



**The Marches Sector Skills Deep Dive -
Transport Technologies and Logistics
Report September 2021**



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Sector Key Stats:



1,140 businesses

Including employers such as Argo Merchants Whitchurch, Bartups, Simmonds Transport, A.J. Maiden and Son, Dale Brothers, DR & FA Ford, Lakeside Coaches



10,405 employees



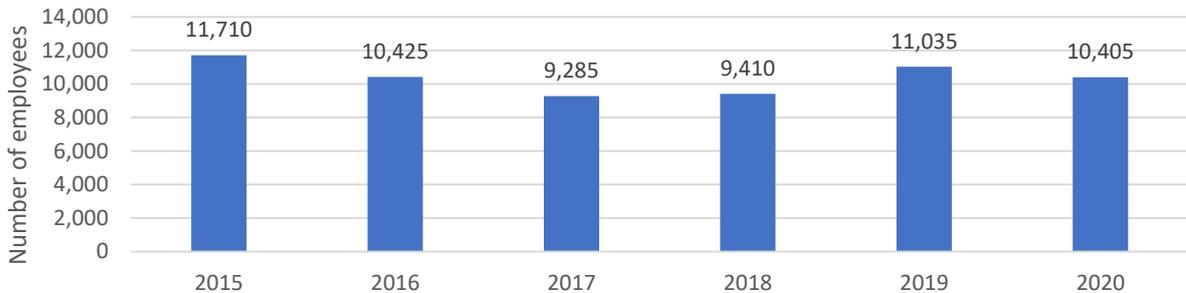
£420m GVA

The transportation sector is a category of companies that provide services to move people or goods, as well as transportation infrastructure. The transportation sector consists of several industries including air freight and logistics, airlines, marine, road and rail, and transportation infrastructure. These industries are further broken down into the sub-industries air freight and logistics, airlines, marine, railroads, trucking, airport services, highways and rail tracks, and marine ports and services.

1. A look at the sector pre-pandemic

In 2020 there were 10,405 employees in the transport technologies, logistics and warehousing sector across the Marches LEP area, accounting for 4% of total employment. This is a decrease of 6% (-630 employees) since the previous year. 18% of these were in Herefordshire (1,850 employees), 46% were in Shropshire (4,805 employees), and 36% were in Telford and Wrekin (3,750 employees).

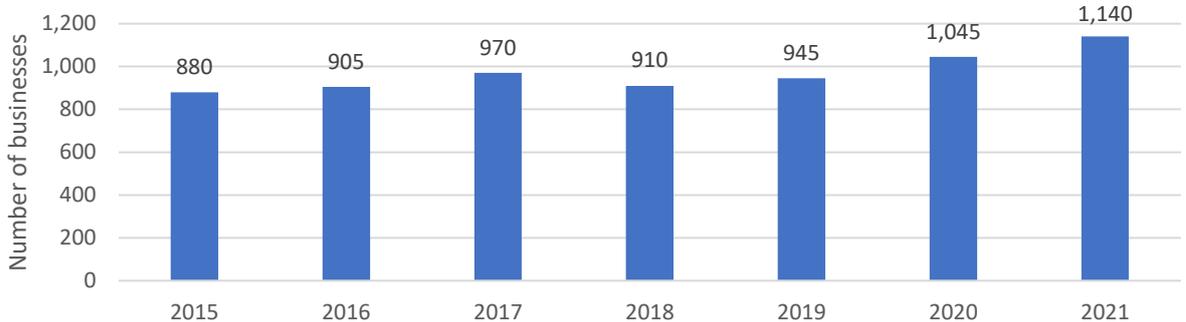
Figure 1: Employees, 2015-2020



Source: ONS Business Register & Employment Survey

In 2021 there were 1,140 business across the Marches LEP area in the sector, accounting for 4% of total businesses. This is an increase of 9% (+95 businesses) since the previous year. 22% are in Herefordshire (255 businesses), 39% were in Shropshire (450 businesses), and 38% were in Telford and Wrekin (435 businesses).

Figure 2: Businesses, 2015-2021



Source: ONS UK Business Count

In 2019 the sector contributed £420m towards the Marches economy, an increase of 2% (+£8m) since the previous year, accounting for 3% of total GVA. 15% of the sectoral GVA came from Herefordshire (£62m), 48% came from Shropshire (£200m), and 38% came from Telford and Wrekin (£158m).

Figure 3: GVA, 2015-2019



Source: ONS Regional Gross Value Added (Balanced GVA)

1.1 Job hotspots

Key hotspots of transport technologies and logistics activity are displayed in figure 4 below, depicting the concentration of transport technologies and logistics sector jobs. More detailed maps, including related to growth, are available to view [here](#).

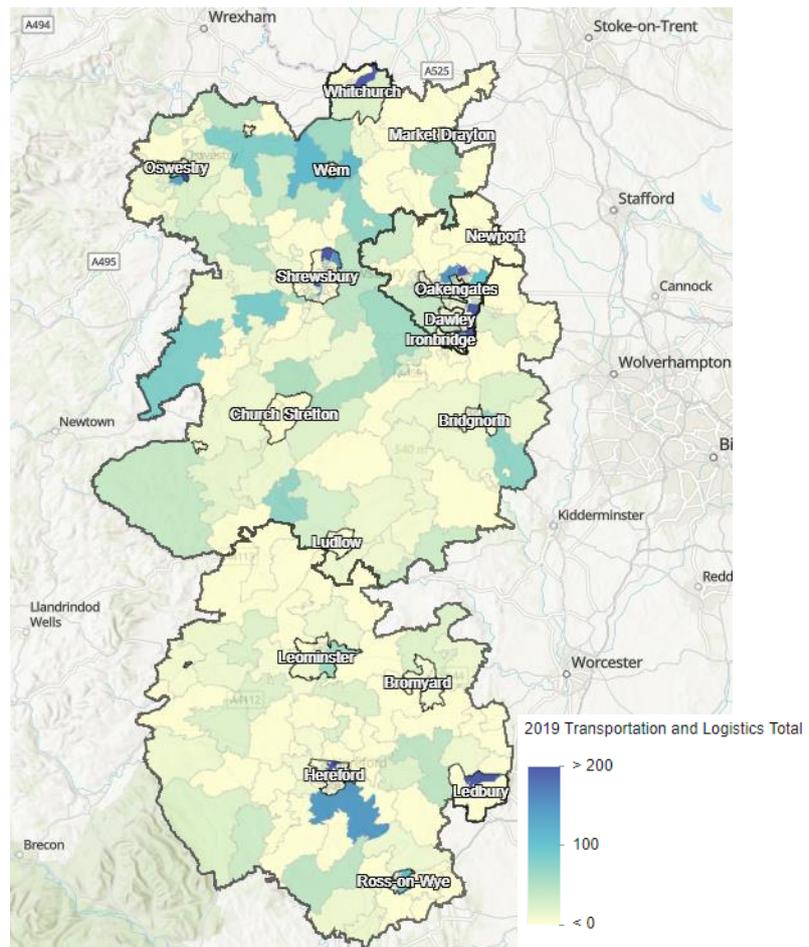
The spatial analysis reflects the key Marches town centres that are the hubs of transport technologies and logistics activity in the LEP area. In particular:

- **Telford and nearby market towns of Oakengates, Horton, Madeley, Donnington Wood** all have high numbers of jobs in the sector.
- **Shrewsbury**: with concentrations in the town centre and in outskirts to the north and north east. Growth of these sectors has remained relatively flat.
- **Hereford and nearby Ballingham**, particularly in the city centre.
- Other small towns, with differing characteristics. For example:
 - **Ledbury**; which recorded modest growth since 2016 in the outer town centre but decreases within the town centre
 - **Ross-on-Wye**; saw decreases in outer town centre as well as large decreases in the nearby areas.
 - **Oswestry**; which has seen decreases since 2016
 - **Whitchurch**; which saw small decreases
 - **and Market Drayton**; which saw modest increase since 2016.

Figure 4: Concentration of transport technologies and logistics jobs in the Marches

This is where the majority of transport technologies and logistics jobs are based.

More information on towns in the Marches can be found [here](#).



Source: ONS Business Register & Employment Survey

1.2 Skills situation

The vacancy situation in 2019 in the transport and storage sector shows that 4% of companies in the Marches had a vacancy that is hard to fill. This is compared to an overall England average across all sectors of 8%, and 6% of all employers noting a skills shortage vacancy. Data for the sector in the Marches was unavailable due to data suppression (sampling size).

Figure 5: Transport and Storage Vacancies

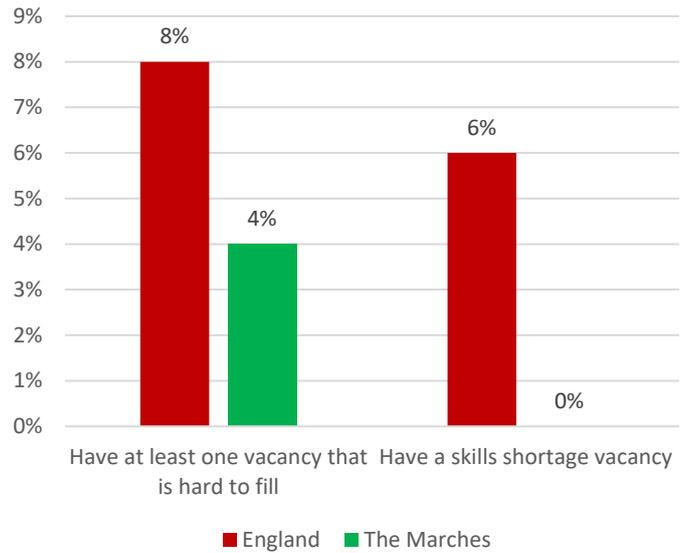
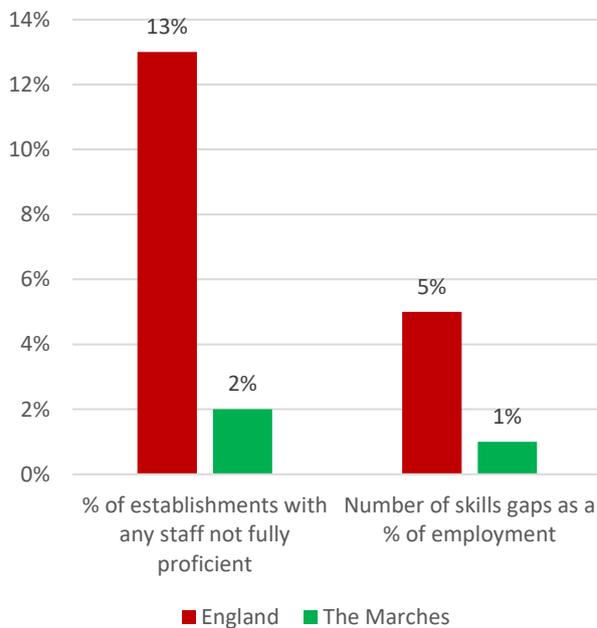


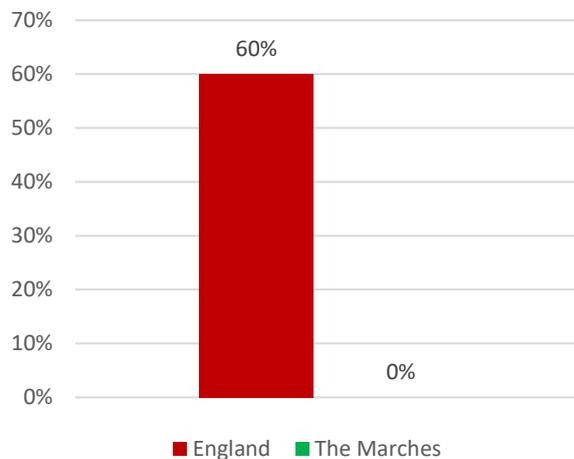
Figure 6: Transport and Storage Skills Gaps



In terms of skills gaps, 2% of establishments had staff who aren't fully proficient within the transport and storage sector. 1% of all employees within the transport and storage sector are not skilled enough. Across England, 13% of establishments have staff who aren't fully proficient and 5% have skills gaps.

In the transport and storage sector, no data about the percentage of staff trained was available for the Marches due to data suppression. England data shows that this was 60% as a whole across England.

Figure 7: Transport and Storage Staff Trained as a % of all Staff



2. COVID impact on the sector

2.1 Immediate impact

The COVID-19 pandemic and subsequent lockdown restrictions has had a significant impact on vehicle flows and public transport both at national and local level.

Car and LGV flows at both national and local level showed signs of recovery between July and October 2020 as lockdown eased, but declined again during the second lockdown in November. Local LGVs have remained above those recorded pre-COVID since March, whilst national car and LGV flows although show signs of recovery, only started to increase above those recorded pre-COVID levels in May 2021.

Bus patronage still remains very low compared to pre-COVID levels and has shown little sign of recovery over the last 12 months.

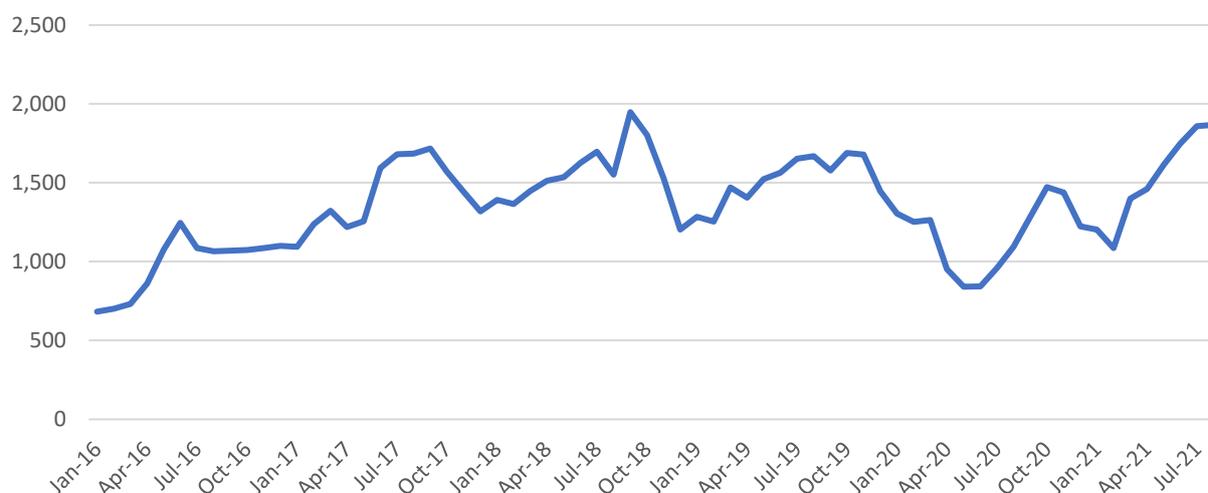
HGV flows despite declining rapidly at national and local level during the first lockdown, recovered quickly from June onwards, particularly at local level. Local HGV flows recorded the largest decrease in flows in December following the second lockdown, but have since started to recover rapidly, with flows between February and May 2021 back above pre-COVID levels.

Cycling increased significantly during the first phase of lockdown, when exercising outdoors was permitted and warmer weather prevailed, however, they have remained below pre-COVID levels during winter, which is to be expected. Cycle flows started to increase from March 2021 onwards nearing levels recorded pre-COVID, however, decreased slightly in May due to higher-than-average precipitation.

2.2 Job postings

On the 23rd March 2020 a lockdown came into effect across the UK as people were told to stay at home to reduce the spread of COVID-19. The below graph highlights the immediate impact it had on the sector via a sharp decline in postings in the month of March 2020 (1,264 postings) to April (953 postings), reaching a low of 840 postings in May, before increasing again as restrictions were lifted, climbing to reach 1,472 postings in October 2020, before a second lockdown in November stifled job postings again. The sector has since recovered in terms of job postings and reached pre-pandemic levels (1,868 postings) in August 2021.

Figure 8: Unique postings, Jan 2016 - August 2021



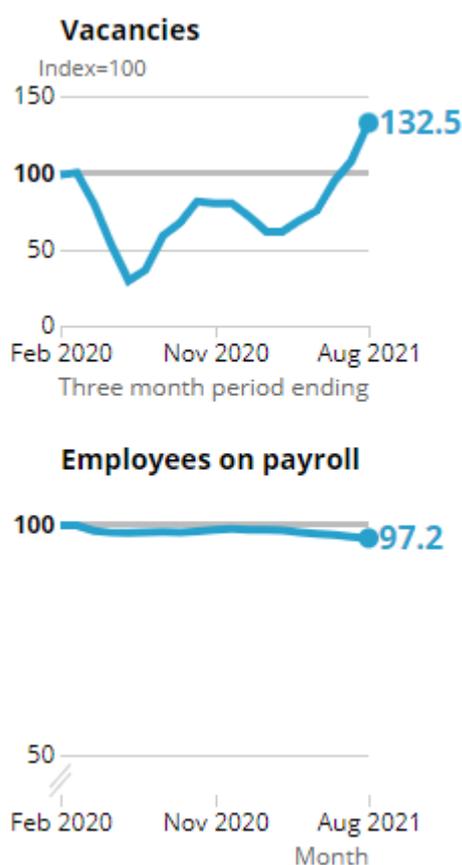
Source: EMSI Analytics

2.3 Vacancies

Annual population survey estimates show that there were around 278,700 HGV drivers employed across all sectors in 2020, 7% less than in 2019 where around 300,100 were employed.

The widely reported loss of some 100,000 lorry drivers as a result of the combination of Brexit and the pandemic is now causing major concerns – particularly in relation to the frequency of collections from farms producing perishable food products and deliveries to supermarkets. The worry is that food shortages are set to get progressively worse, affecting food supply to the public as well as food & drink, agriculture and logistics supply chains. The Government have mitigated this risk by consulting on changes to HGV driver testing procedures and extending maximum driver hours.

Figure 9: Vacancies in transport and storage, UK, December 2019 to February 2020 to June to August 2021, Index Jan-Mar 2020 = 100; Payrolled employment in transport and storage, UK, February 2020 to August 2021, Index Feb 2020 = 100



There were 1,034,000 job vacancies in the UK in June to August 2021, an increase of 35.2% (269,300) on the previous quarter, and the highest since the series began in 2001. In the transport and storage sector, 15% of businesses were struggling to fill jobs. This may partly reflect reports of a shortage of heavy goods vehicle (HGV) drivers. However, despite being mainly employed in transport and storage, HGV drivers only account for around 1 in 10 jobs in the industry as a whole. Between 23 August and 5 September 2021, 15% of businesses said that vacancies were more difficult to fill than normal, up from 9% in early August. These difficulties coincide with a very busy time for recruitment according to the latest labour market data, up 32.5% compared to January to March 2020. Of all businesses that were experiencing recruitment challenges, one in four (25%) said that a reduced number of EU applicants was a factor. This rises to almost one in two (46%) for transport and storage businesses, the highest of any sector. In early August, transport and storage and hospitality businesses were the most likely to say they had fewer EU workers than in previous years (7%).¹

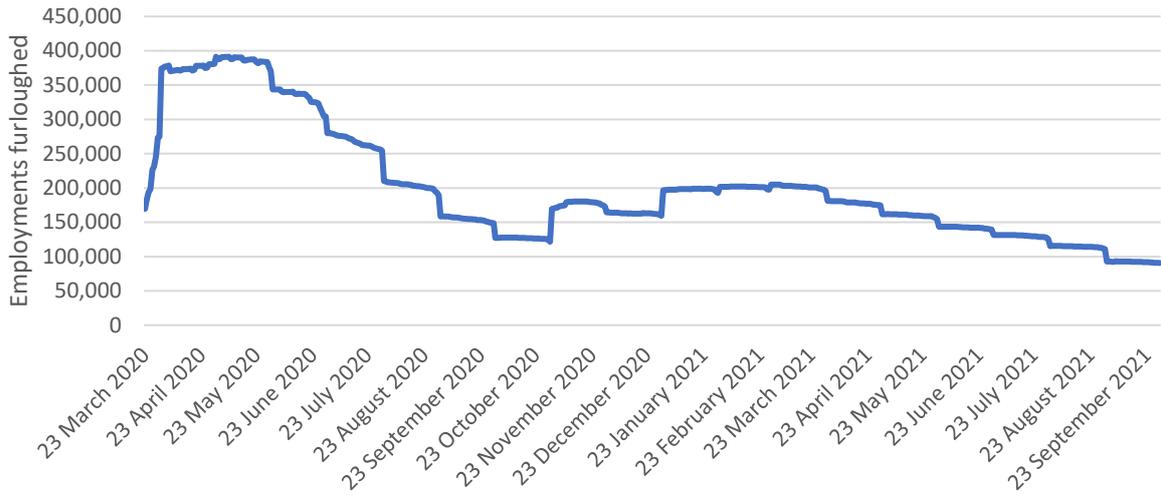
Source: Office for National Statistics – Vacancy Survey; HM Revenue and Customs – Pay as You Earn Real Time

2.4 Furlough

Across the UK, employments furloughed in the transportation and storage sector increased dramatically from 169,400 on 23rd March 2020 to a high of 391,300 on 1st May 2020. The number has since declined, reaching a low of 121,600 on 31st October, then increasing again during the second and third lockdowns, and then fell back down to 90,600 as of 30th September 2021, making up 8% of all employees on furlough.

¹ [ONS, Hospitality businesses are most likely to be struggling to fill vacancies, 2021](#)

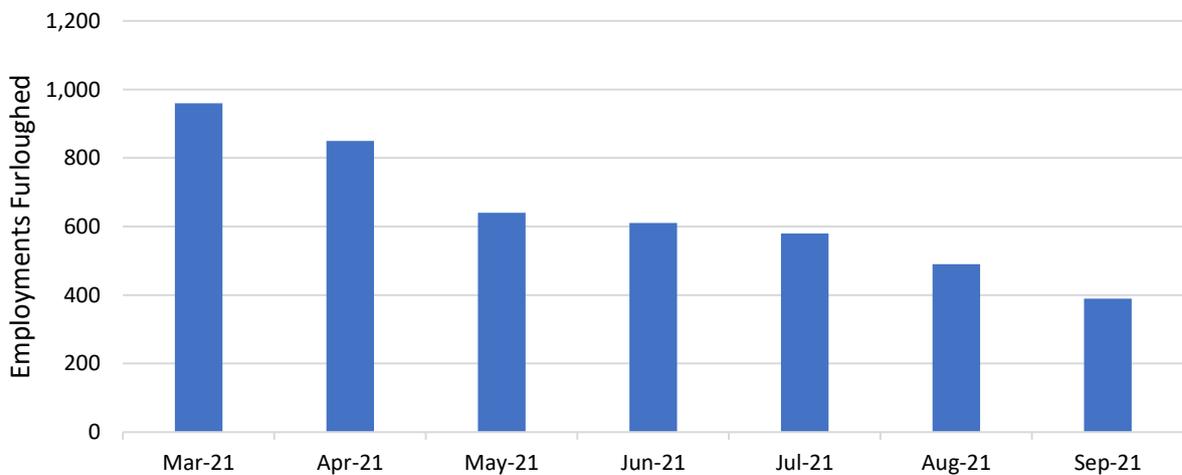
Figure 10: Transportation and storage employments furloughed in the UK



Source: HMRC Coronavirus Job Retention Scheme statistics

Marches furlough data by sector is available for the months March 2021 onwards. We can see a decrease in the number of employments furloughed between March and September 2021 (-570), reaching 390 in September 2021. At this time, employees furloughed in the transportation and storage sector made up 4% of all employees on furlough in the Marches.

Figure 11: Transportation and storage employments furloughed in the Marches



Source: HMRC Coronavirus Job Retention Scheme statistics

2.5 SEISS

There has been a total of 107,900 claims made from 32,300 individuals in the Marches across all SEISS grants; the total claims reached a value of over £293.6m. The Self-Employment Income Support Scheme supports people who are self-employed and whose earnings have been impacted by the pandemic.

West Midlands Region: Claims by Broad Industry

Figure 12: SEISS breakdown by broad industry associated with transport technologies and logistics activities for the West Midlands Region:

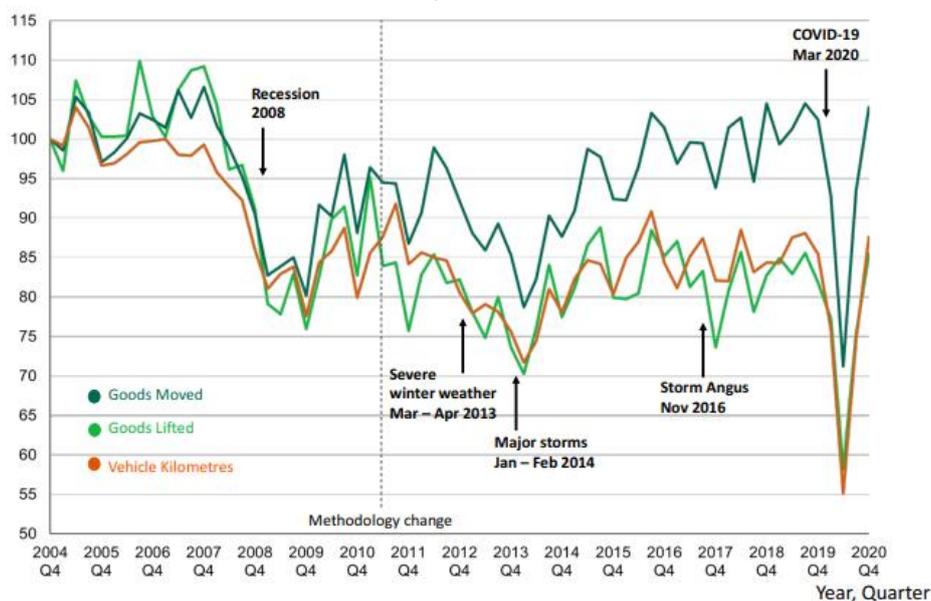
Sector description	Total potentially eligible population	Total no. of claims made to 07/10/21	Total value of claims made to 07/10/21 (£)	Average value of claims made to 07/10/21 (£)	Take-Up Rate
Transportation and storage	24,200	13,700	21,800,000	1,600	57%
All	258,000	95,000	200,000,000	2,100	37%

Source: HMRC Self-Employment Income Support Scheme statistics

2.6 Impact on domestic road freight

Domestic road freight activity has fluctuated over the years, with volatility seen following extreme weather conditions and the 2008 recession. As the economy recovered, road freight activity gradually returned to expected levels. During 2020, a particularly large decline was seen as restrictions were put in place to limit the impact and transmission of COVID-19. Between 2019 and 2020 'goods lifted' decreased by 12%, compared to an 8% decline which was seen between 2007 and 2008 during the recession.

Figure 13: Trend in goods moved, goods lifted and vehicle kilometres by GB-registered HGVs, 2004 Q4 to 2020 Q4, indexed to 2004 Q4



Source: Domestic Road Freight Statistics, United Kingdom 2020

During January - March 2020 the number of goods lifted domestically was 331.8 million tonnes. This decreased to 249.6 million tonnes during April - June 2020, a 25% decrease, falling substantially lower than usual freight levels. This decrease occurred during the period when restrictions were first implemented to limit the impact and transmission of COVID-19.

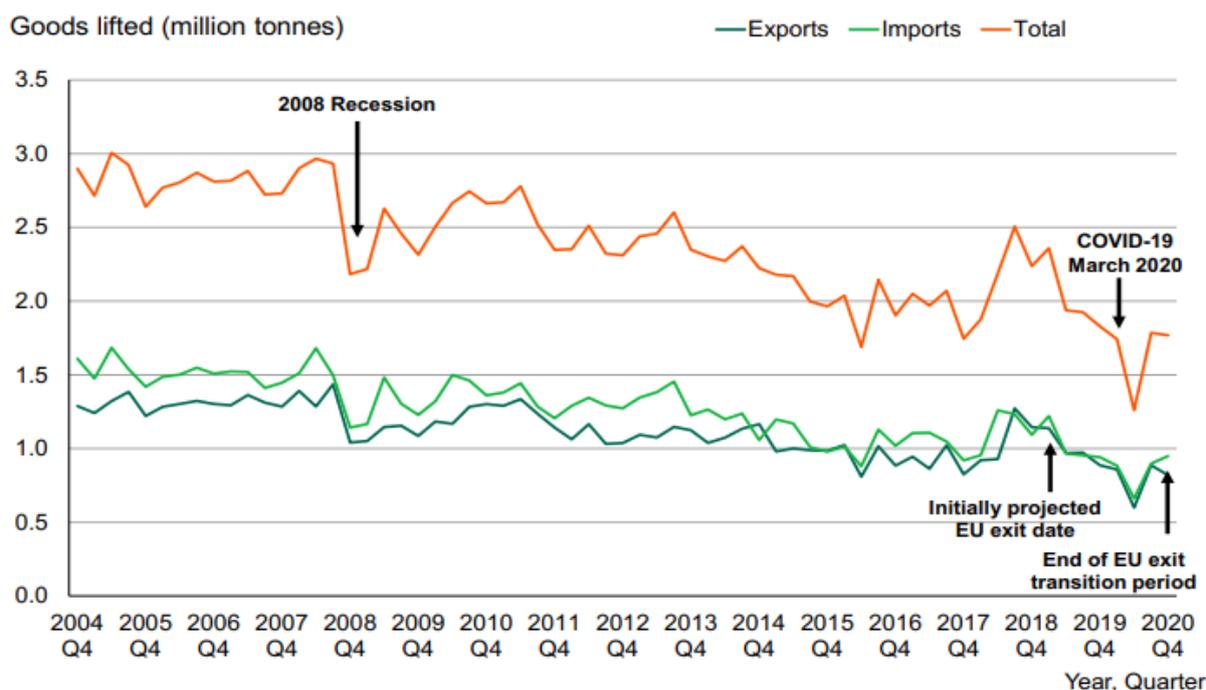
Between April - June 2020 and July - September 2020 there were some signs of recovery, with the amount of goods lifted increasing closer towards usual levels. This coincides with the easing of lockdown restrictions and aligns with trends seen in road traffic levels. Despite this recovery, the amount of goods lifted in July - September 2020 was still 12% lower than the same period in 2019.

A further recovery was seen between October - December 2020, with the amount of goods lifted domestically increasing above the level seen during October - December 2019. The amount of goods lifted increased to 367 million tonnes (13% increase), falling within the expected levels. This period included a second, 4-week lockdown, as well as the closure of the France-UK border that stopped all accompanied freight from the UK entering France for 48 hours. This period also preceded the end of the EU exit transition period.²

2.7 Impact on international road freight

In 2020 the amount of goods lifted by UK-registered HGVs travelling to or from the UK was 6.6 million tonnes, down 19% on 2019. For comparison, there was a 12% decrease in goods lifted in the year following the 2008 recession. The percentage decrease for total goods lifted between 2019 and 2020 was driven by a decrease in both goods imported and exported, with imports falling by 17%, and exports falling by 20%.

Figure 14: Trends in goods lifted by UK-registered HGVs, 2004 Q4 to 2020 Q4



Source: International Road Freight Statistics, United Kingdom 2020

The number of goods lifted in April - June 2020 was substantially lower than usual freight levels. This was during the period when restrictions were first implemented to limit the impact and transmission of COVID-19.

The following quarters saw some recovery, with the levels seen in the periods of July - September 2020 and October - December 2020 more in line with variations seen before the pandemic. This recovery coincided with the easing of lockdown restrictions.

² [Department for Transport Domestic Road Freight Statistics, United Kingdom 2020](#)

Total goods lifted remained stable into October - December 2020 with a 1% decrease compared to the previous quarter. During this period there was a rise in imports and a fall in exports. This period preceded the end of the EU exit transition period, as well as a second lockdown and the closure of the France-UK border that stopped all accompanied freight from the UK entering France for 48 hours.

Caution should be taken when comparing these data to previous time periods. Previously announced timings of the UK leaving the EU, the subsequent transition period, and the coronavirus pandemic have all caused higher levels of volatility in freight statistics over the past two years.³

2.8 Impact on e-commerce

Data reveals that there was a significant increase in the number of packages sent since the beginning of lockdowns across Europe. Sendcloud⁴ compared the week of 6th of April (week 15) with the weeks before some of the first preventive measures were implemented (week 11), and saw an astonishing increase of 90%. This has led to delivery van drivers working on average 20 hours more a month.⁵

An increase in demand for home deliveries for supermarket shopping created challenges for supermarkets which were stretched, and some retailers found themselves challenged to fulfil orders. With restaurants staying closed, the wait for online grocery ordering slots lengthening and households growing weary of home cooking, individuals started turning to takeaways. As a result, online food delivery services like Deliveroo saw a big increase in search popularity and it didn't take long for the likes of Deliveroo to realise the opportunity of leveraging its network to partner with retailers to deliver groceries. Deliveroo partnered with major retailers like Waitrose, Sainsburys, Aldi, Co-Op and Morrisons to deliver groceries to households within a short amount of time. Uber Eats also saw a rise in popularity after partnering with Sainsburys in October.⁶

The increase in demand for fast, low carbon transport and delivery options has led to innovation across Marches enterprises.⁷

³ [Source: International Road Freight Statistics, United Kingdom 2020](#)

⁴ [Sendcloud, 2021](#)

⁵ [Eurocommercial, 2020](#)

⁶ [Capgemini, 2021](#)

⁷ [Marches LEP, 2021](#)

3. Future projections for the sector

There will never be a scenario where we don't rely on haulage and transport companies. These businesses proved to be a vital source of support for us all during the coronavirus pandemic, transporting essential items to supermarket shelves, and packages we bought online to our doors.

Increased demand during the pandemic meant that hauliers which had already embraced digital technologies had a head-start. These industry leaders were able to take advantage of this increased demand for their services, using cloud systems to allow staff to work remotely and mobile technology to keep their wheels turning.⁸

The transport technologies and logistics sector has historically been slow to adopt digital technologies. A PwC sector report revealed that only 28% of businesses rated themselves as “digitally advanced”⁹. But the technologies that are currently shaping the sector, including artificial intelligence, the cloud, blockchain, and robotics, are set to give the industry an incredible boost.

However, digital innovation doesn't always have to come in the form of AI and robotics. In fact, this blue-sky thinking can cause executives to miss the most effective technologies right in front of them. Back-office systems including transport management solutions and logistics software can help businesses get a bird's-eye view of their operational and financial performance and significantly increase productivity. A number of businesses in the sector report huge cost and time savings as a result of implementing these sector-specific digital solutions, which allowed them to go mobile and paperless. Others have deployed cloud-based solutions to allow them to manage their business growth effectively and keep teams working remotely, which is essential for a future society in which we rely on haulage more than ever before.¹⁰

Customer expectations are increasing greatly. Both individuals and businesses expect to get goods faster, more flexibly, and – in the case of consumers – at low or no delivery cost. The sector is under acute and growing pressure to deliver a better service at an ever-lower cost.¹¹

It can only hope to do this by making maximum and intelligent use of technology, from data analytics, to automation, to the ‘Physical Internet’. This promises lower costs, improved efficiency, and the opportunity to make genuine breakthroughs in the way the industry works. But ‘digital fitness’ is a challenge for the sector, which is currently lagging many of its customers in this respect. Attracting the right skills is one issue, but developing the right strategy is even more crucial.¹²

An increasingly competitive environment is another big factor in the mix. Some of the sector's own customers are starting up logistics operations of their own, and new entrants to the industry are finding ways to carve out the more lucrative elements of the value chain by exploiting digital technology or new ‘sharing’ business models, and they don't have asset-heavy balance sheets or cumbersome existing systems weighing them down.¹³

‘Sharing’ is a big story for logistics now – from Uber-style approaches to last-mile delivery, to more formal JVs and partnerships at corporate level, the whole sector is redefining collaboration. But much of this is hampered by inconsistencies in everything like shipment sizes, processes or IT systems. The Physical Internet promises great things for the sector, coming along with increased standardisation in logistics operations.¹⁴

⁸ [FE News, 2021](#)

⁹ [PwC, The future of the logistics industry, 2016](#)

¹⁰ [FE News, 2021](#)

¹¹ [PwC, The future of the logistics industry, 2016](#)

¹² [PwC, The future of the logistics industry, 2016](#)

¹³ [PwC, The future of the logistics industry, 2016](#)

¹⁴ [PwC, The future of the logistics industry, 2016](#)

3.1 Possible futures

What will the logistics marketplace look like in five to ten years? That's still a very open question. PwC took a closer look at how some of the key disruptions facing the industry may interact: ¹⁵

Sharing the PI(e): the dominant theme in this scenario is the growth of collaborative working, which allows the current market leaders to retain their dominance. This could for example see a greater use of 'Physical Internet' (or 'PI') solutions, based on a move towards more standardised shipment sizes, labelling and systems.

Start-up, shake up: in this scenario new entrants in the form of start-ups make a bigger impact. The most challenging and costly last mile of delivery, in particular, becomes more fragmented, exploiting new technologies like platform and crowd-sharing solutions. These start-ups collaborate with incumbents and complement their service offers.

Complex competition: here the competitive set evolves in a different direction, as large industrial or retail customers and suppliers become players in the logistics market themselves, not just managing their own logistics but turning that expertise into a profitable business model.

Scale matters: and finally, in this scenario, the current market leaders compete for a dominant market position by acquiring smaller players, achieving scale through consolidation, and innovation through the acquisition of smaller entrepreneurial start-ups.

Labour is a critical element of any logistics operating model, and up till now there's always been a trade-off between service levels and costs. But automation breaks down this equation, allowing firms to offer better service and save money at the same time. Some of the industry's most labour-intensive processes are on the way to being fully or partially automated, from warehousing to last-mile delivery.

Figure 15: Technological breakthroughs in the sector: ¹⁶

The technology ¹⁵	The impact	The uncertainties
Physical Internet (based on the IoT)	<ul style="list-style-type: none"> Improved supply chain transparency, safety and efficiency Improved environmental sustainability (more efficient resource planning) 	<ul style="list-style-type: none"> Social expectations around data privacy and security may change Regulation around data security and privacy may increase or be enforced more stringently The sector's willingness and ability to invest in collaboration Whether international bodies will drive standardisation
IT standards	<ul style="list-style-type: none"> Enabling collaboration horizontally More efficiency and transparency 	<ul style="list-style-type: none"> Companies' willingness to adopt is uncertain due to data security concerns
Data analytics	<ul style="list-style-type: none"> Improvements in customer experience and operational efficiency in operations Greater inventory visibility and management Improved 'predictive maintenance' 	<ul style="list-style-type: none"> Rate of development of data processing capacity is unclear Question marks around data security Social expectations around data privacy and security may change Regulation of data security and privacy may increase or be enforced more stringently
Cloud	<ul style="list-style-type: none"> Enabling new platform-based business models and increasing efficiency 	<ul style="list-style-type: none"> Development of costs unclear (once a certain scale is reached physical data centres still tend to be cheaper) Uncertainties around data security
Blockchain	<ul style="list-style-type: none"> Enhanced supply chain security (reduction of fraud) Reduction in bottlenecks (certification by 3rd parties) Reduction of errors (no more paper-based documentation) Increased efficiency 	<ul style="list-style-type: none"> Rate of adoption uncertain Unclear whether one or two dominant solutions will emerge or multiple competing solutions
Robotics & automation	<ul style="list-style-type: none"> Reduction in human workforce and increased efficiency in delivery and warehousing (including sorting and distribution centres) Lower costs 	<ul style="list-style-type: none"> Speed of technology development unclear
Autonomous vehicles	<ul style="list-style-type: none"> Reduction in human workforce Increased efficiency in delivery processes 	<ul style="list-style-type: none"> Regulatory environments not currently in place in most countries Liability issues not yet clear Ethical questions remain especially in relation to emergency situations
UAVs / Drones	<ul style="list-style-type: none"> Increased cost efficiency (use cases: inventory, surveillance, delivery) Workforce reduction 	<ul style="list-style-type: none"> Regulation in most countries not sufficient for commercial use in public areas like delivery Safety and privacy concerns may hamper market acceptance
3-d printing	<ul style="list-style-type: none"> Lower transportation demand Transported goods would mostly be raw materials 	<ul style="list-style-type: none"> Speed, scale, and scope of uptake by customer industries still unclear

Source: PwC, The future of the logistics industry, 2016

¹⁵ PwC, The future of the logistics industry, 2016

¹⁶ PwC, The future of the logistics industry, 2016

The Road Haulage Association believes there is a shortage of around 100,000 drivers after the sector was hit by EU worker rules and drivers being told to quarantine by the NHS COVID-19 app. Earlier this month, Transport Secretary Grant Shapps announced a consultation to ease driver qualification requirements in a package of measures designed to help the issue. He also announced a temporary extension of lorry drivers' working hours from nine to 10 hours a day but the move faced criticism from unions.¹⁷ Food suppliers have resorted to hiring prisoners on day release to fill staff shortages.¹⁸

John Lewis is handing its lorry drivers a boost of up to £5,000 on their salaries as the industry continues to face worker shortages. New drivers with C+E licences joining John Lewis and Waitrose before November will also be offered a "welcome payment" of £1,000, in addition to the pay rise. It comes after rivals including Tesco announced perks, such as £2,000 starting bonuses, to secure new drivers. This has resulted in fierce battle for available drivers while some have also been poached by firms which will pay higher wages.¹⁹

Several factors have contributed to the crisis – COVID-19 caused a backlog in tests and license applications, and the industry, which is primarily comprised of older workers, is losing drivers faster than it can recruit them – but Brexit played a major role, with thousands of EU nationals departing the UK. Some 14,000 EU HGV drivers left employment in the UK in the 12 months to June 2020, and only 600 have returned in the past year, according to analysis of Office for National Statistics labour force data commissioned by Logistics UK.²⁰

The HGV driver shortage is not just a problem for the UK, with an estimated shortage of 36% across Europe. HGV drivers have a significantly older, and rising, age profile than the general population, with a dearth of younger people training to become drivers; in Q2 2020 the proportion of people under 24 driving HGVs fell 57% compared to Q2 2019. The loss of HGV drivers caused by the 2008 financial crisis was never corrected and has relied heavily on EU workers to plug the gap (10% of the logistics workforce); immigration from Eastern and Southern Europe has reversed since Brexit and accelerated since the COVID-19 pandemic; the number of EU HGV and van drivers fell by 36% and 34% in the year to the end of Q2 2020.²¹

The cost of HGV training is around £7,000 for full qualification, too high for most individuals to pay out of their own pocket. Logistics firms typically pay for training costs but have been disincentivised as so few drivers in the market means more incentive for newly trained drivers to move on to companies offering higher wages following qualification.²² A key issue facing the sector now, and in the near future, will be how to plug the gap.

3.2 Future skills trends

Skills Shortages: Logistics companies have been struggling to fill vacancies due to lack of skills, qualifications and experience; higher skilled roles such as HGV drivers and mechanics have been harder to fill than those that do not require specialist qualifications. Persistent skills gaps may hinder an employer's ability to innovate or function at its full potential in terms of resilience, productivity, and profitability.²³

New Technology: Drones are starting to be used in a wide range of transport activities, from e-commerce package delivery, to fleet management and same-day food delivery. The speed, accessibility and low operating costs of drones compared with other modes of transport that require human labour makes them an appealing prospect for companies. Drones enable fast delivery to a

¹⁷ [Yahoo, 2021](#)

¹⁸ [i news, 2021](#)

¹⁹ [i news, 2021](#)

²⁰ [BBC News, 2021](#)

²¹ [Logistics UK Policy, Skills and Employment Report, 2020](#)

²² [Logistics UK's Skills and Employment Report 2020](#)

²³ [Logistics UK Policy, Skills and Employment Report, 2020](#)

specific, pre-defined point, with little human action required, particularly for the last mile of a delivery.²⁴

Driverless vehicles are likely to hasten structural change and the development of new industries that will create new opportunities in mobility management, in-transit experience, fleet operations, and security. It is expected that haulage companies will be amongst the first to adopt fully autonomous vehicles, particularly as HGVs drive on predetermined routes; driverless lorries can increase fuel efficiency by travelling closer together to reduce drag, and can go some way towards addressing the HGV driver skills shortage.²⁵

‘Big Data’: A constraint in achieving high operational efficiency occurs at the last mile, often the most expensive leg of the journey. Big Data can be used to optimise this part of the journey and drive down costs through real-time optimisation of delivery routes or creating an entirely new last-mile delivery model. Data can also be used for more strategic network planning, eg. in warehouses and larger scale routes, and operational capacity planning for lorries, trains and aircraft, as well as shift planning.²⁶

Supply Chain Resilience: Climate risks affect critical supply chain issues of cost, speed and responsiveness, quality, and the uncertainty of disruption; logistics companies will need to reduce these risks and strengthen performance by building supply chain resilience. There are two main categories of risk relating to climate change: physical climate risks from acute weather events and chronic climate patterns, and the policy and legal risks that come with the low-carbon transition.²⁷

²⁴ [PwC, Clarity from above, 2019](#)

²⁵ [Deloitte, Development of self-driving vehicles in the United Kingdom, 2017](#)

²⁶ [T-Systems, White Paper – Big Data in Logistics, 2014](#)

²⁷ [BSR, Climate and Supply Chain Management, 2018](#)

4. Skills delivery assessment

Figure 16: Curriculum overview of courses delivered in the Marches to learners:

Program	Achievements	Subject Achievements Quotient	Annual Openings	Variance	% Variance	Regional Jobs (2021)	Regional Jobs (2025)	% Jobs Growth (2021-2025)	Median Annual Wages
Automotive Maintenance and Repair	33	0.43	80	47	142%	2,505	2,552	2%	£28,428.22
Aircraft Maintenance and Repair	0	0.00	7	7	Insf. Data	157	168	6%	£37,280.72
Marine Vessel Maintenance and Repair	0	0.00	1	1	Insf. Data	41	42	2%	£28,619.53
Heavy Equipment Maintenance and Repair	13	1.03	2	(11)	(84%)	43	46	7%	£43,944.14
Motor Vehicle Maintenance and Repair	245	2.15	80	(165)	(67%)	2,505	2,552	2%	£28,428.22
Railway and Road Maintenance	0	0.00	8	8	Insf. Data	183	192	5%	£32,612.99
Aircraft Operations	579	11.77	11	(568)	(98%)	246	255	4%	£76,951.47
Marine Vessel Operations	0	0.00	1	1	Insf. Data	24	26	6%	£38,291.45
Motor Vehicle Operations	8	0.94	432	424	5303%	10,897	11,161	2%	£25,961.36
Transportation Operations	5	0.14	98	93	1855%	2,325	2,400	3%	£34,915.69
Rail Transport Operations	0	0.00	8	8	Insf. Data	163	172	5%	£59,041.16
Transportation Operations and Maintenance n.e.c.	102	1.18	117	15	14%	3,410	3,487	2%	£29,024.39
Distribution and Logistics	76	0.69	146	70	92%	3,630	3,725	3%	£31,909.64

Source: EMSI Analytics

In the academic year 2018/19 there were 1,061 achievements studying courses relevant for the transport technologies and logistics sector. There were 579 achievements in Aircraft Operations, followed by 245 achievements in Motor Vehicle Maintenance and Repair. The sector subject area with the highest achievement quotient was Aircraft Operations at 11.77. Subject quotient is a measure of specialisation for a subject area. Values above 1 represent relative specialisation. There are 4 courses with subject quotients above 1.

Where the variance figure for a course is red, it means that there is an overprovision of people completing courses in comparison to how many roles are opening on an annual basis, therefore the provider base is currently oversupplying the labour market. When the variance figure is black it means there are areas where the provider base already offers courses, but the data indicates that there may be room to grow these to meet employment demand. Where the variance figure is blue it shows courses the provider base does not currently offer but employment is in demand locally, indicating that there is potential for creating courses to meet these skills needs.

- Skills provision that is aligned to local jobs and industry demand not only helps providers with their Ofsted inspection but also helps to ensure learners are best placed to get employment using the skills they have learned, supply employers with the skills they need and support growth in the local and wider economy.
- This provision review identifies areas of misalignment in the Marches for the transport technologies and logistics sector:

Strengths (course areas that are well met compared to industry demand)

- Course areas which do not have much of a gap between supply and demand, where there are similar levels of provision compared to job supply is a strength as local employers will be supplied with local talent pools. This includes Transportation Operations and Maintenance.
- Disciplines that also have a net positive change in jobs in the next few years are seen as extra strengths to the area. All programmes are expected to have an increase in jobs

Opportunities (course areas that are currently under supplied compared to demand)

- Opportunity areas include those courses with an undersupply of provision compared to demand, as these are the disciplines which are sought after but have little provision locally. There is room for courses to be developed in these disciplines to meet local employer needs, such as Motor Vehicle Operations, Transportation Operations and Automotive Maintenance and Repair.
- Opportunity areas also include courses where there is no provision but employer demand locally, such as 'Rail Transport Operations, Railway and Road Maintenance, Aircraft Maintenance and Repair, Marine Vessel Operations and Marine Vessel Maintenance and Repair.

Threats (course areas that are oversupplied compared to industry demand)

- Disciplines with too much provision and not enough employer demand will lead to an oversaturated supply of labour in certain disciplines. Graduates from these courses will find it difficult to find employment locally, and may have to move out of the area to find work in their field. People skilled in this discipline might have to upskill or retain in other disciplines to find work elsewhere. Courses in this group include those with large gaps such as Heavy Equipment Maintenance and Repair, Motor Vehicle Maintenance and Repair and Aircraft Operations.
- The best way to implement change is to prioritise interventions based on biggest misalignments and gaps. Disciplines with a low uptake, need extra resources to highlight the opportunities in these occupations.

5. Conclusions

The COVID-19 crisis has fundamentally changed the way people live, work and move around. The transport sector enables and relies on this economic activity. While the long-term impact of the pandemic is still uncertain, demand for transport services and associated infrastructure will be influenced by multiple, sometimes conflicting factors.

As a critical public service, the sector needs to cater for evolving public needs and consumer behaviours, and adapt to socio-economic trends, policy changes and emerging private sector innovation. Local and national authorities and transport operators have a once-in-a-generation opportunity to redefine the UK transport landscape to address existing environmental and social challenges.

The transportation sector employs millions of people worldwide. At the same time, transport is a social sector that is rapidly developing, changing and being influenced to the maximum extent by the development of automation, electrification and greening of transport, among others, thus facing problems in staffing its several domains with appropriate and qualified personnel.

A report by kMatrix²⁸ identified that the Marches Alternative Fuel and Vehicles sector is worth £96.5m annually and employs 674 people across 40 companies. In the coming years this sub sector will be scaling up significantly in response to the climate emergency and the need for net zero transport.

Several jobs are going to emerge, in order to cover the needs that will progressively occur by the several developments of new driving forces, as well as the elimination of already existing positions. Some examples include drones' operators and managers, who will remotely control vehicles deployed for logistics operations which is a profession expected to emerge in a medium-term horizon; the automated vehicle fleet operators and servicing-maintenance personnel, and shared mobility managers.

In the short term, the immediate problem to solve is the vacancy crisis affecting the sector. The worry is that this will affect food supply to the public as well as food & drink, agriculture and logistics supply chains. A key issue facing the sector now, and in the near future, will be how to plug the gap. A potential solution is to increase research into driverless vehicles.

Supply vs Demand

- The following are areas where courses are already offered in the Marches, but there may be room to grow to meet employment demand:
 - Automotive Maintenance and Repair
 - Motor Vehicle Operations
 - Transportation Operations
 - Transportation Operations and Maintenance n.e.c.
 - Distribution and Logistics
- Aircraft Maintenance and Repair, Marine Vessel Maintenance and Repair, Marine Vessel Operations, and Rail Transport Operations are not currently offered in the Marches, and there is potential for creating new courses here to meet employer demands. However, there could be an issue with some of the courses given the Marches inland geography.
- Future drivers of skills include increasing use of technology, automation, and electrification.

Conclusion

- Several jobs are going to emerge, in order to cover the needs that will progressively occur by the developments of new driving forces, as well as the elimination of already existing positions.

²⁸ [kMatrix, 2020](#)

- The sector will need to work with apprenticeship providers and institutions to develop courses to train individuals in the new emerging roles.
- Recommendations include:
 - Strengthen resilience
 - Support skills development
 - Increase apprenticeships
 - Invest in new skills particularly digital

The sector is a growing area that would benefit from increased employer engagement, and collaboration with specialist independent training providers, Higher and Further Education in developing skills required for growth. Priorities to harness this growth and better understand the sector could include:

- Engagement with employers to help articulate and prioritise their skills needs and stimulate demand for and investment in training and education.
- Develop a range of specialist technical HE and FE provision through joint action between industry and academia.
- Identify the research needs of industry and new ways to collaborate with HEIs at a cost affordable to industry - these might include, knowledge transfer partnerships.
- Promote careers in engineering at all levels of education to attract STEM graduates particularly around apprenticeships and T-Levels.

Produced by Black Country Consortium Ltd on behalf of
The Marches LEP



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