



REGENERIS

Sector Needs Assessment - Food Manufacturing and Processing

A Final Report by Regeneris Consulting

28 July 2017

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1. Introduction

- 1.1 Food Manufacturing and Processing (FMP) is one of the Marches LEP's priority sectors, and has been identified as a sector where the Marches has competitive advantage, a world-class specialism in agri-tech and potential for growth.
- 1.2 Food manufacturing and processing has a long and prominent history in the Marches, taking advantage of the strong agricultural supply chain that is deep rooted in the area. It encompasses a number of processing and manufacturing sub-sectors including meats, ciders and fruit wines and dairy products as well as strong supply chain strengths in areas such as food testing, smart packaging and distribution.

Trends and drivers

UK Food and Drink – International Action Plan 2016-2020

- 1.3 Emerging from the backdrop of Brexit and government aspirations of a global Britain that is at the forefront of international trade is the strategy "UK Food and Drink – International Action Plan 2016-2020".¹ This plan was developed in collaboration between government and the sector and sets out how they will work together over the next 5 years in order to increase opportunities for the exportation of food and drink from the UK.
- 1.4 The plan is underpinned by three main strategic objectives:
 - Raising ambitions: increased participation of exporting within the sector, and in increased volumes for those already participating
 - Increased capability: greater provision of the skills, finance, innovation and information for firms to be successful exporters
 - Identifying opportunities: opening trading opportunities in key markets, as well as creating new demand for products in other countries
- 1.5 These objectives are supported by government and industry work to:
 - Build global recognition of UK excellence in food and drink

¹ Department for Environment Food & Rural Affairs; Department for International Trade, UK Food and Drink – International Action Plan 2016-2020, 2016

- Get our current exporters to sell more overseas
- Help more food and drink companies to export for the first time
- Open new markets to UK products
- Build the export capacity and capability of the sector through FDI, increased skills and innovation

UK Strategy for Agricultural Technologies (2013) (BIS)

- 1.6 This is an industry led strategy to ensure that the UK becomes a world leader in agricultural technology, innovation and sustainability by exploiting opportunities to develop and adopt new and existing technologies, products and services to increase productivity and deliver sustainable intensification. Although a more prosperous and highly populated planet will drive sector growth, the strategy recognises that food security will become increasingly important and that technological innovation is key to achieving this; an area where the UK can excel.
- 1.7 The strategy identifies the need to take advantage of the UK's highly regarded research base by translating more research into real world applications. However, while there are some good initiatives for training and development, there is no identified clear path to attract, retain or recruit talent into the sector, with the potential future risk of skills shortages in niche parts of the sector. This may partly be the result of the sector's diversity and complexity, which can make it difficult for individual institutions to make connections and develop new partnerships.
- 1.8 To overcome barriers to growth and build on the UK's higher education research strengths and foundation of innovative farmers, food manufacturers and retailers, the strategy sets out a number of key actions, including:
- **Translating research into practice**, including a £70 million government investment in an Agri-Tech Catalyst to help translate agricultural innovation into commercial opportunities for UK businesses.²

² Investment has been made in three Centres: the Agricultural Engineering Precision Innovation Centre with hubs at Harper Adams University, Cranfield University & Scotland's Rural College, Edinburgh and the Centre for Crop Health & Protection and Centre for Innovation Excellence in Livestock, both based at the National Agri-Food Innovation Campus in York.

- **Exploiting the potential of big data and informatics**, including establishing a Centre for Agricultural Informatics and Metrics of Sustainability based at Rothamsted Research, Harpenden Hertfordshire.
- **Building a stronger skills base** through industry-led actions to attract and retain a workforce who are expert in developing and applying technologies across the sector.

Leading Food 4.0: Growing University-Business Collaboration for the UK's Food Economy (March 2015)

- 1.9 The Leading Food 4.0 report by the National Centre for Universities and Business (NCUB) highlights the fragmentation in the UK's food industry and the complexities and length of its supply chain. The characteristics of the supply chain are worth highlighting. According to Defra (Agriculture in the UK 2012) for every £1 of GVA in agriculture there is a further £4 in food processing and logistics and a further £5 in food retail & catering. This can be quantified in terms of the value of each component of the supply chain as follows: Catering 23%, Food Retail 26%, Food processing & wholesale 37%, other e.g. input suppliers 4% and Agriculture & fishing 10%.
- 1.10 The report also emphasises the poor links between businesses and universities and proposes that they should be improved through effective collaboration (most food businesses do not have a strategic and long-term relationship with universities). The report highlights that there are too few high-quality collaborative mechanisms that join up the food industry with universities and the publicly-funded innovation system.
- 1.11 The report highlights a lack of new entrants to the jobs market and that there is a need to develop career paths and routes into the food sector (at all levels) and encourage people to stay longer in the food sector employment.
- 1.12 Increasing resource efficiency and improving productivity is also highlighted as an issue by the report which goes on to specify key environmental concerns including the emission of greenhouse gases, the amount and quality of water use, biodiversity, and human health via nutrition.

Value of Food and Drink Manufacturing to the UK (2010)

- 1.13 The University of Cambridge's Institute of Manufacturing produced this report for the Food and Drink Federation to ascertain the sector's impacts on the UK economy and to understand what could be done to improve its economic and social impacts. The report highlights that the food and drink industry is a high value and progressive sector, not the low value sector people often perceive it to be.
- 1.14 Some of the reports key findings are that:
- Food and drink is a **significant and resilient** element of the manufacturing sector - a core element of the UK manufacturing economy, through the recent recession it was the sector that reduced its output the least and returned to pre-recession output levels quickest
 - The sector could contribute significantly to **future sustainable growth** - due to its size, direct links to health outcomes and its impact on emissions from production and logistics, the food sector should be a strategic focus of public and private action
 - **Product and process innovation** is a core sector strength - the sector accounts for over 4% of the total R&D spend reported in the annual R&D Scoreboard and due to the industry's highly competitive nature, there are over 1,500 new products introduced each quarter
 - **Growing health awareness** presents a large opportunity - as health issues related to diet and nutrition become more important, the UK has become a leading source of new health foods; in 2007, 36% of new health product launches in the EU originated in the UK
 - **Exports have increased significantly but imports are rising faster** - over the past decade exports of processed food products have risen by approximately 15%, showing strong demand for UK products abroad. However, there is a growing food and drink trade deficit, rising from £2.6 billion in 1995 to £9.9 billion in 2007. This impacts on the UK's ability to achieve food independence and is a concern in terms of the environmental impact of transporting food long distances

- Statistics from Her Majesty's Customs and Excise indicates that from 2015 to 2016 the volume of food and drink exports increased by 10.5%. The value of goods exported to the EU increased, however the largest increases were for non-EU countries. China, Poland and South Korea have experienced particularly large increases in the value of UK food and drink exports in recent years.
- The majority of the UK food and drink imports come from the EU with fruit vegetables, meat and beverages comprising the largest proportions of the imported goods.
- The sector provides **above average pay and relatively long employment tenure** - weekly earnings in the industry are above average, with job tenure over nine years on average and only 6% temporary workers.

Industry 4.0

- 1.15 Industrial digitisation, or 'Industry 4.0', refers to the trend by which new digital technologies such as 3D printing, sensor technologies and robotics are being introduced into manufacturing. While often thought of as driver of change in advanced manufacturing it is also having a substantial impact on food manufacturing and processing and will be the significant driver of change in the sector in the future. These changes have the ability to create value across the food and drink manufacturing ecosystem, resulting in increased sales and growth in market share.

- smarter supply chains (greater coordination, real time information sharing, better tracking of assets and inventory and integrated planning and production)
- smarter production (use of data analytics, new production techniques and technologies such as autonomous robots, multi-purpose production lines and augmented reality) to improve yield and speed up production and allows business models such as mass customisation to be pursued
- smarter products (rapid innovation and a faster time to market is enabled by data collected from products, remote diagnostics and remote/predictive maintenance).

Source: EEF, 2016, The 4th Industrial Revolution – A Primer for Manufacturers

- 1.16 A key challenge for UK manufacturing centres on the supply of skilled labour. A shortage of supply of labour with STEM skills at all levels is already well documented and often cited by business when describing what is limiting its growth potential and this is likely to be exacerbated by an ageing workforce, the need for new skills (e.g. in data analytics), and potential reliance on more 'home-grown' talent. Government policy, such as the introduction of the Apprenticeship Levy, is aimed at alleviating this problem but culture and perceptions of manufacturing may mean that recruitment continues to be an issue. As well as the need to attract new talent to the sector the need to retrain, refresh and up-skill existing staff will also be vital.
- 1.17 A number of challenges that UK business needs to overcome if they are to make the most of opportunities for growth are more acute for SMEs and micro-businesses. Access to markets, access to talent, access to technology, and access to finance are all issues for small businesses.

Manufacturers Expectations for the Year Ahead, 2017³

Trends

- Long term goals are still front and centre of manufacturers minds - they are not laying low in the face of uncertainty
- There is focus on process innovation, investment and ensuring flexible supply chains but it won't all be plain sailing - many actions remain challenging to deliver
- Amid the concerns of volatile conditions manufacturers are taking a diverse set of actions to create their own opportunities
- Post EU referendum manufacturers are still focused on investing in and implementing technologies and processes associated with the 4th industrial revolution
- Firms expect sales growth whether in domestic or export markets

Opportunities

- Innovation, investment and exporting, the three foundations of a successful and productive manufacturing sector

³eeef The manufacturers' organisation, Manufacturers' Expectations for the Year Ahead, 2017

- Manufacturing plays a key role in the UK innovation landscape. Manufacturing performs 69% of total business R&D expenditure, employs 59% of innovation personnel and has the largest share of innovative firms.

Challenges

- Volatile conditions - movements in the exchange rate, major markets (China), the uncertainty surrounding the United Kingdom's exit from the EU
- Continued weakness in global demand, slowdown in major export markets
- Mounting political uncertainties, not only in the UK but in major partners
- The falling price of sterling represents a major threat to the growth potential of UK manufacturers as increasing business costs squeeze profit margins.

Science and Innovation Audit Report for the Midlands Engine, 2016

- 1.18 The Midlands Engine audit of science and innovation⁴ identified food processing as one of four market driven priorities i.e. where there are clear economic growth opportunities and very strong alignment with the Midlands Engine's strengths and distinctive capabilities. Several opportunities for major productivity growth were identified, including:

- Efficient food processing: the food and drink market is typically characterised by high volume, low margin products. Production efficiency is a key determinant of profitability. Food and drink companies are investing in innovative production processes to facilitate competitiveness including automation and labour efficiency, low energy food processing, and water efficiency. Food chain efficiency requires the adoption of innovative analysis, with data analytics drawing on an increased quantity of information captured through sensors or automated processes.
- Zero-waste food chains: reduction in waste improves economic efficiency and resource utilisation. Innovative food companies are striving to become zero waste food companies by optimising the yield of primary products from raw materials through technology to reduce damage; increasing the exploitation of secondary productions; and developing waste product utilisation strategies for residual biomass. This includes packaging waste recyclability and reuse.
- Food product innovation: The UK launches more new food products annually than any country except for the USA. Innovation in food is targeted at a number of key areas

including reformulation to reduce levels of salt, fat and/or sugar, to address health eating concerns, convenience due to busy lives, and smart packaging which enhances the product's attractiveness, whilst reducing waste, responding to issues such as food security, authenticity and traceability.

Source: Midlands Engine SIA, Report 1, November 2016, p.39

- 1.19 The Midlands Engine SIA 2016 highlights the challenges of capturing the scientific and innovation base underpinning Future Food Processing:

"The region's food industry is increasingly engaged in research on topics which do not fit only within the 'traditional' areas such as agriculture and food science. Increasingly, engineering, ICT, logistics, cool chain and similar technologies are just as important".

- 1.20 Significant assets noted by the SIA include the Agricultural Engineering Innovation Centre (AEIC) at Harper Adams University (HAU), including the National Centre for Precision Farming. The AEIC provides a platform for stimulating university/industry collaboration in the broader Agri-Tech sector of which FMP is a part. The AEIC has a role to play in demonstrating new technology and proving its value to the local business community to facilitate innovation. This builds upon the existing Regional Food Academy, located within HAU, providing training, education, knowledge transfer and technical consultancy support to the region's food industry. The Midlands Engine Science and Innovation Audit (2016) also identifies Harper Adams as having an 'emerging competency' in Food science and agronomy and crop science.
- 1.21 The University of Wolverhampton is also noted in the SIA for its contribution to engineering, specifically computer simulation for engineering and related industries.

Policy Drivers for Change

National

Industrial Strategy Green Paper

- 1.22 Since coming into power Theresa May has signalled at a more active approach to industrial strategy compared to the previous government. The most recent addition to industrial strategy and the centre piece of the current government's economic agenda is the Green Paper entitled "Building our Industrial Strategy"⁵. The underlying motivation of the strategy is "to improve living standards and economic growth by driving productivity and growth across the whole country."⁶
- 1.23 The government identifies 10 pillars as the bedrock of its industrial strategy, which are the means to spur economic growth and prosperity. The policies consist of predominantly cross-cutting interventions such as investing in science, research, innovation and infrastructure, access to finance and promotion of trade and inward investment. However, the strategy places substantial gravity on fostering prominent sectors to propel the economy, as exemplified in the eighth pillar "Cultivating world-leading sectors".
- 1.24 The sectoral approach outlined in the strategy is one of sector deals, where pioneering sector leaders work with government to help deliver, reduced regulator barriers, increased competition and innovation and, increase exports and greater commercialisation of research. The other hallmarks of the government's approach to fostering internationally competitive sectors are to:
- support emerging sectors, through deep dives
 - build on existing sector relationships, by updating strategies, strengthening existing institutions and making best use of existing funding.
- 1.25 The strategy also cites coordination of thriving supply chains and creation of long term institutions as key drivers of sectoral success.

⁵ Department for Business, Energy & Industrial Strategy, *Building our Industrial Strategy: 10 pillars*, 2017

⁶ Building our Industrial Strategy, January 2017, p.9

- 1.26 In the strategy, the government commits to an additional £4.7 billion R&D funding by 2020-21 in order to accelerate the commercialisation of technologies in key sectors. The document triggers a series of consultations to decide which technologies the Industrial Strategy Challenge Fund could support, many of which align with the sectoral priorities of the Marches LEP:

- smart and clean energy technologies (such as storage and demand response grid technologies)
- robotics and artificial intelligence (including connected and autonomous vehicles and drones)
- satellites and space technologies
- manufacturing processes and materials of the future
- transformative digital technologies including supercomputing.

- 1.27 The strategy also features a stronger place based narrative than in previous policy pieces, with seven references to the Midlands Engine. This reaffirms the government's commitment to rebalancing the economy and ensuring a more inclusive approach to economic growth.

Brexit

- 1.28 The UK's decision to leave the European Union could have a profound impact on the economy and certain sectors. The nature of the UK's future relationship with the EU is subject to negotiation, however the government's negotiating objectives are that the UK will leave the single market and much of the Customs Union. This has implications for trade, as the UK would need to enter new agreements with the EU and will lose all its current trade deals which it enjoys as a member of the EU. Moreover, abandoning the free movement of people principle will make the UK government seek up new work permit or visa arrangements. These will inevitably have some impact on the workforce of many UK industries at a time when the labour market is already tightening, as unemployment has fallen drastically, and Britain's population is ageing.
- 1.29 The Midlands has received a large share of European Regional Development Funding over the various programme periods. The government has said that it will consider an alternative funding arrangement as part of a post-Brexit settlement⁷.

⁷ Department for Business, Energy & Industrial Strategy, *Building our Industrial Strategy: 10 pillars*, 2017

- 1.30 Overall outcomes will need to be negotiated and a transitional phase of Britain's departure could help to smooth the impact of such changes. Nonetheless, Brexit is likely to have an impact in the short and long term for many sectors.
- 1.31 The UK's decision to leave the EU has also exacerbated barriers to manufacturing growth prospects. Increased risk associated with exchange rate movements, upward pressure on business costs and greater friction in the pay settlement process exist.

Local and regional policy

The Midlands Engine

- 1.32 The Marches is located within the wider Midlands region, which has developed an overarching identity as a functional economic geography, and a major contributor to national prosperity. This is founded upon sector strengths that are internationally recognised, coupled with considerable scope for increased prominence. These sector priorities strongly align with the Marches' key sectoral strengths:

- manufacturing
- engineering and transport technologies
- agri-food and drink manufacturing and production
- energy and low carbon technologies
- creative, digital and design.

"As a Midlands resident and MP, I know the importance of the region to the country's economy – the heartland of our manufacturing sector." Rt Hon Sajid Javid MP

- 1.33 The centrepiece of this is the Midlands Engine Strategy⁸, which demonstrates the government's commitments to making the Midlands a powerful engine for economic growth. Building on the industrial strategy and The Midlands Engine for Growth prospectus⁹, the strategy sets out actions to remove barriers to productivity, create more jobs and export more goods and services. The strategy seeks to build on the existing programme of work that is being pursued by the region and spur growth in the Midlands through the following additional commitments:

⁸ Department for Communities and Local Government, HM Treasury, Department for Business, Energy & Industrial Strategy, Midlands Engine Strategy, 2017

⁹ Department for Business, Innovation and Skills & Department for Communities and Local Government, The Midlands Engine for Growth: prospectus, 2015

- The government will invest £392 million in the Midlands through the latest Local Growth Fund, of which £21.91 million will be allocated to the Marches LEP.
- The government will provide funding to support the operation of the Midlands Partnership which will be supplemented with contribution from local areas. The key for local partners is to ensure that this funding is used effectively.

1.34 The strategy outlines five key objectives: Improving connectivity, strengthening skills, supporting enterprise and innovation, promoting the midlands and enhancing quality of life. The strategy is a step toward government ambitions announced in 2015 that the Midlands economy could grow by £34 billion by 2030, if it matched the predicted growth rate for the UK. A further 300,000 jobs could be created in the Midlands by the end of this parliament.

Local Economic Development Strategies

Table 1.1 Relevant policies from local economic development strategies		
Shropshire Economic Growth Strategy 2017-21 DRAFT ¹⁰	Herefordshire Invest Herefordshire Herefordshire's Economic Vision ¹¹	Telford and Wrekin Driving growth and prosperity: Economic Development Strategy 2016 ¹²
<u>Six priority actions:</u> 1. Target actions and resources where there are economic opportunities 2. Enable businesses to grow and succeed 3. Deliver infrastructure to support growth 4. Meet skills needs of businesses and people's aspirations for work 5. Promote Shropshire to investors	<u>Seven Key aims:</u> 1. A Great Place for Business - Creating the conditions in Herefordshire to encourage new business start-ups and an increase in productivity leading to higher value employment and greater innovation. 2. A Great Place to Learn - Increasing the range of higher education provision and improving the balance between business demand	<u>Six key actions:</u> 1. Create business friendly conditions to increase the number of successful businesses. 2. Grow sectors around opportunities and support sectors that underpin employment across the Borough. 3. Stimulate and support innovation across all business sectors.

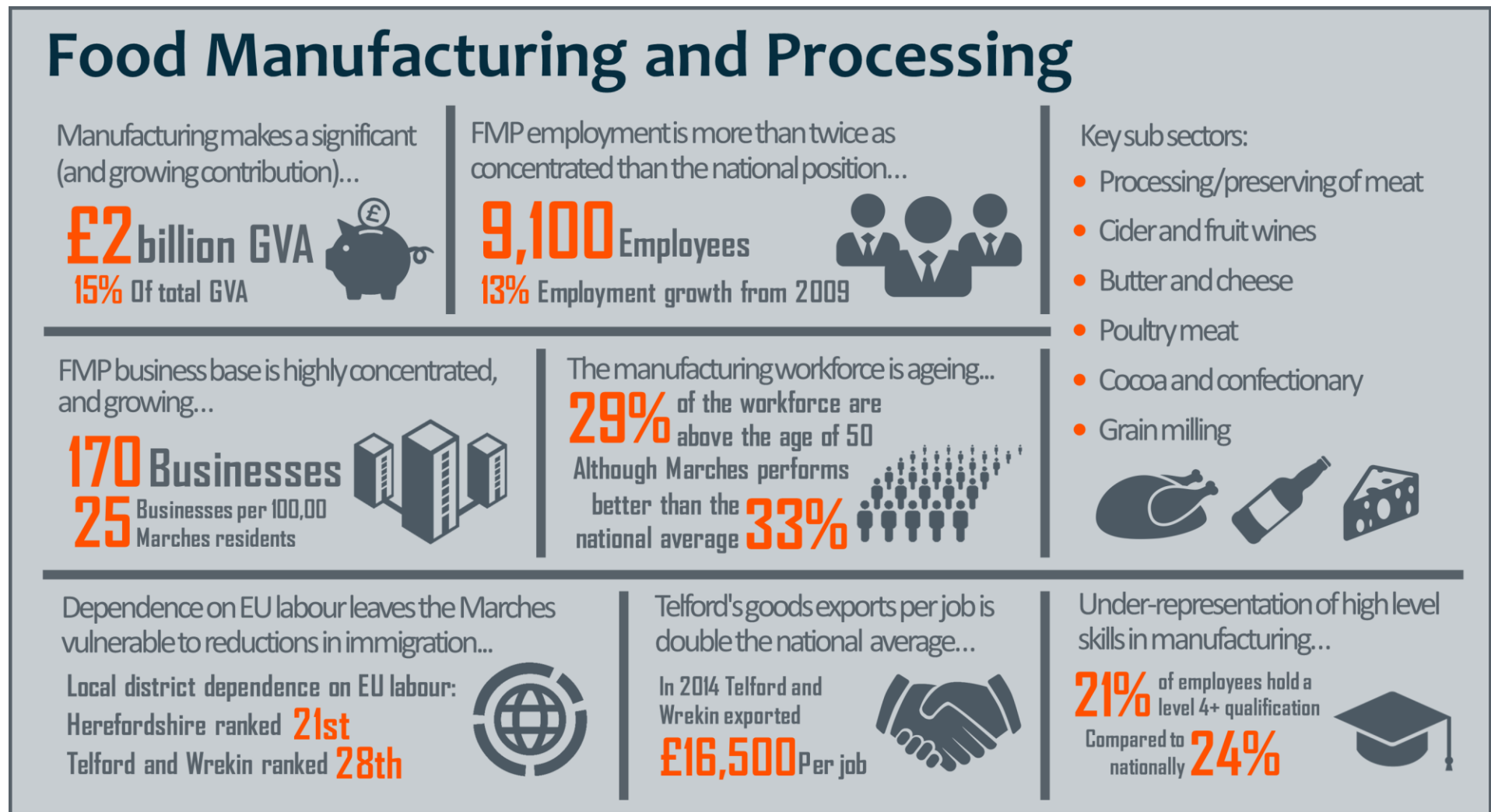
¹⁰ Shropshire Council, Draft Economic Growth Strategy 2017-2021

¹¹ Invest Herefordshire, Invest Herefordshire Herefordshire's Economic Vision

¹² Telford Enterprise, Driving growth and prosperity: Economic Development Strategy 2016

<p>6. Build our reputation as a Council that is 'good to do business with'</p>	<p>and the supply of skills and qualifications.</p> <p>3. A Great Place to Live</p> <p>4. A Great Place to Visit</p> <p>5. Great movement and accessibility</p> <p>6. Countywide Ambition</p> <p>7. A Great Environment</p>	<p>4. Improve the skills and talent pool of the Borough to make it business relevant.</p> <p>5. Transform physical and digital connectivity.</p> <p>6. Optimise all the assets of the Borough to make it a first-class place to live, work and invest</p>
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Figure 1.1 Sector Needs Assessment Summary Infographic – Food Manufacturing and Processing (FMP) in the Marches



Source: Regeneris Consulting, see appendix C – Glossary for other sources.

2. Sector Needs Assessment

Productivity

The FMP sector makes a significant (and growing) contribution to the Marches economy but there is scope to improve productivity...

Table 2.1 Economic output of the manufacturing sector, 2015

	The Marches	Midlands Engine	England
Manufacturing GVA	£2.01 billion	£34.49 billion	£138.65 billion
Manufacturing GVA (% of total GVA)	15%	16%	10%
Manufacturing GVA per FTE	£57,800	£63,800	£71,300
All sector (average) GVA per FTE	£60,400	£57,800	£68,000

Source: ONS, 2016

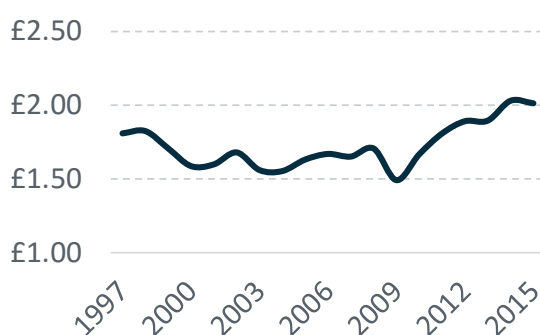
Note: Note: GVA data is only available at the level of broad sectors

- 2.1 Manufacturing plays a prominent role in the total economic output of the Marches constituting 15% (£2.01 billion GVA) of output compared to 10% nationally. Moreover, the sub-region accounts for ~6% of all food manufacturing GVA in the Midlands Engine.

- 2.2 After a brief post-recession drop in output between 2008-09 growth has been strong 18% up from pre-recession levels to 2015, compared to 16% nationally.

- 2.3 The sector is less productive in the Marches than regional and national benchmarks. GVA per FTE (manufacturing) is £57,800 compared to £63,800 in the Midlands Engine and £71,300 in England.

Figure 2.1 Marches manufacturing GVA (billions), 1997-15



Source: ONS, 2016

Employment

FMP employment has grown significantly from 2009 (13%), more than double the national rate...

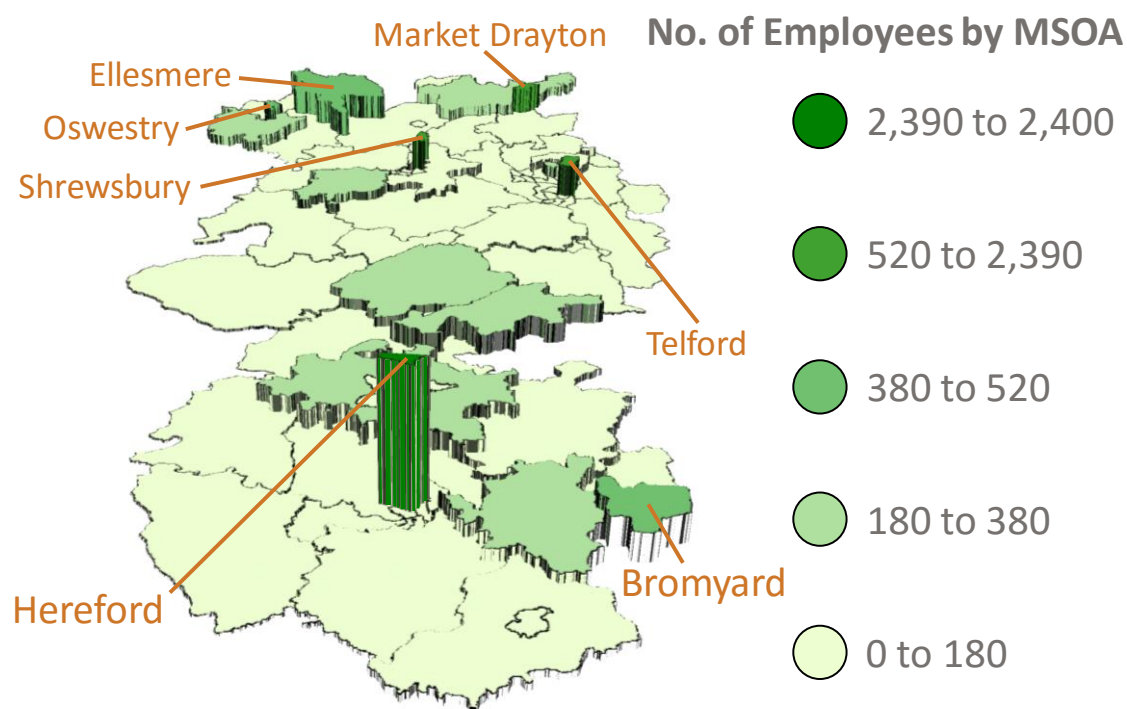
- 2.4 The food manufacturing and processing sector is a significant employer in the Marches area. Currently, there are around 9,100 employees representing 3% of all employees in the sub-region and the Marches makes a substantial contribution to employment in the Midlands Engine area accounting for 10%.

FMP employment is more than twice as concentrated as nationally...

- 2.5 Employment in the food manufacturing sector is relatively concentrated within the Marches area compared to the national average with a score of 2.5 according to the Index of Specialisation (IoS)¹³.
- 2.6 Employment in the sector is highly concentrated within Herefordshire. Employment in the region is almost around four times as concentrated as the national average (IOS of 4.0) and accounting for 43% of all food manufacturing and processing employment in the Marches. Within Herefordshire employment is highly clustered in the town of Hereford, which accounts for around 2,400 employees, of which around 1,200 of these workers are employed between Cargill Europe's two chicken processing operations within the local authority area. Other notable clusters of employment activity in the sector can be found around Oswestry, Ellesmere, Shrewsbury, Market Drayton, Telford and Bromyard.

¹³ Index of specialisation is a measure of how more or less important an industry is in a local economy than nationally.
(1 = national)

Figure 2.2 Map of Food manufacturing and processing employment by MSOA, 2015



Source: ONS, BRES, 2015

- 2.7 Employment in the sector has fluctuated in recent years but overall has been very strong with net growth of 13% (equivalent to 1,060 jobs) over the period 2009 to 2015. This exceeds the rate of observed nationally (6%) by more than double, and equals the growth rate in the Midlands Engine (13%).

Table 2.2 Employment and Businesses in the food manufacturing and processing sector

	Employment (2015)				Businesses (2016)	
	No.	Change 2010-15	LQ(GB)	% of Marches	No.	Change 2011-16
Herefordshire	3,900	+34%	4.0	43%	70	+18%
Shropshire	4,000	-5%	2.6	44%	90	+21%
Telford and Wrekin	1,100	+30%	1.0	12%	30	+67%
The Marches	9,100	+13%	2.5	100%	170	+26%

Source: BRES (2015), UK Business Count (2016)

Note: May not sum due to rounding.

- 2.8 The number of businesses in the sector has increased steadily over the past five years (26% equivalent to 35 businesses), equalling the Midlands Engine (26%), however some way off the national average (36%).

Marches FMP sub-sector specialisations are highly concentrated...

- 2.9 Looking at the specific sub-sectors that comprise the food processing and manufacturing sector in the Marches reveals that the FMP's sector specialisations are highly concentrated within several key sub-sectors. In terms of employment, the top 10 sectors in 2015 accounted for 82% of all FMP employees in the Marches compared to 78% and 72% in the Midlands Engine and England respectively.

Table 2.3 Top 10 food manufacturing and processing sub-sectors in the Marches by employment, 2015

Sub-sector	Number of employees	% of total	Change 2009 to 2015	Index of specialisation
Processing and preserving of poultry meat	1,980	22%	(+) 330	3.9
Processing and preserving of meat	1,230	14%	(+) 410	2.3
Production of meat and poultry meat products	840	9%	(+) 30	1.2
Butter and cheese production	710	8%	(-) 10	4.8
Manufacture of cocoa, and chocolate confectionery	710	8%	(+) 260	2.9
Manufacture of cider and other fruit wines	660	7%	(+) 210	14.4
Manufacture of bread; manufacture of fresh pastry goods and cakes	400	4%	(+) 190	0.2
Other processing and preserving of fruit and vegetables	330	4%	(+) 60	0.7
Manufacture of other food products nec	320	3%	(-) 360	0.4
Grain milling	300	3%	(+) 140	2.6
Total	7,480	82%	(+) 1260	

Source: ONS, 2016

Note: Index of specialisation is a measure of how more or less important an industry is in a local economy than nationally (1.0).

- 2.10 The Marches FMP economy is highly specialised in the manufacturing and processing of meat products, with activity in the top 3 sub-sectors in terms of employment centred around processing, preserving and production of meat, (mainly poultry). Collectively the top 3 sub sectors account for a very substantial 45% (equivalent to 4,050 employees) of all FMP employment in the Marches.
- 2.11 The largest sub-sector, *Processing and preserving of poultry meat*, is a particular strength of the Marches economy, accounting for 22% (equivalent to 1,980 employees) of all FMP employees, and an index of specialisation of 3.9 indicating that sub sector is considerably more concentrated than the national average.
- 2.12 However, Marches strengths are not limited to just meat processing activities, there are also substantial degrees of specialisation in the sub-sectors relating to dairy products (butter, cheese and milk products), confectionary and cider.
- 2.13 There are other sub-sectors not featured in Table 2.4 that the Marches has a great deal of specialisation in even though their contribution to employment may not be as substantial.

Table 2.4 Top 10 food manufacturing and processing sub-sectors in the Marches by index of specialisation, 2015

Sub-sector	Number of employees	% of total	Change 2009 to 2015	Index of specialisation
Manufacture of cider and other fruit wines	660	7%	(+) 210	14.4
Manufacture of homogenised food preparations and dietetic food	90	1%	(+) 90	5.7
Butter and cheese production	710	8%	(-) 10	4.8
Processing and preserving of poultry meat	1,980	22%	(+) 330	3.9
Manufacture of milk products	280	3%	(-) 300	3.4
Manufacture of cocoa, and chocolate confectionery	710	8%	(+) 260	2.9
Grain milling	300	3%	(+) 140	2.6
Processing and preserving of meat	1,230	14%	(+) 410	2.3
Manufacture of fruit and vegetable juice	70	1%	(-) 10	1.9

Sub-sector	Number of employees	% of total	Change 2009 to 2015	Index of specialisation
Manufacture of prepared feeds for farm animals	280	3%	(+) 80	1.6
Total	6,310	70%	(+) 1200	

Source: ONS, 2016

Note: Index of specialisation is a measure of how more or less important an industry is in a local economy than nationally (1.0).

2.14 In summary, the top three sub-sectors in terms of employment, relative strength and growth are:

- 1) Processing and preserving of meat, (+410)
- 2) Processing and preserving of poultry meat, (+330)
- 3) Manufacture of cocoa, and chocolate confectionery, (+260)

2.15 There are also a number of important sub-sectors that have experienced significant reductions in employment over the same period:

- 4) Manufacture of condiments and seasonings, (-270)
- 5) Manufacture of milk products, (-300)
- 6) Manufacture of other food products, (-360)

Sub-sector strengths are concentrated geographically...

2.16 Looking at the spatial characteristics of food manufacturing and processing sub-sectors in the Marches shows that certain sub-sector specialisation are concentrated within different local authority areas.

Table 2.5 FMP sub-sector strengths and number of employees by Unitary Authority, 2015

Shropshire		Herefordshire		Telford and Wrekin	
Sub-sector	No	Sub-sector	No	Sub-sector	No
Processing and preserving of meat	1,220	Processing and preserving of poultry meat	1,830	Manufacture of cocoa, and chocolate confectionery	610
Production of meat and poultry meat products	790	Manufacture of cider and other fruit wines	660	Manufacture of other food products	190
Butter and cheese production	520	Grain milling	280	Manufacture of milk products	170
Other processing and preserving of fruit and vegetables	310	Processing and preserving of potatoes	200	Manufacture of bread fresh pastry goods and cakes	90

Source: ONS, 2016

- 2.17 The synthesis of granular data analysis and consultation findings reveals that many of these sub sectors are dominated by a couple of very large employers. For example, Cargill Europe employs around 1,200 staff between its two sites in Hereford (comprising most of the *processing and preserving of poultry meat* activity within the Marches). Similarly APB has a large beef processing operation in Shropshire and a large proportion of the *manufacture of cider and other fruit wines* can be accounted for by Westons Cider and Bulmer (Heineken UK) which are both located within the local authority area of Herefordshire.

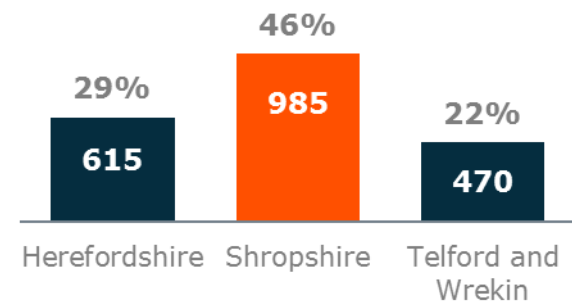
Business base

The FMP business base is highly concentrated within the Marches, and growing...

- 2.18 There are currently 170 FMP enterprises in the Marches area, representing 23%, 12% and 2% of the FMP business base in the West Midlands, Midlands Engine and England respectively. The number of businesses has steadily expanded over the years and has grown by 26% (equivalent to 35 businesses) since 2010. This is keeping pace with growth experienced in the Midlands Engine (26%), however is short of growth nationally (36%).

- 2.19 Average business size in the Marches FMP sector (57 employees) is larger than the national average (45), however is short of the Midlands Engine (70). Looking at the individual local authority areas, Herefordshire has a large average business size of 66 compared to 56 and 50 in Telford and Wrekin and Shropshire respectively.

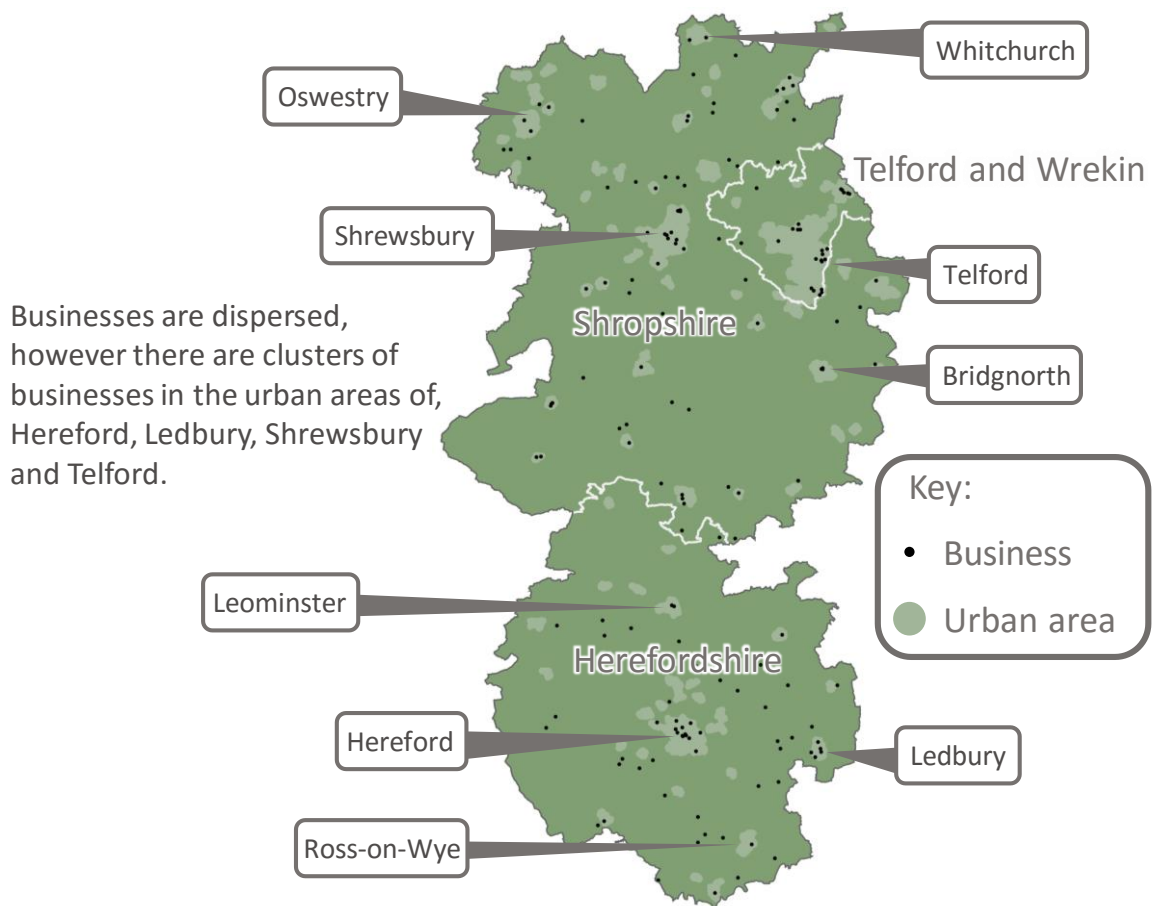
Figure 2.3 FMP business base by local authority area, 2016



Source: ONS, UKBC, 2016

Note: Numbers may not sum due to rounding

Figure 2.4 Location of food manufacturing and processing Active and Locally Registered Businesses



Source: FAME Data, 2017

- 2.20 There are a number of well known businesses who are large FMP employers within the Marches and support supply chain activity.

Table 2.6 Select FMP businesses by local authority area, 2015

Shropshire	Herefordshire	Telford and Wrekin
<ul style="list-style-type: none"> • APB Food Group/Anglo Beef Processors UK • Muller Dairy (U.K.) • Arla UK • Zwanenberg Food UK • McConnel • Palethorpes (Pork Farms) • The Shropshire Spirit Co Ltd. • Euro Quality Lambs Limited • The Cheese Warehouse Limited • Belton Cheese Limited • Champion & Reeves Ltd • Hundred House Coffee Ltd • Coopers Gourmet Foods Limited • Lloyds Animal Feeds (Piercebridge) Limited 	<ul style="list-style-type: none"> • Cargill Europe • Westons Cider • Tyrrells Crips • Bulmers • Ornua Ingredients UK Limited • Quest Vitamins Limited • WYE Valley Brewery Limited • Hereford Contract Canning (HCC) Limited • Bevisol Limited • Orchard Origins C.I.C. • Neal's Yard Creamery Limited • Gamber Produce Limited • Certo Limited • Dunkertons Cider Company Limited • James Gourmet Coffee CO. Limited • Peter Cooks Bread Ltd • Ashby And Lowe Ltd 	<ul style="list-style-type: none"> • Magna Specialist Confectioners • Jupiter Marketing • Pickstock Telford Limited • Single Source Limited • Evolution Foods Ltd • Edgmond Foods Limited • Fruitinize Limited • Dukeshill Ham Company Limited • Thank Goodness Limited • Trows Limited • Rowton Brewery Ltd • Mark Jaspers Bakeries Limited • Flower & White Limited • MR Trotter Ltd • Dairy Crest

Source: FAME, 2016

2.21 The following sub-sectors have the highest number of businesses in the Marches FMP sector:

- Manufacture of bread, fresh pastry goods and cakes (30 businesses accounting for 20%)
- Manufacture of beer (25 businesses accounting for 15%)
- Manufacture of prepared feeds for farm animals (15 businesses accounting for 9%)
- Distilling, rectifying and blending of spirits (10 businesses accounting for 6%)
- Manufacture of other food products (10, businesses accounting for 6%)
- Manufacture of cider and other fruit wines (10 businesses accounting for 6%)

- Production of meat and poultry meat products (10 businesses accounting for 6%)

Labour Force

Marches' manufacturing workforce has a relatively young age profile...

- 2.22 In the year ending, June 2016 71% of Marches manufacturing workforce was below the age of 50 compared to 68% and 67% in the Midlands Engine and England respectively. Consultations indicated that the larger part of the workers within the age bracket 25 to 49 was toward the older end of the age bracket, this indicates the possibility of a retirement bulge occurring in Marches manufacturing workforce in the next 20 years.

Table 2.7 Age profile of the manufacturing sector (workplace), Jul 2015- Jun 2016

Age Group	Marches	The Midlands Engine	England	Marches (all sectors)
16 to 19	2%	2%	2%	5%
20 to 24	8%	7%	7%	9%
25 to 49	61%	59%	58%	51%
50+	29%	32%	33%	36%

Source: ONS, Annual Population Survey, 2016

Note: The largest value of each row is highlighted

- 2.23 This is a sharp contrast to the age structure of the Marches workforce as a whole, which has a significantly older age structure compared to the national average, with only 64% of its workforce below the age of 50.

Dependence on EU labour leaves the Marches vulnerable to reductions in migration...

- 2.24 A recent report¹⁴ indicates the extent to which local economies are exposed the effects of Brexit exposure is driven mainly by three key aspects of a local economies character:
- How exposed local industrial specialisations are to changing trade relationships (of which it identifies manufacturing and financial services and the industries where changing trade relationships will have the biggest effect)
 - Reliance on EU migrant labour
 - Local average earnings (areas with lower earnings will be hit harder by price inflation)

¹⁴ My Local Economy, *Brexit: Potential Impacts for Local Economies*, 2017

Table 2.8 Local authority dependence on EU labour (rank 1 indicates the most vulnerable)

Rank	LA Unitary/District	Employment quotient for industries more dependent on EU labour than the all-industry average
21	Herefordshire	1.56
28	Telford and Wrekin	1.78

Source: My Local Economy, Brexit: Potential Impacts for Local Economies, 2017 * Shropshire data not provided

- 2.25 The report indicates that the Marches economy is somewhat vulnerable to Brexit. The main driver of this vulnerability is the area's dependence on non-UK migrant labour, with Herefordshire and Telford and Wrekin ranked 21st and 28th respectively in terms of vulnerability driven by dependence on EU labour. The report does not provide detailed figures for Shropshire as it only includes the 30 most vulnerable local authorities, however it is anticipated that this is a LEP wide challenge.

Higher managerial and professional occupations are under-represented in Marches' manufacturing sector...

- 2.26 At a broad level, around 31% of manufacturing employees in the Marches area work in higher managerial and professional occupations, four percentage points less than in the Midlands Engine and nine percentage points less than in England. Marches has a notably high proportion of manufacturing sector employees engaged in *Process, Plant and Machine Operative* and *Elementary* occupations, 39% compared to the Midlands Engine (34%) and England (28%).

Table 2.9 Occupational profile of the manufacturing sector (Residents), Oct 2015-Sep 2016

Occupation	Marches	Midlands Engine	England
Managers, Directors and Senior Officials	13%	12%	13%
Professional Occupations	6%	11%	13%
Associate Prof & Tech Occupations	13%	12%	14%
Administrative and Secretarial Occupations	9%	8%	8%
Skilled Trades Occupations	18%	20%	21%
Caring, Leisure and Other Service Occupations	-	0%	0%
Sales and Customer Service Occupations	3%	2%	3%
Process, Plant and Machine Operatives	27%	23%	19%
Elementary occupations	12%	11%	9%

Source: ONS, Annual Population Survey, 2016

Note: The largest value of each row is highlighted. Estimates has been censored due to group sample size

- 2.27 Marches' manufacturing **workplace** population contains low proportions of *Managers, Directors and Senior Officials*. It can be seen in Table 2.10 that 10% of the manufacturing workplace population work in as *Managers, Directors and Senior Officials* compared to the 13% of the residential population working in manufacturing. This suggests that a number of higher level professionals working in manufacturing live in the Marches but commute to other areas to work.

Table 2.10 Occupational profile of Marches manufacturing sector resident and workplace population, Oct 2015- Sept 2016

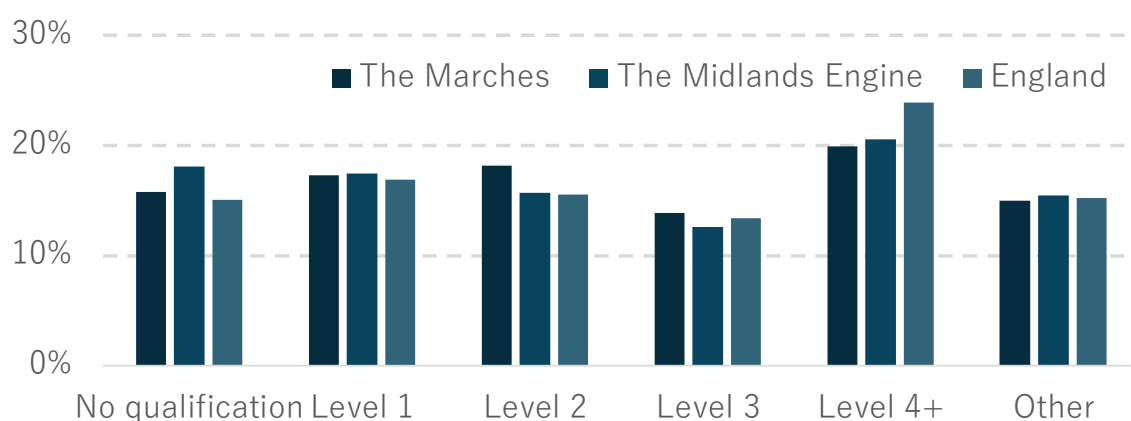
Occupation	Work Place	Residents
Managers, Directors and Senior Officials	10%	13%
Professional Occupations	6%	6%
Associate Prof & Tech Occupations	14%	13%
Administrative and Secretarial Occupations	9%	9%
Skilled Trades Occupations	18%	18%
Caring, Leisure and Other Service Occupations	-	-
Sales and Customer Service Occupations	3%	3%
Process, Plant and Machine Operatives	25%	27%
Elementary occupations	14%	12%

Source: ONS, APS, 2016

Higher level skills are under-represented within the Marches manufacturing sector...

- 2.28 The skills profile of Marches manufacturing sector mimics the trends observed in the occupational profile. That is to say, Marches manufacturing sector has relatively lower proportions of workers with Level 4+ qualifications as their highest held qualification compared to nationally. Marches manufacturing sector is relatively skilled compared to the Midlands Engine, it has lower proportions with no qualifications and is on par in terms of Level 4+ qualifications.

Figure 2.5 Skills profile of the manufacturing sector, 2011



Source: ONS, Census 2011

Note: Data is based on a broader SIC code definition

- 2.29 As seen in Table 2.11 the Marches manufacturing **workplace** population has a lower proportion of employees holding Level 4+ qualifications (20%) compared to Marches residential population who work in manufacturing. This trend in skills, like the occupational profile, indicates that there are highly skilled Marches residents employed in manufacturing who commute to other areas to work.

Table 2.11 Skills profile of Marches manufacturing sector, 2011

Highest held qualification	Workplace	Residential
No qualification	16%	15%
Level 1	17%	17%
Level 2	18%	18%
Level 3	14%	14%
Level 4+	20%	21%
Other	15%	14%

Source: ONS, Census 2011

Note: Data is based on a broader SIC code definition

- 2.30 Working Futures data indicates that the proportion of people working at higher skilled levels in the Marches FMP sector will increase over the period 2014 to 2024 but not to the same extent as the national average for the FMP sector and not to the same level as the all sector average in the Marches.

Table 2.12 Projected qualification profile in the marches, 2014-24

Highest held qualification	All Sectors		FMP (Marches)		FMP (England)	
	2014	2024	2014	2024	2014	2024
Level 4+	32%	42%	24%	34%	31%	44%
Level 3	22%	21%	26%	25%	25%	22%
Level 2	21%	22%	22%	24%	22%	21%
Level 1	16%	12%	17%	13%	15%	11%
No qualification	9%	4%	10%	3%	6%	2%

Source: Working Futures

Manufacturing wages in the West Midlands are greater than the all sector average...

- 2.31 The median wage in the manufacturing sector is £28,700 in the West Midlands which is significantly higher than the all-sector average in the West Midlands (£26,400).

Table 2.13 Median wage by area and sector, 2016

Area and sector	Median Wage
West Midlands (All sectors)	£26,400
West Midlands (Manufacturing)	£28,700
Marches residents (All sectors)	£25,800
Marches workplace (All sectors)	£24,800

Source: ONS, ASHE, 2016

- 2.32 The annual median wage of those who live in the Marches (£25,800) is significantly higher than the median wage of those who work in the Marches (£24,800). This could indicate that the Marches is a desirable place to live but higher paid jobs in the region are to be found elsewhere.

Telford's exports per job is double the national average...

- 2.33 The Marches has a value of exports per FTE employee below the national average, with a value of £7,000 compared to the national average of £10,900. Telford and Wrekin has a value of exports per FTE employee above the national average at £11,500 whereas the local authority areas of Herefordshire and Shropshire are significantly below with values of £5,300 and £4,800 respectively.

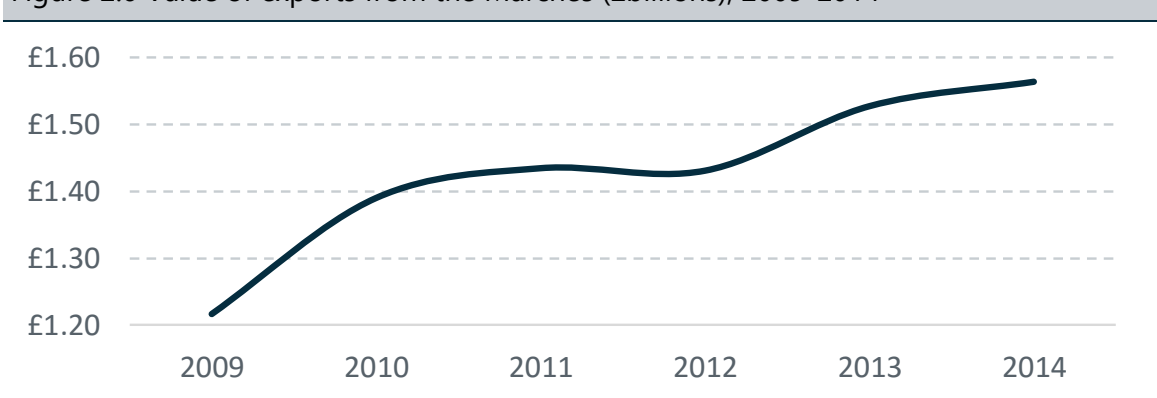
Table 2.14 Value of exports & value of exports per FTE employee, 2014

	Telford and Wrekin	Herefordshire	Shropshire	National Average
Exports (£m)	£805	£312	£446	-
Value of exports per FTE employee	£11,500	£5,300	£4,800	£10,900

Source: HM Revenue & Customs, Regional Trade Statistics, 2016

- 2.34 While the Marches does not export as much in absolute terms compared to other areas the value of exports has increased significantly in recent years, 29% over the 2009-14 period.

Figure 2.6 Value of exports from the Marches (£billions), 2009-2014



Source: HM Revenue & Customs, Regional Trade Statistics, 2016

- 2.35 A recent study¹⁵ indicates that the city of Telford is a significant exporter of goods. In 2014 Telford ranked 5th out of 63 cities in terms of value of goods exports per job. In 2014 Telford had an exports per job figure of £16,500 compared to a national average of £8,240, that is double the national average. However, this high value is possibly the result of one or two multinational firms producing high value specialist goods.

Table 2.15 Top ten cities by exports per job (£), 2014

Rank	City	Goods exports per job 2014 (£)
1	Sunderland	£35,420
2	Worthing	£23,400
3	Derby	£20,810
4	Coventry	£19,050
5	Telford	£16,500
6	Slough	£16,060
7	Aldershot	£15,260

¹⁵ Centre for Cities, Cities Outlook 2017, 2017

Rank	City	Goods exports per job 2014 (£)
8	Burnley	£15,240
9	Plymouth	£14,160
10	Hull	£13,370
	National Average	£8,240

Source: Centre for Cities, Cities Outlook 2017, 2017

The Marches attracted £6.5m of inward investment in the sector over the last year...

- 2.36 The most recent data held on inward investment activity in the Marches shows the sub-region attracted 13 inward investment projects across all sectors between March 2016 to February 2017. To put this into context, this represents 18% of inward investment projects in the West Midlands and 9% of projects in the Midlands Engine.
- 2.37 Two of those investments were in the food manufacturing and processing industry, attracting £6.5m of investment and 10 new jobs, in addition to safeguarding 320 jobs. The strong base of key industry players in the Marches presents an ongoing inward investment opportunity, as businesses grow and expand. One of these food and drink investment successes was an expansion by an existing investor, generating substantial value through its expansion.

SWOT

- 2.38 The following infographic summarises the strengths, weaknesses, opportunities and threats facing the food manufacturing and processing sector in the Marches.

Figure 2.7 Summary SWOT for the Food Manufacturing and Processing Sector

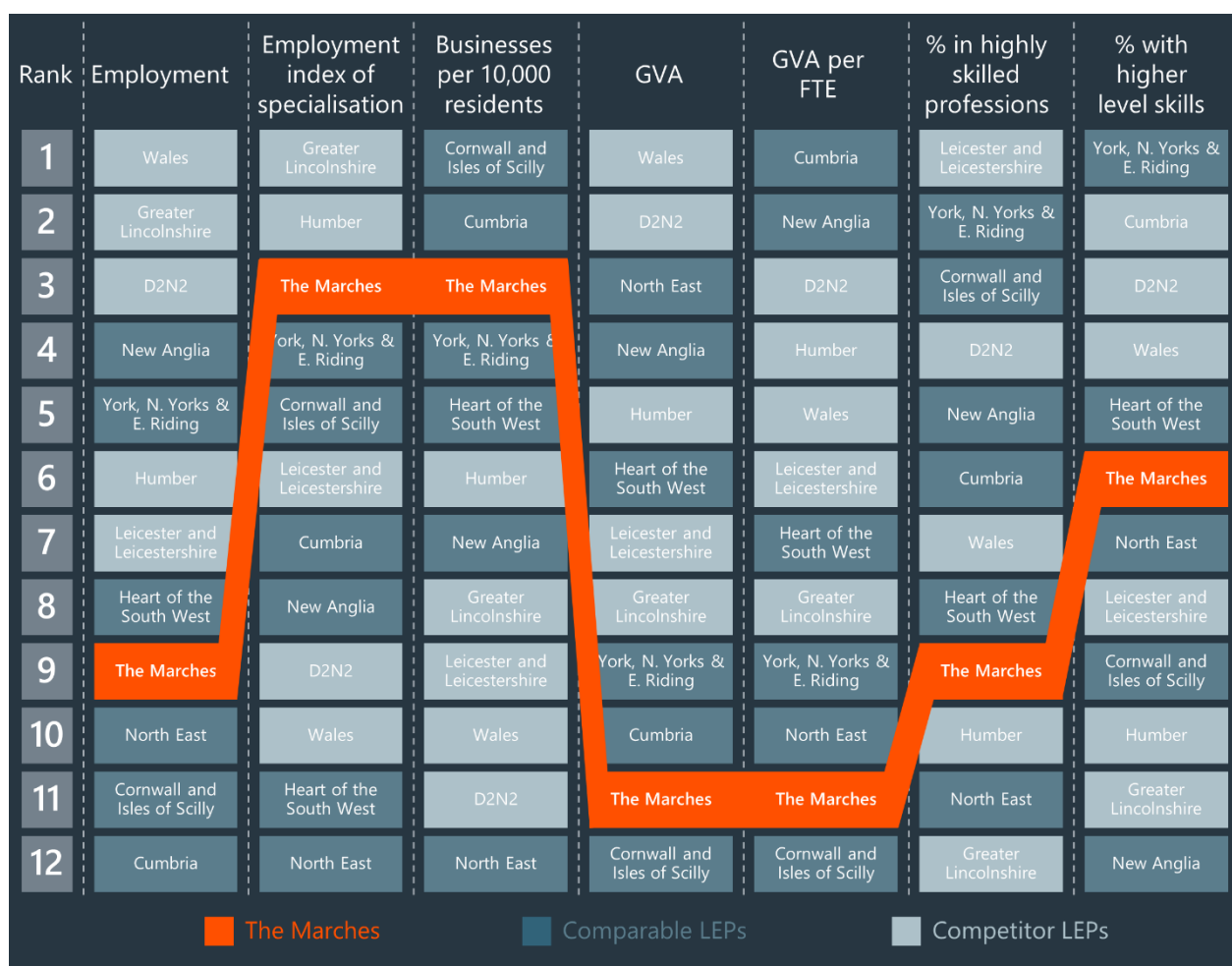


Source: Regeneris Consulting Note: Harper Adams University (HAU), Telford and Wrekin Council (TWC), Agri-tech West Alliance (ATWA)

Assessment of Competitiveness

- 2.39 This section builds on the earlier analysis of the sector, combining desk-based research and consultation messages to form a picture of Marches' performance in the sector.
- 2.40 The following analysis shows the Marches' comparative performance with other LEPs to give an indication of its strengths and weaknesses. Comparator LEPs have been chosen based on several criteria:
- Firstly, comparators include other rural LEPs that Marches previously benchmarked itself against to account for similarities in demographics and challenges that come with rural locations. These are Cornwall and Isles of Scilly, Cumbria, Heart of the South West, New Anglia, North East, North Yorkshire and York, and North East. Wales has also been included due to its similarly rural structure and close geographical location.
 - Secondly, LEP areas with food manufacturing and processing strengths (based on sector concentrations) and which identify the sector as a strategic priority. The Marches could be competing with these LEP areas as a potential destination for investment. These LEPs include Greater Lincolnshire, Leicester and Leicestershire, D2N2 Humber and Wales.
- 2.41 Figure 2.8 summarises Marches' performance against comparators, and shows the Marches
- ranks low on absolute employment in the sector, but ranks in the top three for employment index of specialisation with an IOS of 2.47.
 - has 25 businesses per 10,000 residents, ranking the sub-region 3rd out of comparator locations
 - is comparatively less productive, and ranks low in term of total GVA and GVA per FTE ranking 13th out of the comparator locations for both indicators.
 - Has comparatively fewer highly skilled professionals.

Figure 2.8 LEP competitiveness in Food Manufacturing and Processing comparison chart



Source: ONS, 2016

Note: GVA, GVA per FTE, % in higher managerial professions and % with higher level skills are based on broader SIC code definitions

2.42 The following assessment of competitiveness provides a qualitative analysis of Marches position against comparator locations considering key attributes taking into account data analysis and consultation insights. The performance of Marches is categorised as follows:

- **GREEN** - to mark areas of competitive advantage in the Marches
- **ORANGE** - to mark no clear advantage or disadvantage
- **RED** - to denote a disadvantage.

Skills and labour market

Key attribute	Marches Performance
Manufacturing, including food, faces an ageing workforce, both in the Marches and nationally. Between 2014 and 2024 replacement demand for 10,690 jobs is projected by Working Futures data. Despite a reduction in expansion demand, presumably through automation and productivity gains in the sector, a total requirement of 8,800 jobs is estimated in the Marches.	
<p>Skills shortages in the sector are stark. Consultations suggest shortage of:</p> <ul style="list-style-type: none"> • higher managerial occupations, requiring employers to recruit from further afield • technical and engineering skills: as manufacturing supply lines become more automated and a greater degree of technology is being integrated into the business, this places additional demands on these types of skills • maintenance and other mid-level skills • additionally, businesses report difficulties accessing other services such as marketing and consumer insight specialists. 	
The perception of the industry is also seen as a deterrent for recruiting staff. The sector can be perceived as unskilled manual labour working in cold environments. This creates competition for labour from within the sector.	
Brexit is causing concerns for employers in the sector over access to labour.	
<p>Harper Adams University and the University of Wolverhampton offer specialist training courses for the sector. Including:</p> <ul style="list-style-type: none"> • Food Technology with Nutrition • Food Technology and Product Development • Food and Public Health Nutrition • Food Manufacture with Marketing • Food Industry Management • Agri-food Marketing with Business 	
Median annual wages in the Marches are below the national and regional averages, which make it attractive for employers as labour costs are cheaper.	

Innovation (technology)

Key attribute	Marches Performance
The Marches has a strong base of food manufacturers, including businesses that are at the forefront of technological advancements. Businesses such as Fullwood are utilising robotics for dairy processing, taking advantage of latest technological trends and gaining efficiency in systems.	
Businesses such as Cargill have strong R&D capabilities internally. While there might be limit scope to share the technology, these organisations can encourage smaller firms to gain confidence to innovate.	
Small business networks have developed with an aim of advancing innovation in products and services to the industry e.g. the University of Wolverhampton supported Food Packaging Group.	

Assets

Key attribute	Marches Performance
<p>Among innovation and research assets, is Harper Adams University which has several centres and facilities dedicated to the food and agritech sector. These include:</p> <ul style="list-style-type: none"> the Regional Food Academy (located within Harper Adams University) - providing training, education, knowledge transfer and technical consultancy support to the region's food industry Food Enterprise Centre (Shrewsbury) – state of the art facility, housing twelve start-up or growing food production businesses, providing food production premises, a café and a meeting area for informal business meetings. A new centre is being constructed to focus on take up of Engineering and Precision Farming technology in the supply chain. This includes a hub at HAU focused upon agricultural precision engineering and a smart dairy at the University farm. This facility will bring business and academia together to improve business innovation by co-locating. This complements other hubs elsewhere (Cranfield University and Scotland's Rural College) Newport Innovation & Enterprise Package. HAU are working with TWC to open up sites for a facility where businesses can coalesce with academic support (£9m). This would include software and robotics companies capitalising on proximity to the HAU centre. 	

<p>Focus will be a unique engineering and advanced technology focus for indigenous growth and incoming agri-food businesses. Includes grow-on space and space for new investors.</p> <ul style="list-style-type: none"> • Additionally, Shropshire Food Enterprise Centre (Shrewsbury) gives start-ups and growing businesses access to purpose built facilities for food production. 	
<p>Skills and training assets. Harper Adams University offers a range of sector-specific training courses as well as degrees. In addition, the sector is able to benefit from the general manufacturing and engineering provision in the area, such as the Herefordshire Group Training Association (providing engineering and manufacturing apprenticeships).</p> <p>In addition to existing provision, apprenticeships in Food Engineering (Higher level degree) are in the pipeline at HAU.</p>	
<p>The Marches is home to major food manufacturing businesses and home grown names, which due to their supply chain pool and capabilities serve as assets for the area. These include: ABP, Arla, Bulmers (Heineken); Cadbury; Cargill Meats; Dairy Crest; Faccenda; Heinz (Single Service); Müller Wiseman Dairy; Palethorpes (Pork Farms); Tyrrells and Westons Cider.</p>	
<p>Training Centres Marches Centre for Manufacturing and Technology (MCMT) is a employer-led Advanced Manufacturing Hub regional training centre in Bridgnorth which will create opportunities for FMP to interact with other growth sectors eg advanced manufacturing and engineering.</p> <p>The Advanced Manufacturing Skills Hubs in Shropshire will work with employers to boost the provision of skills available to the industry.</p>	

Business support

Key attribute	Marches Performance
<p>The Shropshire Food Enterprise Centre provides business support services including access to specialist food and drink consultancies via the Marches Growth Hub (Shropshire) based within the same facility. The Centre works closely with the of the rest of the Golden Triangle¹⁶ – public sector support institutions that provide excellence in research and development support for the food and drink sector.</p>	

¹⁶ Harper Adams University Regional Food Academy in Newport, Reaseheath College Food and Dairy processing facilities in Nantwich and the NOW food testing centre at University of Chester in Chester.

<p>In addition to food and drink manufacturing support, businesses in the sector can access the services offered to manufacturers as a whole. Businesses based in the Marches can benefit from manufacturing-focused services in the West Midlands due to the specialism and historic manufacturing strengths of the region. Examples include, the Manufacturing Growth Programme Grant Scheme for SMEs, Finance Birmingham. In addition, the Golden Triangle of support has close links with Reaseheath College Food Academy in Nantwich and the University of Chester with its NOW Food Centre.</p>	
<p>Over the past year, four LEPs (The Marches, Stoke & Staffs, Worcestershire and Cheshire & Warrington) have been working together to develop the Agri-Tech West Alliance, due to be launched in 2017. ATWA will provide Agri-Food businesses with signposting to a range of specialist business services that will support them in research & innovation, product and service development and achieving efficiencies.</p>	
<p>The FMP industry has a range of EU and Midlands Engine funded business support schemes at its disposal, featuring schemes designed to encourage innovation, increase efficiencies, promote trade or improve performance generally. These include but are not limited to:</p> <ul style="list-style-type: none"> • Innovation vouchers - grant support to groups of companies that are collaborating on the development of innovative new products, processes or services. • Agri-tech Growth and Resources for Innovation (AGRI) - Support SME's to innovate in order to exploit the growing market opportunities, particularly in agri-tech/agri-food. • SME International Growth Project - targeted advice, events and financial support to encourage SMEs to move into new overseas markets. • Midlands Engine Investment Fund (MEIF) - Financial instruments made available to SMEs, including loans and equity products. • RDPE Food Processing grants – provides funding for projects which create jobs and growth in the rural economy • Several efficiency related support programmes see above. 	

Infrastructure

Key attribute	Marches Performance
Mixed picture on connectivity depending on location within the Marches, Telford and Wrekin have good connectivity by road, closeness to airport, and proximity to the M54 which links to the rest of the national motorway network. Travel from other areas can be more difficult and report poor public transport links.	
The Marches has a strong sites and premises offer in Telford and Wrekin, but less so in Shropshire. Herefordshire is home to the Skylon Park Enterprise Zone, which offers high quality premises. Specifically targeting the food and drink sector, the Shropshire Food Centre offers 12 units for start-ups and growing businesses on flexible terms.	
Digital connectivity is perceived as a barrier to growth, however some businesses report recent improvements. The average superfast broadband coverage across premises in England is 93%. In the Marches this is much lower, and there is significant disparity between the local authorities: from 77% in Shropshire, 81% in Herefordshire to 92% in Telford and Wrekin. ¹⁷	

Supply Chains

Key attribute	Marches Performance
The food manufacturing and processes sector in the Marches builds on a strong agricultural heritage of the area. The sector represents a diversification of the business base and movement towards higher value activities, building on the historic presence and clustering of agri-based activities. This supply chain extends in food testing centres, packaging and distribution.	
Manufacturers are able to source much of their products from within the Marches. However, there is some reliance of importing goods for the sector (e.g. fruits that do not grow domestically). The decision to leave the EU has had an impact on the exchange rates, with the weakening of the pound. This in turn increased the price of imports, increasing input costs for some of the area's manufacturers.	

¹⁷ ThinkBroadband, Local Broadband Information, 2017

Quality of Life

Key attribute	Marches Performance
One of the main attractions of the Marches is that it is a nice place to live, work and visit which is facilitating investment interest.	
<p>The ONS Quality of Life Index shows the Marches local authorities have higher than average life satisfaction and happiness ratings:</p> <ul style="list-style-type: none"> Life satisfaction: average 7.7 compared to UK average of 7.6 <p>Happiness: 7.6 compared to national 7.5.</p>	

3. Conclusions

- 3.1 This study has further developed understanding of the scale, character and support needs of the Food Manufacturing and Processing (FMP) sector and reinforced the appreciation of the significant contribution it makes to the Marches economy, supplying 9,100 jobs within an extensive business base of 170 companies, and playing a significant role in generating the £2.01bn manufacturing contributes to the Marches economy. The scale of this contribution highlights the important role Marches plays in economic collaborations such as the Midlands Engine through contributing to the growth and prosperity of a sector which is strategically important to the wider sub-region and the UK economy. The Marches needs to align its strategic response with these wider initiatives and take advantage of the ripple effect from major investment occurring both within, and outside, the sub-region.
- 3.2 The Marches LEP involvement in the Agri-Tech West Alliance will provide a focus for promoting the agri-tech sector across Stoke & Staffordshire, The Marches, Cheshire & Warrington, and Worcestershire. Areas of collaborative working include promotion, business support and advice, skills and innovation.
- 3.3 The sector needs assessment provides a steer on the rationale for intervention to facilitate growth in the sector through targeted engagement, support and investment. These can be summarised under four themes for intervention.

Supporting Business

Rationale

The FMP sector makes a significant and growing contribution to the Marches economy but there is scope to improve productivity. Businesses need support to invest in product innovation, integrate new technologies into production lines and design processes and enter new markets. The focus should be on SMEs with a propensity to 'scale up'. We also have a number of strategically important businesses such as Cargill and ABP who are large FMP employers and support supply chain activity. Ensuring these businesses needs are being met will further embed them in the sub-region and ensure their investment is retained and strengthened.

Employment and Skills

Rationale

A retirement bulge is expected to occur in Marches' manufacturing workforce in the next 20 years and there is an imperative to attract young and new entrants to the workforce to meet identified demands and to reduce the Marches dependence on EU labour to mitigate any possible future labour restrictions Brexit may impose. The changing shape of skills needs and the disruption caused by the introduction of new technologies means the Marches must boost the productivity of the workforce and competitive position. This includes increasing the representation of higher level occupations and skills whilst maintaining a good stock of intermediate skills to meet replacement demands. It also requires an emphasis on digital skills, and attributes such as adaptability and creativity.

Innovation

Rationale

The Marches' FMP sector is comparatively less productive than other areas' and low levels of innovation may be a contributing factor. Only 15% of businesses are active in product innovation, 8% in process innovation, and 14% engaging in R&D¹⁸.

A recent study¹⁹ by Nesta indicated that Marches is one of only 4 LEPs that does not contain a business incubator or a business accelerator. These findings indicate a gap in the provision of support for newly formed businesses who are still in the early and vulnerable stages of development.

The Midlands Engine Science and Innovation Audit (2016) identifies future food processing as a market driven priority. This covers the areas of 'food processing efficiency', 'delivering a zero waste food chain' and 'food product innovation' in the food and drink sector. The SIA points to the distinctiveness of the Midlands Engine's offer, containing the UK's largest concentration of food processors and supply chain companies.

¹⁸ 2012 Innovation Survey

¹⁹ Department for Business, Energy and Industrial Strategy (BEIS), Business Incubators and Accelerators: The National Picture, 2017

Physical Infrastructure

Rationale

Physical infrastructure in the Marches varies considerably by location and infrastructure type, however common themes include:

- Poor internal connectivity within the sub-region by road.
- Digital connectivity for business is challenging, with mobile blackspots, poor broadband and very expensive ultrafast connectivity.
- Limited availability of good quality sites which are genuinely developable and shovel ready.
- Viability challenges in both brownfield and greenfield locations due to the costs of delivering major infrastructure and the risks associated with speculative development.

- 3.4 The overarching Sector Action Plan provides a strategic response to the identified issues contained within the four Sector Needs Assessments and identifies broad areas for intervention which will be developed by Marches LEP in partnership with key stakeholders.

Appendix A - Sector Definition

A.1 The Standard Industrial Classification (SIC) definition of the Food Manufacturing and processing sector was provided by Marches LEP as follows.

Activities	Sub-sector	2007 SIC (5 digit)
Food production and processing	Processing and preserving of meat	10110
Food production and processing	Processing and preserving of poultry meat	10120
Food production and processing	Production of meat and poultry meat products	10130
Food production and processing	Processing and preserving of fish, crustaceans and molluscs	10200
Food production and processing	Processing and preserving of potatoes	10310
Food production and processing	Manufacture of fruit and vegetable juice	10320
Food production and processing	Other processing and preserving of fruit and vegetables	10390
Food production and processing	Manufacture of oils and fats	10410
Food production and processing	Manufacture of margarine and similar edible fats	10420
Food production and processing	Liquid milk and cream production	10511
Food production and processing	Butter and cheese production	10512
Food production and processing	Manufacture of milk products (other than liquid milk and cream, butter, cheese) nec	10519
Food production and processing	Manufacture of ice cream	10520
Food production and processing	Grain milling	10611
Food production and processing	Manufacture of breakfast cereals and cereals-based foods	10612

Food production and processing	Manufacture of starches and starch products	10620
Food production and processing	Manufacture of bread; manufacture of fresh pastry goods and cakes	10710
Food production and processing	Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes	10720
Food production and processing	Manufacture of macaroni, noodles, couscous and similar farinaceous products	10730
Food production and processing	Manufacture of sugar	10810
Food production and processing	Manufacture of cocoa, and chocolate confectionery	10821
Food production and processing	Manufacture of sugar confectionery	10822
Food production and processing	Tea processing	10831
Food production and processing	Production of coffee and coffee substitutes	10832
Food production and processing	Manufacture of condiments and seasonings	10840
Food production and processing	Manufacture of prepared meals and dishes	10850
Food production and processing	Manufacture of homogenised food preparations and dietetic food	10860
Food production and processing	Manufacture of other food products nec	10890
Food production and processing	Manufacture of prepared feeds for farm animals	10910
Food production and processing	Manufacture of prepared pet foods	10920
Beverage production and processing	Distilling, rectifying and blending of spirits	11010
Beverage production and processing	Manufacture of wine from grape	11020
Beverage production and processing	Manufacture of cider and other fruit wines	11030
Beverage production and processing	Manufacture of other non-distilled fermented beverages	11040

Beverage production and processing	Manufacture of beer	11050
Beverage production and processing	Manufacture of malt	11060
Beverage production and processing	Manufacture of soft drinks; production of mineral waters and other bottled waters	11070

Appendix B - Glossary

Table B.1 Glossary Table	
Acronym	Definition
4IR	Fourth Industrial Revolution
AME	Advanced Manufacturing and Engineering
APS	Annual Population Survey
ASHE	Annual Survey of Hours and Earnings
ATWA	Agri-tech West Alliance
BIS	Department for Business Innovation & Skills
BRES	Business Register and Employment Survey
BRIC	Brazil, Russia, India and China
D2N2	Derby, Derbyshire, Nottingham Nottinghamshire
DiT	Department of International Trade
DS	Defence and Security
ERDF	European Regional Development Funding
ET	Environmental Technologies
EU	European Union
FAME	Financial Analysis Made Easy
FDI	Foreign Direct Investment
FMP	Food Manufacturing and Processing
FTE	Full Time Equivalent
GM	Greater Manchester
Golden Triangle	Harper Adams University Regional Food Academy in Newport, Reaseheath College Food and Dairy processing facilities in Nantwich and the NOW food testing centre at University of Chester in Chester.
GVA	Gross Value Added
HAU	Harper Adams University
HMRC	Her Majesty's Revenue and Customs
HWGTA	Herefordshire and Worcester Group Training Association
IoS	Index of specialisation
ISCF	Industrial Strategy Challenge Fund
LA	Local Authority
LEP	Local Enterprise Partnership
LSOA	Lower Layer Super Output Area
MCMT	Marches Centre for Manufacturing and Technology

MEIF	Midland Engine Investment Fund
MGH	Marches Growth Hub
MSOA	Middle Layer Super Output Area
NEET	Not in education, employment or training
NMiTE	New Model in Technology & Engineering
NPIF	National Productivity Investment Fund
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
SIC	Standard Industrial Classification
SME	Small and medium enterprise
STEM	Science, Technology, Engineering and Maths
SWOT	Strength, Weakness, Opportunity, Threats
TWC	Telford and Wrekin Council
UA	Unitary Authority
UKBC	UK Business Counts
UKCES	United Kingdom Commission for Employment and Skills
UKEF	United Kingdom Export Finance
WTO	World Trade Organisation



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