



**The Marches Sector Skills Deep Dive – Executive Summary**  
**Final Report July 2020**



## Contents

1. Overview of the Economy .....	3
1.1. Productivity .....	3
1.2. Enterprises .....	4
1.3. Jobs .....	6
1.4. Skills.....	6
1.5. Occupations .....	7
1.6. Sector Skill Shortages.....	8
1.7. International Trade .....	9
1.8. Overarching Recommendations: .....	9
2. Advanced Manufacturing - Executive Summary.....	10
3. Business and Professional Services - Executive Summary .....	12
4. Food and Drink - Executive Summary .....	14
5. Health and Social Care – Executive Summary.....	16
6. Cyber Security and Resilience - Executive Summary .....	18
7. Environmental Technologies - Executive Summary .....	20
8. Agritech - Executive Summary .....	22

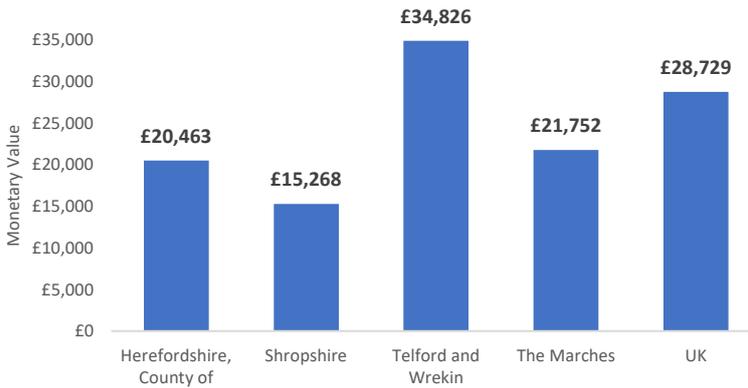
# 1. Overview of the Economy

## 1.1. Productivity

The Marches total Gross Value Added (GVA) continues to grow and in 2018 was £15bn. This is an increase of £426m compared to 2017 which equates to a growth rate of 2.9%, below the UK average growth of 3.4%. The Marches accounts for 10.6% of the West Midlands region's GVA and 0.8% of UK GVA<sup>1</sup>.

GVA per head in the Marches is at its highest in 2018 at £21,752, a £436 increase from 2017. The growth rate was below than the UK average (2.0% compared to 2.7%). GVA per head is £6,976 lower than the UK average of £28,729.

**GVA per Head, 2018**



**Annual Change in Total GVA, 2005 - 2018**



There are six sectors in the Marches that account for a higher proportion of GVA when compared to the UK, examples include; advanced manufacturing (16.1% vs 9.7%) and agri-tech (4.6% vs 1.6%).

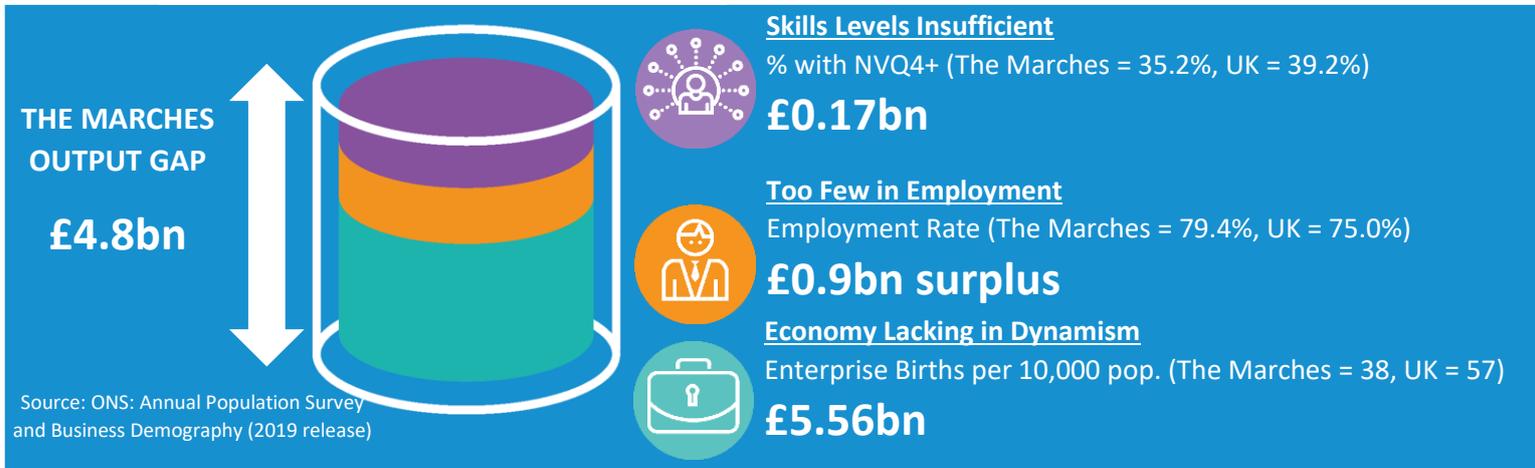
The business and professional services accounts for the highest percentage of GVA at 29.1% (4.4bn) however this is below the UK average of 40.0%. This sector also had the highest increase since 2017 at 4.7% (£198m) which is above the UK average growth rate of 3.1%.

The following table shows the GVA in the Marches by sector from 2017 to 2018.

	The Marches 2017	The Marches 2018	The Marches Change (2017-2018)	The Marches 2018 % of Total	UK 2018 % of Total
<b>Advanced Manufacturing</b>	£2,478m	£2,416m	-£62m	16.1%	9.7%
<b>Agri-Tech</b>	£706m	£694m	-£12m	4.6%	1.6%
<b>Business and Professional Services</b>	£4,169m	£4,367m	£198m	29.1%	40.0%
<b>Construction</b>	£838m	£887m	£49m	5.9%	6.1%
<b>Cyber Security and Resilience</b>	£686m	£667m	-£19m	4.4%	5.0%
<b>Environmental Technologies</b>	£250m	£295m	£45m	2.0%	2.7%
<b>Food &amp; Drink</b>	£573m	£576m	£3m	3.8%	1.6%
<b>Health and Social Care</b>	£1,118m	£1,241m	£123m	8.3%	7.8%
<b>Public Sector Inc. Education</b>	£1,037m	£1,044m	£7m	7.0%	6.3%
<b>Retail</b>	£1,804m	£1,860m	£56m	12.4%	10.6%
<b>Transport and Logistics</b>	£402m	£411m	£9m	2.7%	4.1%
<b>Visitor Economy</b>	£526m	£553m	£27m	3.7%	4.4%
<b>Total</b>	<b>£14.6bn</b>	<b>£15bn</b>	<b>£424m</b>		

<sup>1</sup> Office for National Statistics (ONS), Regional gross value added (balanced) by industry, 2019

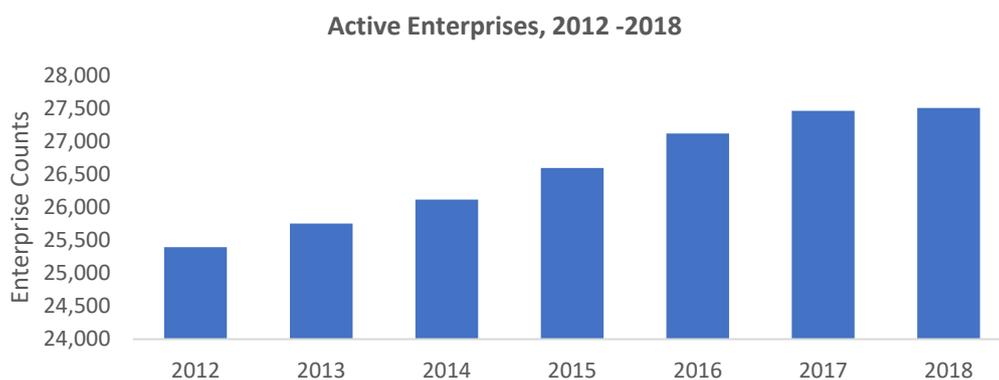
Since 2009, the Marches GVA per head has increased each year and overall by 26.0% (£4,489), compared to a 25.0% increase across the UK. In the context of the UK average, the Marches output gap currently stands at £4.8bn. The figure below demonstrates the components of the output gap.



## 1.2. Enterprises

There has been a steady increase of enterprises in the Marches since 2012. In 2018, there were 27,505 active enterprises in the Marches, an increase of 45 (+0.2%) enterprises since 2017, and an increase of 2,110 enterprises since 2012 (+8.3%)<sup>2</sup>.

This equates to 399 enterprises per 10,000 population in 2018, below the UK average of 442 per 10,000 population. Within the Marches, Herefordshire performs higher on the number of enterprises per 10,000 population, at 439. Shropshire's 13,580 enterprises equate to 424 per 10,000 population, with Telford & the Wrekin's 5,490 enterprises equating to 309 per 10,000 population.



Business and professional services accounts for 25.4% (9,080) of the business base, this is below the UK average of 35.2%<sup>3</sup>. Compared to 2018, business and professional services have increased by 1.1%, slightly below the national average of 1.9%.

<sup>2</sup> ONS, Business Demography, 2019

<sup>3</sup> ONS: UK Business Counts 2019. Please note, currently the ONS Business Demography dataset does not provide a breakdown by industry for all registered establishments, the breakdown can be obtained from the ONS UK Business Counts which is a snapshot (March 2019) of the Business Demography dataset.

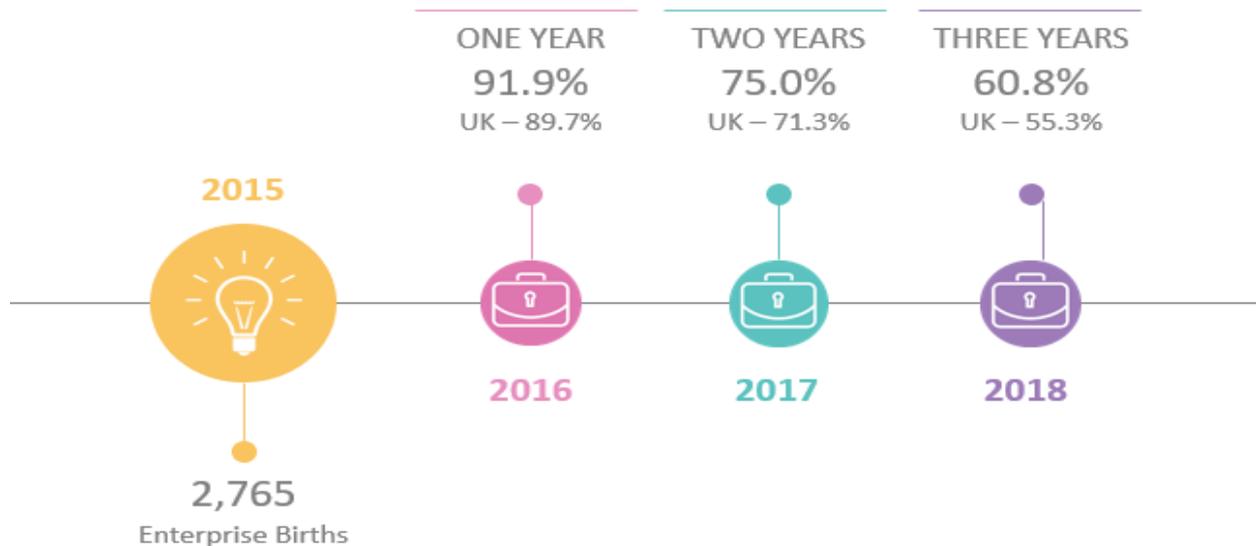
In real terms, the construction sector had the highest increase by 145 establishments (+4.2%) to 3,595 in 2019, this accounts for 10.0% of the total enterprises. Nationally there was an increase of 3.4% increase and accounts for 11.1% of the total.

Reflecting the UK trends, there were two sectors that have decreased from 2018, these are; health and social care (-2.8% vs -3.9% UK) to 1,725 establishments in the Marches and public sector including education (-1.2% vs -0.2% UK) to 1,670 establishments in the Marches.

The following table shows jobs in the Marches

	The Marches 2018	The Marches 2019	The Marches Change (2018-2019)	The Marches 2019 % of Total	UK 2019 % of Total
<b>Advanced Manufacturing</b>	2,715	2,715	0	7.6%	7.5%
<b>Agri-Tech</b>	6,260	6,270	10	17.5%	4.9%
<b>Business and Professional Services</b>	8,985	9,080	95	25.4%	35.2%
<b>Construction</b>	3,450	3,595	145	10.0%	11.1%
<b>Cyber Security and Resilience</b>	515	535	20	1.5%	1.1%
<b>Environmental Technologies</b>	205	215	10	0.6%	0.6%
<b>Food &amp; Drink</b>	200	205	5	0.6%	0.4%
<b>Health and Social Care</b>	1,775	1,725	-50	4.8%	5.3%
<b>Public Sector Inc. Education</b>	1,690	1,670	-20	4.7%	4.4%
<b>Retail</b>	5,675	5,705	30	15.9%	16.3%
<b>Transport and Logistics</b>	1,080	1,100	20	3.1%	4.0%
<b>Visitor Economy</b>	2,920	2,980	60	8.3%	9.2%
<b>Total</b>	<b>35,470</b>	<b>35,795</b>	<b>325</b>		

Out of 2,765 enterprises births in 2015, 91.9% survived their first year compared to 89.7% across the UK. By 2018, 60.8% of the enterprises were still running compared to 55.3% across the UK. The Marches performs considerably better than the UK average when it comes to enterprise survival – both in the short-term and the long-term.



### 1.3. Jobs

There were a total of 289,630 jobs in the Marches in 2018, a decrease of 720 (0.25%) from the previous year.

There are seven sectors in the Marches that account for a higher proportion or the same for jobs when compared to the England breakdown, examples include; health and social care (14.1% vs 12.9%) and food and drink (3.2% vs 1.3%).

The business and professional services accounts for the highest percentage of jobs at 18.8% (54,320). Compared to 2017, this sector has increased by 9.1% (+4,520) while England experienced a decrease by 0.3%.

The Marches had the highest decrease in the number of jobs compared to 2017 in the visitor economy sector by 23.3% (-7,025) while nationally there was an increase of 0.5%.

The following table shows jobs in the Marches

	The Marches 2017	The Marches 2018	The Marches Change (2017-2018)	The Marches 2018 % of Total	England 2018 % of Total
Advanced Manufacturing	32,340	32,945	605	11.4%	8.5%
Agri-Tech	10,255	10,730	475	3.7%	0.7%
Business and Professional Services	49,800	54,320	4,520	18.8%	24.7%
Construction	13,450	15,000	1,550	5.2%	4.6%
Cyber Security and Resilience	11,325	11,800	475	4.1%	4.7%
Environmental Technologies	3,255	3,215	-40	1.1%	1.1%
Food & Drink	9,915	9,250	-665	3.2%	1.3%
Health and Social Care	41,600	40,900	-700	14.1%	12.9%
Public Sector Inc. Education	29,750	30,000	250	10.4%	11.3%
Retail	49,250	49,000	-250	16.9%	15.3%
Transport and Logistics	9,285	9,370	85	3.2%	4.9%
Visitor Economy	30,125	23,100	-7,025	8.0%	9.9%
<b>Total</b>	<b>290,350</b>	<b>289,630</b>	<b>-720</b>		

### 1.4. Skills

The number of people in The Marches qualified to NVQ4+ increased by 9,400 to 141,300 in 2018. There has been an increase of 50,900 people qualified to NVQ4+ since 2004 (an increase of 56.3% compared to 66.3% UK). To reach the UK average of 39.2% requires a further 15,814 people qualified at this level<sup>4</sup>.

The proportion of The Marches residents with no qualifications fell from 7.4% (30,100) in 2017 to 7.1% (28,500) in 2018. This is lower than the UK average (8%).

<sup>4</sup> ONS, Annual Population Survey, 2019



The Marches		UK
% with NVQ4+	35.2% (141,300)	39.2%
% with NVQ3 only	18.3% (73,400)	17.0%
% with Trade Apprenticeships	4.0% (16,100)	3.0%
% with NVQ2 only	16.9% (67,900)	15.8%
% with NVQ1 only	10.7% (42,900)	10.4%
% with other qualifications	7.7% (30,700)	6.7%
% with no qualifications	7.1% (28,500)	8.0%

## 1.5. Occupations

Occupation and industry classifications categorise occupations and industries into clearly defined groups. As such they provide a common basis for collecting, presenting, and comparing of labour statistics. **Occupational** classifications (SOC) group people based on job and tasks performed whereas **Industry** (SIC) classifications group people based on the sector of economic activity in which they are employed. For the purpose of this work we have attributed occupations to their most natural industrial sector, so for example a 'Financial Accounts Managers' whose skills are transferrable across all sectors will be contained solely within Business and Professional Services. Any identified skills gap for this occupation would apply to all sectors.

In terms of occupations, the most jobs in The Marches are contained within 'Elementary Occupations', closely followed by 'Professional Occupations'.

The following table shows the level of jobs across occupations in the Marches

SOC	Description	2018 Jobs	2022 Jobs	2018 - 2022 Change	2018 - 2022 % Change	Annual Openings	Automation Index
1	Managers, Directors and Senior Officials	27,016	27,797	781	3%	1,333	9.5%
2	Professional Occupations	45,290	45,785	495	1%	2,138	6.6%
3	Associate Professional and Technical Occupations	33,376	33,895	519	2%	1,453	14.0%
4	Administrative and Secretarial Occupations	33,546	34,033	487	1%	1,601	33.0%
5	Skilled Trades Occupations	28,045	28,922	877	3%	1,258	47.6%
6	Caring, Leisure and Other Service Occupations	28,756	29,779	1,023	4%	1,626	29.1%
7	Sales and Customer Service Occupations	24,695	24,675	-20	0%	948	30.3%
8	Process, Plant and Machine Operatives	23,700	24,077	377	2%	1,005	55.7%
9	Elementary Occupations	45,517	46,954	1,437	3%	2,210	68.8%

All occupational groups are forecast to grow by 2022, apart from 'Sales and Customer Service Occupations' where it is predicted that there will be a possible nominal negative change.

The biggest growth by percentage change is expected to occur in 'Caring, Leisure and Other Service Occupations' which contains Health and Social Care activities. Demand for these occupations are forecast to increase by 4% or 1,023 jobs. In absolute numbers the biggest increase in jobs will be in

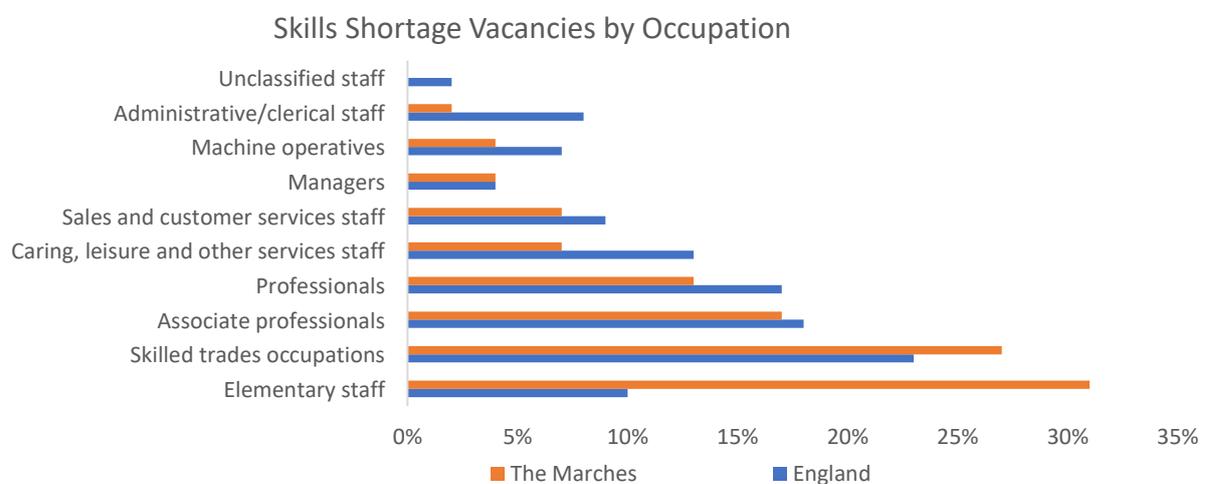
‘Elementary Occupations’ but this is tempered by the highest reading on the automation index (the automation index captures an occupation’s risk of being affected by automation).

## 1.6. Sector Skill Shortages

### Vacancies

There are a number of skill mismatches in The Marches, but generally these are not as pronounced as national comparators:

- 9% of establishments report skills gaps, compared to 11% nationally
- 15% of employers report at least one vacancy, compared to 20% nationally
- 7% of establishments have 1 vacancy that is hard to fill, compared to 8% nationally
- 5% of employers have a skills shortage vacancy, compared to 6% nationally
- 23% of all vacancies are skills shortage vacancies in The Marches, compared to 22% nationally.



The graph above shows the skills shortage vacancies by occupation. The occupations with the largest skills shortage vacancies in The Marches include elementary staff (31% vs 10% nationally), skilled trades occupations (27% vs 23% nationally) and associate professionals (17% vs 18% nationally).

5% of all staff in The Marches are not fully proficient in their roles, compared to 4% nationally.

### Employer Investment in Skills and Training

50% of employers in The Marches have a training plan or budget for training in place, this is lower than the England average of 54%, and 34% of employers have no budget or training plan, compared to 31% nationally.<sup>5</sup> This suggests that Marches employers are not as prepared to train their staff as establishments elsewhere.

For those establishments which do provide training, 80% offered on-the-job training compared to 73% offering off-the job training.<sup>6</sup> In total, 56% of staff in The Marches are trained as a % of total staff, compared to 62% nationally.<sup>7</sup> Only 6% of establishments train 100% of staff.

<sup>5</sup> Employer Skills Survey 2017 England LEP data tables Table 84

<sup>6</sup> Employer Skills Survey 2017 England LEP data tables Table 86

<sup>7</sup> Employer Skills Survey 2017 England LEP data tables Table 98

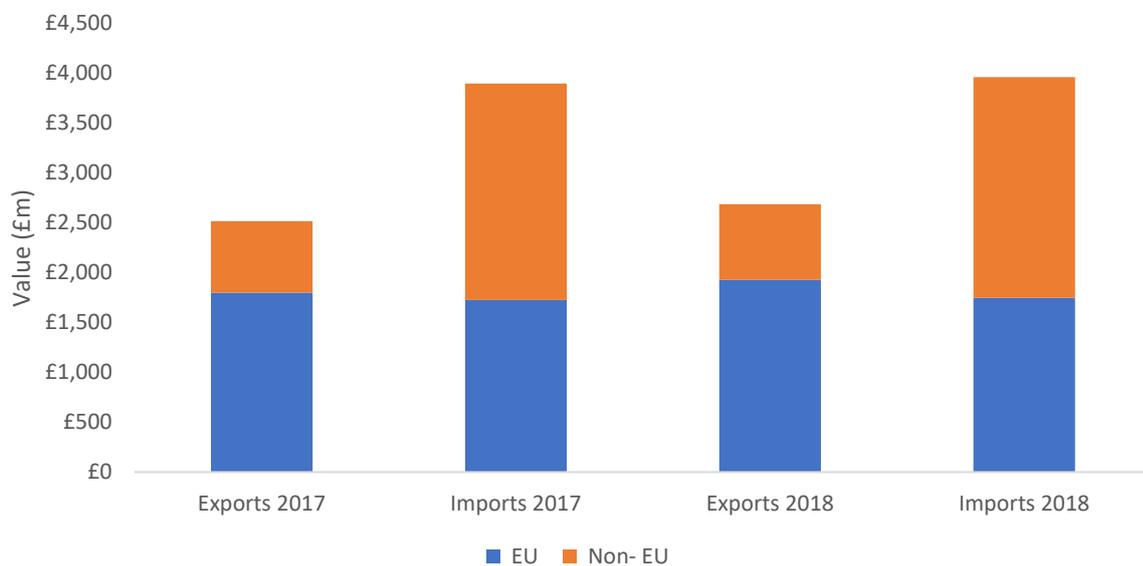
On average, staff receive 3.69 training days a year, compared to 3.99 across England. Only 5% of employers offer between 11-20 days of training compared to 9% across England.

### Upskilling

62% of employers in The Marches expect the need for new skills in the next 12 months, this is the same as national levels.

### 1.7. International Trade

The Marches exported £2.7bn worth of goods in 2018, with £1.9bn (71.8%) of exports going to EU countries. However, the Marches imported nearly £4bn worth of goods with 55.9% of imports from Non-EU countries. In 2018, there was a trading deficit of nearly £1.3bn. Compared to 2017, the Marches exports have increased by £170m (from £2.5bn) while the value of imports was £3.9bn with a trade deficit of £1.4bn<sup>8</sup>.



### 1.8. Overarching Recommendations:

- The need to ensure a mobile, motivated and diverse workforce
- To address skills gaps and shortages that constrain productivity
- To improve the image of key sectors with all stakeholders particularly young people
- To work together to build sustainable, more responsive and better-quality training provision
- To address industry attitude and investment in skills and training

<sup>8</sup> HM Revenue and Customs, Regional Trade in Goods Statistics dis-aggregated by smaller geographical areas, 2019

## 2. Advanced Manufacturing - Executive Summary

### Sector Context

- £2.4bn (16.1%) of the Marches total GVA, higher than UK average of 9.7%.
- 32,945 (11.4%) of the Marches total jobs, higher than England average of 8.5%.
- 2,715 (7.6%) of the Marches total establishments, higher than UK average of 7.5%.
- Average wages per job vary from £10,808 in the manufacture of other wearing apparel and accessories industry to £52,739 in the manufacture of motor vehicles industry.
- The advanced manufacturing sector has a location quotient of 1.61.
- 69 out of 124 industries within the advanced manufacturing sector have a location quotient above 1.

### Supply Side Analysis

- 32,945 (11.4%) of the Marches total jobs, higher than England average of 8.5%.
- Engineering activities and related technical consultancy is the industry with the most jobs with 2,734.
- There were 1,870 apprenticeship starts in advanced manufacturing related jobs in 2018/19.
- Apprenticeship starts in both 'manufacturing technologies' and 'transport operations and maintenance' fell by -27.3% and -3.7% respectively.
- 93 organisations delivered apprenticeships across the Marches in engineering and manufacturing technologies in 2018/19.
- Telford College, Harper Adams University, Shrewsbury Colleges Group, MSPN private providers and Hereford, Ludlow and North Shropshire College provide further education courses relative to this sector.
- There were 1,445 students studying advanced manufacturing related subjects at the University of Wolverhampton, 345 at the University of Chester, and 275 at Harper Adams University.

### Demand Side Analysis

- 55,293 job adverts, 9,522 unique (from January 2019 to January 2020)
- Telford and Wrekin accounted for 39.3% of all unique vacancies, Shropshire (34.9%) and Herefordshire (25.8%).
- Number of adverts increased from 702 in January 2016 to 1,415 in January 2020 (+101.6%).
- Of the 41 occupations associated with advanced manufacturing, 22 are expected to grow, 7 to undergo nominal change, and 12 are likely to contract.
- Jobs are expected to increase by 119 by 2022.
- 61 out of the 124 industries are expected to see a decrease in the number of jobs by 2022, with technical testing and analysis the highest by 170 jobs down to 975.
- Engineering activities and related technical consultancy is projected to increase the highest by an additional 302 jobs by 2022.
- 17% of all vacancies in the advanced manufacturing sector are skills shortage vacancies, a lower percentage than across all sectors in the Marches (23%).
- 5% of staff are not fully proficient (same figure as across all sectors).
- 47.2% are trained, compared to 56.0% across all sectors.

- 56% of employers expect new skills from employees within the next 12 months, slightly lower than the 62% figure from across all sectors in the Marches.

### **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:
  - Manufacturing
  - Metal work
  - Printing
  - Civil engineering
  - Wood crafts and furniture making
  - Ceramics and glass manufacturing
- The following are courses that the provider base does not offer, indicating that there is potential for creating new courses to meet these skills needs:
  - Upholstery
  - Mining and extraction
  - Packing
- The following are areas where the data suggests that the provider base is currently oversupplying the labour market:
  - Engineering
  - Motor vehicle maintenance and repair
  - Welding and fabrication
  - Production and manufacturing engineering
  - Plant operations
  - Heavy equipment maintenance and repair
  - Mechanical engineering
  - Fashion, textiles, footwear and leather
  - Manufacturing
- Future drivers of skills within the sector will include:
  - Accessing finance to bring new products and technologies to market
  - Increasing investment in R&D stimulating demand for highly skilled graduates
  - Meeting low carbon policies and legislation
  - Maximising export opportunities
  - Taking advantage of potentially transformative enabling technologies

### **Conclusions**

- Although the Advanced Manufacturing sector is expected to decline in size up to 2022 both in the Marches and nationally, the sector is still widely reported to be an area of significant potential growth.
- This growth is likely to be due to the increasing use of technology to generate efficiencies in the production process, and employers developing innovative new products that can be traded internationally.
- Recommendations include:
  - Increasing the number of apprenticeships.
  - Help businesses build partnerships with colleges, universities and training providers.
  - Increased working with schools utilising the Careers and Enterprise Company programme in partnership with the three Local Authorities.

### 3. Business and Professional Services - Executive Summary

#### Sector Context

- £4.4bn (29.1%) of the Marches total GVA, below UK average of 40.0%.
- 54,320 (18.8%) of the Marches total jobs, below England average of 24.7%.
- 9,080 establishments (25.4%) of the Marches total establishments, below UK average of 35.2%.
- Average wages per job vary between industries in the sector from £9,546 to £54,703.
- 23 out of 80 industries within business and professional services have a location quotient above 1.

#### Supply Side Analysis

- 54,320 (18.8%) of the Marches total jobs, below England average of 24.7%.
- Temporary employment agency activities comprise the industry in business and professional services with the highest number of jobs with (8,410).
- Dominated by highly skilled and qualified people who have typically been educated to first degree level or above.
- The number of business and professional apprenticeships increased by 17.4% across the Marches in 2018/19 to 1,599.
- 196 different organisations delivered apprenticeships across the Marches in Business and Professional Services in 2018/19, with Telford College being the largest provider.
- Further education courses that are relevant to this sector are provided by Telford College, Shrewsbury Colleges Group, MSPN private providers, Harper Adams University, and Hereford, Ludlow and North Shropshire College.
- There were 4,060 students studying business and professional services higher education related courses at the University of Wolverhampton, 3,020 at the University of Chester, and 135 at Harper Adams University.

#### Demand Side Analysis

- 113,819 job adverts, 27,926 unique (from January 2019 to January 2020).
- Shropshire accounted for 36.5% of unique vacancies, Herefordshire 32.3% and Telford and Wrekin 31.3%.
- Number of adverts increased from 2,367 in January 2016 to 4,255 in January 2020 (+79.8%).
- Out of the 75 occupations associated with business and professional services, 60 are expected to grow, 6 are predicted to undergo nominal change, and 9 are likely to contract.
- Most occupations in the Business and Professional sector score relatively low on the automation index.
- Total jobs are projected to increase by 2,520 by 2022.
- Out of the 80 industries, 40 are projected to decrease in the number of jobs by 2022.
- 1 industry is predicted to remain at the same amount of jobs by 2022.
- 39 industries that are predicted to increase in the number of jobs by 2022.
- 31% of vacancies are skills shortage vacancies, higher than the 23% across all sectors in the Marches.
- 45.6% are trained in the business & professional services sector, lower than the average across all sectors in the Marches (56.0%).
- Employees on average have 2.9 training days, compared to 3.7 across all sectors.

- 74% of employers expect new skills from employees, higher than the 62% across all sectors. Upskilling may be a cheap and efficient solution to this.

### **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:
  - Marketing and sales
  - Management
  - Property and facility services
  - Accounting and finance
  - Services
  - Publishing and information services
  - Administration
- The following are areas where the data suggests the provider base is currently oversupplying the labour market:
  - Preparation for work
  - Media and communication
  - Law and legal studies
  - Economics
- Changing clients demands, employee expectations, rapid technology developments and other external factors will change the nature of jobs and skills required in the future.

### **Conclusions**

- Business and professional services is an important sector to the Marches economy with respect to both the volume of employment and gross value added it contributes.
- At this moment there is significant disruption taking place across most industries.
- Digital technology developments are the leading disrupter, fed by a growing demand for “anytime-anywhere” access to information.
- The rapid change in technology, changes in business models and services and the need to attract a different type of employees means the sector needs to start looking beyond its usual pool of talent.
- Recommendations include:
  - Developing a differentiated understanding of the sector locally and promote its strengths and opportunities.
  - Increase collaboration and engagement with local sector representation.
  - Make better use of apprenticeships at all levels.
  - Engage with local institutions leading on place infrastructure to factor in needs of the sector

## 4. Food and Drink - Executive Summary

### Sector Context

- £576m (3.8%) of the Marches total GVA, above UK average of 1.6%.
- 9,250 (3.2%) of the Marches total jobs, above England average of 1.3%.
- 205 (0.6%) of the Marches total establishments, above UK average of 0.4%.
- £28,420 average wage. The highest at £37,361 in the distilling, rectifying and blending of spirits industry.
- 14 of 18 food and drinks industries have a location quotient above 1.

### Supply Side Analysis

- 9,250 (3.2%) of the Marches total jobs, above England average of 1.3%.
- 23.8% of food and drink jobs are in the processing and preserving of poultry meats, the most of an industry within the sector.
- Kitchen and catering assistants are the most common food and drink related occupation, with 5,321 people finding work here in the Marches.
- There were 250 apprenticeships related to food and drink in the Marches during 2018/19.
- 32 organisations delivered apprenticeships in Food and Drink in 2018/19.
- The Lifetime Training Group remain the largest provider delivering 200 apprenticeships since 2016/17.
- Harper Adams University and Telford college offer courses relevant to this sector.
- There were 160 students studying food and drink related subjects at Harper Adams University.

### Demand Side Analysis

- 12,786 job adverts, 3,905 unique (from January 2019 to January 2020)
- Shropshire accounted for 46.6% of all unique vacancies, Herefordshire 28.8%, and Telford and Wrekin 24.6%.
- Number of job adverts increased from 319 in January 2016 to 531 in January 2020 (+66.5%).
- Of the 12 occupations associated with this sector, all are expected to grow from now until 2022, apart from bakers and flour confectioners (-1%).
- Most occupations in food and drink score highly on the automation index.
- Jobs in food and drink are projected to increase by 208 by 2022.
- 21% of all vacancies in hotels & restaurants are skills shortage vacancies.
- 20% of all vacancies in wholesale & retail are skills shortage vacancies.
- The hotels & restaurants part of the sector has the highest percentage of staff not fully proficient out of all the sectors in the Marches.
- In hotels & restaurants employees have an average of 5.5 training days. In wholesale & retail they have 3.2 training days. Overall, employees across all sectors the Marches have 3.7 training days.
- 44% of hotel & restaurants employers expect new skills from employees in the next 12 months. This figure is 63% for wholesale and retail, indicating that this industry may see new ways of working.

### **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:
  - Hospitality and catering operations
  - Food and drink manufacturing
- Hospitality and catering management courses are not currently offered in the Marches, and there is potential for creating new courses here to meet skills needs.
- Future drivers of skills include increasing use of technology and automation, a need for the production workforce to become more technically able, and increasing regulation.

### **Conclusions**

- National and local trends suggest that businesses are struggling to train, recruit and retain enough staff for the industry to thrive.
- The sector needs to be an attractive, prosperous, and responsible career option.
- Recommendations include:
  - Strengthen business resilience
  - Support skills development
  - Increase apprenticeship awareness and uptake
  - Invest in skills and reward achievements.

## 5. Health and Social Care – Executive Summary

### Sector Context

- £1.2bn (8.3%) of the Marches total GVA, above UK average 7.8%.
- Hospital activities industry contributed the largest proportion within the sector - £439m.
- 40,900 (14.1%) of the Marches total job, above England average of 12.9%. The third highest sector.
- 1,725 (4.8%) of the Marches total establishments, below the UK average of 5.3%.
- The industry with the highest number of establishments within the sector is other human health activities at 260.
- The average wages for the health and social care sector is £21,507.
- The highest average wage is in hospital activities at £28,651, and the lowest is in child day-care activities at £13,591.
- The health and social care sector has a location quotient (LQ) in 2018 of 1.10. Out of the 13 industries within the health and social care sector, 10 are above 1.

### Supply Side Analysis

- 40,900 (14.1%) of total jobs are based in the health and social care sector. The third highest sector.
- Within health and social care, hospital activities account for 12,700 (29.2%) of total jobs. This is followed by other human health activities and other residential care activities which both account for 10.5% (4,600 jobs each).
- There are 41 occupations associated with the health and social care sector. The two most prevalent roles are 'Care Workers and Home Carers' and 'Nurses'.
- The number of health and social care apprenticeships increased by 10.8% across the Marches in 2018/19 to 1,210.
- 83 organisations delivered apprenticeships in Health, Public Services and Care in 2018/19.
- In 2018/19 there were 25 students on courses aligned to health and social care at Harper Adams, up 5 (+25.0%) since the previous year.
- At the University of Chester there were 4,645 students studying courses in the health and social care sector, this is down by 510 (-9.9%) since the previous year.
- The University of Wolverhampton had 4,300 students studying courses aligned to the health and social care sector, making up 22.6% of all students.

### Demand Side Analysis

- 95,024 total job adverts, 19,566 of which were unique vacancies (from January 2019 to January 2020).
- The number of adverts increased by 151% (1,422) from January 2016 to January 2020.
- Of the 41 occupations associated with the health and social care sector, 22 are expected to grow, 4 are predicted to undergo nominal change (+/- in absolute numbers) and 15 are likely to contract.
- Jobs are expected to increase by around 1,150 by 2020.
- 16% of vacancies in this sector are skills shortage vacancies, a lower percentage than the average across all sectors in the Marches (23%), and the lowest level out of all sectors in the Marches.
- 71.8% of staff are trained in the health & social care sector, compared to 56.0% across all sectors.

- Employees have 4.4 training days on average compared to 3.7 across all sectors in the Marches.
- 75% of employers expect the need for new skills in the next 12 months, a higher amount than across all sectors (62%).

### Supply vs Demand

- The following disciplines are areas where the providers base already offers courses but there may be room to grow these to meet employment demand:
  - Vocations allied to medicine
  - Nursing
  - Medicine and dentistry
  - Care
  - Optical services
- The following areas are not provided currently, and there is potential for creating new courses to meet these skills needs
  - Pharmacy
  - Dental Nursing
  - Dentistry
- The following are areas where the provider base is currently oversupplying the labour market to a significant level:
  - Health and Social Care
  - Child Development and Well-Being
  - Counselling and Psychology
  - Therapy
- The sector is likely to be under pressure to change how it provides health care.
- Professional and clinical occupations, managers and senior officials are likely to be called upon with increased urgency to develop the sector and lead it through a period of prolonged change.
- There is also evidence that some new skill sets may emerge. These may in time become new roles in their own right, or may extend the skills utilised in existing occupations.
- The need to develop high quality skills at the intermediate level is also likely to become increasingly important for employers as the sector seeks to utilise, more cost effectively, the skills and knowledge and professionals in the sector.

### Conclusions

- Employment is growing and is predicted to continue to grow in the coming few years, primarily to meet the demands of an ageing population with more complex, numerous and longer-term conditions.
- There will be a need to replace current health and social care staff as they reach retirement or leave the sector and future drivers point to the increasing diversification of sector employers.
- Recommendations include:
  - Improve the image of the sector
  - Support the sector for resilience and growth
  - Develop and retain the current workforce through leadership and management
  - Innovation: in both new product development, adoption and procurement and increase digital capability and capacity.

## 6. Cyber Security and Resilience - Executive Summary

### Sector Context

- £667m (4.4%) of the total Marches GVA, below UK average of 5.0%.
- 11,800 (4.1%) of the total Marches jobs, below England average of 4.7%.
- 535 (1.5%) of the total Marches establishments, above UK average of 1.1%.
- £30,679 average wage.
- Out of the 10 industries in cyber security and resilience, only 2 have a location quotient above 1 (defence activities, and fire service activities).

### Supply Side Analysis

- 11,800 (4.1%) of the total Marches jobs, below England average of 4.7%.
- Public order and safety activities and defence activities accounts for nearly 79% of total sector jobs.
- 17 occupations are associated with cyber security and resilience.
- 470 new apprenticeship starts in 2018/19.
- 45 organisations delivered apprenticeships in information and communication technology.
- There are 200 students studying related cyber security and resilience subjects at the University of Chester.

### Demand Side Analysis

- 31,178 total job adverts, 5,960 unique (January 2019 to January 2020).
- 39.4% of all unique vacancies were in Telford and Wrekin, 31.4% in Herefordshire, 29.1% in Shropshire.
- The number of job adverts increased from 480 in January 2016 to 1,256 in January 2020 (161.7%).
- Out of the 17 occupations related to cyber security and resilience, only one is forecasted to grow 'skilled metal, electrical and electronic trades supervisors'.
- Cyber security and resilience sector is projected to decrease by 857 jobs.
- 5% of staff are not fully proficient, the same amount as across all sectors.
- 41.6% of staff are trained, compared to 56.0% across all sectors.
- Employees get on average 1.6 training days, compared to 3.7 across all sectors.

### Supply vs Demand

- There is room for the Marches to offer more courses in the area of security in order to meet employment demand.
- There is potential for the Marches to begin offering courses to do with computer engineering to meet skills needs.
- The provider base is currently oversupplying the labour market with the following skills:
  - Mathematics and statistics
  - IT user skills
  - ICT practitioners
  - Electrical and electronic technology
  - Electrical and electronics engineering]
- Cyber security and resilience is a business enabler, as it allows organisations to enhance and embed trust in their operations, which is conducive to improved innovation and trade.

- The implications of technological innovation for the cyber security sector are far reaching.

### **Conclusions**

- Although the cyber security and resilience sector is forecast to decline in size in the Marches, the sector both nationally and globally is widely reported to be an area of significant potential growth.
- This growth is likely to be fuelled by the rapidly changing and expanding area of technological innovation to prevent, defend and deter those undertaking cyber-attacks
- The sector presents opportunities for the Marches, not just for economic growth at the sectoral level, but also through securing crucial technological developments across wider society, utilising local assets such as the Midlands Centre for Cyber Security at Skylon Park.
- Recommendations include:
  - Adopting an agreed definition of cyber security and resilience skills.
  - Outline standard career pathways and relevant qualifications.
  - Promote existing government guidance on cyber security.
  - Focus on potential future skills needs by engaging with schools and promoting apprenticeships in partnership with sector specialist employers and utilising the Careers and Enterprise Company programme.

## 7. Environmental Technologies - Executive Summary

### Sector Content

- £295m (2.0%) of the Marches total GVA, below UK average of 2.7%.
- 3,215 (1.1%) of the Marches total jobs, matching the England average.
- 215 (0.6%) of the Marches total establishments, matching the UK average.
- £36,156 average wage. The highest at £54,545 for jobs in the distribution of gaseous fuels through mains.
- 6 out of 11 industries within environmental technology have a location quotient above 1.

### Supply Side Analysis

- 3,215 (1.1%) of the Marches total jobs, matching the England average.
- 34% of total environmental technologies jobs are in collection of non-hazardous waste.
- 12 occupations are associated with environmental technologies, with the most prevalent role being gardeners and landscape gardeners (accounting for 35.5% of jobs in the sector).
- There were 10 apprenticeship starts associated with this sector in the Marches 2018/19.
- There are 3 apprenticeship providers offering apprenticeships in this sector within 45 miles of the Marches.
- Harper Adams University and Telford College offer further education courses relevant to this sector.
- There were 370 student studying environmental technology related subjects the University of Chester, and 20 students studying them at Harper Adams.

### Demand Side Analysis

- 2,029 job adverts, 485 unique (from January 2019 to January 2020).
- Shropshire accounted for 43.7% of unique vacancies, Herefordshire 36.7%, Telford and Wrekin 19.6%.
- Number of adverts increased from 25 in January 2016 to 106 in January 2020 (+324%).
- Of the 12 occupations associated with this sector, all are expected to grow from now until 2022, apart from water and sewerage plant operatives (-5%).
- Most occupations in this sector score low on the automation index.
- Jobs in environmental technologies are expected to increase by 246 jobs (to 3,659) by 2022.
- The collection of non-hazardous waste industry is projected to increase by a total of 110 (to 1,257 jobs) by 2022.
- This sector has a skills shortage of 48%, the highest out of all sectors in the Marches.
- 2% of staff are not fully proficient, compared to 5% across all sectors in the Marches.
- 50.0% of staff are trained (compared to 56.0% of all staff in the Marches).
- Staff here have less training days than other sectors (2.1 days compared to 3.7 across other sectors).
- 55% of employers expect new skills from employees within the next 12 months. Upskilling could be a cheap and attractive way of delivering this.

## Supply vs Demand

- The following are areas that already offers courses, but there may be room to grow to meet employment demand:
  - Waste management
  - Environmental conservation and management
- Urban, rural, and regional planning courses are not currently offered by the provider base, and there is potential for creating new courses to meet these skills needs.
- The data suggests that the provider base is oversupplying the labour market with geography skills.
- The global urgency for green growth and mitigation of climate change has resulted in the need for a workforce with skill sets necessary for establishing and sustaining new environmental industries, services, and practices.

## Conclusions

- One of the fastest growing sectors in the Marches, and is forecasted to grow more.
- Healthy outlook however depends in part on addressing barriers to growth including a need or knowledge and innovation support and a range of skills from vocational Level 2 to postgraduate.
- Recommendations include:
  - Engagement with employers to priorities skills needs.
  - Develop range of specialist technical HE and FE provision.
  - Identify research needs and ways to collaborate with HEIs.
  - Promote careers in engineering at all levels of education to attract STEM graduates.

## 8. Agritech - Executive Summary

### Sector Context

- £694m (4.6%) of the Marches total GVA, above UK average of 1.6%.
- 10,730 (3.7%) of the Marches total jobs, above England average of 0.7%.
- 6,270 (17.5%) of the Marches total establishments, above UK average of 4.9%.
- £21,939 average wage. The highest paid industry in agritech is mining of clays and kaolin with £28,295.
- 4 out of 9 agritech industries have a higher location quotient than 1.

### Supply Side Analysis

- 10,730 (3.7%) of the Marches total jobs, above England average of 0.7%.
- Nearly 93% of jobs are from the growing of crops, market gardening, horticulture; farming of animals.
- 110 unique apprenticeship starts in 2018/19.
- 17 organisations delivered apprenticeships across the Marches in 'Agriculture, Horticulture and Animal Care' in 2018/19.
- Harper Adams University and Hereford, Ludlow and North Shropshire College offer further education course relevant to this sector.
- There were 4,755 students studying agritech related subjects at Harper Adams University, 2,300 at University of Wolverhampton, and 1,020 at University of Chester.

### Demand Side Analysis

- 421 job adverts, 133 unique (from January 2019 to January 2020).
- Herefordshire accounted for 48.1% of all unique vacancies, followed by Shropshire 42.9%, and Telford and Wrekin 9.0%.
- The number of adverts increased from 9 in January 2016 to 26 in January 2020 (+188.9%).
- Of the 7 occupations associated with agritech, 5 are expected to contract, and two are predicted to undergo nominal change.
- Overall, the agri-tech sector is projected to decrease by 372 jobs by 2022.
- 48% of agritech vacancies are skills shortage vacancies.
- 2% of staff are not fully proficient in the agritech sector.
- 50.0% of staff are trained in the agri-tech sector.
- On average, an employee in the agri-tech sector has 2.1 training days, compared to 3.7 on average in the Marches.
- 55% of employers expect new skills from employees within the next 12 months, compared to 62% across all sectors.

### Supply vs Demand

- There are agriculture courses already offered in the Marches, however there may be room to grow to meet employment demand.
- The following are areas where the provider base is currently oversupplying the labour market:
  - Animal care and veterinary science.
  - Horticulture and forestry.

- Agri-tech is an industry in transformation because of issues such as climate change, advances in technology and new public expectations.
- There is a strong feeling among industry leaders and employers that the sector needs to go beyond the traditional pool of people it draws from and open itself up to more from outside of agriculture.

### **Conclusions**

- There is strong evidence that new inventions and techniques are being willingly embraced by the agritech sector.
- Recommendations include:
  - Co-ordinate sector careers promotion.
  - Develop a workforce development programme to equip the sector with the skills needed for growth.
  - Promote collaboration between businesses and education providers utilising the Careers and Enterprise Company programme in partnership with the three Local Authorities across the Marches region.