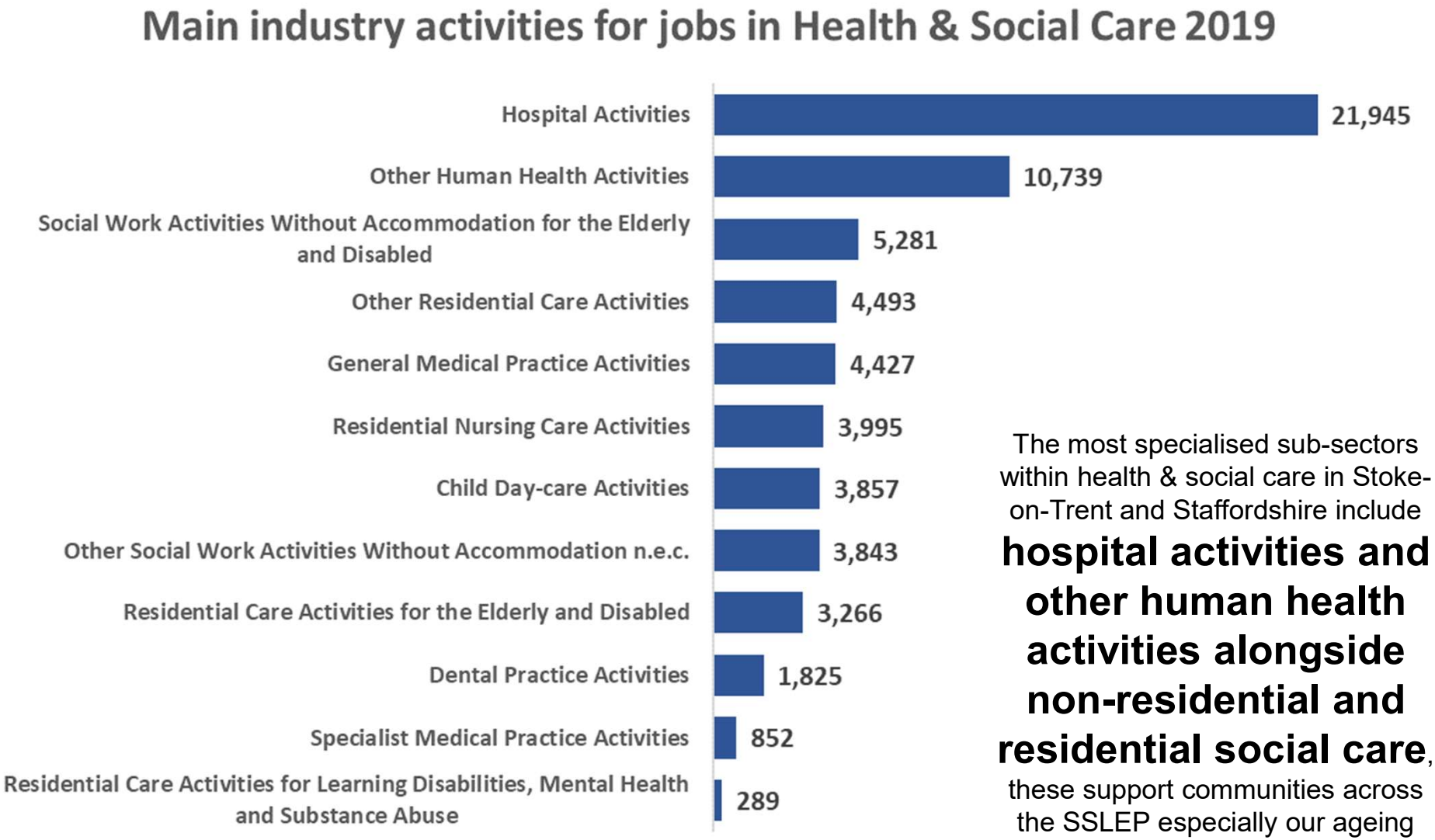
Threats / Challenges

- More workers needed in the sector to address key labour and skill shortages (e.g. nursing and care workers)
- COVID has further increased pressure on the sector and the requirement for further urgent recruitment
- Requirement for increased investment to keep up with increasing demand
- Innovation – equipping workers with the skills needed to adopt new digital technologies to help improve efficiency and drive productivity

Health & social care saw a long-term rise in jobs going into the pandemic with demand expected to remain high

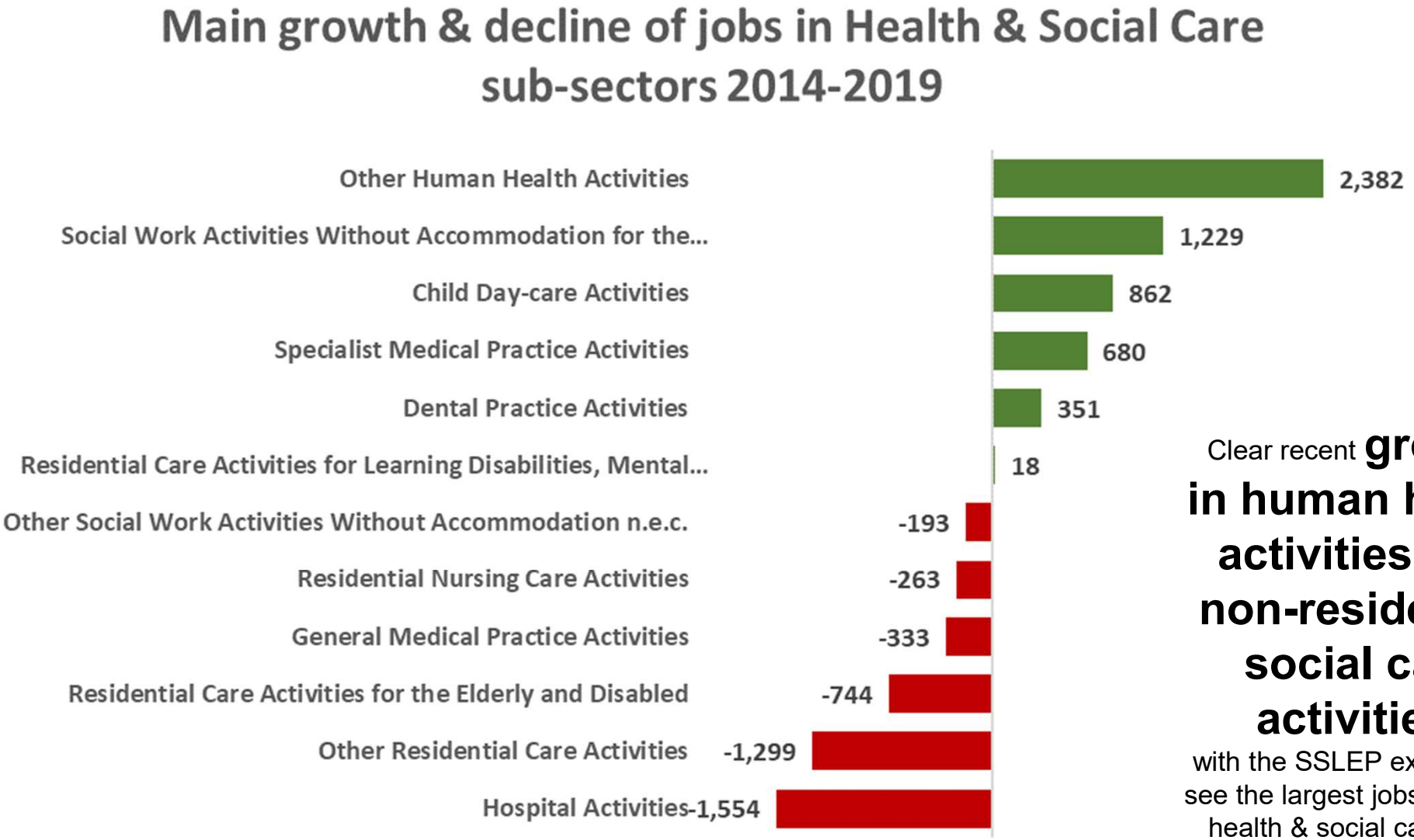


Health & Social Care – Sector Make-up



The most specialised sub-sectors within health & social care in Stoke-on-Trent and Staffordshire include **hospital activities and other human health activities alongside non-residential and residential social care**, these support communities across the SSLEP especially our ageing population[5]

Health & Social Care – Sub-Sector Growth & Decline

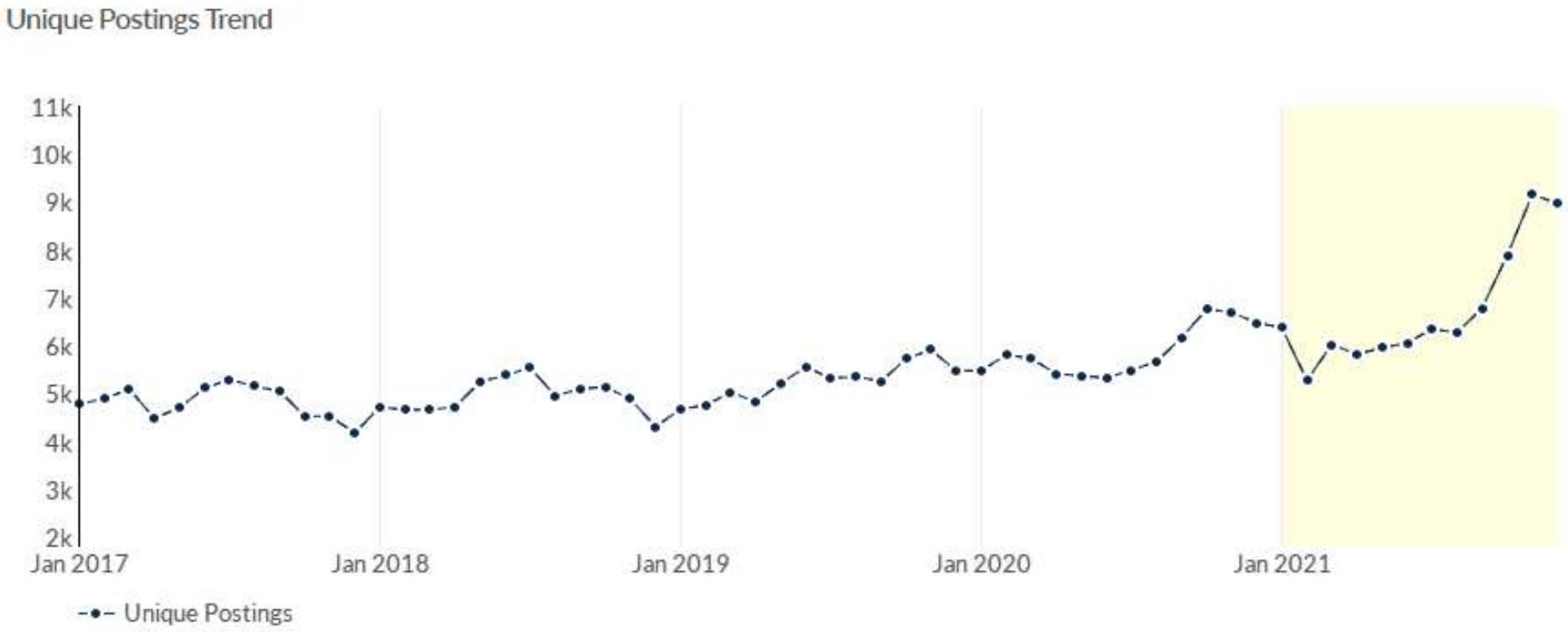


Clear recent **growth in human health activities and non-residential social care activities**[6]

with the SSLEP expected to see the largest jobs growth in health & social care up to 2027[7]

Continuing to see some growth in Health & Social Care job vacancies with demand for services remaining high

- Just under 31,400 Health & Social Care job vacancies in SSLEP between Jan 2021 and Dec 2021 which is an increase compared to 25,500 a year earlier and 23,000 two years earlier.
- The average advertised wage was £26.5K between Nov 2020 and Oct 2021 an decrease compared to £27.2K a year earlier but growth compared to £23.8K two years earlier.



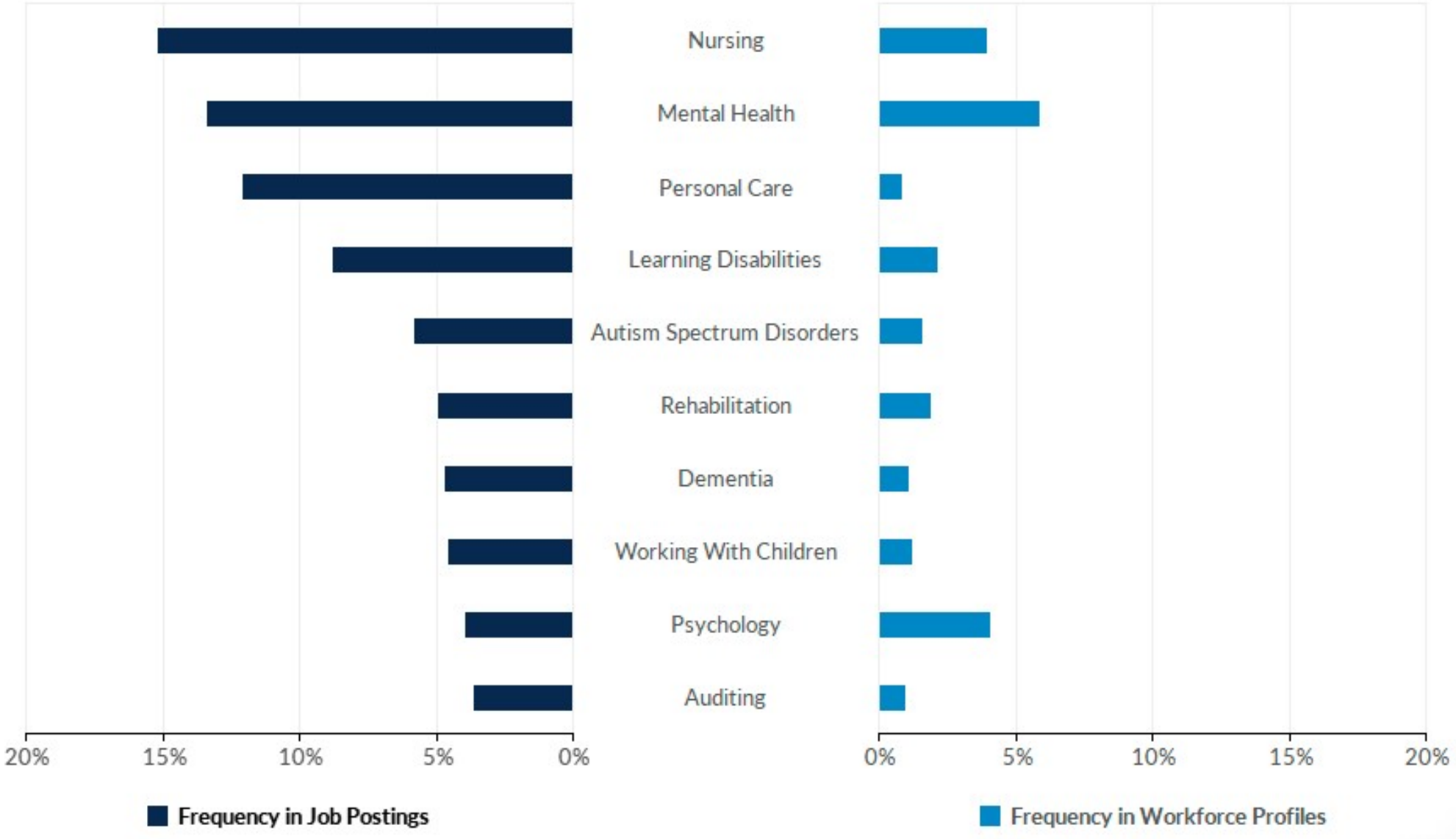
Health & Social Care – Occupations in Demand

Top Posted Occupations

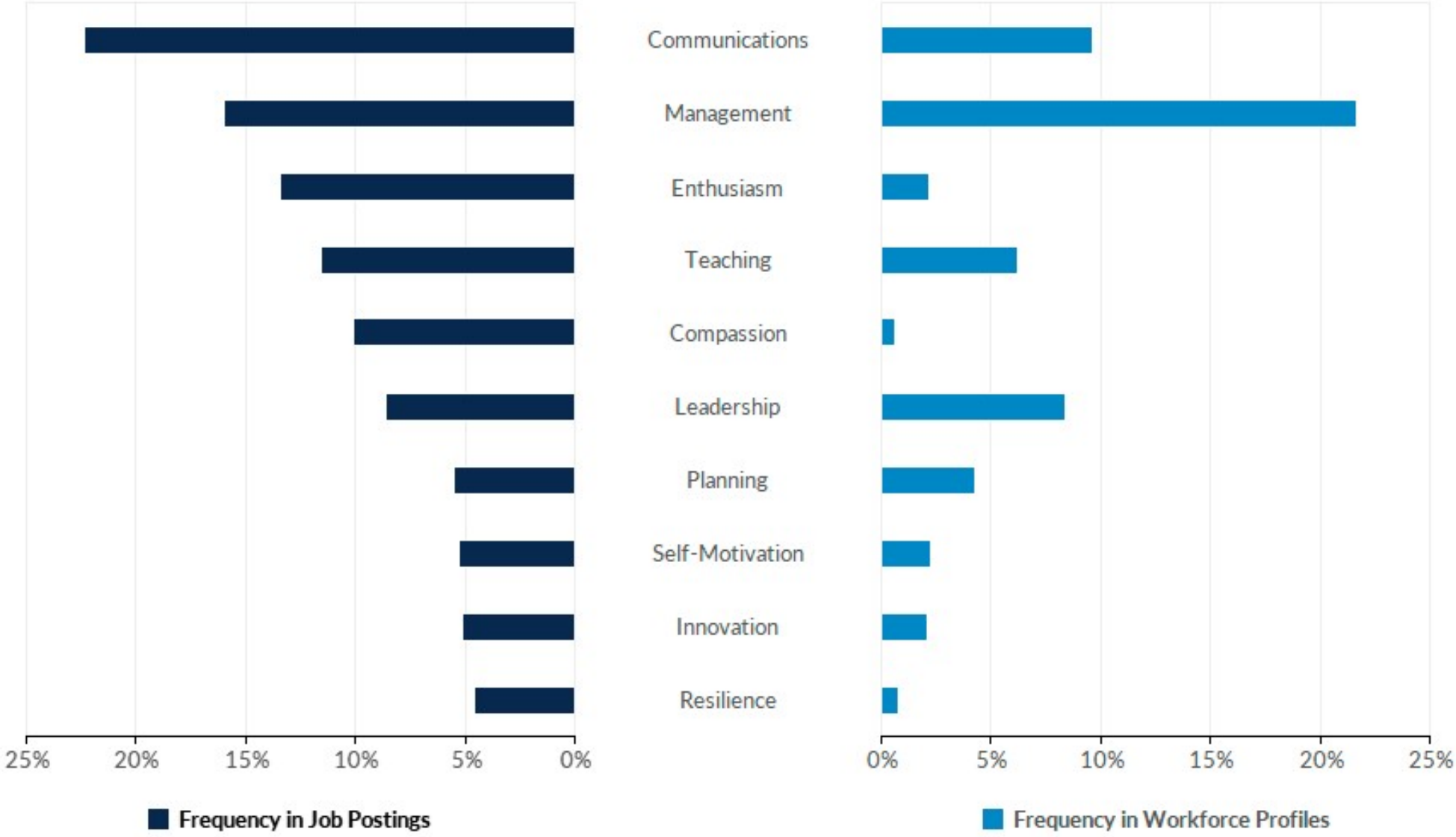
Occupation (SOC)	Total/Unique (Jan 2021 - Dec 2021)	Posting Intensity	Median Postin Duratio
Nurses	94,441 / 8,309	11 : 1	39 day
Care Workers and Home Carers	49,320 / 6,704	7 : 1	36 day
Teaching Assistants	12,614 / 2,194	6 : 1	30 day
Nursing Auxiliaries and Assistants	12,184 / 2,083	6 : 1	33 day
Residential, Day and Domiciliary Care Managers and Proprietors	12,021 / 1,812	7 : 1	38 day
Medical Practitioners	5,398 / 1,193	5 : 1	31 day
Educational Support Assistants	6,213 / 1,121	6 : 1	33 day
Youth and Community Workers	4,718 / 1,080	4 : 1	32 day
Senior Care Workers	4,931 / 728	7 : 1	34 day
Nursery Nurses and Assistants	2,382 / 653	4 : 1	32 day
Occupational Therapists	3,572 / 527	7 : 1	37 day
Psychologists	2,534 / 479	5 : 1	28 day
Health Services and Public Health Managers and Directors	3,833 / 459	8 : 1	31 day
Physiotherapists	3,779 / 450	8 : 1	36 day
Pharmaceutical Technicians	1,314 / 345	4 : 1	32 day
Pharmacists	1,806 / 326	6 : 1	32 day
Dental Nurses	2,649 / 313	8 : 1	35 day
Welfare and Housing Associate Professionals n.e.c.	1,207 / 303	4 : 1	29 day
Pharmacy and Other Dispensing Assistants	1,056 / 303	3 : 1	19 day
Dental Practitioners	1,331 / 302	4 : 1	46 day

To find out more about what these occupations and more entail please visit the Department for Education (DfE) funded LMI For All website - https://www.lmiforall.org.uk/explore_lmi/

Health & Social Care – Hard Skills in Demand



Health & Social Care – Common Skills in Demand



Conclusions

- It is clear that the **labour market is the lynchpin of the recovery** and we continue to see **signs of improvement** with unemployment decreasing and the availability of jobs at record levels.
- However, there are many people still out of work and businesses are reporting **increasing skills and labour shortages** which have the potential to slow the recovery unless the skills gap is quickly and effectively addressed.
- There is a clear need to **reskill and upskill** those looking for work to ensure that they can fill the roles needed in the economy and support business growth and innovation.
- At a time when Government is phasing out support put in place during the pandemic and there are growing concerns around debt, inflation and the cost of living, it has never been more important to **ensure that people have the skills required to access the jobs available in our economy.**
- It is vital that additional support such as the **Additional Restrictions Grant** and **Staffordshire Means Back to Business Programme** is utilised to help **businesses transition to new business models including diversification, digitisation and greenification to improve their viability and sustainability**.
- Alongside this **skills providers** and the **Government's Plan for Jobs including the Kickstart and Restart schemes, new Skills Bootcamps and free Level 3 qualifications** have an important role to play in **ensuring that local residents have the skills and training needed within the local economy to support increased growth, productivity, and prosperity.**
- Reskilling and upskilling residents from declining sectors into priority growth areas of the economy such as **digital, green, advanced manufacturing, advanced logistics, construction, and health and social care** will be key.

Further Information

Local Industrial Strategy:

- SSLEP Local Industrial Strategy (LIS)
- SSLEP Local Industrial Strategy (LIS) Evidence Base

Skills Advisory Panel:

To ensure that our local economy has the skills that are currently in demand and those that will be needed in the future we have recently published our first DfE SAP Local Skills Report and Annex A Core Indicators. Evidences our skills strengths and needs and sets out strategic priorities and action plan. Recognised by DfE as best practice and selected to go through to the national Skills and Productivity Board.

- SSLEP SAP Local Skills Report – Skills Strategy and Action Plan
- SSLEP SAP Annex A – Core Indicators
- SSLEP SAP Evidence Base
- SSLEP SAP Priority Sector, Localities and Thematic Reports
- SSLEP SAP Deep Dive Report - Work Placements and CEIAG

COVID Recovery:

- Staffordshire COVID-19 Economic Recovery, Renewal and Transformation Strategy
- Stoke-on-Trent COVID Strategic Plan
- Staffordshire Economic Bulletin
- The relationship between training and skills and the future Staffordshire economy paper (Prosperous Staffordshire Select Committee)

Further Information

Midland Engine Regional Intelligence:

Regional Economic Impact Monitors - Midlands Engine

State of the Region - Midlands Engine

Midlands Engine State of the Region 2021 (arcgis.com)

Midlands-Engine-IER-Full-Report.pdf (midlandsengine.org)

Latest Economic Data - Midlands Engine

Midlands Engine Intelligence Hub - Midlands Engine

Natural Capital Monitor - Midlands Engine

Midlands-Engine-Social-Enterprise-Executive-Summary.pdf (midlandsengine.org)

https://www.midlandsengine.org/wp-content/uploads/2022/02/Midlands-Engine-Brexit-Monitor-Final.pdf