
Repatriation of UK textiles manufacture

A report for
The Greater Manchester Combined Authority
January 2015

Author
The Alliance Project Team
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THE ALLIANCE PROJECT

The Alliance Project, based at New Economy, was established to examine the potential for repatriating textiles manufacturing to the UK. The team led and delivered one of the largest pieces of research, with both industry and retailers, to understand the opportunities for growth in the UK’s textiles sector, and the barriers that would prevent the sector realising its true growth potential. The work was commissioned by Lord David Alliance and Greater Manchester Combined Authority (GMCA) with the support of The Greater Manchester Local Enterprise Partnership and Government through the Department for Business, Innovation and Skills. This report is a result of this research and identifies a range of recommendations which Government accepted in full. The Alliance Project was asked to continue work focussing on four key areas: Skills, investment, innovation, and reconnecting supply and demand.

NBROWN GROUP

The group, and its principal subsidiary, JD Williams and Company Ltd, is a leading internet and catalogue home shopping company, with over 140 years of experience in the distance shopping market. It has an extensive ranges of value products, principally clothing, footwear, household and electrical goods. Its brands include SimplyBe, High and Mighty and Jacamo and it has strong trading success through new brand development, niche acquisitions and strong internet presence.

GREATER MANCHESTER COMBINED AUTHORITY

Greater Manchester Combined Authority (GMCA) is a unique model of governance for a city region. It is a statutory body with its functions set out in legislation and builds on the Association of Greater Manchester Authorities collaboration between Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford, and Wigan. It oversees functions which cover the Greater Manchester area, including powers over public transport, skills, housing, regeneration, waste management, carbon neutrality and planning.
FOREWORD

This report is the biggest study in twenty years on supply and demand in UK textile manufacture. None of this would have happened without three main parties, Lord Alliance, the Greater Manchester Combined Authority and Vince Cable. This report is a testament to all three and proof that local government working with industry can affect real change. GMCA and NBrown used this research to successfully establish the first ever UK investment fund for textile manufacturing which is featured in the sister report also launched today. Government asked us to work with KPMG to independently verify our figures and their credibility hugely helped get the retailers to part with commercial confidential data without which our report wouldn’t exist.

However, the real stars of the report are the manufacturers themselves who have not only survived decades of offshoring and the global recession, but are investing and growing. Government, national and local, are essential enablers but the real drivers are the companies themselves.

Without the 200 manufacturers and sixteen national retailers we would have no real data. They were very generous with their time and knowledge, some of them have been involved continuously over the last two years. I would particularly mention M&S, and the other retailers who gave the research huge credibility by sharing their data with KPMG for our report.

Both the British Fashion Council and the UK Fashion and Textile Association, the industries two leading trade bodies, have also been integral to the project and are very valued partners.

Finally, we would like to offer special thanks to New Economy and specifically Rupert Greenhalgh who has acted as Head of Research for the Alliance Project over the last two years. His work is of the highest standard.

Lorna Fitzsimons
Director
Alliance Project
Due to the drivers of growth outlined earlier, consumer behaviour is demanding shorter lead times, with fashion driving up demand for UK-made homeware; and increasing costs in competing countries (energy, labour, etc.). As such, the research highlights that retailers dwarf the largest manufacturers in terms of turnover, with £8bn turnover, compared to £2bn of the biggest manufacturers. The research proved there are already established markets for UK textiles manufacturing, finding that there are £8bn textiles currently annually manufactured here. If the self-employed and sole traders are included, the figure rises to well over £1bn. Due to the drivers of growth outlined in this report this is set to increase, with growth equally driven by re-shoring and increasing exports.

However, whilst textiles is one of the oldest made markets in the world, there is market failure in the UK due to decades of offshoring. One of the most urgent failures Government and industry need to address is an aging workforce, with a lack of skills provision and the image of the industry — which is prohibitive to new recruits. The good news is that the report’s findings show that there is a thriving and world class textile manufacturing base in the UK that is investing and growing, with new markets and customers coming on-line all the time. The challenge for Government and industry is how to capitalise on this growth with a predominantly micro-size supply chain with no OEM’s, or large ‘Prime’ manufacturers, to act as enablers in the UK textile manufacturing ecosystem.

It should be noted that our initial report for Government estimates that over the next five years 3,000 new jobs would be created in the UK in textile manufacturing. The Governments own data says this was achieved in 2013. For reviewed our work and concluded our optimism bias had been too high, and the figure could be upwards of 20,000 new jobs.

In this executive summary are a set of key recommendations which, if government and industry respond to, will help realise opportunities for jobs and growth in some of the hardest to reach areas of the UK economy where textile manufacturing is still most prevalent.

Key Findings 1 — Market Opportunities

• Textiles still makes a significant contribution to the UK economy, both in terms of economic output and employment, whilst also providing considerable support to the UK Exchequer.

• The total production value of UK textiles is worth just under £8bn and growing (excluding the self-employed and sole traders etc). See source: % and supports 90,000 to 100,000 employees in firms within key areas of the UK. According to the latest national statistics, there has been a net increase of 5,000 employees between 2012 and 2013.

• The UK is the 15th largest textiles manufacturer in the world, with the value of production growing since 2009, and export growth across most areas of apparel since 1990. Although competition is fierce, the marketplace is huge. The global apparel market alone has a total value of just under £1.3 trillion (2014). This excludes the market for homeware and other manufactured textiles.

• Significant capability still exists in traditional sectors such as yarn spinning, knitting, weaving and making-up (Cut Make Trim/CMT), alongside growth in technical textiles, materials and composites; and key clusters of production are located within some of the textile’s industrial heartlands of Greater Manchester, Lancashire, West Yorkshire, East Midlands and Scotland.

• These headline facts support the case made by the original research undertaken by KPMG and The Alliance Project on opportunities for growth in the textiles sector. The growth opportunity is also reflected in the success of the UK National Innovation and Growth Programme (Regional growth Fund Round Four), running from January 2014 to summer 2015, which by January 2015 is already supporting 1,625 jobs.

• The rationale for sourcing from low cost countries has weakened. This is because: — Consumer behaviour is demanding shorter lead times from origination to ‘shop-floor’. This is known as fast fashion and keeping up with the latest trends can be challenging for UK retailers with longer and more complex supply chains;

• fashion is driving up demand for UK-made homeware; and — retailers are increasingly realising that the benefits of on-shoring, such as reduced ‘margin erosion’ and inventory risk, can offset additional unit production costs. The costs of discounting bulk bought stock from overseas can exceed premiums paid for faster, smaller runs from UK manufacturers; and — increasing costs in competing countries (energy, labour, transport materials) and currency fluctuations are reinforcing these trends.

• As a result, retailers are now investing in on-shore facilities. River Island, ASOS and John Lewis are three significant leaders in this move. M&S have launched British womenswear and menswear lines, and other retailers across the price ranges are keenly trying to source more UK supply.

• The sourcing models being developed can be broken down into those retailers that are investing in their own direct manufacture supply capability, those that have ‘exclusive/sole’ trade relationships with a few suppliers, and those that have launched ‘British’ ranges but source from several manufacturers across the UK depending on product and style requirements. Further implications of these are covered in the main report.

• The economic case for repatriation is clearer where the demand for short lead times is acute, quality control and provenance are important, and where manufacturers have a significant design input. Critically, where a retailer charges a premium for these characteristics, high enough margin can be made by manufacturing in the UK.

• As a result of the cost and consumer drivers, high-end and mid-market apparel, fast fashion, luxury clothing and homeware products are the areas where the proposition for repatriation is strongest. The more added value in the manufacture process, from design, to digital and panel printing, jersey and jacquard, embroidery and knurling, the more the market can be made in the UK.

• There are viable markets in other segments, particularly where the product is low spec and can be manufactured in a highly automated manner like hosiery and socks. Hence the on-shoring that has, and is, happening in this sector.
However, for undifferentiated products (staples) economic considerations mean that, for a number of products, the UK will stay uncompetitive on cost for some time. This is exacerbated by generous government subsidies in some competitor countries.

In technical textiles the high value of our niche manufacturers is powering increased demand initially through offshore markets but increasingly onshore as well.

- A lack of ‘Prime’ manufacturers to invest in research, innovation and upskilling – the decline of UK textiles manufacturing in the early twentieth century was hastened more by underinvestment in implementing technology rather than developing it; and
- retailer payment terms being less regulated in the UK than many other countries mean that UK suppliers often wait longer for payment than foreign competitors.

Other barriers to growth include:

- Asymmetry between retailers of a global scale and more typical opportunities in high-tech and fashion-related premises;
- An aging workforce, endemic skill shortages (especially Cut Make Trim/machinists) and lack of investment are the critical barriers that are threatening the UK’s existing supply base. Most notably the growth in export markets for luxury and high-end fashion, as well as domestic demand for bespoke homeware.
- The predominantly micro-size nature of the supply chain which can hamper information exchanges, supply chain integration, and major investments;
- Long-term confidence of manufacturers in retailers placing larger, sustained orders;
- Addressing the image of the textiles industry which is often thought of by potential entrants – particularly teenagers – in terms of ‘sweat-shops’ and not the more typical opportunities in high-tech and fashion-related premises;
- Limited integration with much other advanced manufacturing technology rather than developing it; and
- Hastened more by underinvestment in implementing technology rather than developing it.

RECOMMENDATIONS

Addressing the critical issues outlined below will continue to ensure that the UK textiles sector capitalises on the emerging opportunities for growth. The Alliance Project continues to work on ways to support the realignment of textiles supply to meet demand, with the expectation that additional growth and jobs will flow from this investment immediately.

The fragmented nature of UK textiles manufacturing and its supply chains makes support from prime retailers, trade bodies and government particularly important if the economic opportunities the sector is currently experiencing are to be exploited broadly and quickly. The Alliance Project strongly recommends that the private sector continue to lead solutions for growth, but this can only be enabled by Government support.

Recommendation 1: Help industry map the supply chain nationally and develop a sourcing asset register

- To realise the growth opportunity in the UK there is a need to continue mapping the supply chain as piloted in Greater Manchester. A national database, as used in other industries, facilitating domestic and foreign buyers to source production in the UK will address the sectoral information exchange failures identified in the research. These powerful market failures inhibit firms from using UK suppliers. Such information will also support the growth in overseas trade, as well as inward investment – promoting British manufacturer’s capabilities.

Recommendation 2: Support national and international trade fairs

- To further address the information divide and asymmetry in the UK market there is a need to support meet-the-buyer manufacturing events that will help raise the profile of the sector, both nationally and internationally. Such events are frequently held in other major textile manufacturing nations, offering general networking, meet-the-buyer opportunities and workshops.

Recommendation 3: Address immediate skill shortages alongside image and branding of the sector

- There is a need to urgently address two key issues: the immediate skills shortage; and the image of the industry. Skills shortages, especially in Cut-Make-Trim (CMT), are acutely evidenced in the research, alongside growing skill needs emerging from rising demand in the luxury and fast-fashion sectors and in bespoke homeware. Overall, the number of skilled entrants into textiles needs to be increased if the current workforce size is to be retained.

Key Findings 2

Barriers to Growth

- A significant barrier to realising the retailer demand is their lack of knowledge about the UK supply base. Buyers are often in their 20s, do not remember when most clothes were domestically sourced, and are often rotated between posts, hampering the ability to build relationships.

- An aging workforce, endemic skill shortages (especially Cut Make Trim/machinists) and lack of investment are the critical barriers that are threatening the UK’s existing supply base. Most notably the growth in export markets for luxury and high-end fashion, as well as domestic demand for bespoke homeware.

- The predominantly micro-size nature of the supply chain which can hamper information exchanges, supply chain integration, and major investments;

- Long-term confidence of manufacturers in retailers placing larger, sustained orders;

- Addressing the image of the textiles industry which is often thought of by potential entrants – particularly teenagers – in terms of ‘sweat-shops’ and not the more typical opportunities in high-tech and fashion-related premises;

Key Findings 3

The Value of Intervention

- Despite these barriers, the research identifies a very high quality and resilient micro-supply chain, many of whom are supplying larger manufacturers and high street retailers as well as exporting successfully.

- Textiles firms are diversifying into higher value opportunities in technical textiles, which are well integrated with much other advanced manufacturing e.g. medical textiles, civil engineering, industrial materials, automotive and aerospace, and ICT/Smart garments – supporting Government’s ambitions to rebalance the economy.

- Importantly, most UK textiles manufacturing is concentrated in localities with high levels of public sector spending: within areas that have higher than average proportions of long-term unemployed, youth unemployment, and BME residents.

- If Government is minded to help develop the textiles sector to meet its potential, strong consideration should be given to addressing barriers to jobs and growth.

- It is critical to enable retailers to develop their knowledge base about UK suppliers and to help firms invest in an immediate pipeline of skills. It will also be important to support micro and small firms to scale their operations, re-invest in supply-chain technologies, collaborate to secure larger orders, and address payment terms which may act as a brake on growth.

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Recommendation 5: Support for product and process innovation

- Research with retailers and manufacturers emphasises the growing importance of design and innovation in driving the success of the sector. The lack of large supply-chain ‘Primes’ highlights the need to develop stronger linkages between firms and local universities/colleges – including access to state-of-the-art facilities that will help to recruit, promote, and develop future innovation.

- With encouragement from Government, retailers have the potential to develop their role as Primes in supply chains, as indeed many of them already do with offshore suppliers.

- Industry, working with Government, universities, and other public/private support agencies should deliver a physical space for industry that will drive innovation and excellence. This will enable and foster networking and collaboration between industry and globally recruited ‘world-class’ talent from the disciplines of Design, Fashion, Manufacturing and Engineering.

Recommendation 4: Investment in the micro-size UK supply chain

- The emerging growth potential, allied to the micro-size nature of the sector’s firms, highlights the need for dedicated textile manufacturing business development programmes. Key aims should be to build upon the success of the current NBrown National Textiles Growth Programme to:
  - Provide investment to support the scaling-up of micro-enterprises into SMEs;
  - encourage collaboration and consortia, as government has done in the aerospace and automotive sectors, to cost effectively support training, trade and investment;
  - support the establishment of manufacturing ‘Primes’ that generate supply chain ‘spill-overs’; and investment to grow SMEs that will support the development of micro-size firms; and
  - support investment to secure growth opportunities in the ‘circular economy’ including the re-use and recycling of existing textiles resources, and generating new substitute materials.

Recommendation 6: Address the issue of payment terms

- Not dissimilar to the challenges faced by the food manufacturing industry, payment terms are creating difficulties in the textiles supply chain and driving chronic short-termism. These factors were particularly acute in micro-size firms and if addressed would create a much stronger incentive and ability for firms to invest and grow.

- Promoting and rewarding good practice and the use of new financial tools, such as payment intermediaries, could help in the short-term and enable further longer-term solutions.

Additional support will be needed to change young people’s perceptions of the sector with appropriate labour market information, advice and guidance. Working with schools and colleges to promote good career pathways in the industry will be key.

Further work is required to identify latent skills in the labour market that can be more readily deployed, meeting immediate employer need and giving time to develop a longer term skills pipeline. This will include assistance to support moving people from the informal to formal labour market, most notably in the Black and Minority Ethnic community.
1 Background and aims

Background and aims

1.1 This report synthesises the main findings from different strands of research undertaken as part of the Alliance Project, a fast moving initiative ongoing in Greater Manchester to establish a business case for the repatriation of textile manufacturing to Britain.

1.2 This work represents the most in-depth research on UK textile manufacture supply and demand in two decades. It includes interviews with major high street retailers, interviews with over two hundred manufacturers – and engagement with over three hundred firms in the Nbrown National Textiles Growth Programme; and focus groups with University and College staff and students from fashion & textiles courses.

1.3 The primary aims of the research are:

- To research the proposition for both re-shoring and scaling up the UK’s textiles sector, by identifying if any markets are viable, and if so stating which; and
- To understand what barriers to growth are inhibiting these opportunities, if proven.

1.4 These aims also raise a number of additional implicit questions which the research also seeks to address, including:

- What is the size of the existing UK textiles sector (jobs and production) and its markets?
- Where do the economics favour opportunities for scaling up growth?
- Where will, or could investment come to support the sectors development?
- What needs to happen to enable this?
- What could the role for Government be to help capture the opportunity?
- What are the market failures which Government, working with industry can address?

Structure of the report

1.5 The remainder of the report is structured around the following sections:

Section 2: Economic context, including the current position, scale and performance of UK textiles manufacturing and global market for textiles.

Section 3: Demand side drivers of change affecting the growth in UK sourced textiles.

Section 4: Supply side factors affecting UK firms’ ability to respond to current and potential growth opportunities.

Section 5: Issues to address and recommendations to help secure jobs and growth in UK textiles. This section gives a summary of the major areas of growth and the support needed to realise these opportunities.

4 NBrown National Textiles Growth Programme: The Government’s Regional Growth Fund supports an industry led £12.8 fund package that will create over 1,000 textiles jobs in the UK. Grants and bespoke textiles expertise are available to business for capital and revenue expenditure up to summer 2015.
2 Economic context

2.1 This chapter highlights the scale and performance of the global textiles sector and the UK textiles sector in terms of production value, exports and imports, by product area, and employment. Sector definitions are shown in the annex and data sourced throughout.

Global textiles market growth forecast

2.2 The global market for textiles is significant. As shown in Figure 1, global apparel sales alone are estimated at just under £1.3 trillion globally in 2014. Asia-Pacific makes up £520 billion of this. Worldwide demand for textiles is forecast to increase, reflecting growing global population, rising to a forecast £1.4 trillion by 2017.

2.3 Reflecting broader economic conditions, growth in the demand for textiles is expected to be particularly strong in Asia Pacific, alongside growth in the Middle East and Latin America.

2.4 Growth in Asia Pacific is mainly driven by China, with Chinese customers currently making half of the luxury purchases in all of Asia. The global luxury goods sector is estimated to grow by 10%, with a total global revenue of €212 billion (£182 billion).

Figure 1: Global apparel market growth forecast, 2008 to 2017

Source: Euromonitor – Total production value (gross) excluding the self-employed


2.5 Textiles and clothing manufacturing is a long established industry in the UK. Significant capability still exists in traditional areas such as yarn spinning, knitting, weaving and making up (Cut Make Trim/CMT), alongside growth in technical textiles, materials and composites.

Market value and scale

2.6 UK textiles production, particularly apparel and homewares, still contributes significantly to the national economy. Within the UK, the textiles sector has a total production value – verified through KPMG and New Economy research – of £9 billion and growing. The total production figure includes businesses that manufacture textiles (60% of turnover), clothes (30%) and leather & related products (10%). This report refers to all three as ‘textiles’. 8

2.7 The Office for National Statistics and Oxford Economics 9 estimate the Gross Value Added by the core textiles manufacturing sector (defined in annex 1) as four to five billion. GVA represents the total value of profits and wages paid to staff in the textiles sector, corresponding to 3% to 4% of the total value added by UK manufacturing – and similar in size to the UK’s electrical equipment sector. Total export sales in 2013 was just under £8 billion, up £500m on the previous year. 10

2.8 Studies have illustrated the Gross Value Added of the wider industry which encompasses all parts of British ‘fashion’, takes the total to a considerable GVA £26bn contribution to the UK economy, and 800,000 jobs across industry sub-sectors including: designer fashion, outerwear, underwear, sportswear, workwear, retail and wholesaling, creative media and fashion textiles manufacturing. 11

UK textiles – in context

2.9 As the industry has modernised, increasing emphasis has been placed on activities such as branding, distribution, supply chain management, and specialisation within particular markets. This has helped the sector remain resilient in the face of stiff competition overseas, in particular the growth in manufacturing in Asia and the Far East from 2000 onwards.

2.10 Companies that have been able to invest in modern equipment and design facilities are reaping the benefit in terms of quality, cost, flexibility, and speed of order delivery. Leading global brands are sourcing from the UK because of their reputation for quality and innovation, combined with the attraction of heritage brands. This gives the UK a competitive edge.

Technical textiles

2.11 The textiles sector has also experienced significant diversification, such that UK textile manufacturing occupies an important position in the supply chains of domestic industries as diverse and far ranging as medical textiles, construction/civil engineering, housing and home furnishings, industrial materials, automotive, auto-sport and aerospace components, and across a full range of apparel products, underwear, outerwear, and sportswear.

2.12 A significant technical textile industry has emerged in the UK in recent decades, consisting of a number of major publicly listed companies with headquarters in the UK; operations belonging to companies whose headquarters are overseas; and a substantial tier of technical textile SMEs in the UK; operations belonging to companies whose headquarters are overseas; and a substantial tier of technical textile SMEs. This gives the UK a competitive edge.

2.13 Specialist and technical textiles are growing areas for traditional textile companies to diversify into, with many firms seeking new opportunities in higher value manufacturing. Estimates suggest that technical textiles contributes £1.5bn to £2bn to the UK’s economy. 12 Many workwear and performance textiles firms interviewed in this study highlighted their links to other advanced manufacturing sectors, for example flame and retardant materials.

2.14 The vast majority of technical textiles SMEs are located in the areas that form part of the UK’s former “textiles industrial heartland”, namely Greater Manchester, Lancashire and Yorkshire, and in the regions around Leicester and Nottingham, shown in figure 2.

2.15 Technical textile products are synonymous with the servicing of a number of end-user products e.g. providing advanced materials to service the needs of a number of end user markets and industry sectors, including: Automotive: composite materials; industrial filtration; biotechnology; nanotechnology; geo-textiles; performance wear-and-teclightweight garments, that are detailed further in Table 1.

2.16 The key sub-sectors within Technical Textiles, in which UK companies are thriving, are: nonwoven fabrics – based mostly on dry-laid staple fibre technologies; woven, knitted and/or stretch-bonded fabrics which form the basis for composites – and ‘Multi-axial’ fabrics that allow composite manufacturers to process multiple layers of unidirectional fibres, the optimum fibre form, in a single fabric and/or 3D structures.

2.17 There are clear links to the UK’s leading companies and suppliers in the advanced materials and composites sector where the UK’s expertise is applied in aerospace, high-performance cars and wind energy, and quickly expanding into other product areas. Despite these advances, the UK composites strategy recognises that the technical textiles and composites sector is fragmented and in co-ordination failures as few firms have the critical mass to invest in equipment to make structures at the speed industry requires. 13

2.18 Recent international research work with garment and technology firms highlights further growth opportunities in smart fabrics and smart garments, integrating sensors and micro-chips into fashion. Grand View Research (US Consulting Firm) estimate the size of the global smart textile market as worth US$250 million in 2012 and expect it to exceed US$1.5 billion by 2020. 14

10. Source: Office for National Statistics (2013): Trade in Goods – Current prices, not seasonally adjusted, textiles and clothing

REPATRIATION OF UK TEXTILES MANUFACTURE

18

REPATRIATION OF UK TEXTILES MANUFACTURE

19
### Table 1: Textile, product areas and markets/ drivers of change

<table>
<thead>
<tr>
<th>SECTOR</th>
<th>EXAMPLE PRODUCT</th>
<th>MARKETS/DRIVERS OF CHANGE</th>
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<tbody>
<tr>
<td>Automotive</td>
<td>• Asbestos and seat belts</td>
<td>• European ‘space race’ and potential commercial flights</td>
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<td></td>
<td>• Upholstery yarns and fabrics</td>
<td>• Continuous reviewing of safety standards</td>
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<td></td>
<td>• Needle-punched headliners, carpets, boot-liners, soundproofing and insulation</td>
<td>• New materials producing improved performances</td>
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<td></td>
<td>• Lightweight non-wovens used in filters</td>
<td>• Improved flexibility raising new standards creating new markets</td>
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<td></td>
<td>• Tyre cord fabrics clothing for space suits – lightweight and highly flexible</td>
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<td></td>
<td>• Mechanical rubber goods i.e. brake hoses and belts</td>
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<td></td>
<td>• Various composite components</td>
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<tr>
<td>Composite materials</td>
<td>• Aerospace components (hulls, wings, fuselage-propulsion)</td>
<td>• Expanding product development and service capabilities to assist users with individual design</td>
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<td></td>
<td>• Boat and sail halls</td>
<td>• Application and technical troubleshooting issues</td>
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<td></td>
<td>• Bicycle frames and racing car bodies</td>
<td>• Provide ‘Quick Response’ (QR) marketing distribution capabilities to cope with a wide variety of individual customer specifications and supply requirements.</td>
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<tr>
<td></td>
<td>• Fishing rod, storage tanks, and baseball bats</td>
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<td></td>
<td>• Boating 787 structure, including the wings and fuselage</td>
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<td>• High density laminate of kevlar and glass</td>
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<td>• Water and dirt repellent materials</td>
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<td>Industrial Biotechnology</td>
<td>• Medical textiles, including all those textile materials used in health and hygiene applications, incontinence pads, and shapes, artificial veins, prostheses etc.</td>
<td>• High crepe oil prices and consumer ‘pull’ for green branch products</td>
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<td></td>
<td>• Breathable, temperature-regulating materials, lightweight shock proof materials</td>
<td>• Bio-based based materials vs crude oil based materials</td>
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<td></td>
<td>• Water and dirt repellent materials</td>
<td>• Concerns about greenhouse gas emissions</td>
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<td></td>
<td></td>
<td>• Scientific progress, i.e. synthetic biology</td>
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<td>Geotextiles</td>
<td>• Fabrics/materials used for barriers, drainage media, filters, insect-resistant layers and outwetting media in flood protection, highways, landfill containment and land remediation projects, and railway track ballast</td>
<td>• Growth in engineered containment of waste materials</td>
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<td></td>
<td></td>
<td>• Civil Engineering: Large earthworks</td>
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<td>Nanotechnology</td>
<td>• Superhydrophobic/ Nano-sized whiskers provide resilience from the fabrics, allowing spills to be easily wiped away without damage to the fabric.</td>
<td>• Less-invasive procedures and processors for medical conditions, all point to nanotechnology as offering a new approach in healthcare materials</td>
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<td>• Anti-static, antimicrobial, anti-mosquito protection, hydrolphobic and hydrophobic properties used in a vast array of products.</td>
<td>• Nanotechnology in the textile-related categories of: technical non-wovens, industrial textiles, high-performance textiles, multifunctional textiles and Smart/intelligent textiles (see below)</td>
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<td>• Applications of nanotechnology recycle production and filter modification such as para-aramid filters and fabrics for energy harvesting and supply.</td>
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<td>• Textile pressure and strain sensors, used in clothing that can measure heart rate and respiratory rates, and in construction to detect movement in buildings and structures</td>
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<td>• Electrically conductive textile materials, used in health monitoring garments, utilized by the military for inconspicuous communication tools, and for fashion items.</td>
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<tr>
<td>Cross cutting performance</td>
<td>• High visibility clothing (for joggers etc) that incorporates reflective materials</td>
<td>• Growth of sporting and outdoor pursuits demanding performance apparel</td>
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</tbody>
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| clothing, including workwear, technical textiles, smart fabrics and smart garments | • Protective clothing is another related area that includes garments which offer a higher level of protections than offered by standard work-wear. | • Increasing adoption of smart textiles across numerous and use industries in expected to be the key driving force for the market. 19  
- Personal Protective Equipment/Military  
- Healthcare/Medical  
- Sport and Fitness/Software platforms  
- Automotive/Aerospace  
- Interior textiles/Homewares  
- Consumer fashion clothing & footwear  
- Telecommunications, mobile gaming etc  
- Nuclear/Gas/Oil  

18 Source: Adapted from interviews and literature review, including: Ohmatex (2014)
19 Source: Adapted from UK Technical Textiles: A Strategy for Growth
20 Productivity and wages
2.19 In terms of productivity, the textiles sector has a Gross Value Added per employee (excluding self-employed) of £500. This is higher than the average across all sectors in the UK of £44,000, but below the average for all manufacturing £574. 20
2.20 The productivity of an industry usually determines how much can be paid to employees. The textile industry has an average weekly wage of £371. 21
This compares with an average weekly wage of £564 for manufacturing as a whole. Despite this disparity, wage levels within key textiles occupations such as skilled garment manufacturing jobs are broadly similar across the country with an average of £19,000 per annum, ranging from £23,000 per annum in Scotland to £17,000 in the East Midlands. 21

### Clusters of textiles manufacturing employment

2.21 Whilst the sector has seen a decline in both employment and production nationally over the last 15 years, it still contributes an estimated 90,000 to 100,000 jobs in the UK. However, including self-employed, sole traders, and employees in other non-manufacturing, textiles laundry services and textile testing services puts the figure much higher. 21
2.22 Interviews with employers and data from the Inter Departmental Business (The Governments own cross-departmental database of firms) confirms that the sector is mostly micro-size in nature and remains highly fragmented. Almost 90% of UK textiles enterprises have under twenty employees and 60% have under ten employees (excluding self-employed). Only 4% of UK firms employ over 50 people. 21

2.23 The following section shows a map of the textiles sector across Great Britain. It illustrates the main geographic concentrations including an area extending from Greater Manchester to West Yorkshire and South Lancashire (which is centred on Rochdale, Oldham, Tameside and Kirklees) where textiles remains central to future manufacturing ambitions. Other major centres include: Leicestershire, Derbyshire, Nottinghamshire, Rutland and Northamptonshire, Eastern Scotland and South Western Scotland, and Inner London.

2.24 The densest concentrations of textiles activity in the UK are found within the city region areas of Greater Manchester, Leicester & Leicester, West Yorkshire, Derbyshire & Nottinghamshire, and Lancashire, shown in table 2. These areas combined, account for 44,000 employees in the UK, just under half the total number of people employed in the sector nationally. Within these areas Greater Manchester contributes the most in terms of employment, with an estimated 11,300 jobs (excluding self-employed and sole-traders), and an economic output of £600 million to £700 million – over half the economic output from the sector in the North West. 22

2.25 As shown in table 2, analysis of sub-sectors within textiles indicates that Greater Manchester has one of the largest concentrations of garment and knitwear clothing sectors in the UK (totalling 6,000 jobs), second only to Leicester (6,900 jobs). Greater Manchester also has one of the largest concentrations of home textile and bedwear businesses in the UK, employing 3,800. Whereas West Yorkshire has one of the largest spinning and weaving sectors, employing 2,900 – excluding those also employed in new technical textiles industries and textiles finishing.

19 Source: ‘New Economy and the Greater Manchester Forecasting Model, with local economic and quantitative data from 2005’
20 Source: ONS 2015 and 2014: ‘Changing Shape of UK Manufacturing – Textiles Release’
21 Source: ONS 2015: ‘Changing Shape of UK Manufacturing – Textiles Release’
22 Source: ONS 2015 Annual Survey of Hours and Earnings (2016 provisional), using sector wage rates per annum
23 Source: ONS Business Register and Employment Survey 2015 Final and part time in employment – ONS labour division
24 Source: Creative Skillset, unpublished
Table 2: Employment (excluding self-employed) for selected benchmarks with the highest levels of textiles employment, 2013

<table>
<thead>
<tr>
<th>TOP 10: LOCAL ENTERPRISE PARTNERSHIP (OR NUTS2/CITY REGION AREAS WHERE DATA COVERS SCOTLAND)</th>
<th>TOTAL: TEXTILES MANUFACTURING</th>
<th>SPINNING, WEAVING, KNITTED CLOTH</th>
<th>DYEING AND FINISHING</th>
<th>CARPETS, RUGS, CORDS, ROPES</th>
<th>OTHER TECHNICAL &amp; INDUSTRIAL TEXTILES</th>
<th>HOMEWARES - SOFT FURNISHINGS</th>
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<td>500</td>
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Table 2: Employment (excluding self-employed) for selected benchmarks with the highest levels of textiles employment, 2013

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<td>700</td>
<td>100</td>
<td>1,300</td>
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27. Source: ONS Business Register and Employment Survey 2013; see appendix for Standard Industrial Classification Codes (C = confidential under the 1947 Statistics of Trade Act, all figures rounded to the nearest 100 n.e.c. = not elsewhere classified.
The importance of Scotland’s textiles industry and supply linkages

2.26 Table 2 shows the importance of Scotland’s textiles sector – totalling just under 9,000 employees, working in over 500 firms generating a turnover of £800 million (and £400m export sales). The majority of textiles and garment manufacturing are found in Eastern Scotland and South Western Scotland (totalling 7,300 employees) mostly in knitwear and homewares.

2.27 The intra-reliance of the English and Scottish cloth and tailoring industries means that textiles manufacturers in England contribute significantly to the value chains of high value, typically luxury, products that are exported from Scotland. In particular, the wool spinning, dyeing and finishing, and textiles manufacturers based in Greater Manchester and West Yorkshire.

2.28 The clustering of weaving and dyeing/finishing manufacturers and associated workforce skills have given the firms in these areas the capability and capacity needed by Scotland’s textiles sector. However, the industry remains heavily reliant on a small core of firms supplying the majority of: woollen yarns, contract weaning, and dyeing services that – outside a small number of vertically integrates mills – no longer exist in sufficient supply in Scotland.

2.29 These findings suggest that a coordinated approach needs to be maintained to develop the UK’s textiles sector, both across the key sub-sectors of the supply chain, as well as geographically in the clusters of textiles manufacturing that exist throughout the UK.

Future growth and rebalancing the economy

2.30 The Alliance Project’s research and latest data from ONS suggest that the original proposition for UK textiles sector growth remains valid. This has been borne out by the success of the current NRBrown National Textiles Growth Programme funded by Regional Growth Funds (Round 4) – shown in the following case study. Office for National Statistics data also confirms that West Yorkshire, Greater Manchester, and the West Midlands each saw growth in clothing manufacturing employment between 2008 and 2011, and nationally, textiles employment saw a net increase of +5,000 in 2013, compared with levels in 2012.

2.31 Interviews with manufacturers highlighted that a third of firms were looking to potentially employ additional staff, typically five employees, in the next 12 months. Applying the potential number of ‘growth firms’ and ‘new jobs’ to the national level, suggests that there could be an opportunity to create 5,000 to 15,000 new jobs in the course of the next decade, depending on how quickly investment and the opportunities can be realised. Taking a scenario for import growth also suggests that a 0.5% to 1.0% shift in the current level of UK imports would equate to an additional 2,000 to 4,000 jobs in the UK economy.

2.32 Given these growth opportunities (jobs and economic output), it is worthwhile noting that many UK textiles firms are located in some of the areas experiencing high levels of long-term unemployment, including high levels of unemployed residents from minority ethnic backgrounds and young people, as shown in table 3. The recent growth in employment in the textiles sector suggests an immediate opportunity to deliver economic and social prosperity, alongside re-balancing of the economy.

Table 3: Unemployment rates (%) for selected city region benchmarks, 2014

<table>
<thead>
<tr>
<th>CITY/REGION</th>
<th>ALL AGED 16-64</th>
<th>MALES AGED 16-64</th>
<th>FEMALES AGED 16-64</th>
<th>ETHNIC MINORITY AGED 16+</th>
<th>WHITE AGED 16+</th>
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<td>12.6</td>
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</tr>
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<td>8.3</td>
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<td>12.5</td>
</tr>
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<td>6.9</td>
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