



# CENTRE FORWARD



Welcome to the March 2012 issue of our newsletter.

## IN THIS ISSUE

- **Apprenticeship Update**
- **Higher Level Apprenticeships**
- **Occupational Health**
- **3D Weaving**
- **MLSE**
- **DNA Anti-Counterfeiting**
- **New Projects**
- **Eco Innovation**
- **Employer Ownership of Skills**
- **NUS Apprentice Extra Card**
- **Bill Macbeth Joins UKFT Board**
- **The Knowledge Platform**

## THE TEXTILE CENTRE

- **About Us**
- **Technical Support**
- **Training**
- **Conferencing**
- **Incubator**
- **Projects**
- **Membership**
- **What's New**
- **Links**

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## HOW TO FIND US

- **Find Textile House**

## Apprenticeship Update

The Centre is currently seeing an increase in the number of learners undertaking textile qualifications through the apprenticeship route. Since the Government's comprehensive spending review, a number of incentivised schemes have been launched in the region. Calderdale and Kirklees Councils have both launched Apprenticeship Grant schemes recently, allowing employers to claim up to £1,500 for hiring their first apprentice. Details of these schemes are available by contacting the Centre.

The updated Fashion and Textile apprenticeship frameworks (launched in 2011) have allowed companies greater flexibility in matching the qualifications to a real business need. Currently, over 50% of the Centre's apprenticeship provision is through textile qualifications – a real boost for the industry as this demonstrates that the investment in skills and competence training remains at the heart of the industry's sustainability in the UK.

Apprenticeship placements are growing at a steady rate. Employers should take advantage of recent Government initiatives to ensure that, as statistics in the sector show, over 85% of textile SMEs have concerns about contingencies to deal with their ageing workforce. Currently, in Yorkshire & the Humber, a staggering 28% of employees are aged 55 and over (ONS 2011). This means that whilst funding can be apportioned to support the skills development of staff, employers may wish to consider how a textile apprenticeship can be used to shadow senior staff and ensure skills are not lost through the retirement of key personnel.



Martin Jenkins  
Training Team Manager

## Higher Level Apprenticeships

The Centre works closely with the Sector Skills Council, Skillset, for qualification and curriculum development. Currently, the management team is driving the creation of a new Higher Level Apprenticeship in Technical Textiles. Likely to be offered via a technical diploma route at level 4, the new framework will give organisations the chance to identify progression from the existing level 2 and level 3 frameworks to meet client need.

Initial consultation with the industry suggests that a credit-based, unitised approach would allow development of content for areas such as flame retardant applications, hydrophobic/hydrophilic textiles, geo textiles, medical textiles, fibre and yarn technology, testing, analysis and statistics.

Skillset's Development Manager, John West, said: "This is an exciting time for the industry and higher level skills training will play an important part in the sector's future. We're happy to be leading the curriculum development with the support of the Textile Centre of Excellence and NWTEXNET."

The first Higher Level Apprenticeships in Fashion & Textiles are likely to be available around September 2012. Please contact the Centre for further information.

## Occupational Health

Occupational Health is now widely recognised by employers as a critical part of ensuring sickness absence is reduced, but more widely recognised is the important role it plays in ensuring employers have met the minimum legal standards for providing a safe place of work. Occupational Health helps to identify the effect of work on an employee's health but also the effect of health on work. It plays a vital role in helping employers care for and understand the needs of their employees, enabling businesses to reduce sickness absence levels and optimise staff performance and productivity. It is also a vital component of HR policy, enabling employers to understand and comply with Health & Safety legislation and to ensure workplace risks are effectively managed.

The Centre has seen an increase in the number of enquiries from employers regarding the screening of employees. As this continues to be one of the Centre's core offers for 2012, we will be contacting companies in March and April to arrange screening clinics to help support and promote a healthy lifestyle at work. Occupational Health Screening includes lung function testing (spirometry), hearing testing (audiometry), vision testing and vehicle driver medical assessments. Our list of Occupational Health services is available on our website (*priced per test based on minimum numbers*).

## 3D Weaving

The Centre's 3D Loom, the first of its kind, is now commissioned and starting to produce woven 3D components for use, initially in the automotive industry. The woven 'pre-forms' produced by the loom can be infused with metal or composite materials, producing components that are lighter and stronger than existing components manufactured from steel or titanium. In addition to the automotive market, the aerospace market offers great commercial potential for this technology. In both sectors, the drive to reduce weight without compromising on performance offers great opportunities, opening up a significant global market for Yorkshire companies that are able to take advantage of this technology.

The loom is attracting a great deal of interest from both potential partners and potential competitors. The Textile Centre of Excellence is likely to be working with the Advanced Manufacturing Research Centre in Rotherham on a range of developments over the coming year. In addition, representatives of a number of interested companies and Universities have visited the Centre to discuss the potential for collaboration on future projects.

## Multiplex Laser Surface Enhancement (MLSE)

A key objective of this project is the development of an industry-standard unit that is capable of performing consistently in an industrial environment. To date, progress has been slowed by the inconsistent performance of the laser system and its interface with the plasma unit. To counteract these technical issues (the nature of research and development!) the Centre has tendered for a laser upgrade and the arrival of a new version is anticipated for April. The team, including resident expert Pravin Mistry (pictured with Stephen Gibson of the Centre) are undertaking the development work that will accompany the changeover and the decommissioning of the existing system. In parallel, the services of Enercon, a plasma technology expert, have been procured to effect a series of system modifications on the plasma element of the machine. With the modified system in place, we believe that we should be in a position to undertake more detailed processing trials with companies before the end of April. Once we have the go-ahead, a number of companies have samples lined up awaiting treatment.

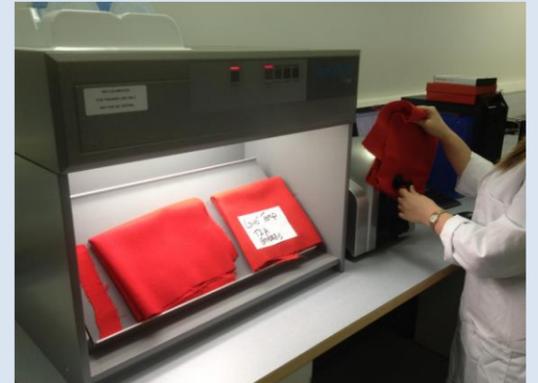


### New Laboratory Equipment

We're fully kitted out! This month the final pieces of laboratory equipment were delivered, installed and have been commissioned. It's been worth the wait. Over the last few months, the Centre has overseen the purchase and commissioning of:

- ❖ Contact Angle measuring equipment
- ❖ A Spectrophotometer
- ❖ A Fume Cupboard
- ❖ A Dye Analysis machine
- ❖ Wicking and Drop-testing kit

Allied to the existing kit (Tensile Strength, Seam Slippage, Wing Rip / Tongue Tear Test, Martindale Pilling / Abrasion, Pill Box Pilling and Uster Test) we can offer a significantly enhanced service to our customers. Now that the new equipment is installed, we've developed a baseline menu of tests that we would expect to include as part of our analysis of textile samples both pre and post MLSE treatment. Three members of the team at the Centre have been trained in the use of all the equipment to hand, utilising expertise from the companies providing the equipment and from the University of Leeds.



## DNA Anti-Counterfeiting

The highest level of criminal activity within the UK comes from organised crime groups whose activities range from organised immigration crime, drugs, evasion of VAT and excise duties, financial and business fraud to intellectual property theft or counterfeiting.

Intellectual property crime (IPC) involves the counterfeiting and piracy of goods. Examples include digital media, for example games and software, pharmaceuticals, electrical goods, automotive parts and fashion wear such as footwear and luxury clothing. This type of crime offers a high financial return from usually a low investment and the risk of detection is low compared to other forms of crime. Advances in technology have assisted counterfeiters as it has made the reproduction of high quality counterfeit goods quicker and easier, creating products that are difficult to distinguish from the 'real thing'. In 2006 it was estimated that the criminal gain from IPC in the UK was valued at 1.3 billion GBP. The scale of organised crime has not been fully measured and the Home Office has recently launched research into this area in order to assess overall harms including the economic and social costs, the level of public concern and the size of the criminal market involved (1). IPC puts consumers at risk from poor quality and unsafe goods such as pharmaceuticals that do not contain the active ingredients. It can also harm the reputation of brands as well as reduce sales for a company, leading to job losses (2).



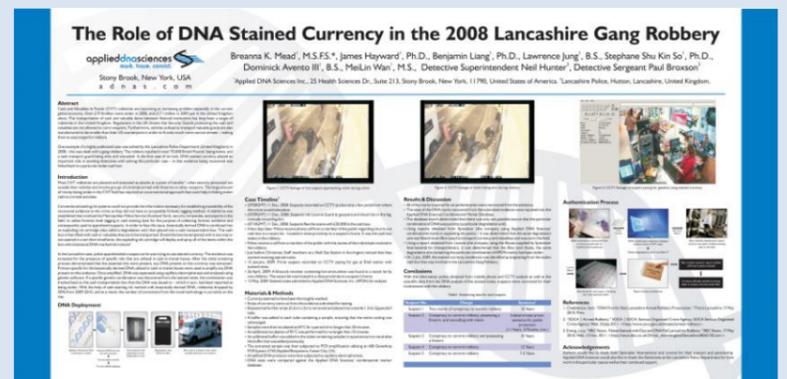
The Textile Centre is now offering its Yorkshire SigNature DNA anti-counterfeit solution to a range of other markets that are targeted by IP crime and will be hosting an event to inform organisations how easily DNA can be incorporated into products such as packaging, inks, labels and many more.

### DNA at the American Academy of Forensic Scientists Annual Conference

Our resident Forensic Scientist was among the 4,000+ visitors at the international conference held in Atlanta. During the conference over 800 scientific papers, workshops and seminars were presented. Amongst those presenting at the conference was ADNAS, the technology partner, who demonstrated the use of SigNature DNA<sup>®</sup> in a cash robbery.

1 Home Office, *One Step Ahead, A 21<sup>st</sup> Century Strategy to Defeat Organised Crime*, Serious and Organised Crime Agency, 09/02/2011, (online), [www.soca.gov.uk/about-soca/library/doc.../67-one-step-ahead](http://www.soca.gov.uk/about-soca/library/doc.../67-one-step-ahead)

2 Serious and Organised Crime Agency, *The United Kingdom Threat Assessment of Organised Crime*, Serious and Organised Crime Agency, 09/02/2011, (online), <http://www.soca.gov.uk/about-soca/library>



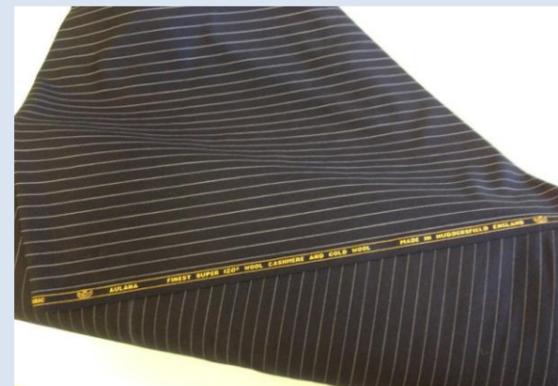
## New Projects

### Wools of New Zealand

Yorkshire based Wools of New Zealand are working with the TCoE on a trial using merino wool coloured with nanogold. GoldWool or 'AuLana' is a proprietary new product and technology developed by Professor Jim Johnston and Dr Kerstin Lucas, New Zealand.

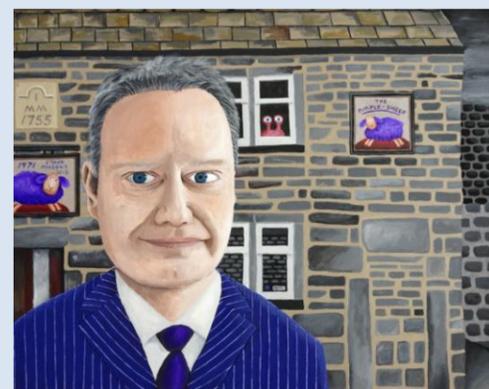
The name *AuLana* is derived from Au – the symbol for gold and Lana – latin for wool. Wool garments, textiles and carpets can be coloured using particles of real gold. Deep rich colour can be created without dyestuff. The colour is made by bending light itself.

The proprietary technology and *AuLana* product suite innovatively link the high value and prestige of gold with high quality merino and strong wool for high value fashion apparel and luxury textiles and carpets. The technology utilises the unique nanoscience of gold wherein the colour can be changed to a boutique range, notably shades of pink, mauve, regal purple, blue and grey. *AuLana* contains only pure wool and pure gold. The initial trial is focusing on the introduction of the gold/wool fibre into fabric for high end apparel manufacture. Additionally, the Centre is able to demonstrate the provenance of the fabric through the use of the Yorkshire SigNature DNA incorporated into the product label. The project will provide Yorkshire manufacturers with a unique offering to utilise *AuLana* fibre, working with the technology owners and *AuLana* brand, which will grow the market for luxury fabrics produced in the region.



The key market for this product is the high-end, luxury apparel market, particularly in the BRIC countries and Arab region, where the key buying season is in May/June. The incorporation of coloured gold provides a distinctive high quality point of difference and is expected to add significant value and a unique selling point to the high quality worsted manufactured in Yorkshire. Additionally, it is a good opportunity to demonstrate the use of the Yorkshire SigNature DNA to provide the proof of provenance and authenticity which is increasingly valued in these growing markets.

Steven Parsons, Innovation Manager at Wools of New Zealand, says: "We also plan to introduce the fibre into strong wool products for luxury carpets and interior textiles and will be speaking to Yorkshire manufacturers about this opportunity over the coming months."



For more information on the *AuLana* project go to Steven's blog at [www.woolblog.com](http://www.woolblog.com).

### Juko Designs

Taking advantage of the highly specialised services on offer isn't just the preserve of large companies. One small company of two partners has seen the benefits that DNA impregnated fabrics could bring to their business by protecting their brand and providing them with something that differentiates their products from those of their competitors. Already well known for the individuality of their products, Huddersfield based Juko Designs has teamed up with the Centre to have their new fabrics impregnated with Yorkshire SigNature DNA as part of a new product launch. Their intention is to produce longer product runs whilst maintaining the individuality of their goods. As part of the project, Hebden Bridge based Heart Gallery has agreed to help trial a new route to market for Juko.

Joint owner Samina Begum explained that she was asked frequently where their products were manufactured. "When we tell people that they are manufactured in Huddersfield by us, many don't believe us. For some reason, they expect them to have been manufactured in the Far East and we're just acting as resellers." She continued: "Having our new range impregnated with the Yorkshire SigNature DNA can help to combat this belief and help us stand out from our competitors. I think it's great that small companies like ours can take advantage of this technology and the funding that goes with it."

### Yorkshire Fashion Guild

Earlier this year, the Centre initiated a project to create the first Yorkshire SigNature DNA protected ladies wear fashion collection. The collection has been designed by the highly-regarded young designer Nabil El Nayal. Nabil has been recognised by Colin McDowell, one of the foremost global fashion writers, as a major prospect for the future. Nabil is also supported by Rita Britton, the owner of the Yorkshire region's foremost couture establishment 'Pollyanna'. The project will support the manufacture and branding of the SigNature DNA capsule collection that will be promoted through Pollyanna before catwalk shows in New York and Paris. Partnership with Pollyanna and this emerging young designer will provide global exposure for the SigNature DNA anti-counterfeit technology and establish a new young international designer whose collection will be manufactured entirely in Yorkshire using materials exclusively produced within the region.

During discussions with Nabil and Rita, it became clear that there was an opportunity to open up this type of support to other young designers wishing to manufacture in Yorkshire using Yorkshire fabrics.

A meeting was held on the 9<sup>th</sup> March at the Textile Centre of Excellence to explore the idea of a 'Yorkshire Fashion Guild'. Colin McDowell (Sunday Times), Rita Britton and Emma Hunt, Dean of the School of Art, Design and Architecture at the University of Huddersfield joined the TCoE team to begin to draw up plans which would create a uniquely supportive environment where selected new designers could benefit from a wide range of services to support the design and manufacture of top quality products in the Yorkshire region. Support would be provided by key partners and could include the sourcing of Yorkshire-produced fabrics from top manufacturers, the provision of Yorkshire based manufacturing/CMT capacity, commercial testing and distribution through top retail outlets and, potentially, business start-up grants.

The Yorkshire Fashion Guild would deliver increased numbers of new business starts and new jobs, with higher than average chances of survival and success through ongoing support from its expert network. The development of increased high quality manufacturing capacity could also serve to 'repatriate' a proportion of prestige manufacturing back to the UK and the region from overseas.

## Eco Innovation

The Centre has been successful in its bid to secure funding from the EU's Competitiveness and Innovation Framework Programme. The funding is to support the roll-out of the MLSE processing technology to a wider group of companies. It will provide resources to support the replication of the MLSE system across a range of industry operating environments, ensuring companies taking up this new technology receive appropriate and customised technical support and training. The Centre is currently in contract negotiations with the European Commission and, if these are concluded successfully, the programme is likely to start towards the end of 2012.

## Employer Ownership of Skills Pilot

The Textile and Clothing sector has a major opportunity to secure grant funding from the Government for industry specific training through the new 'Employer Ownership of Skills' (EOS) pilot initiative. This new fund invites companies to identify specific skills training needs which are not currently being met and to suggest improvements to the current content development and delivery of Apprenticeship programmes and key industry training courses, including the development of new industry training courses. The Centre has been working at a national level with the UK Fashion and Textiles Association, NWTEXNET and Skillset, the Sector Skills Council for the Creative Industries, to consult industry and to identify particular skills areas which could benefit from this initiative. Planning is underway to design a programme to support companies across England where each company's financial investment in appropriate training would be matched by the Government. Full details of the EOS pilot can be found at <http://www.ukces.org.uk/publications/employer-ownership-of-skills> and the Centre will be contacting all member companies before the end of March to discuss potential involvement. For further information contact Bill Macbeth.

## NUS Apprentice Extra Card Launched

A scheme allowing apprentices access to store discounts via an NUS card has been launched. The 'Apprentice Extra' discount card has been developed by the National Union of Students and will offer vocational learners the same discounts and benefits as other students. This means that all apprentices registered through the Textile Centre of Excellence can now apply for their very own discount card. The card can be purchased online by visiting [www.apprenticeextra.co.uk](http://www.apprenticeextra.co.uk) and costs £11. Discounts valid at McDonald's, Amazon, Warehouse, The AA, Alton Towers, O2, Play.com, National Express and many more.

## Bill Macbeth Joins the UKFT Board

The Centre's MD, Bill Macbeth, has been voted on to the board of the UK Fashion and Textile Association. Bill joins the London-based organisation which serves the country's fashion, clothing and textile industry. It also advises the Government on matters affecting the sector. The association is also heavily involved in export strategy and over the past year has introduced more than 100 companies to exporting.

Bill said: "Our industry has an opportunity to capitalise on the growing demand in emerging markets for quality products. To make the most of that, we will need to ensure we have a steady supply of talented and skilled young people joining the sector as well as the political and financial support that the UKFT can generate."

UKFT chief executive officer John Miln, welcoming Bill to the board, said: "Bill is widely recognised for his considerable industry knowledge, together with his experience in training and skills policy. He will add real value to our board as we refocus on the needs of our industry and our members."

## The Knowledge Platform

A demo version of the Centre's newly developed Textile Innovation Knowledge Platform is currently being populated with content. Information continues to be written under the four knowledge headings: Technologies, Market Sectors, Materials Functionalities and Materials. This content will not only provide a written account but a range of links, pictures and videos to support learning, providing access to users from a range of backgrounds, supporting understanding of the basic scientific principles, and offering cutting edge solutions through links to recently published research.

As well as offering specific technical knowledge, the site, once launched, will offer news, blogs, live webinars and a log in area for interactivity, such as questions or suggestions on future content development. The news section, as well as offering news from within the region, will contain updates on relevant legislative changes and issues affecting the industry, making it a useful tool for both education and industry.

A further development of the site will see the hosting of a Virtual Learning Environment (VLE), for the proposed accredited Level 4 Technical Textiles qualification, becoming an interactive portal to support course delivery. The VLE log in area will provide an area for learners to access their personal course content, including accreditation information, recommended reading, and an area for assessor feedback and progress monitoring. The proposed modules will link to content developed under the knowledge headings to further support learning.

