

Leeds manufacturing adding Fyalue



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Leeds manufacturing: adding value

Manufacturing is central to our strategy for driving economic growth in Leeds and this is in line with the Government's strategy for rebalancing the UK economy: moving it away from over-reliance on the service and public sectors, towards an export-led economy, driven by innovation and high level skills. Despite the widely held view that manufacturing is simply something that we don't do any longer here in the UK, manufacturing remains critical to the success of the national economy and to the economy of Leeds. At national level, the sector is a major driver for innovation and exports, with manufacturing responsible for 72% of business R&D and over 50% of UK export-related earnings.¹

Here in Leeds, manufacturing makes a major contribution to the economy, employing around 30,000 people and contributing over 11% of GVA. The city is the UK's third largest centre for manufacturing by local authority area, while the wider Leeds City Region is the largest manufacturing centre outside London, with 135,800 employed in the sector. Manufacturing also plays an important role as a local multiplier, sourcing services and supplies from within regional supply chains and supporting employment across a range of related sectors including IT services, logistics and distribution, financial and professional advisory services.

Indeed, far from being a thing of the past, manufacturing is a diverse and vibrant sector. The majority of manufacturers in Leeds are small to medium size businesses and they play a key role in the economic life of the city, adding to the diversity and vitality of the economy and ensuring the city's fortunes don't depend on individual industries or employers. There are also many highly innovative manufacturing companies – large and small – based in the city, pushing the boundaries and, in some cases, leading the world in their respective fields.

Modern manufacturing companies are also often much leaner, tougher and more competitive

than their counterparts in other sectors of the economy. There is a great deal that they could teach other companies and organisations in both the private and the public sectors about efficiency, innovation, workforce development and implementing business strategies focussed on delivering tangible results.

Significantly, while the UK economy as a whole continues to be beset by a combination of uncertainty and slow or no growth, the latest trading figures and surveys of manufacturers reveal remarkably high levels of confidence. Nearly two thirds of manufacturing businesses taking part in the latest MAS 'barometer' - a guarterly survey of over 800 companies nationally and 160 companies within the region, commissioned by the Manufacturing Advisory Service - expect to increase sales over the next six months. Appetite for investment has also seen an upturn, with over 40% of companies in Yorkshire and Humber planning to boost spending on new technologies and nearly half intending to invest in new machinery and premises.²





That confidence is reflected in the results of the latest *Manufacturing Outlook* survey from EEF, the manufacturing employers' organisation, and business advisors BDO.³ According to the survey, manufacturers are reporting the strongest output and order balances for a year. However, while sales have picked up in the domestic market, exports remain weak and, across the board, manufacturing investment remains some 19% below its pre-recession levels.

Undoubtedly the sector faces major challenges. Transport, energy and raw material costs continue to place pressure on margins, while access to finance is a major obstacle to capital expenditure and investment. Projections indicate an increase in manufacturing output and productivity over the next decade.⁴ However, employment trends point to further decline in the manufacturing workforce, albeit at a much slower rate than before. Continued investment in training and skills, developing export markets, new products and process innovation will therefore be critical to securing the long term future of the UK's manufacturing sector. This report sets out some of the challenges and opportunities facing manufacturing in Leeds and the commitment of key partners to doing more to support the sector. Increasing the take up of the support and advice already on offer through organisations such as MAS, EEF, UKTI, the Chamber and the Leeds City Region's business growth programme is one of the ways to support individual manufacturing companies.

But there's much more that can be achieved by working together, by collaborating with training and education providers, by leveraging our influence and relationships and by drawing on the expertise of private sector partners to develop broader initiatives that will benefit the sector as a whole. This report recognises that manufacturing has a key role to play in securing and creating employment and it sets out our commitment to work together in ways that add real value to and strengthen a sector that is vital to the city's long term growth and prosperity.

- 1. Manufacturing in the UK BIS Economics Paper 10A.
- 2. MAS National Manufacturing Barometer, Q4 January March 2013
- 3. Manufacturing Outlook: EEF/BDO, June 2013
- 4. Experian Business Strategies, Spring 2012

Manufacturing in the Leeds City Region



Manufacturing outlook

The latest Quarterly Economic Survey of business confidence across the Leeds City Region shows encouraging returns for the manufacturing sector, reflecting growing optimism in the local economy as a whole.⁵ The survey, commissioned by Leeds, York and North Yorkshire Chamber of Commerce, reveals positive net balances across a range of indicators, including domestic and overseas sales, recruitment and overall business confidence. One in four manufacturers increased their headcount over the last quarter, with similar numbers looking to recruit in the next three months. However, cashflow and cost of finance continue to cause concern and manufacturers say they are experiencing disproportionately greater difficulties recruiting technical and skilled manual staff than employers in other sectors.

Key findings from the Chamber Quarterly Economic Survey					
Domestic sales	37% of manufacturing businesses report increasing sales compared to 20% recording declining sales; 36% report increased forward orders.				
Overseas sales	40% report increased sales compared to the previous quarter and 36% report increasing forward orders.				
Employment	One in four increased their headcount in the last three months, with a similar number looking to recruit in the next three months.				
Business confidence	One in two companies think turnover will improve in the next 12 months and 52% expect profits to increase.				
Capital investment	A third of manufacturers report increased capital investment in the last three months, up 5% on the previous quarter.				
Finance	Cashflow is still an issue for manufacturers and got worse in the last quarter, while the cost of finance is now 'a concern' for one in five small manufacturers.				
Recruitment difficulties	Over half of manufacturers (56%) reported difficulties recruiting skilled manual and technical staff compared to just over a quarter (26%) of companies in the service sector.				

5. Leeds City Region Quarterly Economic Survey, June 2013

Challenges and opportunities

Leeds has a relatively lower proportion of jobs in manufacturing than the wider city region as a whole, with manufacturing accounting for 7.9% of jobs in the city. There are between 1,700 and 1,800 firms in the sector, the vast majority of which are SMEs. Productivity is also much higher than in other sectors of the Leeds economy, in some cases as much as 25% higher. As a result, the manufacturing sector punches above its weight, generating over 11% of the city's total output. Significantly, forecasts indicate that output is set to grow by 17% over the next ten years.⁶

A higher proportion of the city region's advanced manufacturing is concentrated in Leeds: 43% of advanced manufacturing firms and 25% of the city region's employment in advanced manufacturing is located here. According to OECD definitions, the key advanced manufacturing sub-sectors – those based on 'high' and 'medium high' technology – for Leeds and the city region include fabricated metal products and manufacture of machinery and equipment. Smaller sub-sectors, in which Leeds has a higher proportion of its advanced manufacturing than nationally, include: pharmaceuticals; medical and dental instruments and supplies; and electrical equipment.

Yet research commissioned by the Leeds City Region and undertaken by independent consultancy Mazars LLP, indicates that the proportion of employment in high and medium high technology sectors is lower in Leeds and the city region than in England taken as a whole.⁷ It is clear from the research and from the case studies included here that many companies in 'more traditional' sectors do exhibit advanced manufacturing behaviours, particularly in their approach to R&D and to innovation around process and new product development. Indeed, the Mazars report shows that a large number of manufacturing firms have the characteristics and behaviours more readily associated with the service sector.

The challenge for manufacturing in Leeds and the wider city region nevertheless remains: if the sector is to remain competitive and be sustainable in the future, manufacturing firms must continue to improve productivity. Lord Heseltine's recent report on how to stimulate economic recovery and growth draws attention to the continuing productivity gap between the UK and its major international trading partners in the US, Germany and France. That gap is most apparent in manufacturing: the average UK worker, he points out, has to work ten hours to produce the same output that a worker in the US could produce in eight. How much more could we do, he asks, if we enabled UK workers – through investments in skills, infrastructure, capital equipment and R&D to be as productive as our leading competitors?8

6. Experian Business Strategies, Spring 2012.

^{7.} Advanced Manufacturing in the Leeds City Region, November 2012. The report draws on OECD data and a survey of 600 manufacturing firms across the Leeds City Region. The survey sample was constructed using a stratified random sample of firms, drawn from Experian data and designed to be representative of the number of manufacturing companies within each local authority area.

^{8.} No stone unturned in pursuit of growth: Lord Heseltine, March 2013

^{9.} More than making things: a new future for manufacturing in a service economy: Work Foundation, March 2011

More manufacturing firms also need to move up the value chain. Continued investment in technology and R&D is essential to improving productivity. However, the most successful modern manufacturing firms do more than just make things. As the Work Foundation report on the rise of 'manu-services' argues, they sell *solutions*, involving sophisticated combinations of products and services that rely on more than just high or medium technology but also require a highly skilled workforce, innovation and collaboration with universities and research institutions.⁹

Research on manufacturing in the Leeds City Region tends to support this thesis and shows that firms in more advanced sectors generally undertake more activities across the full manufacturing value chain, from R&D through to logistics and after sales support. It also shows that, proportionally, manufacturing firms in Leeds undertake more R&D and product development than those in the Leeds City Region as a whole. Those firms also have a more highly skilled workforce, are more likely to export and are more optimistic about future prospects in relation to staff, turnover and capital investment. They tend to collaborate more with universities and other higher education institutions.

Priorities for action

Key findings from research on advanced manufacturing in the Leeds City Region include:

Barriers to growth

The current economic climate, lack of demand, cashflow and access to finance – in particular, lack of bank lending – were the most often cited barriers to business growth. In the current climate, investing for growth is a challenge for businesses across all sectors of the economy.

However, well over half of manufacturing firms surveyed had made capital investments in the last 12 months and a similar number had further investment planned over the next three years. The availability of publicly supported investment funds, not least the Leeds City Region's £20 million business growth programme, provides a real opportunity to incentivise investment and support employment creation by manufacturers.

Business support

Significantly the majority of firms reported little engagement with or need to engage with public sector organisations or other agencies, except where specific support was needed. Many were also unclear about the support that may be on offer, although where manufacturers have had contact with external bodies, they were generally positive about the support and advice they received.

The main body that companies had contacted for advice, assistance and funding was the Manufacturing Advice Service, followed by their respective local authorities. Higher and further education institutions and UKTI had also been contacted. However, with only 13% of firms reporting contact with agencies of this kind, there is clearly scope for greater uptake of support and advice currently available.



Skills

Across the city region, 36% of staff in companies engaged in advanced manufacturing have degrees or higher qualifications, compared to 21% of all manufacturing firms. Increasing the supply of appropriate skills to meet the needs of the sector as a whole and in particular advanced manufacturers therefore represents a priority for education and skills providers.

With manufacturers also reporting continuing difficulties in recruiting to skilled manual and technical positions, there is a more general need to promote the opportunities presented by careers in manufacturing to school age children and young people leaving school.

Innovation

The report shows varying levels of collaboration with universities, colleges and research institutions, with 23% of all manufacturing firms involved in some form of collaboration, rising to 38% of the most advanced firms. Interestingly, only 19% of firms in Leeds said they collaborated with local universities and other higher education institutions, a lower proportion than for the city region as a whole. With the right offer, levels of collaboration might be increased to the benefit of individual firms and the local economy.

Supply chains

The majority of manufacturing firms principally source over half their supplies from either the immediate area or the wider city region, suggesting a strong local manufacturing supply chain. However, this reduces with more advanced firms, which tend to source more of their supplies from the rest of the UK, Europe or even wider supply chain networks, and may suggest opportunities to grow more locally-based supply chains

Export readiness

Analysis of customer location shows a similar pattern, with the majority of customers of all manufacturing firms located within the immediate area, the city region or the UK. For manufacturing firms in Leeds, however, around 60% of customers are located in Europe and beyond, compared to just 20% for manufacturers in the city region as a whole, indicating that there may be opportunities to increase levels of export activity across the city region.

'Manufaction': our commitment to manufacturing in Leeds



Partners are committed to doing more to support the sector and ensure greater take up of the existing business support offer by individual manufacturing companies. One of the ways we will do this is by joining up the existing business support offer to ensure agencies and industry have a better understanding of what's available, as well as how and where to access that support. We will also undertake more focused promotion of the business support offer to ensure greater take up.

But there is more that we can do by working together. While the manufacturing sector in Leeds punches above its weight in terms of its contribution to output, it is an extremely diverse sector with no industry-led organisation to represent the interests and lobbying on behalf of the sector as a whole. It also faces significant challenges which neither industry itself nor any one single organisation can address and resolve on its own.

The concentration and growth of the financial and professional services sector in Leeds is predicated on the presence and strength of manufacturing in the Yorkshire and Humber region. Equally, there is much that the banking sector, legal, accountancy and advisory firms can contribute in terms of expertise, networks and resources to support continued growth of the city's manufacturing sector.

By working together, we can develop sector-wide initiatives that will benefit manufacturing in Leeds as a whole. In collaboration with manufacturers and other partners in the public and private sectors, we will therefore commit to:

- Establish industry-led focus groups, co-ordinated by MAS and made up of local manufacturing businesses, tasked with identifying growth opportunities in key subsectors and developing a programme of actions to drive growth in those sectors. The programme will pull together focussed local business/skills support and partners to help achieve defined objectives. Sector groups will also provide vital input to support funding bids to Government to fill any identified gaps.
- Learn from and build on the work of innovative educational programmes such as Primary Engineer to promote the study of STEM subjects in schools and careers in engineering and manufacturing to school age children.
- Take advantage of the recently announced initiative to create a further 100,000 engineering technicians by 2018, working with the further education sector, the city's Apprentice Training Agency and independent providers to develop bespoke training and skills programmes that are driven by demand and meet the long-term needs of the manufacturing sector to replace skills being lost as a result of an ageing workforce and ensure young people entering employment are equipped with appropriate skills.
- Promote the Leeds City Region's business growth programme to manufacturing companies to support capital investment projects that will secure and create high skill and high value employment in the manufacturing sector.
- Work with partners in the commercial property and development sector to promote development of industrial premises and units suitable to the specific requirements of modern manufacturing companies.

- Promote the benefits of the Aire Valley Leeds enterprise zone, which offers business rate relief up to the value of £275,000 over a five year period, to manufacturing companies considering relocation or consolidation of their operations.
- Work with UKTI and other key partners such as Chamber International and the Enterprise Europe Network to profile those manufacturing companies with latent export potential and develop a targeted export support programme to identify opportunities in overseas markets and help new exporters plan and implement international trade strategies.
- Increase collaboration with and improve access to expertise in the higher education sector, in particular, exploiting the research capability and capacity of universities and other institutions within the region to support innovation in technology, materials, products and manufacturing processes.
- Support the Leeds City Region local enterprise partnership in developing its bid for an Advanced Manufacturing Supply Chain Initiative and undertake a programme of supply chain development to ensure manufacturing companies have the necessary accreditations to secure contracts in sectors such as aerospace, defence and power regeneration.

- Leverage the knowledge, networks and resources of partners in the private sector to secure expert advice in areas such as protecting and exploiting intellectual property, and to encourage greater take up of government tax incentives such as enhanced capital allowances, R&D tax credits and Patent Box.
- Raise the profile of the Leeds City Region as a major manufacturing centre and promote the successes of the many highly innovative and, in some cases, world-leading manufacturing companies located here.

Innovation in manufacturing



Kodak: at the forefront of an industry driven by technological innovation and change

Continuous investment, a reputation for and expertise in research and product development, combined with a change in culture has seen Kodak's Leeds plant bucking the trend in an industry many consider to be in steady decline. Not a view held by manufacturing director Phil Ball, though, who sees opportunity and scope for growth in both traditional and emerging markets.

Kodak's plant at Morley, in Leeds, remains highly competitive, despite having been built over 40 years ago. "We've got the shortest production lead times and ours was the first plant to go from traditional analogue plate production to digital," says Ball.

The recent move towards process-free technology, which eliminates the need for prepress chemical processing for printers, has created further opportunities for the site, with Sonora XP – a 100% process free plate – being the latest product innovation manufactured at the Leeds plant.

The decision to base manufacture of this product in the UK saw Kodak transfer the technology here following the consolidation of worldwide manufacturing. "It was a decision based on our reputation and expertise in product development," says Ball. "We are already exporting our process free plates to the global market, with customers in Japan, North and South America and throughout the European region."

Kodak's Leeds operation started life back in the late 1800s as ink manufacturer Frank Horsell, based in Holbeck. The company moved into the current location in 1970, manufacturing lithographic printing plates. For the last decade, Kodak has continued to invest heavily in the Leeds plant with a series of multi-million dollar upgrades to infrastructure, plant and processes. Looking ahead, Ball sees no cause for concern, quoting industry figures, which show that worldwide, out of circa 68 trillion pages printed annually, 64 trillion are still printed using litho plates.

"Digital print allows for personalisation but it is still only a fraction of the total market. And while digital will certainly grow, litho printing still has many, many, years of life ahead of it." He adds that more and more printers are now opting for hybrid technology, which involves fitting digital print heads to traditional presses, thus giving the economies of scale associated with litho printing plus the personalisation offered by digital.

Kodak's US parent company is now in the final stages of a Chapter 11 bankruptcy protection process, something it has been going through for the last 18 months, and a process from which it expects to emerge in the third quarter of this year. That emerging business will be a commercial imaging business, solely focused on commercial, packaging and functional printing, and on enterprise service businesses. The Leeds operation will form a significant part of the emerging business.

That Kodak's Leeds plant should find itself in such a strong position, given the changes that have shook the company, the industry, and indeed the economy as a whole, is testimony to the continued investment and confidence in the site – not only in technology, but also in workforce development and continuous improvement. Indeed, out of its more than 225 strong workforce, 30 staff have green and black belt accreditation in Lean Six Sigma, regarded as the holy grail of modern manufacturing practices by way of its relentless search for process improvement and quality control.



"The operating culture has been transformed as the site has adapted to the changing environment," says Ball, adding that the Leeds plant has a strong team ethic.

"Through frequent and open communication with all site employees, we have developed a shared understanding of our situation, our challenges, and what we can all do to contribute to the success of the site and the business as a whole. This feeling of shared ownership and responsibility is what's really been the key," says Ball, confident that Leeds will continue to remain a key operations centre for Kodak, and for the printing industry, for many years to come. "

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Manufacturing supply chain

Working with the management team, we have implemented a host of lean, supply chain and manufacturing improvement projects that have contributed to the firm being a supplier of choice for some of the world's biggest aerospace primes.

Supply chain boost lands aerospace contracts for Produmax

Precision engineering specialist Produmax has seen turnover grow to a record £4.75 million, after a twelve month period in which it has secured major new aerospace and defence contracts.

A supplier to the aerospace, medical, military and telecoms industries, the company has invested £1 million in new technologies to win the contracts, one of which involves producing gearbox housings for the flap mechanisms on a revolutionary new airliner.

It has also worked with the Manufacturing Advisory Service (MAS) to develop its supply chain capability to world class standard and achieve greater efficiencies in lead times and its manufacturing processes.

Aerospace and military 'primes' demand the best possible innovation, manufacturing and cost performance from their suppliers. Despite a solid reputation within the sector, Produmax was increasingly being squeezed by low cost competition from China and India.

In order win the next generation of long-term production contracts, the company recognised it had to make manufacturing cycles quicker, whilst also finding ways of adding value to customers through cost savings and innovation in design and materials.

"In some cases, we were looking at having to secure up to 60% cost reductions in order to win the contract against international rivals," says managing director Jeremy Ridyard. "The only way we could do this was to take a step back and look at where the business was and where we needed to be going forward. This wasn't something we could do on our own."

MAS appointed consultant David Hood to work with the management team on a series of projects designed to turn Produmax into a world-class supplier to the aerospace and defence sector. Tapping into expertise and support from the Advanced Manufacturing Research Centre, in Rotherham, helped to develop machining strategies that have reduced cycle times. Improvements to factory layout and workflows and a commitment to the *SC21 World Class Supply Chain* standard also resulted in significant improvements in efficiency and customer confidence.

MAS adviser David Whiteley said: "Produmax is probably one of our biggest success stories. Working with the management team, we have implemented a host of lean, supply chain and manufacturing improvement projects that have contributed to the firm being a supplier of choice for some of the world's biggest aerospace primes."

"Having that external knowledge, a different skills set and knowing where to go for certain support has proven invaluable," says Ridyard. "Winning these high-profile orders has secured the longterm future of our business and MAS has played a major role in this by ensuring we operate at world class manufacturing levels."

Investing in manufacturing

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CRAFTSMIN TOOLS APPRENTICE

The apprentice training area demonstrates our continued investment in the next generation of skilled engineers. In the current economic climate it isn't easy for young people to get into employment but we want to do our bit by offering them a really high quality training programme.

Craftsman invests in future of engineering

Craftsman Tools, which is celebrating its 60th anniversary this year, has opened a dedicated apprentice training facility as part of its commitment to continued growth and to bringing new blood into engineering. The family-led firm, which specialises in toolholding, workholding and sub-contract machining, now has a workforce of 63, including six full-time apprentices, and continues to invest in the business, in technology and its workforce.

Around 51% of Craftsman's sales in 2012 were directly exported with a substantial amount of the remainder indirectly exported. The Otley-based company also expanded its West Yorkshire site, adding an extra 5,000 sq ft of production space and investing over £500,000 in new machinery, including a new horizontal boring machine for machining larger workholding equipment and parts for the oil industry. The new premises and equipment were funded with help from Leeds City Council in the form of grants amounting to £15,000.

This substantial investment over the last 18 months has allowed for an increase in production capacity and the company is aiming for a 30% increase in turnover this year. The investment has so far added three new jobs, with the potential for two more apprentices to join the workforce this year.

A range of new products, including those developed with the aid of a £200,000 research and development grant from the Technology Strategy Board, was launched last year at MACH 2012, the Birmingham showcase for UK manufacturing. Visited by Secretary of State for Business, Vince Cable, the company's exhibition stand featured equipment designed to provide improved stability during machining and a portable hardness tester for on-site components inspection, developed in partnership with Cameron in the USA. Now Craftsman is investing in the future of engineering: "The apprentice training area demonstrates our continued investment in the next generation of skilled engineers," says managing director Robert Johnson. "In the current economic climate it isn't easy for young people to get into employment but we want to do our bit by offering them a really high quality training programme."

Partnerships with major global companies such as Cameron, Sulzer, Sandvik Coromant and Yamazaki Mazak, the world's largest manufacturer of metal cutting machine tools, have been one of the keys to the continuing success of Craftsman. In 1998 Sandvik Coromant awarded Craftsman a license to manufacture and export Coromant Capto[™] toolholders, still one of the company's best-selling products. Craftsman also produce a wide range of static toolholders for CNC lathes manufactured by Mazak and recently won a £50,000 order from one of Mazak's Russianbased distributors.

Export orders are now being shipped by Craftsman to some 32 countries worldwide, including the USA through its Chevin Tools outlet in Chicago. China is a new market for the company and one it is looking to exploit further, exhibiting for the first time in April of this year at the China International Machine Tool exhibition in Beijing.

Johnson said: "China offers huge potential and we were very pleased with the number of enquiries we received at the show. We're following up on these and are optimistic that, with the help of a new distributor in China, we will see our sales of both workholding and toolholding increase in this market."

Reshoring manufacturing



From fleece to finished product: Laxtons reverses the trend

Laxtons is one of only a few worsted yarn spinners left in the UK. The irony isn't lost on James Laxton who has brought yarn spinning and finishing back to the UK nearly a decade after the company took its manufacturing operations overseas.

From a standing start in January 2010, Laxtons has invested heavily in machinery and processing, most recently pumping £150,000 into equipment for a new finishing department with the help of a £18,000 grant from the Leeds City Region's business growth programme.

The programme offers grants starting at £10,000, rising to £1 million for the largest projects, to support capital investment and business growth. Support is available to companies in a range of sectors, including manufacturers, across the city region, and covers up to 20 per cent of an individual capital investment in premises fit outs, capital costs associated with relocation, purchase of new machinery and equipment.

"Twelve months ago we doubled production capacity in some of our spinning and last month we brought the finishing department inline. We are still looking to expand but the investment in finishing isn't designed to drive an increase in turnover: the aim is to reduce costs and give us greater control over quality and flexibility."

Originally based at Prospect Mills in Keighley, Holmes Laxton & Co started in 1907. At its height, the company was one of the biggest fancy yarn spinning mills in Europe, employing a workforce of nearly 600.

Laxtons closed its UK operation in 2001 and the return journey has therefore meant setting up from scratch. James Laxton, the fourth generation of his family to run the business, was forced to scour Europe for specialist equipment no longer available in the UK. Equipment wasn't the only thing he struggled to source. Skills were also in short supply, a result of the decimation of the UK textile industry in the eighties and nineties. "I'd say 90 per cent of people who come to us for a job have never worked in a mill and there's no external body out there who can train our staff with the skills we require." Bespoke training requirements mean the workforce had to be trained on the job, an additional cost to the business.

"In other industries you'd be able to claim 50 per cent of training costs. On paper that sounds great but none of the external providers are equipped to provide the kind of training we need."

The system is just too inflexible, Laxton argues: while skills are in short supply, the education system isn't equipping people with the skills that employers need either at entry level or at a higher professional level. "I'd love to bring in apprentices but the things they'd be learning when they're not in the workplace are just not relevant to the business."

Likewise, colleges are turning out some very strong designers for the textile and fashion industries. "But all too often they have little knowledge of manufacturing processes or the commercial dimensions of textile manufacture."

Energy supply was another major challenge. "Returning to the UK, I thought it would be easy to find premises with sufficient power but it proved more difficult than I'd ever imagined." Premises were plentiful, he remembers, but with up to 12 months lead time from order to power installation, it was an impossible situation. "We couldn't afford to have machinery lying idle, waiting while we were connected up to the mains supply."

Luckily they landed on a former mill building in Guiseley, which was being used for storage at the time and came with the power supply Laxton needed to get started.

Quality and innovation key to success

Despite the challenges, Laxton is clear about where the opportunities lie for UK textile manufacturing. The company's core markets home and abroad, split 50-50 to spread risk, include yarn produced for hand and machine knitting, yarns for woven apparel and yarns woven into upholstery fabrics. But it's the middle to high end of the market that Laxtons is focussed on.

"There's very little mass market textile production left in the UK and, if there is, then manufacturers are struggling. Eastern Europe is less of a threat and China is becoming expensive. Labour costs there, combined with shipping costs, are prohibitive and quality is still very unpredictable."

But as major clothing brands continue to switch production from one part of the world to another to keep costs as low as possible, it's impossible to compete with Turkey, India and Asian countries such as Cambodia.

"UK manufacturing has to be based on niche markets, flexible production runs, high quality and innovation," says Laxton. "Customers can get cheaper yarns abroad but they have to buy it in bigger quantities and there's less control over quality and service."

This is where UK manufacturing can gain competitive advantage in niche markets: "Instead of letters of credit, which effectively mean paying upfront, buying from UK suppliers can help with cashflow. Higher quality also means better machine processing efficiencies and there are fewer or even no returns.

"By paying not massively more for a quality yarn, the true cost of production can be significantly reduced," says Laxton, estimating that savings of up to 15 per cent can be made on overall true fabric costs. Innovation and provenance are also key to staying ahead of the competition. He quotes the example of a carpet developed by Laxtons and sold through Harrods. Combining silk with high quality wool, it retailed at the princely sum of £280 per square metre.

"Developing it presented serious technical challenges because of the nature of the materials but our innovation cycle is massively reduced because we can do it all in house. So, from designing the product through to getting it into bulk production, took just eight weeks.

"If you were to try to do that abroad it could take 12 months and even then it might prove abortive because of the language barrier, because of transportation and because there's no interest in halting large scale production to produce short test runs."

Hugely important in overseas markets, the British woolmark still carries a cachet that many would be keen to imitate. "The Australians are investing massively in brand development and awareness, while in China, you could see 'Made in Britain' literally being stitched into cloth."

As the only worsted spinner in the UK licensed to use the woolmark, Laxtons enjoys an advantage in domestic and overseas markets. The woolmark gives Laxtons a guarantee of quality that underpins the company's own brand and reputation.

"It's important to our customers because it adds provenance. We recently produced the yarn for a Jaeger Menswear jacket, where the wool travelled literally no more than 40 miles from fleece to finished product."

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UK manufacturing has to be based on niche markets, flexible production runs, high quality and innovation. Customers can get cheaper yarns abroad but they have to buy it in bigger quantities and there's less control over quality and service.

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Leeds manufacturing: sector analysis

Composition

The most recent official figures on the number of manufacturing firms date from 2008, since when the number of manufacturing firms in Leeds has fallen with recent estimates from the Inter Departmental Business Register (IDBR, 2012) suggesting around 1,700 firms, with 99% of the business stock made up of SMEs.

Manufacturing employment estimates vary between 29,200 (2011 BRES data) and 31,400 (2013 REIU/Experian Business Strategies). Looking at future trends it is anticipated that employment in manufacturing will continue to decline, while output and productivity are forecast to increase over the next ten years to 2023.

Key sub-sectors by employment are shown below.

Top 20 employment sub-sectors (2008-11)

The data needs to be treated with some caution but the table overleaf shows decline in general printing, a static position in terms of medical products/supplies, growth in areas like electric motors/generators (partly driven by inward investment by companies like Siemens and Mitsubishi), offset by declines in other areas such as manufacture of kitchen furniture, caused by the relocation of the Symphony Kitchens group to Barnsley. In general the data suggests a general tightening in employment reflecting tough economic conditions post 2008.

Manufacturing companies	Units	Employees			
1-10 employees	1,313	72.3%	4,350	12%	
11-49 employees	343	18.9%	7,900	22%	
50-199 employees	125	6.9%	10,700	30%	
200 or more employees	34	1.9%	13,050	36%	
TOTAL	1,815	100%	36,000	100%	

Source: ABI 2008 (Nomis). Comparable data not available from BRES

Leeds major manufacturing sub-sectors	2008	2011	% change
Engineering	11,000	10,100	-8
Printing and publishing	4,800	4,000	-17
Food and drink	3,900	3,500	-10
Chemicals and products	2,200	2,100	-4
Clothing and textiles	1,500	1,900	30
Other manufacturing	9,100	7,700	-16
TOTAL	32,500	29,300	-10

Source: BRES employees

RANK	Sub Sector by name and 5 digit SIC Code (2007)	Employees		Employment Change		
		2008	2011	No	%	
1	18129 : Printing (other than printing of newspapers and printing on labels and tags) nec	2,300	2,000	-300	-13	
2	32500 : Manufacture of medical and dental instruments and supplies	1,500	1,500	0	0	
3	25620 : Machining	1,100	900	-200	-18.2	
4	24200 : Manufacture of tubes, pipes, hollow profiles and related fittings, of steel	900	800	-100	-11.1	
5	27110 : Manufacture of electric motors, generators and transformers	300	800	+500	+166.7	
6	31020 : Manufacture of kitchen furniture	1,600	700	-900	-56.3	
7	17219 : Manufacture of paper and paperboard containers other than sacks and bags	700	700	0	0	
8	31090 : Manufacture of other furniture	400	700	+300	75	
9	20420 : Manufacture of perfumes and toilet preparations	900	700	-200	-22.2	
10	10710 : Manufacture of bread; manufacture of fresh pastry goods and cakes	1,100	700	-400	-36.4	
11	21200 : Manufacture of pharmaceutical preparations	500	600	+100	20	
12	13200 : Weaving of textiles	500	600	+100	20	
13	27400 : Manufacture of electric lighting equipment	400	600	+200	50	
14	10390 : Other processing and preserving of fruit and vegetables	100	600	500	500	
15	25990 : Manufacture of other fabricated metal products nec	300	500	+200	66.7	
16	28131 : Manufacture of pumps	400	500	+100	25	
17	22290 : Manufacture of other plastic products	500	500	0	0	
18	18130 : Pre-press and pre-media services	700	500	-200	-28.6	
19	29100 : Manufacture of motor vehicles	800	500	-300	-37.5	
20	28250 : Manufacture of non-domestic cooling and ventilation equipment	600	500	-100	-16.7	
Totals		15600	14900	-700	-4.5	



For further information about business support for manufacturing in Leeds, contact:

Leeds City Council Email: businesssupport@leeds.gov.uk www.leeds.gov.uk/business

Manufacturing Advisory Service Email: advice@mymas.org www.mymas.org

Leeds, York and North Yorkshire Chamber of Commerce

www.yourchamber.org.uk

Leeds City Region

Email: lcr@leedscityregion.gov.uk business.leedscityregion.gov.uk







