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**Let's Talk Real Skills:  
Segment 3**

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Report on New Skills and  
Training Pathways

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## Executive summary

The Segment 3 report details the work undertaken to develop learning pathways and content in areas identified as a result of the activities carried out in Segment 1 and Segment 2. Content was created over an extended period between 2019 and October 2021 with several bumps in the road as a result of the business interruptions caused by the Covid-19 pandemic. The focus for development was in the areas around digitalisation, Information, Advice and Guidance (IAG), recruitment and sustainability with seven pathways featured in this report. Although much of the content is concentrated on the leadership and management teams at director and senior manager level it is applicable to, and could be used by many at lower levels of a business. Part of the challenge will be to encourage take-up of this and other development at a time when so many outside factors are having an impact upon businesses and their workforces.

## Terms of reference and scope of report

The reports from Segments 1 and 2 examined the range of learning that was available to the fashion and textile sector, and what the sector said that it needed. Segment 3 builds upon the work of these two reports by looking at:

- what pathways might be developed for key occupations within the textiles industry;
- developing collaborative sets (FE College lead/ University / Sector Specialist / Employers) to study the sector supply chains, identifying key areas for the introduction of Industrial Digitalisation Technologies (IDT) and related skills development;
  - identifying specific areas of skills and knowledge required to prioritise early Industrial Digitalisation Technology applications;
  - enabling technologies: data analytics, process efficiencies and supply chain dynamics for faster response and value creation across the sector;
  - environmentally friendly production processes: building on good practices in areas of recycling, water consumption, energy saving, new sustainable chemistry, 'eco-creativity' and using new materials and applications;
  - product and process Innovation by linking the research expertise and capabilities of universities with key industry/market opportunities;
  - creating relevant learning content for possible integration with higher level Apprenticeship Standards.
- Developing a pilot IDT training programme to act as a demonstrator for each Collaborative Set;
- New skills and training pathway offers will be designed for LCR which provide updated course content that meets the needs of employers, delivery mechanisms which provide innovative learning platforms for individuals and advise on the underpinning resources required to deliver the offer;

- Determine the cost implications for LCR to support the delivery of the pathway;
- Recommend KPIs to monitor the success of the offer.

The Textile Centre occupies an important position in the region to enable and facilitate SME employer action learning groups and support the development of fit for purpose skills and training pathways for the key occupational areas at risk of skills gap and with projected skills shortages in the sector. Although this work began by concentrating upon the demands created for the sector by the Made Smarter report and Industry 4.0, and the needs of textile businesses to take different approaches towards recruitment and retention of their employees, it has also begun to develop material around the issues of sustainable fashion and textiles, and around climate change to which the fashion and textile industry can be considered a significant contributor.

The Centre is one of many sources of expertise across the LCR and the previous Segment reports drew attention to the range of programmes, projects and resources in place elsewhere that fashion and textile businesses *could* take advantage of. Those sources of support were just as relevant for the work planned as part of Segment 3 and detailed in the reports on Segments 3 and 4, thus it remained important to have and maintain a good working knowledge of what was currently available to the sector in the market place in order to avoid or minimise a duplication of effort and resources. The Centre has worked with partners to develop pathways that are relevant to the sector within that context.

Unsurprisingly, the business support picture changed over the last two years. Part of the text below (pages 4–9) provides updated information on some of the various programmes that are (or will soon be) available, elements of which were unavailable when the LTRS project kicked off, particularly in the areas of supply chain innovation and digital take-up.

The appendices provide examples of some of the learning materials that have been developed with and for the textile sector. The concepts and materials are transferable to other sectors, however, particularly for take up of digital and sustainability skills and training. Some of the material has been piloted with textile companies and the results of the pilots will form part of the Segment 4 report.

## Strategic changes within the sector in light of Covid-19, Brexit and other issues

The impact of the Covid 19 pandemic on the fashion and textile sector has been significant across the country. Textile manufacturing businesses in the North which serve mature, high-end global markets have experienced difficulties at an unprecedented scale across every aspect of their operations:

- supply chains for high quality raw materials including simply stopped;
- demand for high quality goods disappeared as retailers closed and as national lockdowns around the world erased customer demand particularly

in key markets including Europe, China, Japan, Korea, the US and the Middle East;

- orders have been delayed or cancelled.

Business confidence has been very low. Unlike previous economic slowdowns the pandemic has left retailers with huge amounts of stock which impacts on supply chains, reducing demand for the production of new materials. Companies anticipated major reductions in the volume of business and predicted a very slow recovery. The impact on the sector's workforce and apprenticeship programmes was immediate. Many manufacturers made up to 40% of staff redundant and found it difficult to retain apprentices when staff around them were being made redundant.

While the impact of the pandemic has varied across sub-sectors (for example, bedding manufacture and home furnishing markets have remained buoyant), recent research conducted by the Centre of Excellence among its member companies has demonstrated that while the majority of companies are now starting to see some signs of recovery, many will not be considering any recruitment or staff development activity before the end of 2021 as most have access to 'pools' of skilled staff who have been laid off. Evidence from those undertaking some recruitment in the past three months (June-September 2021) shows that there has been little appetite from those searching for work to enter the textile manufacturing sector; manufacturing vacancies at the Centre have received very few applications. More positively, our research has also shown a renewed increase in demand for digital training provision, and a new demand for that in the area of sustainability, which are two of the key pilot activities developed through the LTRS programme.

## **The Development of New Pathways for the Fashion & Textiles Sector**

Work with the sector over the previous two years has identified a number of key areas where the development of new pathways would help. Some of these are being addressed by existing sector specialists, e.g., UKFT, with five pathways highlighted below. The relevance of outside pathways is important: part of the role of the Centre here has been to signpost companies to relevant information and contact personnel within the organisations offering these pathways. Another function of the Centre continues to be to access funding streams, grants and industry expertise on behalf of its client base across the fashion and textile sector. The activities involve a variety of sector related expertise including some of the universities and livery companies as well as industry and funding related knowledge. Knowledge of some of the complementary offerings available to the sector has allowed for a greater concentration of resources through LTRS in some of those other areas where new pathways are needed, notably around Industry 4.0 and the sustainability agenda. Some good practice developed through a wider project base has been included as part of the base material for Segment Reports 3 and 4.

Five existing pathways are summarised below and all are available at the time of writing.

### 1. Textile Technician Fund<sup>1</sup>

UKFT's Young Textile Technician Fund is designed to allow businesses across the UK to train their young textile technicians, predominantly in weaving positions. The fund will cover 50% of the costs of in-depth training for young textile technicians, thanks to the generous support of The Worshipful Company of Weavers, The Worshipful Company of Clothworkers and The Worshipful Company of Drapers.

Training is typically carried out by machinery builders, often at overseas training schools, and is extremely specialised. As companies invest in new textile technology, the requirement for highly-skilled textile technicians has never been more important but this type of in-depth training can be prohibitively expensive. UKFT's fund allows businesses to extend their capabilities, increase flexibility and develop new skills at textile companies within the UK.

The fund is now open to businesses applying to train textile technicians under the age of 30.

### 2. Drapers' x UKFT Bursary Fund<sup>2</sup>

UKFT and The Drapers' Company are working together to support fashion and textile students across the UK to achieve good quality internships through the Drapers' x UKFT Bursary Programme.

Financial support from the Drapers' Company will enable ten students annually to take up internship opportunities they may otherwise struggle to afford.

UKFT will be offering mentoring, guidance, and networking opportunities to each student to ensure their internships are safe, enjoyable and valuable.

### 3. CAPITB Trust<sup>3</sup>

CAPITB Trust is an independent charity providing support and funding for "people employed, or about to be employed, in the British clothing industry". Formerly the "Clothing and Allied Products Industry Training Board", the Trust was established in 1990 and each year seeks to make donations to projects that will enhance skills within the British clothing industry. CAPITB Trust is a perpetual trust and will continue to fund fashion training as long as the need exists.

The Grants Committee, made up of Board members who are experts from the industry, assess how each application will benefit the fashion and textile industry. The Trust's grants have benefited a number of businesses, including Richard Anderson, Henry Poole & Co, H Huntsman & Sons, Future Textiles Limited, Bonnie Tartan, Bebop Dancewear, Harwick Knitwear, the Scottish Textile and Leather Association and Samuel Brothers.

<sup>1</sup> <https://www.ukft.org/skills-and-training/funding-for-training/textile-technician-fund/>

<sup>2</sup> <https://www.ukft.org/skills-and-training/working-with-universities/drapers-x-ukft-bursary-programme/>

<sup>3</sup> <https://www.ukft.org/skills-and-training/funding-for-training/capitb-trust/>



As well as its own funding activities, the Trust also works in partnership with and accepts donations from other like-minded grant making bodies. CAPITB Trust also supports industry initiatives that showcase existing and emerging skilled individuals, such as the [Golden Shears Awards](#) with the Merchant Taylors.

CAPITB Trust accepts applications for grants from individuals and businesses of all sizes. The Board considers every application and welcomes any application that demonstrates how the fund can be used to enhance the skill base and capability of the fashion and textile industry.

CAPITB Trust is interested in grant applications from the following:

- Companies within the British Fashion and Textile Industry who need financial assistance to provide a training programme for skills.
- Organisations running, or intending to run competitions that promote the development of skills needed by the British Fashion and Textile Industry.
- Other Awarding Bodies related to skills development, where combined funding leads to enhanced benefits to the industry.
- Individuals to enable them to enter and/or complete a training programme that will provide them with the skills required by the industry. An employer capable and willing to provide the required training must be identified.
- Individuals already employed within the industry, who need to acquire additional skills which will advance their career and service to the Fashion and Textile sector. A capable and willing training provider must be identified.

CAPITB Trust might be able to help you with your fashion training needs; find out if you're eligible to apply for a grant.

#### 4. Weaving work placements through the Entry to Work scheme<sup>4</sup>

Talented graduates can access funded work placements to help them enter the UK woven textile industry through the Entry to Work scheme from The Worshipful Company of Weavers.

The Worshipful Company of Weavers is the oldest recorded City Livery Company, with its roots in the weaving trade of the Middle Ages. Today, the company has substantial charitable funds available with which it seeks to encourage and facilitate the flow of talented graduates into the UK woven textile industry. The company gives scholarships and prizes to weave students, grants for capital equipment and yarn to textile colleges, as well as funding work placements through the "Entry to Work" scheme.

The Worshipful Company of Weavers uses its contacts in the woven textile industry to secure offers of six-month placements in the industry. The Weaver's Company is also in touch with students graduating from college through prize schemes and

<sup>4</sup> <https://www.ukft.org/weaving-work-placements/>

through the universities which it supports. Often, the company follows a talented student's progress from scholarship through college to graduation and employment. Its aim is to put the very best graduates and potential employers in touch.

It is often difficult to find room in a company's budget to fund placements, so as an incentive The Worshipful Company of Weavers offers to fund 2/3rds of the first six month's salary of a new employee under the scheme, up to a maximum of £6,000. The aim is that in six months the graduate will have had time to prove their worth to the employer.

The Worshipful Company of Weavers funds 8 to 10 placements a year. Historically most placements turn into full time jobs, although there is absolutely no obligation on either party to continue after the initial six-month period. The scheme also includes a lunch in London each February to which those involved are invited, and at which experiences of the scheme can be shared.

Should a company wish to consider offering a placement, the Weaver's Company will select two graduates who match their criteria and send CVs to the company so they can start the interview process. If a placement is subsequently confirmed, the Weaver's Company would organise its funding direct to the employer, so the student receives their salary through the employing company's PAYE system. Funding would be awarded in 2 instalments with the first payment made at the agreed start date and the second three months later, provided the graduate is still in post. Any employment contract and working conditions, hours etc. would be a matter between the employer and the employee.

A shortlist of graduates is usually available by mid-July when the Weaver's Company can contact companies offering placements at that time with CVs of potential candidates.

## 5. Made It<sup>5</sup>

There is consistent evidence to demonstrate some significant skills gaps in and around manufacturing. Not only are we in need of new highly skilled people on machines but we also need to ensure new candidates entering into design, development and production related roles or those setting up businesses are equipped with the crucial manufacturing and sourcing knowledge that is required for success.

UKFT is working with five universities a year to deliver the programme:

- **MADE IT Production and Sourcing Masterclass**

The Masterclass will be delivered to each participating university, by industry expert Daliah Hearn, with the aim of promoting the importance of production and sourcing within a rounded fashion education and to highlight the breadth of job opportunities across the supply chain.

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<sup>5</sup> <https://www.ukft.org/manufacturing/made-it/>



- **MADE IT Production Internship**

The MADE IT Production Internship was developed after observing the impact of immersing students in the production environment. One student from each participating university will be offered a fully financially supported internship opportunity within a production environment in the UK.

- **MADE IT Quality Internship materials**

We will be working with students and employers to develop two sets of publicly available collateral that aim to raise the quality and expectations of internships across the industry:

- **Quality Internship collateral for students** with the aim of showing them what a quality internship should look like.
- **Quality Internship collateral for employers** including frameworks for good quality delivery of an internship, example schemes of work and positive case studies.

Four other pathways have been highlighted below, one of which might be considered also to have appropriate expertise available through the HE sector (item 3: supply-chain), whereas the other three might also benefit from other F&T experts, including the Textile Centre of Excellence (Industrial Digital Technologies, recruitment and retention and environmental sustainability).

1. The need for companies in the sector to learn more about how digital technologies can assist them has been a key area of interest from the project's outset and a number of programmes were in development or early rollout by March 2020. The whole digitalisation issue was brought into stark focus by the Covid pandemic that ensued, thus requiring continued support and development.
2. Staffing, particularly the recruitment and retention of experienced employees, has become an increasing problem for companies over the last eighteen months. There is a real need for support around this issue.
3. Supply-chain relationships and logistical problems have been brought into sharp focus over the last eighteen months. The LCR is fortunate to have two of its universities involved in the provision of assistance.
  - a. Firstly, a regional supply-chain programme remains active through the University of Huddersfield<sup>6</sup>.
  - b. Secondly, the FFF programme can offer support through the University of Leeds<sup>7</sup>.

The University of Huddersfield is now running two supply chain programmes for manufacturing businesses in the Leeds City Region.

- The Leeds City Region Supply Chain Programme is a business support programme which aims to support growth and expansion of manufacturing

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<sup>6</sup> <https://supplychainlcr.co.uk/>

<sup>7</sup> <https://futurefashionfactory.org/>

SMEs and SMEs operating in wider supply chains of manufacturing sector based in Leeds City Region. The programme offers the strategic review of current operations, help with the development of a three-year action plan with the potential of grant support up to £5,000 for the implementation of the project. A number of textile businesses have already taken advantage of the support - Abraham Moon, Brierley Bros., Banana Moon, Laxtons, Ushwear, Oh Sew Whitty and Cliffe End Yarns.

- The Manufacturing Champions (MC) programme which evolved as a high growth initiative out of the Supply Chain Programme (SCP). The support is wide ranging in scope but the SCP adviser time is free (12 hours) and there is a revenue grant attached to the programme - up to £5k on a 50/50 match funded basis (projects can be as high a value as the company wish but the grant caps at £5k). Projects are normally distilled out of the initial diagnostic and subsequent support from the adviser or working with a specialist consultant to develop a strategic growth plan or sales and marketing strategy. Examples would be specialist areas of support such a company preparing to go for ISO 9001 or the environmental ISO 14001). The MC programme is by invitation only and potential for high growth is the primary criteria. The Manufacturing Challenge programme is very relevant to the subject of the Textile Centre of Excellence's digital technologies workshops as one of the core themes is looking at improving manufacturing productivity through technology adoption. Banana Moon, Canvasman, Advanced Dyeing Solutions and Ushwear have participated to date.
4. Sustainability is reaching the top of the agenda for many companies and sectors with net-zero targets being set between 2035 and 2050 by public and private organisations alike. Interest in the subject has been heightened by the upcoming 2021 United Nations Climate Change conference, to be held in Glasgow, and by an opportunity to plan and implement approaches to sustainable business policies ahead of legislative changes. Large companies are increasingly requiring compliance from their supply chains and investors are seeking 'climate related financial disclosures'.

Cost and risk concerns can be outweighed where manufacturers can identify new opportunities arising from the circular economy and lever value from sustainability, moving beyond compliance to generate competitive advantage.

There is a need for a practical programme to provide manufacturers with the analytical tools to identify where to start to identify and prioritise risks and opportunities, providing support to plan, implement change and develop a company strategy involving all employees, recognising the 'corporate capacity' of SMEs.

## Digital technologies

UK digital policy is based on the findings of the 'Made Smarter' report, published as a result of the Made Smarter Review 2017<sup>8</sup>. That report suggested that Digitalisation offers massive opportunities for UK Manufacturing and that automation, process monitoring and re-engineering can result in radical improvements in cost efficiency and accuracy enabling:

- Reduced lead times for Design and Production of customised products
- Optimised manufacturing processes (quicker change-over, zero breakdowns)
- Reduction of waste
- Smarter forecasting/planning of customer requirements and manufacturing capacity

Take-up of IDTs by UK manufacturers has been slow, compared to competing countries. The 'Made Smarter' report suggests that is a result of:

- A lack of effective leadership and strategic vision, direction, and co-ordination
- Fragmented, uncoordinated and confusing technical/business support
- Lack of tax incentives for digital investments
- Skills shortages.
- Poor links between education and industry

The West Yorkshire Combined Authority along with the UK government have both identified 'increasing the pace of adoption of digital technologies (IDTs)' as a priority for UK manufacturers and an increasing level of resources is being made available to enable businesses to identify and adopt technologies that are relevant for them.

In West Yorkshire the Combined Authority is working with universities and a range of business support organisation to provide practical, expert sources of support. These will include grants from the regional 'Made Smarter' programme along with existing sector-based programmes including the 'Future Fashion Factory' project delivered by the Universities of Leeds and Huddersfield working with the Textile Centre of Excellence.

## 1. Digital Awareness Workshops

Notwithstanding the work of the Made Smarter Review and its subsequent programme of work, the provision of information on Industry 4.0 continues to be a very necessary task at the most basic level, and still needs to be promoted at all levels of business. Indeed, the very name Industry 4.0 can invoke raised eyebrows and a lack of comprehension, risking a consequent loss of interest. The Digital Awareness Workshops were created to provide companies with the latest intelligence about how Industrial Digital Technologies can be introduced to improve all aspects of their business operations. A secondary and important objective was to

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<sup>8</sup>

[https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/655570/20171027\\_MadeSmarter\\_FINAL\\_DIGITAL.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/655570/20171027_MadeSmarter_FINAL_DIGITAL.pdf)

find case studies from within the sector to highlight what could be done, and what was replicable. A third objective was to find a means of achieving the first two by means of clear language and straightforward explanations – no mean feat in an area riddled with acronyms and bluster.

The Workshops, hosted and delivered by the Textile Centre of Excellence and Shirley Harrison, from the Sheffield University's Advanced Manufacturing Research Centre (AMRC), were designed to provide practical advice and expertise and signpost participants to sources of financial support. Content was developed to provide an opportunity to hear about and demonstrate the latest technologies and approaches that could be right for companies in the fashion and textile sector and to discuss their ideas with experts. The Workshops were to be open to all employees of textile manufacturing companies including individuals and teams. Subsequent 'Top Team Workshops' and consequent consultancy support was planned to be available to assist company planning as was individual advice and support on accessing funding for digital technology introduction. Finally, the content from the workshops was to complement other learning pathways where digital input was necessary, e.g., apprenticeships and leadership and management modules.

None of this approach was intended to be in isolation from other avenues of expertise, learning and support. The digital pathways identified by the Centre were meant to be complemented by others, including some of a similar nature, from the Made Smarter pilot in the north-west, the Future Fashion Factory or the supply-chain programme in the Leeds City Region, all of which had use and take-up of IDTs at their heart. The second and third workshops, held during October 2021 are intended to promote the new Made Smarter programme which is expected to be rolled out to manufacturers within the Yorkshire & Humber region between November 2021 and March 2022 and will offer types of support as below.

- supporting companies with digital road-mapping
- intensive technical support
- training in leadership/management
- internships
- a capital grant for projects up to 20k – 50:50 grant and business contribution

Appendix 1 offers a template for the delivery of awareness raising workshops

Costs for the delivery of these workshops were reduced because the Centre was able to secure the support of technical expertise via the AMRC at no cost to itself, i.e., those costs were supported by another fund within the AMRC's framework. The anticipated costs without support might be up to a maximum of £2,500 per workshop to create both content and delivery, with a reduction in costs for duplication in content delivery. Costs would comprise the following:

- Staff
- Experts / presenters
- Materials
- Venue

- Catering

The Made Smarter Review provided ample justification for creating a programme of digital workshops and rolling them out to fashion and textile businesses as part of an awareness campaign. This need has been supported and reinforced by the evidence from the Skills Audits carried out by the Centre. Two useful measures of their success might be how many businesses go on to take up some form of digital support in the following twelve months, and how many implement digital solutions as a result.

## **2. Content for Leadership & Management**

The content from the workshops is easily replicable across many business sectors. That idea of replicability was also designed to apply to the content created for the leadership and management modules at ILM Levels 3 and 4, and for a recreation of the Top Team Workshop format for directors and senior managers within a company.

Some of the content from the digital awareness workshops was utilised for the ILM Level 3 and 4 material. The content was planned to take between 2 and 2½ hours as a participative discussion and exercise. There were to be two parts to the session: a context setting and discussion element followed by an exercise to identify a company's likely digital priorities. As a starting point, the Graeme Coddington video concerning the four industrial revolutions was felt to provide an ideal starting point as a discussion item before considering some of the practical applications that Industry 4.0 projects was providing for the textile sector already through the Future Fashion Factory.

The Digital Triptych was first used at an exhibition at Salt's Mill, Bradford, late in 2019. Its purpose was to tease out some of the key digital issues facing individual companies and use this as a starting point for a further discussion that could lead to a skills analysis and action plan. Three headings were used: Business Challenges, Digital Technology Themes and Jobs. It was first used as a contribution to an existing Level 3 leadership and management course in January 2020 where employees of a single company were the participants. It was envisaged that this element could be used in a similar format where employees from more than one company participated whilst accepting that a slightly different approach to setup and delivery would be required.

Appendix 2 providing a flavour of some specific content for use in longer, more generic training programmes, e.g., Leadership & Management.

Costs for delivery of this session as part of a Leadership & Management module would be minimal once integrated into an existing programme. Delivery would be provided by the relevant tutor of the existing modules.

## **3. Content for industry 4.0 Top Team Workshops**



The approach planned for an Industry 4.0 version of a Top Team Workshop was very different, as befitted the nature of the audience. The expectation was that participating companies would have taken part in an awareness raising workshop but this was not a prerequisite. A key objective was to take a company through the workshop process in order for them to develop a bespoke Industry 4.0 action plan for implementation with the assistance of appropriate expertise, if required. This was not to be undertaken in isolation from other business drivers, but had to form an integral part of their business strategy going forward. All three elements used in the Digital Triptych were to be covered in the plan in order to ensure that knowledge, skills or personnel gaps would be factored in.

Firstly, the intention was to take a management group out from their normal working environment in order to allow them to concentrate on the task in hand, unencumbered by routine distractions. Secondly, the residential element was meant to allow for a continued, concentrated workflow with additional stimulating content, e.g., a guest speaker after an evening dinner. A venue, Bagden Hall at Scisset, had been identified as a suitable venue for the workshops. The initial workshop was to be provided free of charge to the first company with the intention of charging a fee towards the costs of a refined product.

The format was considered in two differing formats: one with only one company participating; a second with up to three companies participating. The latter instance would have ensured that companies in competition with each other would not be allowed at the same workshop but accepted some sharing of knowledge and experience (to some degree) would have been a valuable outcome. Discussions with some of the expected participants led in the direction of a one company workshop as a starting point.

Substantial preparatory work was expected to be required in advance of each workshop. The role of staff at the Textile Centre of Excellence would be to identify company participants and those personnel taking part (to a maximum of five). Following this, work would be undertaken to gain a greater understanding of the company in order to target appropriate business and digital expertise for the workshop content and delivery, which would also form part of the briefing for the facilitators and seminar / discussion leaders.

Scope and content were to be provided by a combination of business and HE expertise with an emphasis being placed upon clear use of language to explain concepts, considered vital for success given the nature of the subject. Conversations took place with the Digital Catapult North-east & Tees Valley and members within the universities of Leeds, Huddersfield and Sheffield before electing to begin a trial with a combination of the Advanced Manufacturing Research Centre (AMRC) and the University of Sheffield. Other areas of expertise were expected to be involved, however. For example, involvement from the School of Design at the University of Leeds was to be sought with an invitation to Professor Steve Russell to be the post-dinner guest speaker for the residential element.

The main constituents of the programme costs would be as follows.



- Pre-workshop consultations, skills audit and preparatory research per company
- Venue hire and residential costs
- Programme leader
- Facilitators (a mix of technical and industry specific)
- Industry recognised guest speaker

Appendix 3 offers a template for the delivery of an in-depth residential workshop for directors and senior managers.

By definition, each project, or at least part where multiple companies were participants, would be bespoke. Costs for the delivery of such a workshop were expected to be in the region of £6,500 to £10,000, dependent in part on how much, if any, of the resource would be funded through other projects. There was a clear intention that participating companies would be expected to contribute up to 50% of the costs once a pilot programme had been undertaken and learning materials and delivery methodology had been refined.

A useful measure of success here would be how many companies go on to implement projects as a result of the workshop, and what the ROI is calculated to be as a result.

#### **4. Digital content for industry specific but non-Industry 4.0 related apprenticeship programmes**

There are many digital apprenticeship programmes open to learners at various levels. What is as important is how content on the digital agenda can be brought more fully into, and integrated with existing industry specific programmes. This becomes much more relevant where companies operate with fairly new or new machinery, for example, but also has a wider relevance when considering posts where product lifecycle and data issues are key.

This course was conceived either for integration into an apprenticeship or to be taken as a stand-alone course, offering a broad introduction to digital manufacturing. Taken over a period of five days, the modules would explore a variety of digital tools and how to use them, learn how to extract value from data, and identify opportunities to apply these techniques to optimise business operations.

An effective course for participants within the textile sector would require a mixture of content and delivery and should ideally incorporate some visits to see technologies in action, probably at both universities and / or technology hubs, e.g., Daresbury, Cheshire<sup>9</sup>, and in textile mills. That agenda could be difficult to fulfil within a five day curriculum and how much might be included would also be dependent upon the level it was pitched at, i.e., more visits at Levels 3 or 4 than at 2.

<sup>9</sup> <https://www.sci-techdaresbury.com/buildings/campus-technology-hub/>

A useful starting point would be to use the content developed for the two hour Leadership & Management session as an introduction, probably expanded to a half-day. Further sessions could incorporate themes as below.

- The new range of data driven occupations within the industry
- The range of machinery in use in textile manufacturing premises
  - IDTs in use and skills range required to maximise use
  - Legacy machinery and scope to link to IDTs, e.g., preventive maintenance, energy usage and NOT to be installed without good reason
- Data analysis
- Digitalised supply chains
- Factory Floor & Production Systems
- Digital printing
- Digital marketing

Courses would be delivered through a hybrid model of face-to-face and online delivery with a combination of individual assignments and group working a requirement. A pre-entry assessment of digital knowledge and experience would be a prerequisite as a useful measurement of progress post-completion. Another specific measurement of development would ask each participant to look at business practices in their own company and identify at least one area where digitalisation solutions might be effected at low cost but with maximum impact and potential cost savings.

Costs would comprise the following elements:

- Staff
- Experts / presenters
- Materials
- Venue
- Catering
- Travel

### **Recruitment and retention of employees**

Only a handful of textile manufacturers appear to have links to local schools with a view to attracting and recruiting new talent into the industry, Fewer still pursue consistent, active contacts on an annual basis. On the supply side the Textile Centre has attended numerous careers fairs at schools across West Yorkshire for over twenty years with limited success for its members. Results from the programme of fairs attended in 2019 made clear that this approach was not productive and certainly not the best use of the resources available. The principle reasons for a need for change were as follows:

- little evidence of any prior knowledge of textiles as a possible career path on the part of students;

- targeting the wrong year groups, i.e., those for whom a decision on career progression was still some way off;
- a primary focus on the part of most students in going to a college as their next step.

### **Developing links between schools and textile businesses**

Some work had been undertaken previously with the Netherthall Learning Campus, in Rawthorpe, Huddersfield, to explore ways in which students could engage with textile businesses in a practical and meaningful way as a potential career path into the industry. This concept was revisited with a view to creating a series of individual projects between a textile manufacturer and a school whereby:

- companies would gain an introduction to a local school with a supply of potential future employees;
- students would gain an insight into the careers available in the Textile industry;
- relationships developed between the two parties might lead to long-term partnerships.

The Textile Centre of Excellence would act as a facilitator with a brief for interested companies as follows.

“We are looking for companies who can provide insights into careers in the textile sector, and commit time to deliver this practical project. We recommend projects being delivered over one week having 1 hour sessions once a day. This, of course, would be guided by your chosen practical exercise, and the agreement you have with the school as to what best suits you. The Centre of Excellence will be there throughout the project to support and guide both your company and school ensuring you are getting the best results possible from working together. We can also offer support in facilitating meetings / sessions, conference rooms for meetings, and also use of our facilities here at the Centre should you wish to undertake performance tests where you require a lab.

Please see the timetable below for proposed dates for the project activity.

September 2019: Company and School briefing and practical exercise selection

October 2019: Project finalisation

15<sup>th</sup> November 2019: Kick-off event where companies will meet with schools to have a short taster session and introduction session to what is to come. All 4 projects will be showcased, with all companies and schools involved.

15<sup>th</sup> November 2019 – 25<sup>th</sup> March 2020: Undertake and complete practical exercise.

25<sup>th</sup> March 2020: Final project showcase.”

The costs of creating and delivering an individual school / company partnerships are expected to be around £10,000 based upon the following elements.

- Staff (facilitation, administration and management)
- Presenters (practical exercises, awareness sessions and training days)
- Materials (teaching packs, lesson plans and templates)
- Venue
- Catering
- Travel

Measurable metrics might include short-term items, such as the production and delivery of a project, but in the longer-term such a project has to be judged by its success in recruiting students into the textile industry.

### **Fashion & Textile Academy**

A second pathway into the industry has been created and developed in association with the Company of Clothworkers whereby individuals with little or no work experience, or those looking to return to the sector, could undertake a six week programme to ready them for work opportunities with fashion and textile companies.

The Fashion and Textiles Skills Academy is a response to an age-old problem: how to ensure that potential workers in the sector are industry ready to make an immediate contribution from the outset. Industry ready covers a multiplicity of needs here. Two examples can be used to offer perspectives at differing entry levels. Firstly, there is an absolute need for entry level employees to have a practical understanding of the industry, its components, e.g., dyeing or weaving, and its working practices. In addition, literacy, numeracy and good understanding of health and safety practices are of great importance in a hands-on industry. Secondly, many graduates coming into the fashion and textile industry have some key elements missing from their learning, particularly where business critical skills are required. In practice, this can be manifest in a lack of understanding around how substrates might be used together successfully to create a collection (of clothes), or how to properly price work processes and resources in order to create a final selling price that is realistic. The Fashion and Textile Academy has been developed to help deal with the first of these needs.

Appendix 4 provides a template for use as a means of fostering better links between schools and individual textile employers. Appendix 5 provides an outline of a six week programme aimed at providing training about the fashion and textile sector for workers aspiring to enter, or return to that sector.

### **Sustainability**

Sustainability has fast become the number one priority across all aspects of society in the UK and all industrialised nations. Governments at national and regional level are making ambitious declarations about climate emergencies and achieving 'net-zero' impacts, but few appear to have meaningful strategies to achieve their ambitious targets.

Many of those high-level policies will include a selection of the 17 UN Sustainable Development Goals which were adopted by UN Member States in 2015 as part of the 2030 Agenda for Sustainable Development and grouped around ambitions for:

- Economic growth
- Social inclusion
- Environmental protection

Locally, the Leeds City Region has declared a region-wide climate emergency. For the City Region, this means a target of net zero carbon by 2038 and a carbon budget of 118 MtCO<sub>2</sub> – equivalent to a 14.5% reduction per year. To achieve this target, the Leeds City Region is establishing Carbon Emissions Reduction Pathways, looking at power, buildings, transport, industry and land use. SMEs are at the heart of the industry pathway in particular, recognising their strategically important role in meeting the target.

The Local Enterprise Partnership is providing advice and grants to help SMEs lower their carbon footprint, their energy and water use and their waste costs including bringing low carbon, lower cost heating and hot water to the city of Leeds while also cutting 22,000 tonnes of carbon emissions every year. In addition, the LEP's Energy Accelerator Programme is supporting SMEs' low carbon and energy efficient projects by providing capacity, expertise and funding.

In business, large companies are increasingly requiring compliance from their supply chains and investors are seeking 'climate related financial disclosures'. For companies, cost and risk concerns can be outweighed where manufacturers can identify new opportunities arising from the circular economy and lever value from sustainability, moving beyond compliance to generate competitive advantage.

There was a need for a practical programme to provide manufacturers with the analytical tools to identify where to start to identify and prioritise risks and opportunities, providing support to plan, implement change and develop a company strategy involving all employees, recognising the 'corporate capacity' of SMEs. The first step has been to develop content for an awareness raising workshop. This has been constructed to bring together acknowledged expertise from the sustainability arena and sector examples from companies already active in this field. Like industrial digital technologies, the intention is to support the sector with further workshops and consultancy expertise in order to help them along their own path to mainstream strategic integration.

Appendix 6 provides a template for delivery of an awareness raising workshop, the first of which was given at the Centre on 13<sup>th</sup> October 2021.

Costs for the delivery of this workshop were larger than for the digital equivalents because the Centre put greater resources into researching the subject and into securing the services of Dr Mark Wade, a world-renowned speaker on the subject. The anticipated costs without support might be up to a maximum of £5,000 per workshop to create both content and pay for delivery, with some reduction in costs for duplication in content delivery. Costs would comprise the following elements:

- Staff
- Experts / presenters
- Materials
- Venue
- Catering

## Conclusions

While not all of the concepts or the material developed between 2019 and 2021 have yet been brought to a pilot phase (see Segment 4 report) each of the items highlighted in this report has been created with and for the sector as part of a response to gaps in the market. Furthermore, although created for the fashion and textile sector there is little doubt that the concepts and some material could meet common needs elsewhere.

The Centre has been successful in the past in securing funding streams to test pilot projects for the sector and this approach probably remains applicable in the future, in tandem with industry efforts through partner organisations, such as UKFT and The Clothworkers' Company. The impending roll out of a programme of support through the Made Smarter Yorkshire & Humber will offer new options to fashion and textile businesses in place of the proposed Top Team Workshop format but the Centre has proposed further iterations of the school-textile manufacturer projects and feedback from the very recent workshop on sustainability suggests a very real desire to see more activity and support in that arena.



## Appendix 1: Digital Awareness Workshop



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**Future Fashion  
Factory**

### Industry 4.0 Workshop

**Friday 6<sup>th</sup> March 2020 - 12.30pm – 4:15pm**

Co-hosted by the Advanced Manufacturing Research Centre, University of Sheffield,  
and The Textile Centre of Excellence, Huddersfield

Venue: The Textile Centre of Excellence, Red Doles Lane, Huddersfield, HD2 1YF

#### Agenda:

Lunch, Networking & Digital Demonstrations by the AMRC		12:30
Introduction: Why are we doing this?	Bill Macbeth	13:15
What is the 4 <sup>th</sup> Industrial Revolution and how could it help you?	Shirley Harrison	13:35
Future Fashion Factory: Some industry examples	Bill Macbeth	15:15
Business support available to the sector	Richard Axe	15:55
Make an appointment with the Textile Centre to discuss how digital technologies might help		
Closing		16:15



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## Appendix 2: An introduction to Industrial Digital Technologies: a short training programme

### 1. Brief introduction

Best explanation of the Fourth Industrial Revolution by Graeme Codrington

<https://www.youtube.com/watch?v=fbWyXWTQTtE>

### 2. Main message from Graeme's video?

### 3. How to describe the four industrial revolutions in one word? What were they about?

1<sup>st</sup>. Production

2<sup>nd</sup>. Efficiency

3<sup>rd</sup>. Automation

4<sup>th</sup>. Connectivity (connecting data from every part of the operation from raw materials to the customer and beyond – to the end of the product lifecycle)

About working better, faster, (cheaper) and smarter to satisfy changing needs of the market better than the competition.

### 4. How is the market changing?

- Growth in luxury markets
- Customers want the product now
- More customisation
- Sustainability increasingly important
- Rent not buy becoming a new norm
- Technology slowly becoming part of F&T, e.g., luxury brands putting microchips in their products

### 5. What do companies need to do better?

### 6. Industry Examples from the Future Fashion Factory

One local example of HE / R&D Centres working well with the industry.

5 HE based projects, and the first 8 company projects:

1. Analysing massive data from all sources to enable faster design decisions. Matching words, emotions etc. to colour palettes that will resonate with customers. Any word, any language 'Colourpedia'. Prof. Steve Westland.
2. Using more data on historic trends, preferences for styles etc. to provide faster design ideas powered by machine learning.

3. Creation of massive AI databases to produce potential designs where choices are triggered by words / phrases, e.g., 1920s, reggae, empire, Chicago, beer.
4. Very late-stage fabric modification (handle, appearance, texture). Production on demand rather than from stock.
5. Online communications to transmit tactile and aesthetic properties over the internet – through touch (haptics). Immersive customer (buyer) experiences.

FFF video: <https://www.youtube.com/watch?v=Mevml7hkRyQ>

## 7. Five new training courses in development

1. This one!
2. A half-day introduction to IDTs in manufacturing for businesses (to be piloted in first half of 2020)
3. A 5-day course offering a broad introduction to IDTs, integrated with an apprenticeship course or offered as a stand-alone
4. A 2-day Top Team Workshop considering integration of IDTs across manufacturing operations (to be piloted in first half of 2020)
5. 10 day digital training and consultancy package.

## 8. The Gamification Digital Triptych

On the table:

5 key business challenges

17 digital themes (terminology might be strange, e.g. servitisation: Rolls Royce or My Yorkshire Wardrobe examples)

9 job roles seen as critical to the industry now and in the future

## 9. Discussion on new occupations

Do you think you have the skills and expertise in your company now? How do you know?

If so, where? If not, how will you find it / more of it?

## 10. Feedback



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## Appendix 3: Top Team Workshops for the Digital Age

### Industry 4.0 Top Team Workshop (1½ days residential):

This intensive workshop is aimed at company managers. Guided by a facilitator and experts in key knowledge areas, participants will undertake company team analysis and planning, identify the digital technologies that could tackle their specific challenges, and create a tailored action plan for their business.

Each workshop will be open to no more than three companies with up to five senior managers from each. No element of competition should exist between the participants but some commonality of business issues to be addressed is likely to be present. A company's potential needs can be identified via discussions arising from attendance at an **Industry 4.0 Awareness** workshop and / or a visit to discuss its digital and skills needs.

The workshop will feature up to six sessions over the **1½ days** with in-depth introductions to key digital themes. Dinner on the first day will be followed by work on a business challenge, specific to each company, for discussion during day 2.

### Precursor to workshop

Research on the participating company (ies) is undertaken in order to identify current challenges and develop some understanding of how it operates and how the key individuals work within it. Previous company visits, ONA, training undertaken can assist here but further conversations might also be required, perhaps between the course leader and the expected participants.

9.30 – 18.00 with dinner on first night; 9.00 – 15.00 on second day.

### Sample agenda:

#### DAY ONE

Welcome & intro

Day 1 Session 1

Introduction to Industry 4.0 (opportunities / threats / competencies required etc.) with a focus on the company(ies) present

Day 1 Session 2

Digital theme 1 (overview, Big Data, case studies, possible applicability to company(ies))

Day 1 Session 3

Digital theme 2 (overview, Industrial Internet of Things, case studies, possible applicability to company(ies))

Wrap up summary with key points identified for actions, plus a business challenge.



Dinner with a guest speaker, e.g., Professor Steve Russell, University of Leeds

Business challenge to complete for Day 2.

## DAY TWO

Day 2 Session 1

Digital theme 3 (overview, Product Lifecycle Management, case studies, possible applicability to company(ies))

Day 2 Session 2

Digital theme 4 (overview, Supply Chain, case studies, possible applicability to company(ies))

Day 2 Session 3

Facilitated action planning using the identification of emerging key digital priorities, knowledge gaps and the internal resources and external support required to develop an action plan for in-company implementation.

Close

## Appendix 4: A project which would work with individual companies to analyse their future skill needs and develop a range of practical activities to improve the image of the industry and their links with local schools

### 1. Background/Context

Production of a Summary Report outlining the key recruitment issues facing the sector.

Content drawn from sources including sector and public sector national and regional reports including UKFT and TCoE reports.

Identification of previous and current promotional activities.

Examples/Case Studies of company specific issues and barriers to recruitment.

### 2. Activity: Individual Company analysis

Organisational Needs Analysis: identification of company's future skills needs arising from growth projections/retirement/types of skills and volume over 3 years

Analysis of historical recruitment sources: internal/external

Geography, competitor analysis, local school-leaver destinations, competing offers:

Company image – review of existing promotion, perceptions and positioning opportunities

Assess existing recruitment promotions: adverts, activities, school fairs

Conduct a focus of several key feeder schools focusing on:

- Current opinion of company if known
- Opinions on careers in textiles
- Identification of marketing messaging to resonate with the target audience and which channels most effective e.g., Instagram etc.

Online competitor assessment: what keywords are used to attract traffic to career opportunities for school leavers.

Company 'kerb-appeal'/image review and development options

Marketing audit: assess Channels and Assets:

To include:

1. Website: Current performance. Content.
2. Social media: Channels. Activity. Frequency. Reach. Engagement.
3. Assets : Photography. Video. Exhibition stands. Merchandise.
4. External comms: Events/promotion. PR. Internal communications programme. Corporate Social Responsibility.

5. Metrics: Online conversion rates. Systems.

Student research (Edu4Tex) – comparative strengths and weaknesses of company offer.

3.Activity: Preparatory

Company video (standard video with company specific inserts)

Company specific materials/online content development

Website: Careers page: Careers page on website to include job descriptions, ability to submit CV and application online.

Video: Work with us. Life at xxxxx. Supply chain. FAQs. Type of jobs in textiles. Career pathway.

Apprenticeship page: Video/interviews. Infographic. Profiles. Day in the life. Cover progress on each cohort.

Social media platforms: Assess options (influenced by school focus groups), likely Instagram, Twitter, Possibly Facebook

'Apprenticeship Standard': Preparatory workshops for company supervisors

- Building Company Loyalty – review of company offer and prospects for learners/employees
- Articulating a compelling proposition of why chose a career in textiles and in particular x company which will resonate with school leavers and graduates
- Demonstrate aspirational career pathways

Case study/advocate identification (existing employees)

- Create a template for a case study 'Day in the life of....' Following the journey around departments / learning skills etc.'
- "What are my prospects"
- Demonstrated in written copy and through video

Launch a "Social influencer programme" for each company.

Messages (from social influencers) to target audience will include:

- Links between company and credible/designer brands
- Prospects and progression
- Corporate social responsibility projects
- Environmental issues
- Flexible and progressive working environment
- Engaging and rewarding culture

Assess promoted posts and adverts on Instagram

This would give the company the ability to guarantee the content above reaches the right age, geographic postcode, interests and demographic.

Video to recruit internal 'champions' who will post regularly on Instagram using engaging language and aspirational/positive messages to the younger demographic target audience

Development and Promotion of 'Technician' and 'Engineer' career opportunities

- Job descriptions
- Learning plans

#### 4. Activity: Promotion

Proactive targeting of schools, colleges

Company familiarisation programme/ Teacher/Careers Adviser Workshop/visits.

Marketing workshops for future recruitment

Collating the above into a clearly structured workshop where marketing/HR within a company will be able to learn implementation of each stage of the process, giving a roadmap and blueprint to replicate year on year.

Learner Focus groups

Advertising placement programme

- Assess current media plan
- Metrics on traction and conversion

Learner liaison, matching and preparation workshops

Initial assessment and interview arrangement

#### 5. Review and Development

Evaluation of Stage 1 and proposals for future activity.



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## Appendix 5: Skills opportunities obtained via a Fashion Academy

### Candidate Eligibility:

- Candidates actively seeking work or currently in work but with no recognised sector based qualification;
- Candidates that have the legal right to work in the UK;
- Candidates completing the programme should ideally be eligible for an Apprenticeship

### Operation:

Candidates of all ages (employed or unemployed) are enrolled onto the FTA programme. Referrals may come from a series of intermediaries such as such as DWP, the Work Programme, Welfare to Work, JCP or other projects within the locality as well as via the Centre's members and from the anticipated marketing campaign.



Referred individuals are screened for programme suitability and initially assessed against appropriate mechanisms for programme success and completion.



**Between weeks 1 and 6**, the programme will deliver work readiness training, health & safety training as well as practical activity (such as machining, cutting, garment structuring, pattern laying etc.). This will be delivered by competent, industry specialist tutors.



Programme tutors and mentors assess ongoing skills development and support individuals to become 'work ready' for potential recruitment into the textile and apparel manufacturing sector. Along the journey, learners will develop their own garments to submit as formal recognition of their capability.



Candidates completing the programme will receive job suitability training and mock interview practice to prepare them for future job expectations. Candidates will be supported with job applications for existing vacancies within the sector.



**After 6 weeks**, candidates completing the programme will be *considered* for employment in the sector. Candidates who are offered a job at interview will be offered employment in line with the company's contract policy (such as hours of work, pay, holidays etc.). All candidates will undergo a paid work trial.





Assuming a successful work trial, all candidates will be assessed and their performance monitored throughout their employment and will (where appropriate) be assessed with a view to commencing a programme of vocational learning, i.e., apprenticeships.



(Ongoing) Individuals undertake skills programmes (i.e., apprenticeships) and are considered to be competent in the workplace. National accreditation of their skills is provided.

## Appendix 6: Environmental sustainability for the sector

A pilot one-day introductory Workshop could inform the structure of the programme. The Workshop might cover the following areas:

- What is driving Sustainability?
- What exactly does 'net-zero' mean for a company?
- What type of commitments are being made by:
  - Governments
  - Local Authorities
  - Brands
  - Major companies
- What are the implication for supply chain partners?
- What new business opportunities will arise from the 'Circular Economy'?
- Examples of sustainability strategies
- Where to start?
- Identifying and prioritising risks and costs
- Materiality Analysis
- Securing buy in from management and employees
- Legal compliance and moving beyond compliance
- Promotion and dissemination
- Impact measurement
- Sources of Support and Next Steps

## Creating Value from Sustainability Workshop

Wednesday 13<sup>th</sup> October 2021 - 10:00am to 13:00pm

The Textile Centre of Excellence, Red Doles Lane, Huddersfield, HD2 1YF

### Agenda:

<p>Introduction:</p> <ul style="list-style-type: none"> <li>• What is driving Sustainability?</li> <li>• What exactly does 'net-zero' mean for a company?</li> <li>• What type of commitments are being made?</li> <li>• What are the implication for supply chain partners?</li> <li>• What new business opportunities will arise from the 'Circular Economy'?</li> </ul>	Bill Macbeth	10:00
<p>Integrating Sustainability into Business</p> <ul style="list-style-type: none"> <li>• Understanding the challenge and where to start</li> <li>• Aligning the 'corporate compass'</li> <li>• Integrating sustainability, introducing manageable activities</li> <li>• The role of leadership, empowerment and innovation</li> </ul>	Dr Mark Wade	10:20
<p>Sustainability in the Fashion &amp; Textile Sector</p>	Steven Parsons - Wools of New Zealand	11:20
<p>Case Study: Harrison Spinks</p>	Claire Burns & Richard Essery	11:40
<p>Support available from the West Yorkshire Combined Authority</p>	Vincent McCabe	12:00
<p>Lunch, Networking &amp; Next Steps</p>		12:20



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