Strategic Skills Assessment for the Fashion and Textiles Sector in Wales

February 2010

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1. Introduction to the Strategic Skills Assessment

The key role of Skillset as the Sector Skills Council for the Fashion and Textiles industry is to assess the industry's skills needs and work with industry and Government to respond to those needs. Within this context, the UK Commission for Employment and Skills (UKCES) charged Skillfast UK, the Sector Skills Council for fashion and textiles at the time (until March 2010), to carry out a Strategic Skills Assessment (SSA) of the UK fashion and textiles sector. This will now be carried out on an annual basis for the UK and each of the home nations by Skillset.

The report incorporates four key elements including:

1) What Drives Skills Demand

The report will look at current and recent performance, the competitive position of the sector and key sub-sectors; the economic structure and condition of the sector; the factors driving this performance, position; and the skills implications.

2) Current Skills Needs

Leading on from the drivers of change, the assessment includes a robust analysis of current and expected skill needs in the sector and recruitment issues. This section details the character of skills needs, and how this differentiates across the full spectrum of skills.

3) Anticipating What Lies Ahead

As part of the assessment, Skillfast-UK is invited to offer a strategic insight, building on the current drivers of skills demand and skills needs, examining possible/likely future trends in the sector and anticipating the associated skills needs these will bring.

4) Geography

The assessment requires Skillfast-UK to pay particular attention to geographical composition of the sector and highlighting where specific skills issues are particularly manifest. This analysis allows for the correct interpretation of higher level skills information presented in the skills needs analysis.

2. Executive Summary

Sector footprint and demographics

The Skillfast-UK sector footprint in Wales employs 10,000 people within 3,000 workplaces.

Using ABI data, the gross value added for the sector is £200 million with gross value added per head standing at almost £35,000.

Of the sub-sector boards, the fashion and textiles elements of the footprint proportionally accounts for the largest number of business, employment and gross value added.

In terms of demographics, due to data restrictions we have to be cautious in making assumptions although the information is in keeping with the UK analysis. The majority of the workforce work within process, plant and machine operatives and elementary occupations. 61% of the workforce is female.

21% of the workforce are self-employed with a further 24% working on a part-time basis. Worryingly, 47% of the sector are aged over 45, many of whom hold key occupations and hard to replace skills.

Looking at qualifications, 46% are qualified at below NVQ level 2 whilst 27% hold above NVQ level 2 qualifications. This compares with 22% and 50% respectively for the wider Welsh workforce.

Current sector performance

Between 2003 and 2007, employment within the sector reduced by 37% and GVA by 23%. However, GVA per head increased by 23% signifying a movement to high value production.

Data suggests the falls in GVA experienced in the sector had levelled out before the recession. GVA per head in the manufacturing sector had almost doubled to £45,000 per head indicating the loss of cost sensitive manufacturing and the retention and development of high value production.

Exports in textiles and apparel have been significant growth areas for Wales in which high value goods find both developed and developing markets to sell to.

Key drivers of current sector performance and skills demand

The structure of the fashion and textiles sector has been impacted more than any other by the onset of globalisation. Globalisation, enabled the dismantling of trade barriers along with lower communication and transport costs, has seen lower value added manufacturing outsourced to low-cost nations and the Consumer Price Index for clothing decouple itself from the all item index.

This structural change has seen a transformation in the way sector firms operate, looking towards niche manufacturing, balanced supply sourcing or outsourcing operations in order to be competitive in the global market place.

Key drivers of skills demand in this context are:

- the growth of fast fashion and technical markets;
- the British style;
- adaptation to changing technology;
- the impact of migration;
- the image of the sector;
- the sustainability agenda

The skills implications of the above drivers include:

- a reliance on design creativity, allied to strong technical and commercial awareness; successful branding and marketing skills;
- the development of new technologies;
- the ability to compete in premium and niche markets on a global level by maintaining craft skills;
- maintaining the current trajectory of business start-ups by ensuring owner-managers have the correct skills available;
- ensuring UK firms have the ability to manage overseas supply chains and understand the product environment;
- the maximisation of production efficiencies enabling firms to reduce costs through multi-skilling;
- attracting a greater number of graduates into the sector. (This is a key problem where strong leadership is needed in times of rapid change)
- due to the long-term decline in apprenticeships and other development mechanisms, along with the negative image of the sector, the ageing workforce is going to be a key problem

Impact of the recession

Indicators from all available sources show how productivity and employment in the sector have been impacted by the recession with key employment indicators down. However, by the end of 2009, there had been a slight improvement within the jobs market although this pattern requires monitoring.

Current skills needs

National datasets show vacancy rates and hard-to-fill vacancy rates within the sector are similar to the picture at an all sector level.

However, both hard-to-fill and skill shortage vacancies were more prevalent than reported at an all sector level in Wales. Both national datasets and the Skillfast-UK employer survey confirmed that these shortages were in associate professional, skilled trades and operative occupations. Higher level skills issues were reported in design occupations, with the commercial and technical skill of graduate designers identified as an issue.
Skills gaps, although less prevalent than skills shortages and below national all sector levels, are still highly prevalent within the sector. Again, both national datasets and Skillfast-UK's own employer survey found gaps in a range of occupations. These were predominantly in operative and elementary positions with the survey also uncovering sizable shortages in managers, administrative and sales occupations.

Future skills priorities included the recruitment and retention of able young people, improving sales and marketing skills, numeracy and literacy, and other basic skills as the key priorities.

Scenario planning

Working Futures III data predicts a period of stability in workforce numbers, compared to the large employment losses seen in the past decade. This in turn will see positive net requirements for the sector to replace retirements.

It is envisaged that there will be a gross increase in the need for managers and senior officials and professional occupations, whilst transport and machine operatives and elementary occupations will continue to decline, signifying the continued restructuring forecast to occur.

Skillfast-UK's own bespoke scenario planning offers an insight into the patterns that will affect the sector, with continued emphasis on customer service, commercialisation of new technologies, strong craft skills, overseas sourcing and supply chain management seen as the drivers of sector behaviour and driving sector skills needs.

More recent scenario planning on a European level has shown there may be three directions in which the fashion and textiles sector could go down by 2020. The three scenarios present different influences at play on the sector and with it the skills mixes required by employers.

Geography

South Wales proportionally employs the largest number of people within the sector with nearly half of all fashion and textiles employment being in this area. Nine in ten jobs within the textiles sector are located here. North Wales has a sizeable number employed within the Apparel and Sewn Products sector.

Priorities

Taking into account the evidence presented, Skillfast-UK has identified a number of issues for action. These include:

- the supply of technical skills at operative and craft level
- graduate level technical skills and commercial awareness
- presenting a realistic picture of the sector
- international trade and the supply chain
- management and leadership skills
- information on sector jobs and careers
- literacy and numeracy

3. Introduction to the Skillfast-UK footprint

Skillfast-UK is the Sector Skills Council for fashion and textiles. The sector footprint covers the apparel, footwear and textiles supply chains, from the processing of raw materials, to product manufacture, to the after-sales servicing of products.

Within Skillfast-UK's remit are companies that undertake the following processes and activities, most of which occur within the UK fashion and textiles supply chain (see Figure 1).

- Materials production and processing, including processing of raw fibres, spinning and weaving, tanning of leather, finishing of textiles, manufacture of knitted and crocheted fabrics, production/processing of manmade fibres, production of non-wovens
- Product design (textiles, clothing, fashion design)
- Manufacture of made-up articles, including household textiles, carpets, apparel, knitwear, luggage, footwear and leather goods
- Trading in apparel, footwear and textile items, including sourcing, logistics, distribution, branding and marketing
- Servicing of apparel, footwear and textile items, including fitting of carpets, laundries, dry cleaning, textile rental and clothing and shoe repair

Companies within the footprint serve the following end-use markets:

- Carpets
- Home furnishings (e.g. curtains and upholstery fabrics, as well as "technical" components such as furniture platform cloths)
- Household textiles (e.g. bed linen, table linen, as well as "technical" components such as pillow tickings)
- Technical textiles for non-consumer applications (e.g. automotive, medical, industrial textiles)
- Technical consumer goods (e.g. tents, sleeping bags, rucksacks) and performance outdoor-wear
- Footwear (including repair services)
- Leather and leather-goods (including leather repair)
- Retail clothing
- Knitwear and hosiery
- Corporate clothing, work-wear and protective clothing (including support services such as laundering)

Figure 1: The fashion and textiles supply chain

Apparel

Textiles

Fibre → Thread → Fabric → Finished Fabric → Clothing → Distribution and Tetail → Private Consumption

Home Textiles → Textile Services

Technical Textiles → Commercial Use

Non-conventional textiles
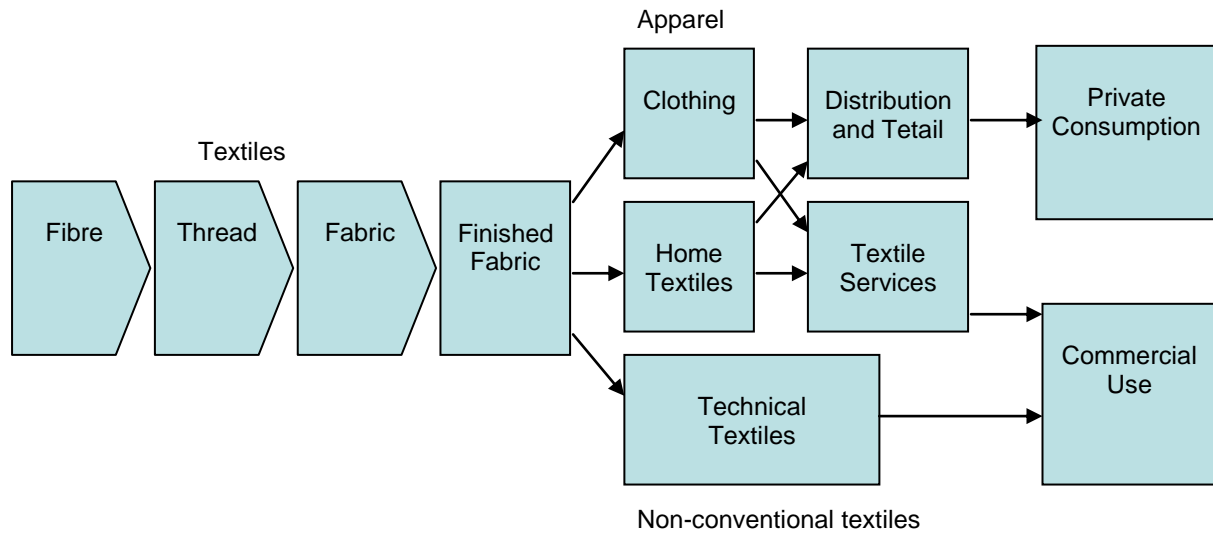
Source: EMCC 2004, p.1 in EMCC 2008

Skillfast-UK's footprint is represented by six strategic sector boards, each of which represents a specific part of the Skillfast-UK footprint. These boards are:

- Apparel and sewn products
- Design
- Footwear and leather
- Laundry and dry cleaning
- Manmade fibres and technical textiles
- Textiles

4. Current Stock of Businesses and Employment

The Skillfast-UK sector footprint covers a wide range of sectors, each of which has performed differently in recent years and have been subjected to different drivers. This section therefore covers:

- current stock of businesses and employment
- sector demographics
- recent sector performance
- the role of globalisation
- key drivers of demand
- productivity within the sector and the assessment of the implications for skills arising out of these key drivers

4.1   Businesses and activity

Following a re-sizing exercise of the fashion and textiles sector in Wales, the sector can be seen to account for 10,000 jobs and 3,000 workplaces within the Skillfast-UK footprint. (tbr 2008)

This is in comparison with data from the Annual Business Inquiry (ABI) 2007 which estimates the figure at over 5,000 employees and 600 firms. As the ABI analysis excludes the self-employed workforce, it can be confirmed from these figures that a very high number of micro and niche businesses exist within the Welsh fashion and textiles sector.

4.2   Business demographics

The following section is based on analysis of the ABI data. This is due to the practicalities of breaking down into national level, the information from the tbr study below the UK total figure. However, it must be noted that due to the sizeable number within the workforce excluded from the ABI analysis due to self-employed, this must be taken into account.

4.3   Size of firms

Reflecting the high number of micro and niche businesses within the Welsh fashion and textiles workforce, it can be seen that 90% of businesses recorded in the ABI employ between one and ten people. However, in employment terms, the ABI notes that the majority of employees work in workplaces that employ between 50 and 199 and 200 employees. This is important to note as firms with over 50 employees only account for 2% of overall firms in the fashion and textiles sector in Wales.

Figure 2: Firm size and employment within the sector
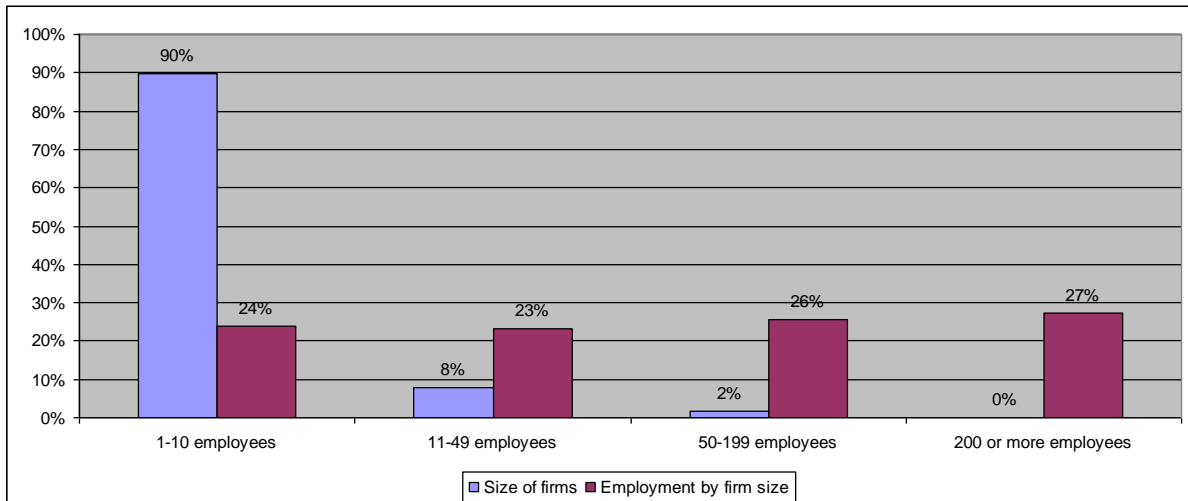
Source: ABI 2007

4.4 Employment by fashion and textiles sub-sector

Figure 3 shows, (where ABI data is disclosable and excludes the self-employed), that the majority of people employed within the Welsh fashion and textiles sector is within textiles manufacture. However, there are also substantial employment levels within washing and dry cleaning and also the wholesale of clothing and footwear sectors. This shows the breadth of jobs employees within in the fashion and textiles sector in Wales undertake.

Figure 3: Employment by fashion and textiles sub sector:
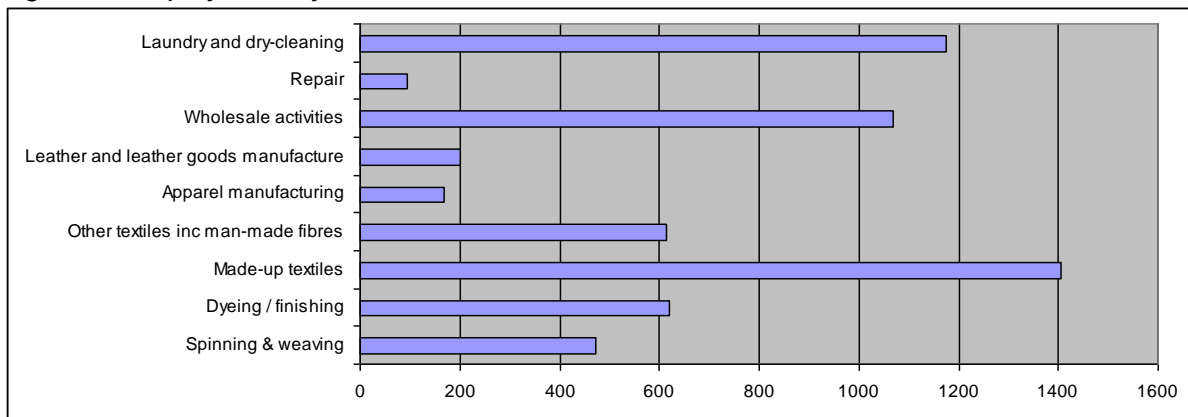
Source: ABI 2007

Key occupations within the sector in Wales as identified within the Skillfast-UK employer survey include:

- Sewn product operatives
- Laundry and dry-cleaning operatives
- Designers
- Production managers

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4.5   Employment by fashion and textiles sub-sector

Skillfast-UK footprint is separated into six distinct sub-sectors. However, national datasets only allow us to look at four of these due to the restrictive nature of Standard Industrial Codes for the Fashion and Textiles sector. Using the four, national data allows us to identify that a higher proportion of the Skillfast-UK Welsh footprint is dominated by the textile sub-sector with 49% of firms within this area. Proportionally, this is 10% greater than the picture in Great Britain although apparel and sewn products have less employment presence in Wales. Laundry and dry cleaning businesses make up a greater proportion of employment in Wales.

Textiles proportionally accounts for a higher employment level in Wales whilst slightly less within footwear and leather, and laundry and dry cleaning as experienced in Great Britain.

Figure 4: Employment by fashion and textiles sub-sector
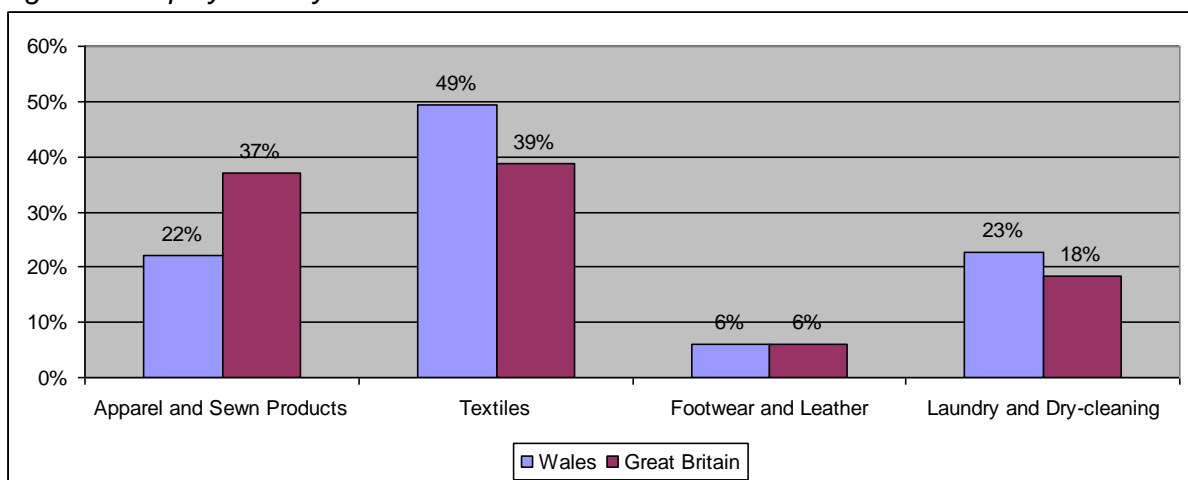
Source: ABI 2007

4.6   Sector gross value added

Skillfast-UK estimates from the labour force survey estimate, gross value added (GVA) for the fashion and textiles sector in Wales contributes over £200 million with GVA per head standing at £35,000 per head. This is in contrast to the Skillfast-UK all sector figure of £38,000 per head. As Figure 4 demonstrates, this is primarily due to the Welsh fashion and textiles sector having less of an emphasis on the high value wholesale activities within clothing and footwear with an emphasis made-up textiles and other textile production more prevalent.

Based on Skillfast-UK estimates of GVA by sub-sector, it is possible to see how a combination of traditional crafts such as weaving, spinning and knitted products; and newer technological advancements such as the creation of man-made fibres are proportionally more important to the Welsh fashion and textiles sector than the Great British equivalent.

4.7   Sector Demographics

The Skillfast-UK Welsh fashion and textiles footprint can be seen to have a number of characteristics that distinguish it from the wider Welsh economy. As we will see, these facets will be important factors in determining the future skills needs in the sector.

Occupational groupings

Compared to the wider economy, employment in the sector is heavily concentrated in lower skilled occupations (operatives and elementary occupations) together with managerial positions and skilled trades. On the other hand, the sector is under-represented in professional, associate professional and administrative occupations when compared to employment within the wider economy.

Whilst operative level roles are declining as an occupational grouping, they still account for a sizable number of employed and represent the continuing importance that these jobs have to the sector.

Figure 6: Occupational make-up of the sector
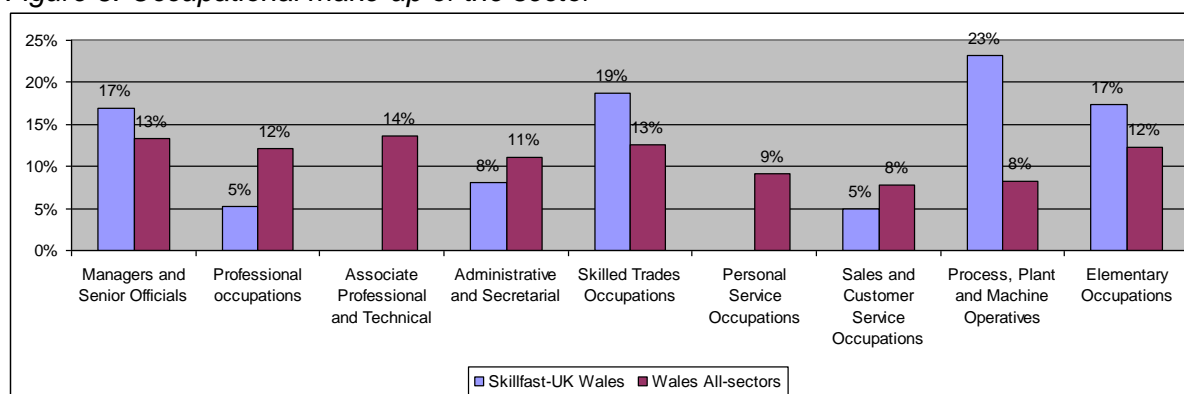
Source: APS 2008 n.b. Associate professional and personal sales occupations sample size too small to disclose for fashion and textiles.

Occupational group	Occupation	Key job titles
Managers & senior officials	1121 Production, works & maintenance managers	Production manager, technical manager
Professional Occupations	2122 Mechanical engineers	Engineer
Associate professional and technical	3111 Laboratory technicians	Textile technologist, dyeing technician
	3422 Product clothing & related designers	Textile/clothing designer, garment technologist
	3542 Sales representatives	Technical sales, sales executive
	3543 Marketing associate professionals	Marketing executive
Skilled trades occupations	5223 Metal working production and maintenance fitters	Tufting engineer, loom technician, sewing machine mechanic
	5411 Weavers and knitters	Weaver, knitter

	5413 Leather and related trades	Shoe maker, saddler, clicker, shoe repairer
	5414 Tailors and dressmakers	Tailor, kilt-maker
Process, plant and machines operatives	8113 Textile process operatives	Scourer, spinner, tufter, twister, warper
	8114 Chemical and related process operatives	Leather worker, dye-house operative
	8136 Clothing cutters	Pattern cutter
	8137 Sewing machinists	Body linker, collar linker, mender, repair hand, sewing machinist, seamer
	8139 Assemblers and routine operatives nec.	Machinist – footwear/leather-goods
Elementary occupations	9234 Launderers, dry cleaners, pressers	Dry cleaner, garment finisher, laundry operative, presser

Table 1: Key occupations within the Skillfast-UK footprint
Source: Skillfast-UK (2005)

Employment demographics[1]

At 61%, the Welsh fashion and textiles sector employs 14% more females than the sector at an all Wales level. This may reflect the large proportional number of textile and apparel manufacturing jobs that exist within the sector that have traditionally been the domain of the female workforce.

Self-employment is a key trait of the sector in Wales with over a fifth of the workforce representing this status and not picked up by the ABI. This proportion indicates the large amount of small and micro businesses that exist within the fashion and textiles sector that the tbr and ABI differences highlight. Part-time working is roughly similar to the pattern exhibited at a Wales all sector level with a quarter employed working part-time in the sector.

Figure 7: Key demographic indicators
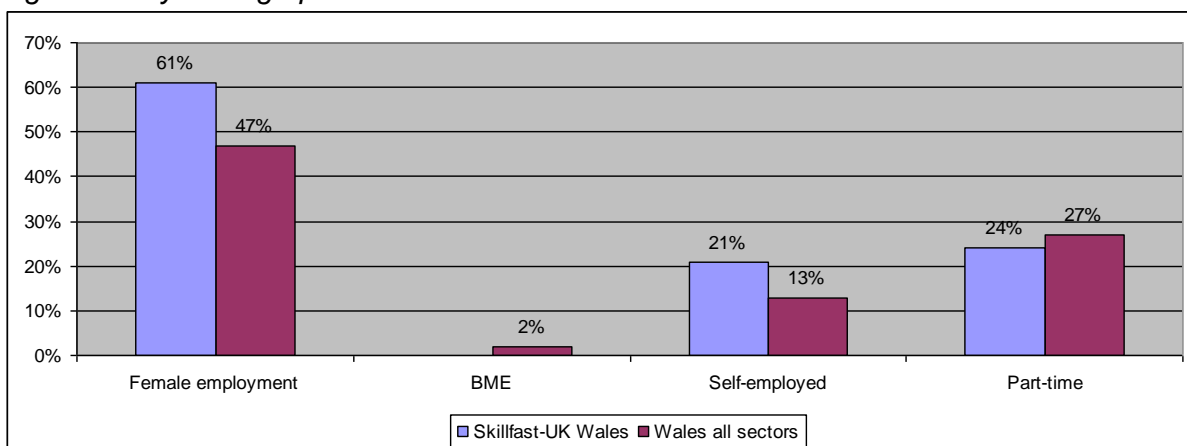
Source: APS 2008 n.b: BME sample size too small to disclose for fashion and textiles.

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[1] Please be advised that figures based on APS 2008 data for Wales are based on small sample numbers and therefore must be treated as indicative only. However, analysis by Skillfast-UK confirms that these figures are broadly similar to the UK data held. Caution must be exerted when interpreting these figures more fully.

4.8   Age bands of the sectors workforce

The sector in Wales has an ageing workforce that has implications for the future. 47% of the workforce is over 45 years of age, well above the all sector figure for Wales.

This is a key issue for the Welsh fashion and textiles sector as many older workers are known to hold key management and technical positions. As they retire their replacements will require extensive training and development over a prolonged period.

Figure 8: Age bands
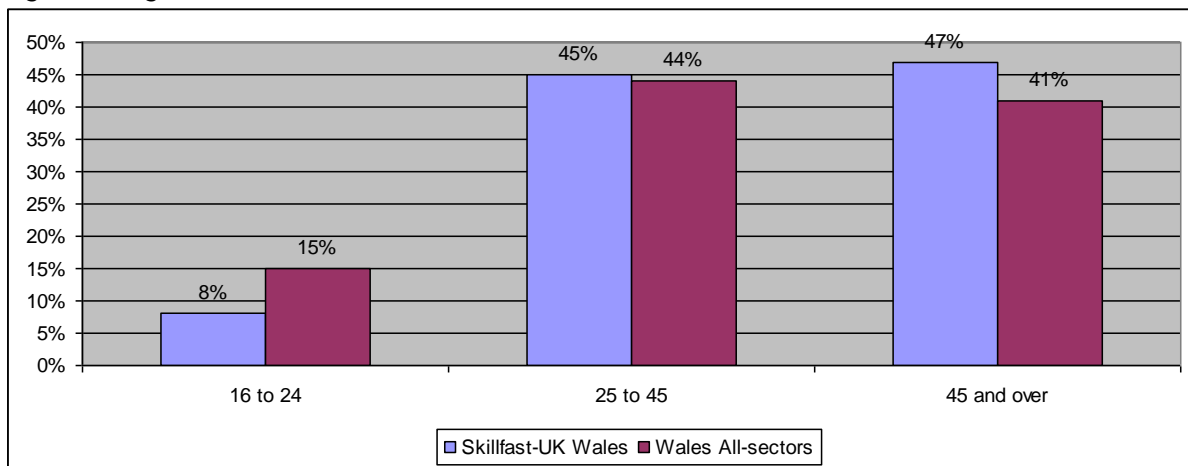
Source: APS 2008

4.9   Qualification levels

Qualification levels in the Welsh fashion and textiles sector shows large differences in certified qualifications with 46% of the workforce below NVQ level 2. This is in relation to the wider Welsh workforce where 22% of the workforce are without an NVQ level 2 qualification. At a higher level too, 27% of the Welsh fashion and textiles sector hold an above NVQ level 2 or higher qualification in contrast to the wider Welsh sector where 50% do.

Figure 9: Qualification levels
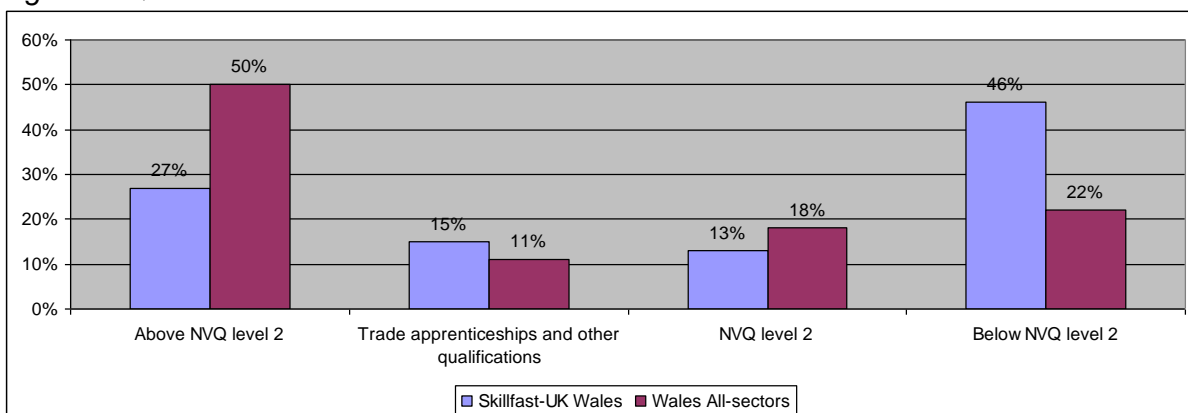
Source: APS 2008

4.10 Welsh manufacturing employment within a European context

Information from Eurostat shows employment within the manufacture of textiles, clothing, leather and footwear within a European context is lower in Wales than in many other countries.

The map in Figure 8 demonstrates that Wales is still a significant employer for the sector proportionate to the nations size with between 0.5% and 1% of the population employed in the manufacture of fashion and textiles (further analysis of the geographical breakdown of Wales is explored in section 12).

What the map clearly demonstrates is the extent to which textiles, clothing, leather and footwear manufacturing is clearly concentrated within the Central and Eastern states of Europe where lower production costs make these nations an attractive proposition for production centres.

Of the western European nations, Italy, with the combination of an interdependent supply chain and global demand for Italian produced goods, and Portugal which was originally a beneficiary of outsourcing in the early 1980's, remain a proportionally high employer within fashion and textile manufacture.

Figure 10: Welsh manufacturing employment within a European context

Persons employed in the manufacture of textiles,
clothing, leather and footwear
(NACE Subsections DB and DC)
as a proportion of those employed
in the non-financial business economy
(NACE Sections C to I and K),
by NUTS 2 regions, 2006

(%)

- <= 0.5
- >0.5 and <= 1
- >1 and <= 4
- > 4
- Data not available

BG, DK, SI: national level instead of NUTS 2
BG: construction (45) 2005
CY: excluding research and development (73)

Source: Eurostat (SBS)
© EuroGeographics Association, for the administrative boundaries
Cartography: Eurostat — GISCO, 03/2009

Source: Eurostat Business Review 2009

5. Current Sector Performance

The key role of Skillfast-UK as a Sector Skills Council is to develop and facilitate a plan of action that will ensure that fashion and textiles businesses can access the skills they need for current and future productivity and competitiveness. To achieve this it is necessary to set out a clear picture of the current make-up of the sector, the forces that drive and shape competitiveness and productivity within the sector and to assess the implications for skills arising out of these key drivers.

5.1 GVA and employment

Between 2003 and 2007 the Welsh fashion and textiles sector had undergone a great level of restructuring, as globalisation impacting the sector at a far greater level than seen in the rest of the UK.

Using figures obtained from the ABI, it is possible to see that within the Welsh fashion and textiles sector, a clear movement has been made from lower value production to production and functions higher up the value chain.

Employment, although now beginning to slow in terms of movement, has declined by 37% with GVA also falling by 23%.

However, in contrast to this, by 2007 GVA per head had increased in the same period by 23% representing a movement to higher value production due to lower valued production being outsourced to lower cost nations.

Table 2: Headline indicators for Wales 2003-2007

	% Change
Employment	-37%
GVA	-23%
GVA per head	23%

Source: ABI 2003 & 2007 based on Skillfast-UK estimates

Further interrogation of the figures suggest that in absolute terms, sectors that have faired worst have been within the manufacturing sub-sectors most vulnerable to overseas competition and outsourcing. For instance, general apparel manufacture, manufacture of made-up textiles such as canvas sacks and textiles, and the manufacture of knitted and crocheted fabrics that were key features of the Welsh economy have all seen considerable drops in estimated GVA.

Sectors that have seen growth in absolute terms are encompassed within the wholesale segment of the footprint. These figures correspond with the patterns noted within the UK profile, with wholesaling showing a healthy grown rate as distribution has become a more prominent service of the fashion and textiles sector in Wales through increasing import and export activity and the demands of fast fashion.

5.2 Manufacturing production performance

The Index of Production measures the volume of production at base year prices. As Figure 11 shows, the Welsh textiles, leather and clothing (TLC) market has seen a vast drop in production since 1999. However, the decline had become less prominent in the year leading up to the recession.

This steep decline is in direct contrast to the figures recorded within the wider Welsh productive industries that have actually seen slight movements upwards in value since 1999.

Whilst UK TLC production had begun to stabilise by 2004, the Welsh index has continued to fall. However, what is of note is that the recent annual decline has been far less pronounced than seen in the early 2000's and may offer a clue that the off-shoring and out-sourcing of production may have started to level off, although the recession will undoubtedly have impacted this stabilisation.

Figure 11: Index of Production 2005=100
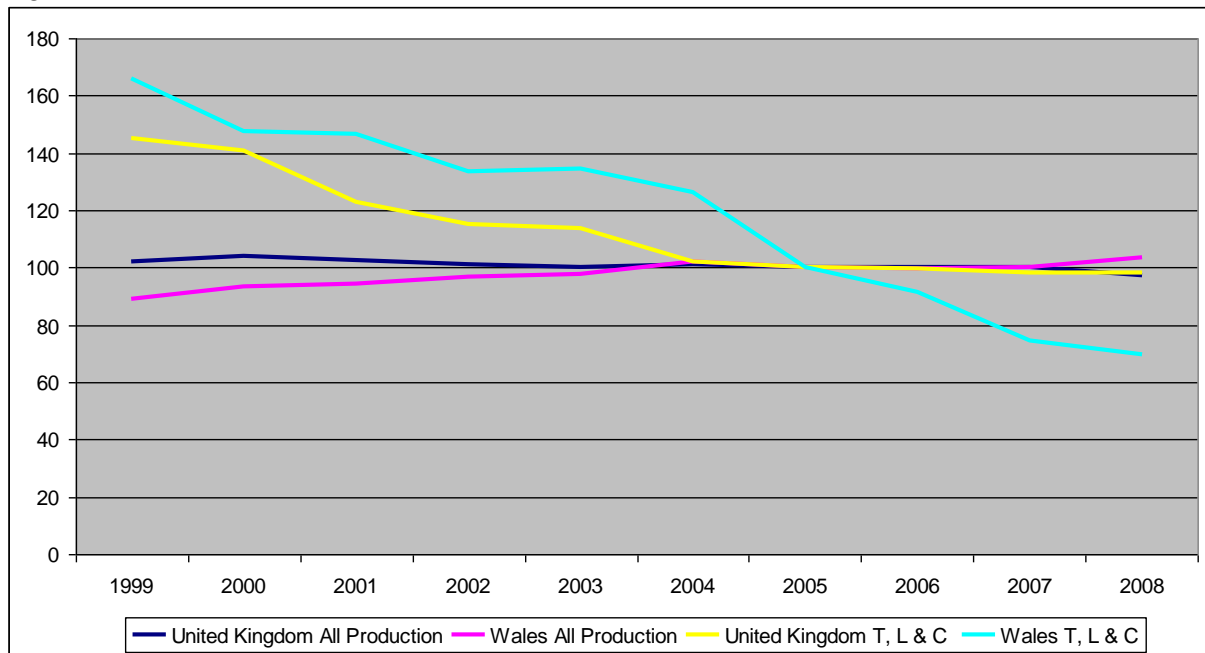
Source: StatsWales beyond 20/20 database

5.3   GVA vs GVA per head in the textile, leather and clothing manufacturing sector

Reflecting the rapid structural changes to the Welsh fashion and textiles manufacturing base, the latest available figures show how GVA has declined significantly since 1999.

However, by the last available pre-recession figures of 2007 the situation had stabilised and moderate growth was experienced, indicating the sector had found its niche or level in line with the figures taken from the Index of Production.

The move to higher value production can be seen in the GVA per head indicators that show how the Welsh fashion and textiles manufacturing GVA per head has doubled to almost £45,000 in the space of nine years. The period between 2006 and 2007 saw a particularly high upturn.

Figure 12: GVA & GVA per head for fashion and textiles manufacturing in Wales
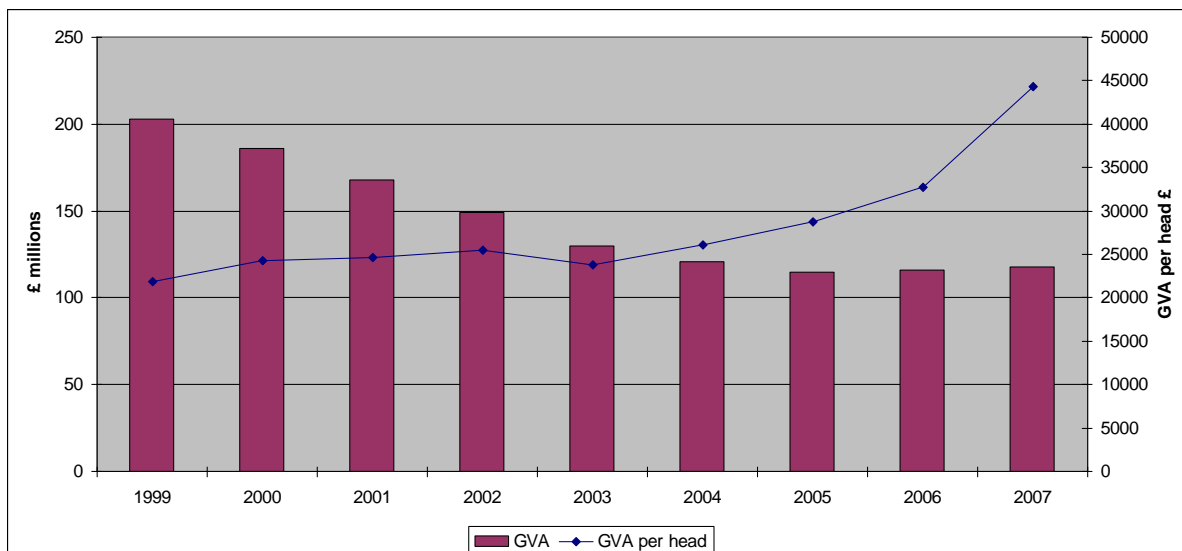
Source: ABI & StatWales based on SIC 17-19 (please note. The method of collecting ABI data changed between 2005 and 2006 for which the employment estimates were made. Therefore, the figures are not strictly comparable between these years.)

5.4   Continuing importance of the export sector

A key indicator of the buoyancy of the textiles and clothing market in Wales is the Index of Exports.

What can be seen is that the Welsh export market for textiles exports experienced a huge drop to less than a quarter of its previous value between 1996 and 2009. This directly relates to the decline in manufacturing and hence the potential to export textiles goods. However, the UK textiles export market has remained steady during this same period.

By 2005 though, GVA had stabilised, although the recession looks to have had a negative impact.

The export market for Welsh clothing has seen somewhat of a renaissance in recent years. Although starting from a low base and suffering from similar market forces to the rest of the sector, since 2004 exports of Welsh manufactured clothing have stabilised and in the past two years have seen a large rise in value.

These figures suggest that Welsh clothing companies have been successful in finding their niche in the global economy and are beginning to see an improvement. Again, it will require monitoring to see if this recent positive trend is maintainable given the recent recessionary pressures.

Figure 13: Index of Exports 2005 = 100
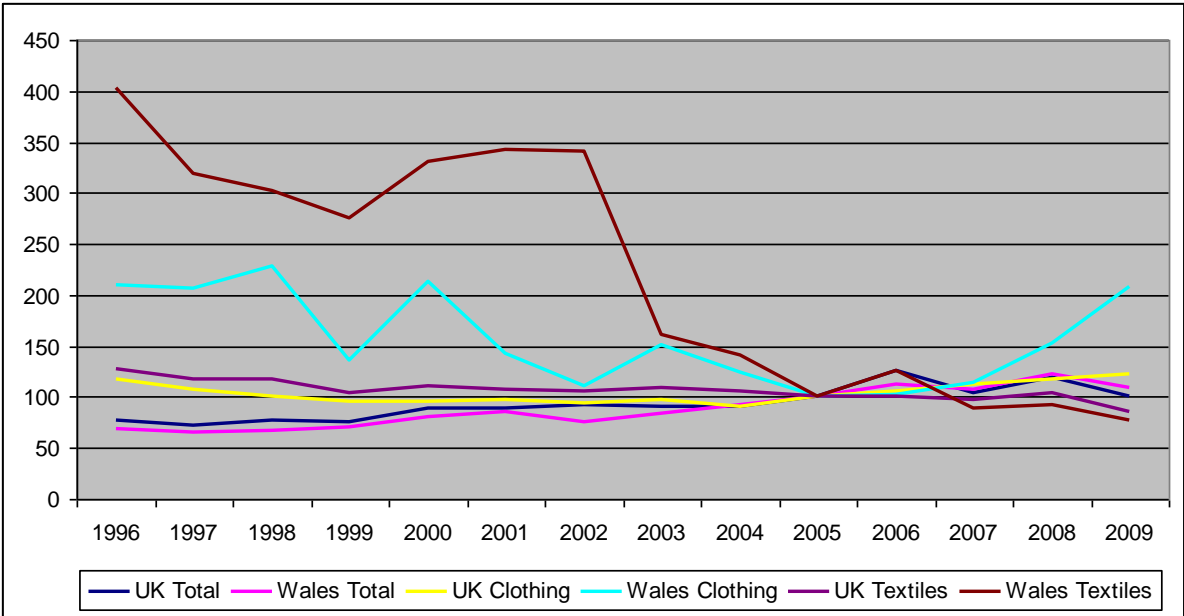
Source: Stats Wales (based on q2 returns for each year)

6. The Role of Globalisation in Shaping the Sector

To fully understand the dynamics that have shaped the structural change within the UK and Welsh fashion and textiles sector, it is important to contextualise these changes within the impact of globalisation.

Globalisation of the supply chain has driven structural change in the UK and Western European fashion and textiles sector at a far greater rate than experienced by most other sectors of the economy.

Coupled with price deflation in the UK market, this has continued to lead to pressure on margins and reduced profitability for the sectors manufacturing firms, whilst creating opportunities for UK companies to reduce their manufacturing cost base through outsourcing.

Global outsourcing is not a new phenomenon for the fashion and textiles sector, a sector that has traditionally been sensitive to global political and economic changes in the past 60 years. However, recent academic thinking is beginning to place these changes within two distinct phases in an attempt to understand the current phenomena.

Bottini et al, (2007) note that the first phase of globalisation and outsourcing of production was initially driven by the clustering of production, enabled by the fall in transportation costs on the basis of specialisation in the production of completed goods.

However, a new second phase has been identified, characterised by the increasing separation of various production stages and a trade in tasks that has occurred in the past 20 years (Baldwin, 2006 in Bottini et al, 2007) and one which UK fashion and textiles firms have actively been taking advantage of and been particularly adept at.

As Bottini, et al (2007 p.7) recognise, *"this change has been driven by the ability of firms to take advantage of the mobility of capital in the pursuit of efficiency savings as political, economic and technological drivers have combined. Material off-shoring, predominantly in labour-intensive industries such as consumer electronics, textiles and apparels and footwear and leather goods was an early key characteristic of this movement."*

Within this context the outsourcing experienced by the textiles and fashion sector has been made possible by two key drivers.

Firstly, the liberalisation of trade policy, enabled by legislative drivers such as the phasing out in 2005 of the Agreement on Textiles and Clothing that had protected developed countries from competition from low production cost countries. The abolition of this legislation was key to opening up manufacturing opportunities for low cost countries to supply existing markets whilst also improving access to labour markets for companies to off-shore (although anti-dumping legislation remains in place).

Secondly, the continued sophistication of communication technology has allowed the managing of processes taking place overseas. Coupled with a fall in logistics costs to supply end markets, this has enabled companies to outsource and control the supply chain with far less disruption that would previously have been the case.

Summarising the significance of these changes, research by Clutier et al (2007) attempts to place the UK's position within the global context. The significance of this Table is that it offers a clear steer of high cost European producers such as the UK and Wales towards high value, innovative and niche production areas and reinforces the findings of the Skillfast-UK SWOT analysis conducted with employers in the UK (Skillfast-UK 2005), strengths and opportunities within the areas highlighted as positives for high cost producers within this analysis.

Table 3: Competitive analysis of Wales as a high cost producer in global TLC networks

Competitive factors	EU High Cost (inc Wales)	EU Medium Cost	Euromed Non-EU	Turkey	Asia
Labour costs	---	-/+	+	=	++
Qualification of labour	++	+	=	+	+
Labour availability	-	=	+	+	++
Management skills	++	+	=	+	+
Design/fashion	+++	+	-	=	-
Communication skills	++	=	=	+	--
Innovation	++	+	-	=	=
Market sensitivity	+++	+	=	+	--
Reliability/quality	++	+	=	+	=
Reactivity/flexibility	++	+	=	+	--
Local market base	+++	+	=	++	++
Access to raw materials	++	+	--	++	+++
Local trimmings/components	++	+	--	++	+++
Equipment	+	+	=	+	-/+
R&D	+++	++	--	=	+
Institutions/fairs	+++	-	-	-	+++
IT	+++	++	+	+	---/+++
Financial health/profitability	-	-	=	++	++
Access to capital	-	-	=	++	+++
National infrastructures	+++	++	=	=	-
Energy costs	-	+	=	=	-
Low administrative burden	+++	+++/---	--	--	--
Low regulations	---	--	=	=	+++

Source : Clutier et al 2007 p.22

+++ major competitive advantage; --- major weakness; +++/--- indicates where huge discrepancies in countries within a region exist.

6.1 Price structure of goods within the sector

Demonstrating the trend towards the transfer of manufacturing capacity – and jobs – offshore, research conducted by the Allwood et al (2006), and illustrated in Table 6, shows how the value in the supply chain lays within the higher value wholesale and retail operations by highlighting the price structures of a number of products and where they are produced as different phases of manufacture.

Table 4: Price structure of goods paid by UK consumers

T-Shirt		Blouse		Carpet	
Retail UK	£7.00	Retail UK	£22.00	Retail UK	£30.00
Wholesale UK	£2.65	Wholesale UK	£7.00	Wholesale UK	£18.00
Knitted T-shirt China	£1.96	Woven blouse India	£3.21	Manufactured carpet UK	£10.35
Knitted fabric China	£1.08	Woven Fabric India	£1.55	Carpet pile	£9.37
Cotton yarn USA	£0.55	Viscose yarn India	£0.70	Secondary backing	£0.83
				Primary backing	£0.83

Source: Allwood et al 2006

In this analysis, Allwood et al (2006) recognise that, *"despite the exit of manufacturing in clothing and textiles from the UK, the sector continues to be highly valuable, as the biggest*

profits in the sector are at the end of the supply chain – in retail and branding. The cost and price structure of the sector globally is now characterised by there being potential for high profit from innovation, marketing and retailing but low profit from sourcing, production, assembly, finishing, packaging and distribution."

6.2 Consumer Price Index for Clothing

This pressure on costs has seen the consumer price index for clothing and footwear uncouple itself from other consumer items as low cost imports have now become normal.

As Figure 14 demonstrates, whilst the price of goods within the wider economy have more than doubled since 1987, clothing and footwear has remained at roughly the same level.

Figure 14: CPI for clothing and footwear   1987=100
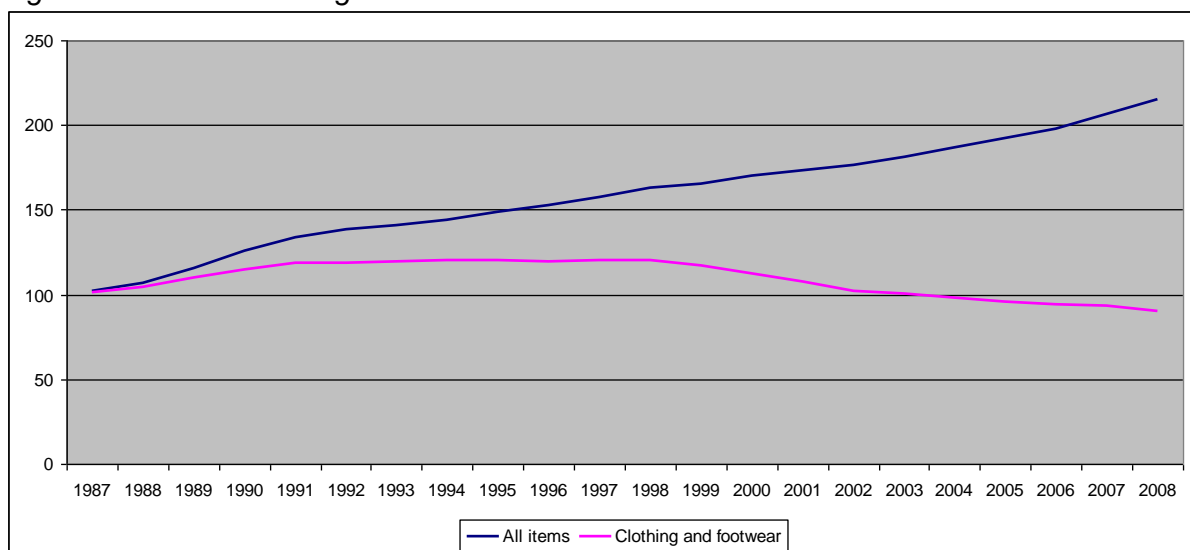
Source: ONS Monthly digest of statistics

6.3 Developing countries percentage share of manufacturing of clothing and textiles

The impact of outsourcing is indicated by figures from the World Trade Organisation (WTO, 2008) and illustrated in Figure 15. Their annual report shows how these changes have facilitated the rise of China as a low waged textile and clothing manufacturing nation, increasing its export base in textiles by 19% and clothing by 16% within an eight year period. This must also be seen in the context of taking fashion and textile production from other Asian countries who have seen falls in production and that the value of European textiles and clothing manufacture has increased in the same period. However, it must be noted this value is related to the role of Central and Eastern European countries as manufacturing nations who themselves enjoy competitive wage advantages.

This situation and movement of lower cost manufacturing may not be significantly altered by the recent fall in the value of sterling and consequent upward pressure on the cost of imported goods. Indeed, this factor may well be offset by the continuing process of trade liberalisation.

Figure 15: Developing countries percentage share of manufacturing of clothing and textiles
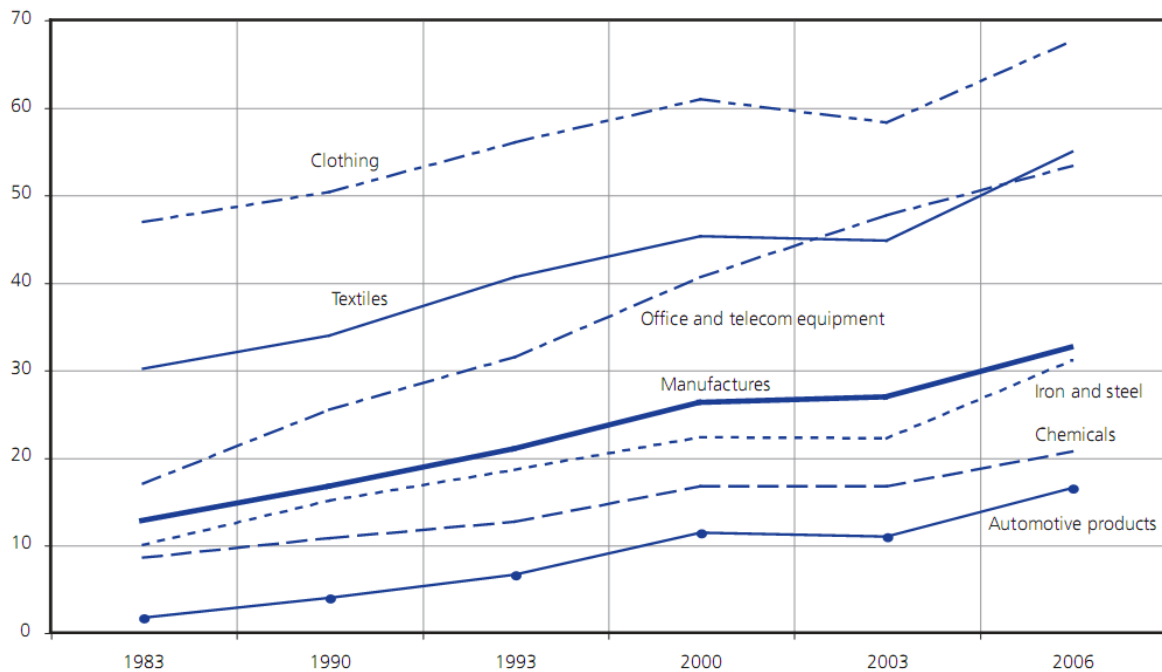
Source: WTO World Trade Report 2008 (p.25)

6.4 The fashion and textile sector's current position and ability to improve market conditions

Within this backdrop, a scenario planning exercise commissioned by Skillfast-UK in 2005 identified the key sub-sectors within the UK fashion and textiles footprint that were most at risk from these changes, and were identified as lower value cost sensitive production.

Although areas such as dyeing and finishing within high value production, heritage crafts and bespoke product development pre-recession had not been impacted as much as predicted, the Table below largely offers a correct assessment of the previous five years as borne out by both the business registration/de-registration and GVA per head figures.

This analysis is especially pertinent for Wales, given that textile manufacture that were key components of the Wales fashion and textiles sector have seen large drops in GVA in recent times and translates into the assessment made.

Table 5: The fashion and textile sector's current position and ability to improve market conditions

	Ability to improve market position

		Low	Medium	High
Current Market Position	**Strong**		• Branded outdoor performance clothing • Technical textiles, finished products	
	Average	• Carpets • Wool system fabrics • Fabrics - Linen, silk, etc • Apparel lace • Merchant converting • Knitted fabrics • Wool/early processing	• Branded fashion; bespoke products • Home furnishings • Technical textiles fabrics • Speciality leathers • Importing and wholesaling • Corporate wear • Work wear and protective clothing • Leather-goods	• Designer apparel • Speciality MMF • Smart garments
	Poor	• Chain store own-label • Household textiles • Regular MMF • Yarn spinning • Cotton system woven fabrics • Commodity leather • Dyeing and finishing • Printing • Technical consumer goods		

Source: David Rigby Associates 2005

6.5   Movement towards a new typography

These forces have at present seen a movement towards a new typography for the UK fashion and textiles sector and are illustrated in research undertaken by David Tyler (2003).

Tyler recognises there are three different strategies firms are currently following to maximise their competitive position within the fashion and textiles sector. These are:

Niche manufacturers – these businesses serve markets requiring small batch sizes of products commanding a higher margin. They rely on the development of technical products or a high level of design innovation to command a market.

Balanced sourcing suppliers – these businesses have a UK manufacturing base for sampling and a small batch production for a quicker response. Larger orders are sub-contracted to low cost countries. These businesses rely on a combination of design innovation and contract supply skills.

100% overseas suppliers – these companies have moved completely out of UK manufacturing, although they may retain a facility for sampling. As with balanced sourced suppliers, the key priorities for these firms are to ensure their designs are responsive to consumer demand and place a great deal of emphasis on managing, in some instances, large complex and multi-staged supply chains.

Figure 16: The new manufacturing typology

Niche Manufacturers	Balanced Sourcing	100% Overseas
Technical Products — Fashion Design	Fashion Design — Contract Supply	Fashion Design — Contract Supply
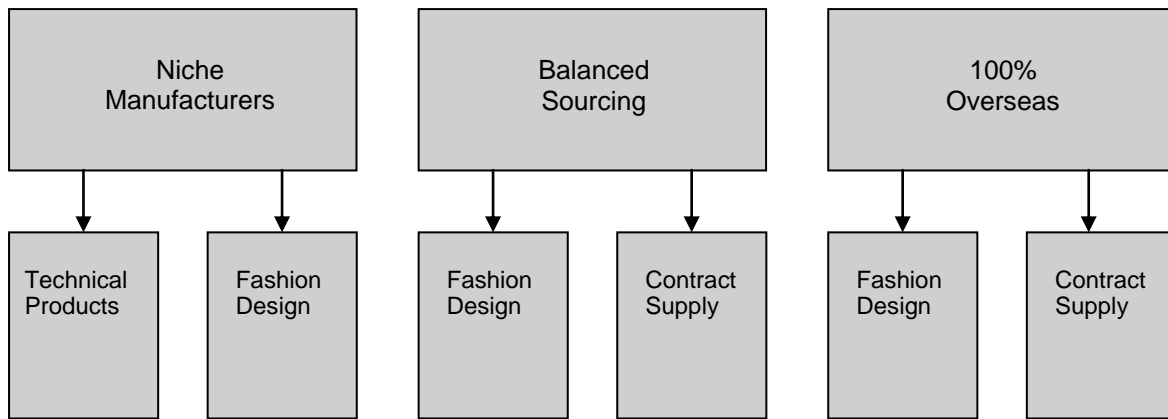
Source: Tyler 2003

Within such a climate, it is possible to see how these three strategies have been influencing Welsh fashion and textiles firms' behaviour in recent years.

An example that relates directly to Wales can be seen in a memorandum investigating the impact of Globalisation on the manufacturing industries, Burberry, in its evidence to the Welsh Affairs Committee following the closure of their Treorchy factory (Parliament UK, 2007) noted, *"The Treorchy experience is an obvious example where Wales has found it very challenging to compete against some other economies in manufacturing operations. Our own experience demonstrates that whilst globalisation can significantly impact upon lower value-added production in the UK, it has allowed global companies such as Burberry to grow our business around the world and has resulted in higher-skill, higher value-added jobs in the UK in design and marketing of our higher value garments.*

Globalisation has meant that to remain internationally competitive, it is important to operate at the most appropriate and efficient locations. A combination of relatively high standard of education and lower wage levels present in Central and Eastern Europe will pose a challenge to lower value manufacturing operations in Wales and the rest of the UK."

7. Drivers of Skill Demand

Given the backdrop of the economic climate and the impact of globalisation on sector performance, the key drivers of change identified by Skillfast-UK that impact on the level and mix of skills demand within the sector in Wales are[2]:

1: Technical textiles

Technical textiles are a growing area for traditional textile companies to branch into as firms seek new markets away from their traditional textile manufacturing base in the face of low cost competition, actively exploit new opportunities in higher value manufacturing. A recent DTI report put the contribution of technical textiles to the UK economy at £1.5 billion. (DTI 2007).

Technical textiles are and are synonymous with the servicing of a number of end-user products including[3]:

- Automotive and Aerospace;
- Composite Textiles;
- Industrial Biotechnology;
- Nanotechnology;
- Others, e.g. cross cutting performance clothing, workwear and technical textiles

To this extent, given the sector in Wales is primarily concerned with textiles manufacture, this development has important implications. For instance, the University of Wales, Newport have been developing courses to aid technical textile development with a Smart Clothes and Wearable Technology (SCWT) having been established.[4]

2: Fast fashion

The rise of fast fashion to satisfy changing consumer tastes has put increasing pressures on companies to supply their retail markets quickly and cheaply. This has meant firms have had to think carefully on how best and most quickly they can satisfy the needs of the end user and take advantage of the latest trends. This process has also greatly impacted the role of the design function to ensure designs are suited to the fashions developed that season and in line with customer demand.

3: The British style

There is a distinctive "British style" which is recognised in world markets which adds generally to the attraction of UK branded goods in segments such as formal outerwear, cashmere knitwear, men's shoes and worsted suiting fabrics. This style typically relies on a high level of product quality from UK manufacturers. The British style can be seen to being driven by both domestic and overseas market demands with figures from the Department for Media, Culture and Sport (DMCS) showing designer fashion has been an important growth market.

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[2] This analysis draws mainly on Skillfast-UK (2005), *Skills Needs Assessment for apparel, footwear, textiles and related businesses*, including more recent sectoral developments
[3] A full guide to technical textiles is available in Annex C
[4] http://www3.newport.ac.uk/news/displayStory.aspx?story_id=224

In these terms, the success shown by firms in Wales such as Corgi Hosiery who have successfully diversified and are now supplying both domestic and export luxury markets with their high value goods is an example of these business strategies. (Wales online July 2008)

4: Adaption to changing technology

The competitiveness of the sector partly relies on the ability of companies to harness continually emerging technologies in a whole host of areas, including computer-aided design, materials technologies, processing technologies and lifecycle management.

The 2005 UK Fashion and Textiles Sector Needs Agreement (Skillfast-UK 2005) notes how the application of technology has major implications for the sector's skills requirements. For instance, key applications were recognised to span the following:

- Computer aided design and computer controlled machinery
- Production and resource planning
- Labour saving textile production technologies such as 3D knitting
- Supply chain management and industrial sales (including the use of EDI by larger manufacturers and traders to manage relationships with retail customers)
- Virtual networking and collaboration in the areas of production development, engineering and design
- The development of innovative materials such as new generation of non-woven fabrics, new fibres and technical textiles

Employers who participated in interviews for the SNA saw these technologies as offering a great opportunity to their businesses to commercialise these technologies and offer a potential new market for their products. Increasingly e-commerce has been cited as a technology that offers great opportunities for firms to sell their goods directly from source and break traditional retailer links.

5: Image of the sector

A recent survey of 14-19 year olds conducted by Skillfast-UK (Skillfast-UK 2009) found that fashion and textiles was ranked ninth out of a selection of ten industry sectors in terms of its attractiveness as a career option.

Although the sample for Wales is limited, a number of issues are raised. Whilst sectors that enjoy either a high profile or visible career routes such as media, health and retail were the top ranking sectors, the fashion and textiles sector is an attractive one to work in with females more likely to want to work within the sector.

The research confirmed that the perception of the sector is affected greatly by the awareness of job roles available within the sector. The respondents were aware of the roles of fashion designers and buyers with over half of the respondents claiming to know a little or a lot about their function.

However, key occupations that are expected to contribute to the continued success and future strength of the sector and expected to see major staffing needs in the short-medium term all suffer from a lack of awareness as to the role carried out. Occupations such as fashion production managers that are responsible for ensuring the quality of production across the supply chain, and technical occupations that are currently shaping the direction of the sector that are areas that are not well understood.

6: The sustainability agenda

The one major skills driver that has increased in prominence since the publication of the Skillfast-UK SSA in 2005 has been the increasing importance of the sustainability agenda on company behaviour.

Recent research conducted by Skillfast-UK (2009b) has highlighted four main drivers on company behaviour in the fashion and textiles sector to modify their behaviour and how the skills needs of firms were being changed by the legislation. This is described through how the offerings of professional bodies, trade associations and providers were being adopted to allow firms to meet their objectives including:

- Legal regulations
- Taxes
- Consumer demand
- Preparation for expected increases in energy and resource prices

Whilst conducted on a UK scale, the Skillfast-UK research found that companies were keen to deliberately use the sustainability agenda as a marketing tool to differentiate their business and stimulate consumer demand for sustainable products. Indeed, membership of organisations that differentiate their products as being sustainably produced were key drivers of behaviour.

In September 2009, the Department for Environment, Food and Rural Affairs (DEFRA) published a Sustainable Clothing Action Plan (DEFRA, 2009) which has attracted a large number of retailers and manufacturers, and encouraged companies such as Marks and Spencer to publish a 100 step sustainability plan for its textiles and clothing business.

Within this environment, the Welsh textiles sector has been identified in a number of documents including the sustainable development action plan (Welsh Assembly Government 2004) and recent consultation in which textile consumption was seen to be a key area of waste to be targeted (Welsh Assembly Government 2009)

This is on top of existing EU legislation (EU, 2007) such as the Regulation, Evaluation, Authorisation and Restriction of Chemicals (REACH), which came into force in 2007 and involves EU member nations ensuring all manufacturers and importers of chemicals must identify and manage risks linked to the substances they manufacture and market. This impacts the UK fashion and textiles sector as a downstream user of chemicals.

Other EU legislation such as the Integrated Pollution Prevention and Control (IPPC) that entails plants for the pre-treatment (operations such as washing, bleaching, mercerisation) or dyeing of fibres or textiles where the treatment capacity exceeds ten tonnes per day are subject to the IPPC Directive, and are required to obtain an authorisation (environmental permit) to operate.

The EU biocides directive and Emissions Trading system are also pieces of legalisation that may impact areas of the sector.

8. Skills Implications

In summary, the operation of these drivers in the context of the global forces that surround the sector, points to a strategy of differentiation being the optimal one for the sector rather than one of cost leadership. In view of this, there are a number of key factors for success which have important implications for human resources in the sector.

8.1 Design creativity

Many firms in the sector rely on creative design to add value to products build brands and secure a competitive advantage in world markets. To realise this creativity design excellence needs to be allied to strong technical skills/knowledge and commercial awareness.

8.2 Branding and marketing

Successful UK companies differentiate their offer from that of low-cost competitors through the development of strong brands. This calls for specialist skills as does the requirement to identify and exploit new product and geographic markets in order to remain one step ahead of competitors.

Comparative research (Owen, 2003) looking at parts of the UK and Italian sectors at a micro level also places a significant emphasis on the importance of skills in areas such as design, marketing and garment construction to the overall superior competitiveness of the sector in Italy.

8.3 New product development and commercialisation of new technologies

To develop the products needed to compete in technical markets identified in table five, firms in the sector need access to specialist technologists, such as textile technologists, as well as graduates across a wide range of STEM disciplines, including chemistry and engineering.

New product development also typically entails process development, creating a need for upskilling at technician and operator level to facilitate these changes.

8.4 Ability to compete in premium and niche markets on a global level

The fashion and textiles sectors competitive advantage in this area typically relies on low-cost, small scale manufacturing of high added value and difficult to make products. Success in this area depends, in turn, on specialised craft skills such as tailoring and shoemaking. These skills are typically "tacit": they cannot be easily documented and must be passed on through hands-on experience over a considerable period of time.

8.5 New business start-ups

As seen in the increasing rate of businesses in the sector registering for VAT, the emergence and growth of niche markets has led to a high start-up rate of businesses seeking to meet this new demand, adding to an already large micro-business population in the sector. Owner-managers require a combination of business / management skills and technical knowledge.

8.6 Overseas sourcing

Fashion and textile sector firms' focus is increasingly on the management of overseas supply chains. This function requires direct experience and understanding of the production environment together with knowledge of materials / product technology.

8.7 Cost reduction

There are some capital-intensive elements of the sector where scope lies to maximise productive efficiencies and reduce unit labour costs. An issue that is especially pertinent in the current financial climate. This creates a need for upskilling and multi-skilling, particularly at operator level.

8.8 Management and leadership

The sector performs poorly in terms of attracting its fair share of graduates into management positions and many managers lack wider experience and formal management knowledge having been promoted from within the company. This is a key problem when strong leadership is required in a time of rapid change and when there is a need to maximise the contribution of workers.

8.9 Ageing workforce

As noted in the sector demographics, a large number of the workforce are aged over 45 and a high proportion of workers in key technical roles are nearing retirement. The requisite technical skills are in short supply as a result of a long-term decline in apprenticeships and other development mechanisms. Moreover, the negative image of the sector restricts employers in their efforts to bring in new recruits to fill core technical roles.

9. Impact of the Recession

The impact of the recession has been especially hard on the Welsh economy and the fashion and textiles sector in general. Therefore this assessment in general must be read in these terms. A number of key measures can be used to understand the impacts that have occurred on the sector are as follows:

9.1 Overall declining productivity in the manufacturing sector

The impact of the recession has been especially hard on the Welsh fashion and textiles sector. Whilst export markets have remained resilient, Figure 17 shows that overall, despite the sector experiencing a slight upturn in the later part of 2008, the sectors manufacturing base has been in a downturn since. This is despite the UK's fashion and textiles sector experiencing a period of stabilisation in the middle of 2009.

Figure 17: Manufacturing productivity   2005=100
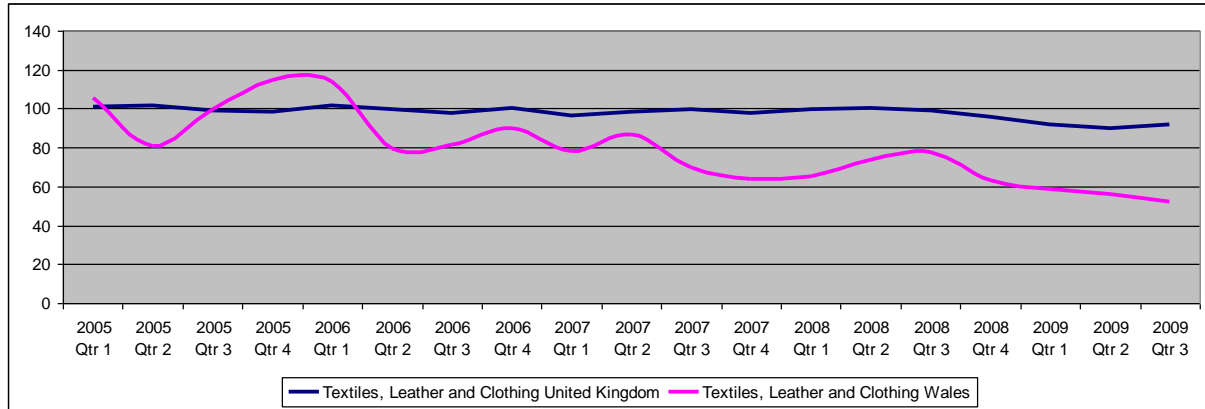
Source: Statwales

9.2 Value of exports

Despite the continuing decline in productivity, the value of exports in the Welsh fashion and textiles market are showing a slight upward trend. This is important to note as the export market seems to have weathered the recession comparatively well. The value of quarter 3 exports of 2009 stood at a higher rate than in any quarter but one since HMRC began gathering this data in 2007.

The main contributory factor to this can be seen to be within the exports of textile yarn, fabrics and made- up articles underlying the importance of the made-up textiles sub-sector to overall sector performance.

Figure 18: Value of Welsh Exports by SITC
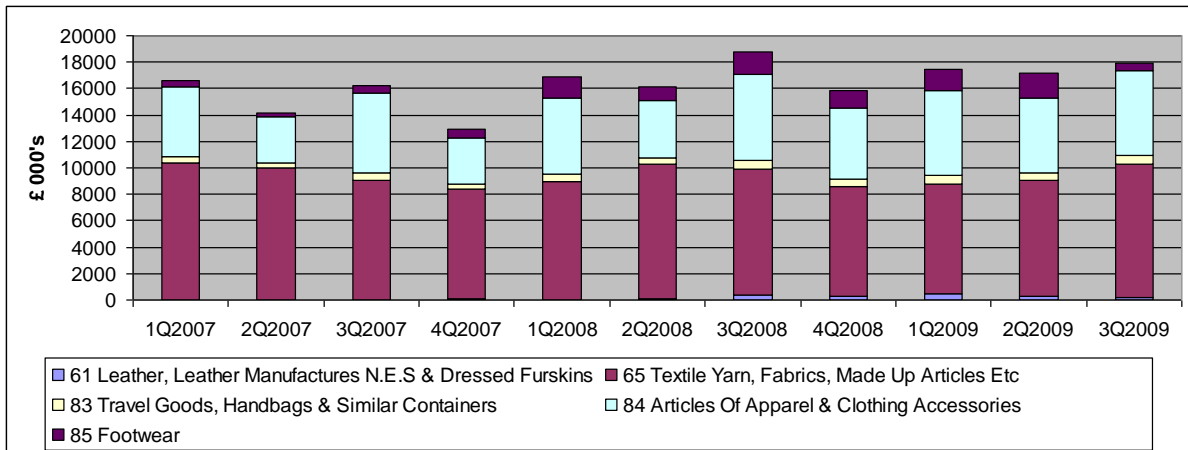
Source: HMRC

9.3 Claimants by sought occupation in Wales

The claimant count by sought occupation is particularly of interest. This count shows how the beginning of 2009 saw a sharp increase in people claiming whilst looking for fashion and textiles related work within Wales.

Again though, and in unison with the productivity figures, claimant sought occupations peaked in early 2009 and by the end of the year they were remaining persistently high. As with more general UK figures, it was people looking for sewing machinist and laundry/dry cleaning roles who have been particularly badly affected by the recession.

Figure 19: Claimants by sought occupation in Wales
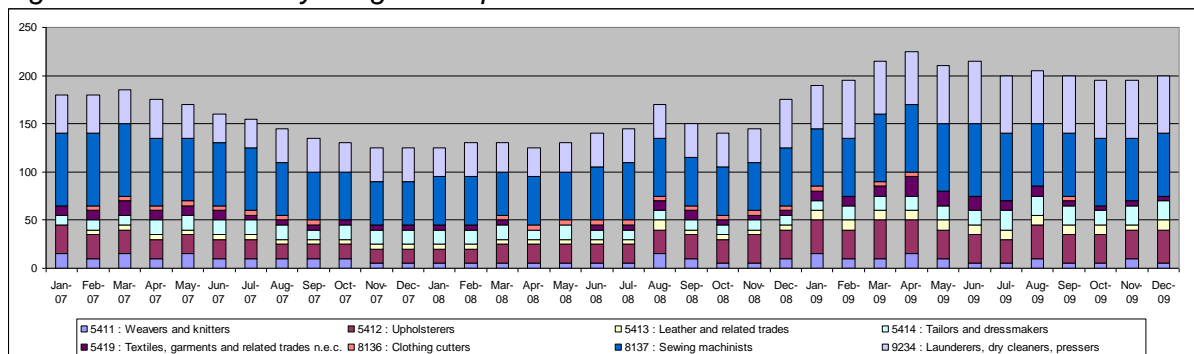
Source: DWP via NOMIS

9.4 Vacancies as advertised through Job Centre+

Figures for vacancies as advertised through Job Centre+ for key occupations also point to a gradual increase in job market activity although the position is still very weak.

Whilst Job Centre+ figures are not fully indicative of the sector, due to the way jobs in the sector are not always advertised through this channel they offer an indication of job market activity. Whilst overall numbers are low, the market looked to have hit a trough in May of 2009 and is slowly creeping back, mainly fuelled by an increasing demand for sewing machinists with a large spike in September 2009. This is an interesting point given the claimant numbers for sewing operative roles remained high after this point.

Figure 20: Vacancies as advertised through Job Centre+
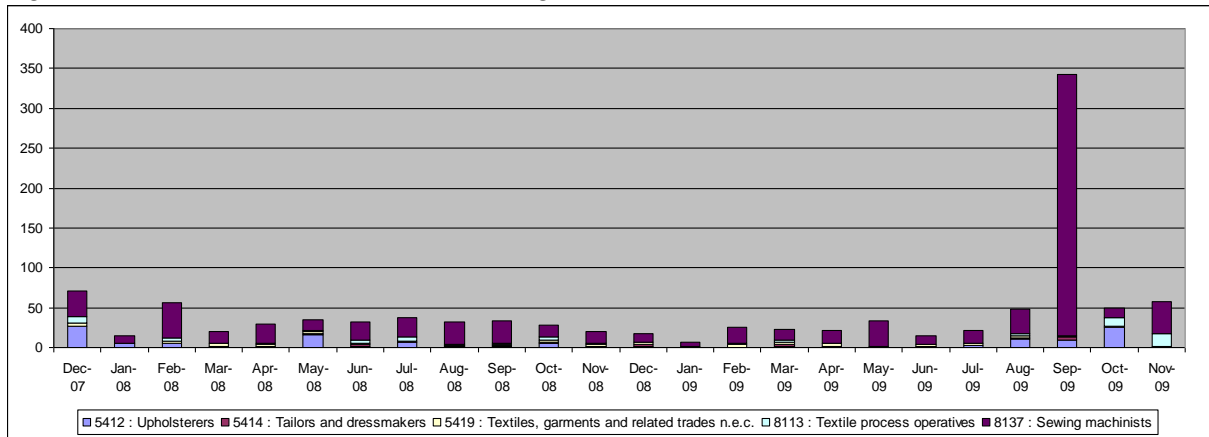
Source: Job Centre+ via NOMIS

10. Current Skills Needs

The following section examines the level and nature of skills needs in the sector, focusing specifically on recruitment problems and shortfalls in the skills and knowledge of existing members of the sector workforce as their employers seek to meet new challenges arising out of the marketplace, emerging technologies and other factors. It has been shown that the occupational structure of the sector workforce is very different to that of the broader economy. This factor strongly influences the character of skills needs in fashion and textiles.

It should be noted that much of the data relating to skills deficiencies originate from before the recession and the sharp change in labour market conditions seen since then must be factored into any assessment of the current situation. Nonetheless, consultation with the sector in recent months indicates that the profile of skills issues has retained the pattern set out below.

This section, therefore, explores in detail the following specific topics:

- vacancies
- skill shortages
- skills gaps
- generic skills priorities based on support from the training system
- higher educational skills needs

10.1 Vacancies

Vacancies as a proportion of employees were lower for the sector than reported for Wales at an all sector level. The vacancy rate was also in line with the fashion and textiles sector in the other home nations although slightly greater than in Scotland and Northern Ireland.

In terms of hard-to-fill vacancies as a proportion of employees, the Welsh fashion and textiles vacancy rate was slightly less than that experienced in Wales at an all sector level. Again, the figures for fashion and textiles in Wales were in line with what has been reported at a home nation level.

Hard-to-fill vacancies as a proportion of vacancies is a major issue within Wales with 57% of employers recognising this as a problem. This can be related back to the negative image of the sector and the lack of recruits attracted to work within the fashion and textiles sector.

Table 6: Vacancy issues

	Skillfast-UK Wales	Wales All Sectors	Skillfast-UK England	Skillfast-UK Scotland	Skillfast-UK Northern Ireland
Vacancies as % of employees	2.5%	4%	2.5%	2%	1.3%
Hard to fill vacancies as proportion of employees	1.4%	1.2%	1.4%	1%	0.9%
Hard-to-fill vacancies as a % of all vacancies	57%	35%	35%	51%	61%

Source: FSW 2005, NISMS 2008, NESS 2007, SESS 2006

10.1.1 Skills shortages

Skills shortages are defined as those vacancies which are proving hard-to-fill because of a shortage of candidates with the required skills, qualifications or experience.

National survey data indicates that the density (shortages expressed as a proportion of the workforce) of skills shortage vacancies are low in absolute terms, although this is double what is reported within the wider economy and also above what is reported in the comparative sectors in the other home nations.

Again, given the specific skills many jobs within the sector require, this accentuates the message that existing staff are going to be difficult to replace as new recruits to the sector on the whole do not possess the skills employers require to help with their business aims.

Table 8: Skill shortage vacancies as a % of employees and all vacancies

	Skillfast-UK Wales	Wales All Sectors	Skillfast-UK England	Skillfast-UK Scotland	Skillfast-UK N.Ireland
Skills shortages as % of employees	1%	0.5%	0.5%	0.2%	0.4%
Skills shortages as % of all vacancies	39%	14%	25%	*	47%

Source: FSW 2005, NESS 2007, SESS 2006, NISMS 2008 * indicates no data available

10.1.2 Skill shortages by occupation

The 2008 Skillfast-UK employer survey highlighted that 61% of employers in Wales reported the existence of a skills shortages if they were looking to recruit. This was in relation to 59% for the UK.

Reflecting the needs of Welsh employers, at an operative level, sewn product operatives were subject to the highest levels of skill needs.

Within the skill trades occupations, a number of competencies concerned with textile manufacture were identified whilst higher level skills gaps were prevalent amongst designers and production management. This is especially pertinent given the role of this occupations will have to play in ensuring future sector competitiveness.

Table 7: Skill gaps reported by Welsh fashion and textiles employers

Level of skills	Occupation
Operative level	Sewn products operatives
Skilled trades	Garment alterations
	Pattern cutting and grading
	Sampling
	Hand-craft garment making
Higher level technical skills	Designers
	Production management

Source: Skillfast-UK employer survey 2008

However, there are also niche areas which although they employ relatively few people within Wales are characterised by a very high incidence of shortages. Textile process operatives and shoe repairers in particular, are characteristic of this situation.

The overriding message from these figures is that employers are currently unable to attract candidates of a specific calibre to job roles within the Welsh fashion and textile sector.

With an ageing workforce, further retirements ahead and an increasing demand for replacement staff forecast, employers within the sector will be in need of skilled staff as a matter of urgency for the sector to remain competitive.

10.2 Skills gaps

Skills gaps exist where employers consider that employees are not fully proficient at their job. Using national datasets, it can be seen that employers in the Wales fashion and textiles sector report far lower proportions of employees that are not fully proficient than at all sector level in Wales. However, these figures still equate to over one in ten employers.

What these figures show is that workforce turnover in the sector is low and employees are more likely to have been in position for a number of years, thus understanding the processes required by their role with the business.

However, the time needed to acquire the skills and knowledge on the job is a major driving force behind the potential skills shortages that are prevalent to the lower number of gaps.

Table 8: Workplaces reporting skills gaps

	Skillfast-UK Wales	Wales All Sectors	Skillfast-UK England	Skillfast-UK Scotland	Skillfast-UK N.Ireland
% of workplaces with skills gaps	11%	18%	14%	20%	16%

Source: FSW 2005, NESS 2007, SESS 2006, NISMS 2008

10.2.1 Skills gaps by occupation

Future Skills Wales reports the overwhelming number of skills gaps being reported by employers are within the associate professional bracket and confirms the findings of the Skillfast-UK survey with designers amongst this group.

Another category reporting skills gaps is at operative level which includes occupations such as clothes cutters and sewing machinists. Again, this is consistent with the composition of the sector in Wales and in keeping with the findings of the Skillfast-UK employer survey.

Figure 21: Skills gaps by employment group
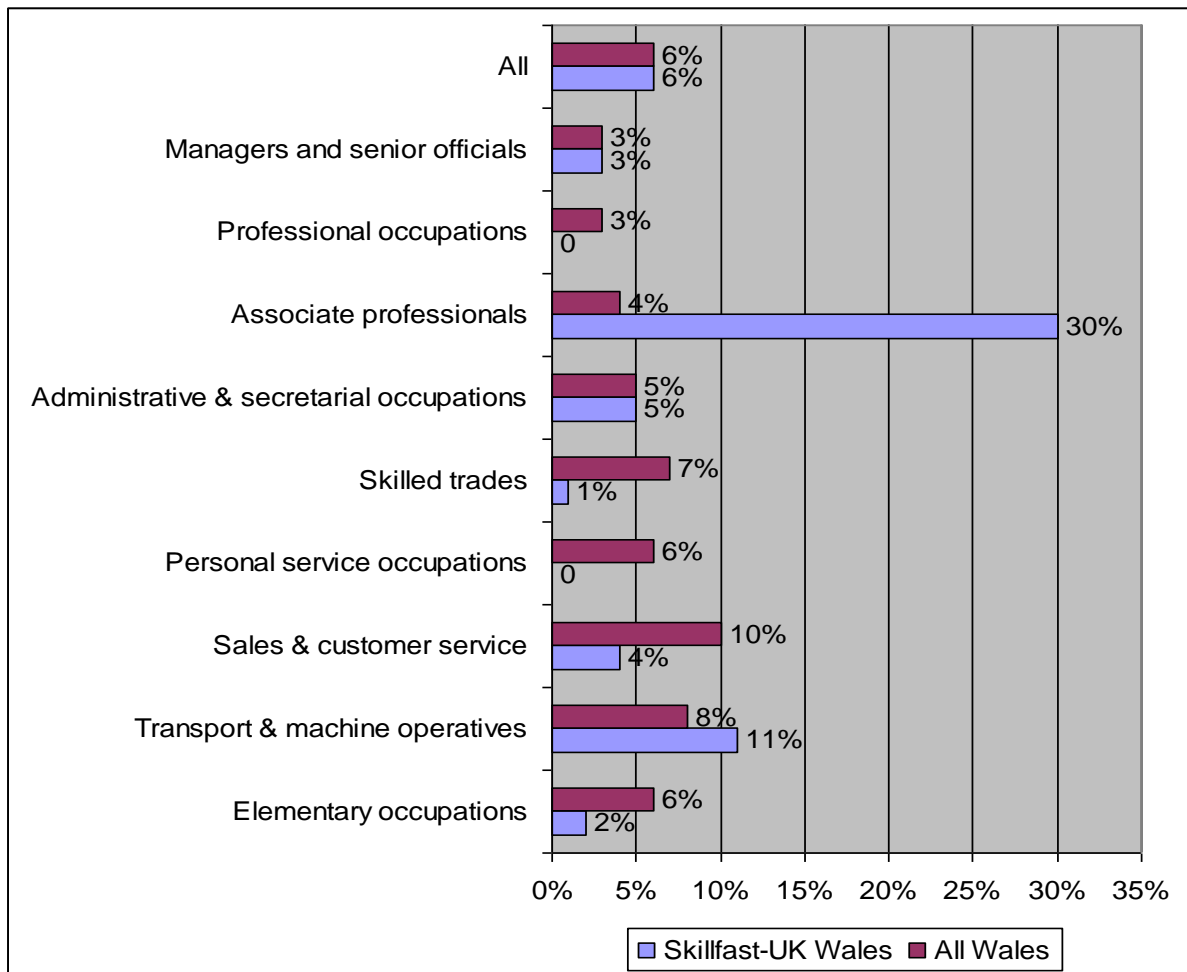
Source: FSW 2005

10.2.2 Skills gaps reported in the Skillfast-UK employer survey

Skillfast-UK's own survey verifies the FSW figures with 16% of employers recognising skills gaps within their existing workforce. This is in line with the UK figure that is also 16%.

The results of the employer survey showed that in absolute terms, skills gaps were most prevalent within a number of skilled trade's occupations indicating the importance of textile manufacturing occupations within the Welsh economy.
However, it was production management that was the largest proportional skills gap reported by employers. This was a similar message as reported with skill shortages and shows the issues that employers have within this important function.

Table 9: Skill gaps reported by Welsh fashion and textiles employers

Level of skills	Occupation
Operative level	Sewn products operatives
Skilled trades	Garment alterations
	Pattern cutting and grading
	Hand-craft garment making
	Sampling
Higher level technical skills	Designers
	Production managers

Source: Skillfast-UK employer survey 2008

However, there are a number of areas in which skills gaps have a disproportionate presence. Within Wales, employers cited leather goods manufacturing operations, textiles process operatives and laundry maintenance staff which had high proportional number of skills gaps.

10.3 Generic skills

Turning to "generic" skills, the key areas identified by businesses in the sector from the Skillfast-UK employer survey as requiring improvement are sales and marketing, identified by 55% as important or very important (making it the most widespread need of any facing the sector) and recruiting and retaining able young people, highlighted by 53%. These were more prevalent than identified by employers within the UK.

The figures highlight the growing importance that sales and marketing in a competitive and global environment makes to the competitiveness of the sector, particularly in the apparel and textiles sub-sectors. This is confirmed by the export figures that show this is becoming a key area of growth.

Reinforcing present employer sentiment that whilst the present workforce is capable, replacement issues will be prevalent are backed up by the high level requiring recruitment and retention aid from the education and training system.

Table 10: Skills priorities based on support from the educational system in Wales

Skills priorities based on support from the educational system	Wales	UK
Improving sales and marketing skills including the skills needed for international trading	55%	48%
Recruiting and retaining able young people to replace workers who are nearing retirement	53%	48%
Improving management leadership and supervisory skills	49%	47%
Improving the quality of our in-house training	43%	42%
Finding colleges and/or training providers that can deliver relevant training in technical skills	41%	39%
Improving numeracy literacy and other basic skills	39%	48%
Finding graduates with the right practical and commercial skills and knowledge	32%	27%
Implementing new productivity techniques such as lean manufacturing approaches	32%	24%
Attracting science and technology graduates who can help to develop new products and processes	17%	16%
Bringing in and training migrant workers from Eastern Europe and elsewhere	10%	11%

Source: Skillfast-UK employer survey 2008

10.4 Skills priorities from the education system by sub-sector in Wales

Analysing the results by sub-sector gives us a much clearer steer on the pressures that are playing on the various elements of the fashion and textiles sector. Whilst the sample sizes are too small to give a quantitative baseline, they offer an important indication of sector skills needs relating to each sub-sector. What is striking is that the competitive trading environment has seen both apparel and sewn products and design put the greatest emphasis on improving sales and marketing skills including skills needed for international trading.

Conversely, domestic focussed servicing sub-sectors such as laundry and dry cleaning and footwear and leather (in the case of Wales this relates to, wholesale, servicing and repair functions rather than manufacture), both report improving management and leadership skills and the recruitment and retention of young people as their over-riding priorities.

Training was also reported as a key skills issue for employers in Wales with either help developing in-house provision or finding suitable college provision being seen as important skills needs.

Table 11: Skills priorities from the education system by sub-sector in Wales

No	Apparel & Sewn Products	Design	Footwear & Leather	Laundry & Dry Cleaning	Textiles
1	Improving sales and marketing skills, including the skills needed for international trading	Improving sales and marketing skills, including the skills needed for international trading	Recruiting and retaining able young people to replace workers who are nearing retirement	Improving management leadership and supervisory skills	Improving the quality of in-house training, eg through development of in- house coaches
2	Recruiting and retaining able young people to replace workers who are nearing retirement	Improving management leadership and supervisory skills	Improving management leadership and supervisory skills	Recruiting and retaining able young people to replace workers who are nearing retirement	Recruiting and retaining able young people to replace workers who are nearing retirement
3	Improving management leadership and supervisory skills	Finding graduates with the right practical and commercial skills and knowledge	Improving the quality of in-house training, eg through development of in- house coaches	Improving sales and marketing skills, including the skills needed for international trading	Improving sales and marketing skills, including the skills needed for international trading
4	Finding colleges and/or training providers that can deliver relevant training in technical skills	Improving the quality of in-house training, eg through development of in- house coaches	Improving numeracy literacy and other basic skills	Improving the quality of in-house training, eg through development of in- house coaches	Improving numeracy literacy and other basic skills; and Improving management leadership and supervisory skills (jointly ranked)

Source: Skillfast-UK employer survey 2008

10.5 Higher educational skills in the design sector

With design being an important facet of the sector and a key area that is vital to the well being of the Welsh fashion and textiles sector, a number of results from the Skillfast-UK survey bring up a variety of issues.

With regards to fashion, 52% of design of businesses say that "finding graduates with the right practical and commercial skills and knowledge" is an important priority.

Moreover, among those sector businesses that employ designers, 67% say that recent design graduates lack the necessary technical skills for a job in the sector, whilst a huge 85% claimed they lack the required commercial awareness.

These are very important issues given that the design function is an increasingly important element relating to ongoing sector performance.

Figure 22: Do you believe that recent graduates have the right level of technical skills needed for design jobs within your business?
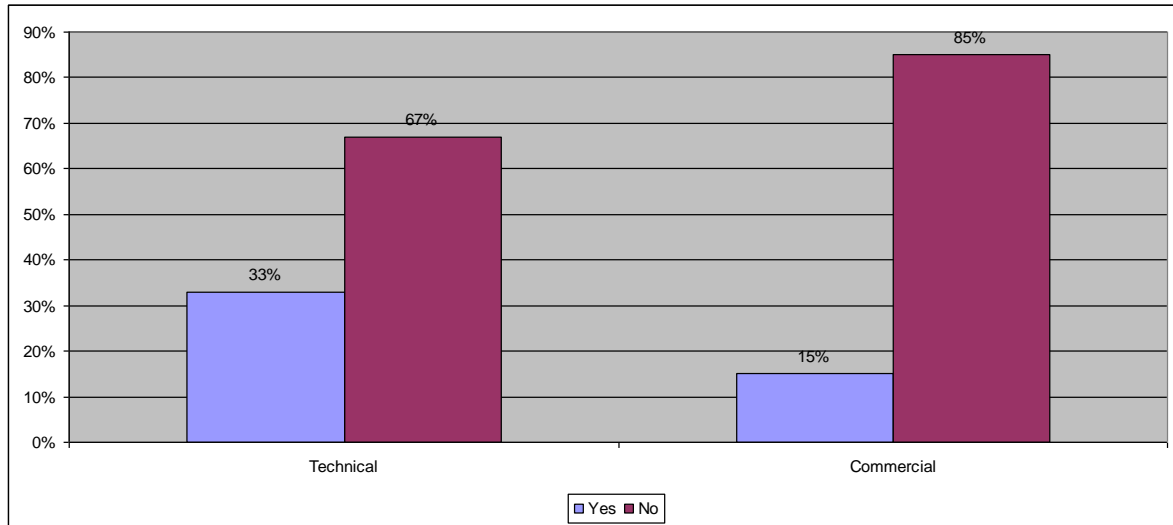
Source: Skillfast-UK employer survey 2008 (based on employing designers and excludes don't know)

11. Scenario Planning

As noted, there are a wide number of forces and drivers at play on the fashion and textiles sector. How these forces and drivers will shape the sector's future is a point of much conjecture and many conflicting scenario plans and analysis exist that illustrate this point. This is especially true for the UK fashion and textiles sector as it has exhibited such sensitivity and structural change in the recent past to globalisation.

With the recent slowing down of loss of employment numbers within manufacturing after the patterns of the mid 2000's, and the growing sustainability issues, it is important to take stock of where the sector has come from and to offer a reader into the various scenarios as to where these recent market trends may lead.

The Section therefore draws on the following scenario plans and modelling frameworks, each of which offers a relevance to the current and potential direction of the UK fashion and textiles sector:

- Working Futures III (2007)
- Skillfast-UK's bespoke scenario planning to 2015 (2005)
- Economix's European 3 scenario plan (2009)

11.1 Working Futures III

Working Futures III is a forecasting scenario series produced by the Warwick Institute for Employment Research and Cambridge Econometrics. This research uses existing survey work on employment trends across the sectors to give a view of employment estimates.

Data from the latest Working Futures III study for the Welsh fashion and textiles sector highlights the following broad level data as outlined in table below:

Table 12: Employment estimates for Wales

Employment Levels (000s)	1987	1997	2007	20125	2017	2007 - 2017		
						Net Change	Replacement Demand	Total Required
Wales Skillfast – UK Footprint	23	20	9	8	8	-1	3	2
UK Skillfast-UK Footprint	770	543	272	246	228	-44	94	50
Wales All Sector Employment	1126	1219	1395	1437	1467	73	513	585

Source: Working Futures III

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[5] The projections in this study were forecast before the recession impacted the economy and employment levels. For this reason the longer term 2017 figures must be used to give a clearer indication of future trends.

Key highlights from the Working Futures III data for Wales are:

Overall sector picture

Working Futures III forecasts a slight decrease in workforce numbers although employment by 2017 will have stabilised with approximately 8,000 people working in the sector.

Despite the small decline in the gross number employed, the sector will experience positive net employment requirements. This is due to the number of people forecast to leave the sector through retirements as evidenced by the ageing demographic, and the need to fill these emerging vacancies.

Compared to the sector at a UK level, the Welsh fashion and textiles sector will see less net change in workforce numbers. This indicates a level of structural reconfiguration has occurred in Wales and the Welsh fashion and textile sector's outlook is looking increasingly more stable.

However, in contrast to the pattern forecast to be exhibited in the fashion and textiles sector, Wales at an all sector level is expected to increase its gross employment needs to 2017 by 5%. This highlights how whilst overall employment in Wales will continue to rise, it has been forecast there will be little additional domestic demand stemming from this extra working population.

Structural changes

Whilst figures for Wales are undisclosable due to sample sizes, closer examination of the data shows the sector is following key patterns as experienced on a UK level.

Occupational make-up

The sector will continue, albeit at a slower pace, to lose jobs within the operative elements of the sector. This is the only occupational grouping within the Welsh fashion and textile footprint to be forecast a net decline in demand.

This suggests a continued movement of manufacturing and process based operations overseas. However, this movement will as seen in the overall sector perspective to have stabilised by 2017 suggesting the Welsh economy will have found its sector specialism for manufacture within in the global marketplace.

Managerial and technical positions will proportionally make up a larger part of the workforce. As companies spend a greater amount of time managing processes such as the supply chain, customer relations, and marketing and branding activities, the level of technical expertise needed, will lead to a need for these roles.

The reduction in operative level recruitment opportunities and need for management level skills illustrates the point that the sector will require far less employees with lower level skills (below NVQ level 2) and more with higher level skills (level 3 and above).

International research (Jagger, 2005) suggests that there is an association between growth in TFP in a country's fashion and textiles manufacturing sector and the presence of intermediate skills (up to and including NVQ level 3 equivalent) in the sector's workforce.

The research highlighted that whilst the UK was above average for TFP, TFP growth figures were poor in comparison. This is an important implication when considering future movements in the sector.

Demographics

Reflecting the continued niche and micro level that the sector operates and is continuing to work to, self-employment will continue to be a key feature of the sector compared to all sectors in Wales. Conversely, part-time working will not be as prominent.

The share of female employment is forecast to continue to reduce as a proportion of the workforce from almost half of the workforce which is in line with the all Wales sector figure; to little more than a third. This reflects the high level of structural change that is occurring within the sector as operative jobs (predominantly the domain of females, especially within clothing and textiles manufacture) are lost.

11.2 Skillfast-UK's bespoke scenario planning[6]

In 2005, Skillfast-UK commissioned David Rigby Associates (DRA) to scenario plan the potential future direction of the UK fashion and textiles sector to 2015. What was reported formed the scenario planning for the 2005 Sector Skills Agreement. Reviewing the evidence from the sector performance, what DRA reported has largely come to pass to where we now are in 2010.

Drawing directly from the 2005 SNA, the study was conducted with the assumption there are no variables that could potentially change the direction of the core UK apparel, footwear and textiles industry which over the next decade could conceivably lead to particularly significant differences in the way the sector will evolve.

For the core manufacturing and wholesale elements of the sector, the patterns of evolution of several key drivers were already well established and seen unlikely to change significantly. It was also assumed that any conceivable changes over the next decade in the world economy, exchange rates or in available technologies were unlikely to lead to significant changes in the UK sector's market position, prospects or future industry structure.

Overall, the industry which will exist in 2015 was predicted to be focused on producing higher added value and differentiated products for world markets as the pattern to where we are in 2010 demonstrates has been occurring. The key influences, activities and actions to ensure the future competitiveness of the sector were identified as illustrated in Table 13.

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[6] This section draws directly on a specially-commissioned scenario planning study 'The UK Apparel, Footwear and Textile Industry in 2015', David Rigby Associates, 2005 as published in the 2005 Skillfast-UK Sector Needs Analysis

Table 13: Sector Futures to 2015

Predicted Sector Influences	Key Activities	Competitiveness of the Sector
- Competition from low-cost countries - Continuing liberalisation of world trade - Increasing demand for fashion products among a growing world middle-class - An unwillingness to invest in the UK in volume manufacturing of sector products - Globalisation of tastes in clothing and footwear - Higher ethical standards in both production and consumption	- Brand creation and development and the international marketing of branded products - The application of new technologies in all areas of the business - Creative design of both aesthetic and technical products - Low-cost, small scale manufacturing of high added value and difficult to make products - International sourcing of both materials and other finished products - Supply chain planning and management - The creation, exploitation and protection of intellectual property and proprietary know-how - The industry will employ fewer people than now, and in manufacturing, many fewer. There will be a growth, however, in the number of qualified staff in all other functional business areas	- Better customer service - Brand creation and development - Commercialisation of new technologies - Creative design - Customer relationships - Strong craft and operator skills - International marketing and distribution - Manufacturing and/or sourcing overseas - Marketing, not just selling - New product development - Strong customer relationships - Supply chain management

Source: David Rigby Associates 2005 from Skillfast-UK SNA (2005)

Scenarios for the dry cleaning and textile/leather servicing subsector

Due to its nature of being a service led sector, the DRA analysis offered a separate perspective for the dry-cleaning/laundry and textile/leather servicing sub-sectors. The future of this sub-sector was considered separately because of the service-based nature of its activities and the distinctive nature of the external driving forces that act upon it. The scenario presented for these sub-sectors are as follows:

Table 14: Scenarios for the dry cleaning and textiles/leather servicing sub sector

Key Drivers	Most Optimistic 5% Annual Growth	Most Likely 1% Annual Growth	Most Pessimistic 5% Annual Decline
- Clothing and shoe technology (such as the growing availability of easycare garments) - The availability of home cleaning options - Economic conditions (which have a direct impact on consumer and corporate demand for the sub-sector's services) - Demographics and lifestyles (the trend towards casual dressing and the ageing of the population)	- No further technology, reducing the need for professional aftercare - Smart dressing increases - Strong UK economy - High employment and consumer confidence	- Some new disruptive fabric and clothing technologies and aftercare products - Slow growing UK economy - Higher unemployment. - More fragile consumer confidence	- Many disruptive technologies - Weak UK economy - Increased unemployment - Low consumer confidence

Source: David Rigby Associates 2005

Scenarios for the textile, clothing and leathergoods aftercare sector

The textile, clothing, shoe and leather-goods aftercare sector was seen as relatively mature in the analysis. At best it was envisaged to achieve only modest rates of growth and therefore could actually suffer a significant decline as a consequence of further technical advances.

Therefore, in all three of the scenarios, strategies and action plans appropriate to a mature service sector were identified to allow businesses operating in this sub-sector to increase market share and profitability. These strategies and action plans include:

- reducing costs
- market segmentation; identifying profitable niches
- introducing new and/or improved products for target segments
- improving customer service
- improving staff skills in line with all these

The SNA 2005 reported that in the case of scenario three occurring and a fall off in demand, this sector would require special actions and assistance to help with the changes brought about by downsizing and business closures.

11.3 Building on the premise of the DRA scenario study at a European level

What was reported in the scenario planning of the 2005 SNA report has been seen to have occurred, although the uncertain economic climate has seen fluctuations in business fortunes.

However, what needs updating since the publication of the report in 2005 is the way differing drivers, such as sustainability and environmental issues, the demands of fast fashion and in itself the uncertain global economy, have begun to impact the sector and how this could lead to a variety of interesting directions in which the UK fashion and textiles sector can progress.

Setting the UK fashion and textiles sector in the global environment using Economix's scenario planning on a European level

Vogler-Ludwig and Valente (2008) propose three potential scenarios to the year 2020 of the future direction of the European fashion and textiles sector and its implications for current high value manufacturers such as the UK and Wales. The reported scenarios in each of these instances impact differently on the European fashion and textile sector that likewise will have ramifications for the UK and Welsh fashion and textiles skills base.

The three scenarios put forward in this paper are "Globalisation Limited", "Asian Dominance-European Excellence" and "Advanced New Member States." Each of these scenarios are based on how the three major sector drivers of globalisation, environmental concerns and the restructuring of trade and economic policies will play within the fashion and textiles sector.

Figure 23: Vogler-Ludwig K and Valente A C three scenarios
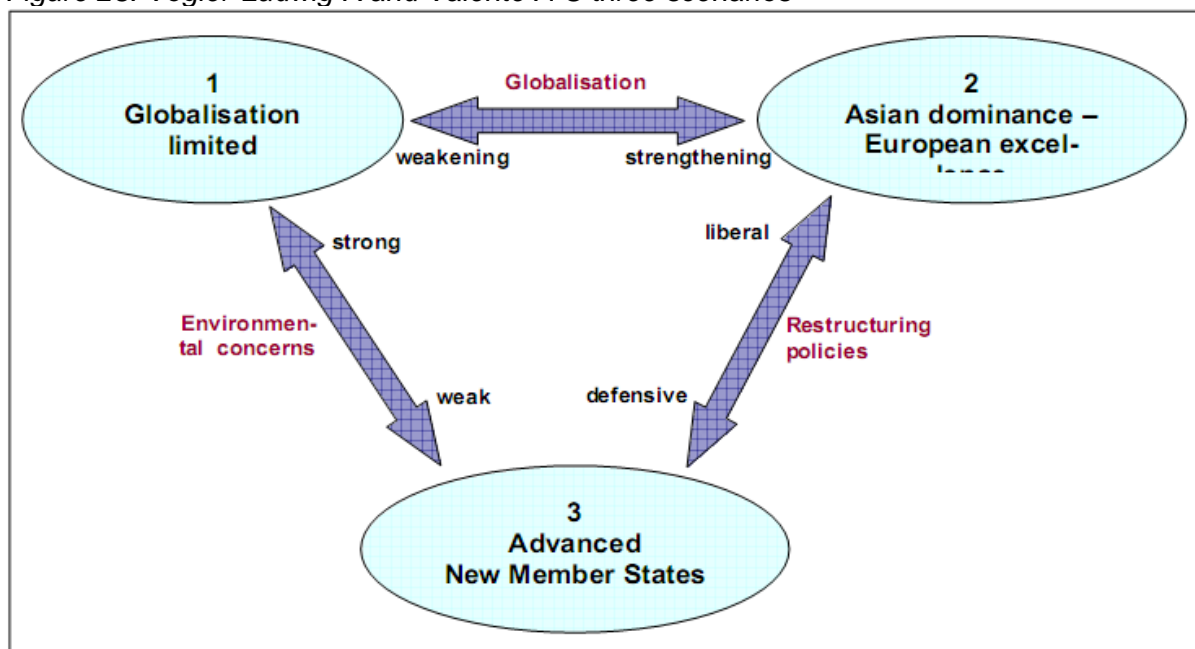
Source: Vogler-Ludwig K and Valente A C (2008)

The three scenarios can therefore be summarised as such:

Scenario 1: Globalisation Limited

Globalisation limited sees the effects of climate change and the environmental agenda change the way in which consumers, the government and producers all currently make their decisions. This in turn sees production return to a European base as manufacturing production is desirable to be carried out closer to the home market.

Whilst this pattern reduces the level of outsourcing and off-shoring that has been seen in the recent past, the employment implications for Europe as a whole are still negative with a 20-25% cut forecast from current levels.

Scenario 2: Asian Dominance – European Excellence

Asian Dominance reports the present trends the market has seen in the recent past of strengthening globalisation and continued liberalisation of trade policies. Placed in these terms, the fashion and textiles sector will continue as it has been with industrial manufacturing continuing to be outsourced and off-shored to lower waged countries as the developing world is able to improve the quality of the products offered. EU countries will strengthen their technological lead and dominance of the high value, high technology market.

This scenario will see the greatest falls in employment terms for the European economy with a halving of current employment forecast. However, this scenario will have positive impacts for future employment within skilled and technical occupations as European producers continue to innovate and command a market lead in high value production.

Scenario 3: Advanced New Member States

This scenario sees the lower cost EU Accession countries continue to offer a production facility for the EU to continue manufacturing. As globalisation continues to negatively impact manufacturing employment, policy will be targeted at ensuring an integrated role for Europe. This will produce strong demand for production related skills in lower waged European countries and professionals in high-cost countries in an attempt to prevent the erosion of the manufacturing capability from within the European Union.

Again, as with Globalisation Limited, it is forecast this scenario will see a 20-25% cut in European employment levels to 2020. However, the configuration of jobs will be different with a great loss of trade workers and a far greater emphasis on administration and the management of supply chains within a European context than at present.

Skillfast-UK recognises that this model is the one which is most likely not going to occur, given the large amounts of manufacturing already sourced to Asian countries that still offer cheaper alternatives.

Each of the key drivers at play and how that will influence each scenario is highlighted in Table 15 below:

Table 15: Key drivers of change for the scenarios

Driver	Scenario 1 Globalisation limited	Scenario 2 Asian dominance- European excellence	Scenario 3 Advanced New Member states
Environmental Costs	Rising significantly; Climate risks are strongly visible; Environmental policies with limited efficiency	Rising; Environmental policies are effective; Climate risks remain manageable	Rising; Environmental policies are effective; Climate risks remain manageable
Markets	Consumers strongly concerned about climate risks; Global economy disintegrates due to environmental conflicts; Slow macro growth	Consumers appreciate environmental politics; Global market for top qualities; Global labour division is further developed; Strong macro-growth	Consumers prefer job creation and remain price-sensitive; Medium macro-growth
Knowledge Base	Innovation concentrated on ecological technologies; Revival of traditional crafts; switch from foreign productivity to energy productivity	Strong product innovation for speciality textiles; Design marketing and sales very important; Management of the value chain	Mainly process innovation provided by machinery and organisational changes; Strong increase of labour productivity
Competitiveness	Declining competitiveness of emerging countries due to high environmental costs; Ecological and social criteria have strong impact on competitiveness	Strong position of emerging countries on low and medium quality segments; Strong position of European production of high value markets and speciality textiles	Strong position of low-cost areas in Europe on medium quality segments; Strong position of high-cost areas on high value markets and speciality textiles
Branch Structures	Locally concentrated value chains due to high transport cost; small sized production networks; Rising share of craft business	Closure of mass production; small sized innovation companies; Global networks of producers; Highly specialised crafts businesses	Mass production remains in European low-cost areas; Switch from subcontractors to independent suppliers; Top qualities and international brands in high-cost areas
Foreign Trade	Low growth of world trade	Strong growth of world trade	Medium growth of world trade
Employment Change 2006-2020	-25%	-50%	-20%
Skills Needs	Revival of production related trades; More managers and professionals in low-cost areas; Specialists for traditional crafts; General need for ecological competences	Strong decrease of production related trades; Limited demand for highly specialised craftsmen; Strong increase for technical and commercial specialists; Computer professionals	Strong demand for managers and commercial professionals in low-cost areas; Limited demand for technical specialists in high-cost areas; Decrease of production-related trades and craftsmen

Source: Vogler-Ludwig K and Valente A C (2008)

Impacts on employment by occupation

Taking the above drivers as a norm, how each of these scenarios will impact the skills mix on a European level, which in turn has implications for the sector at a UK and Welsh level is presented in the table below:

Each scenario whilst reported on a European level can be seen to relate to the UK fashion and textiles sector. The key skills competencies identified for the sector are presented in Table 16 below.

Table 16: Occupation changes in the textiles and manufacturing sector impacted by the three scenarios

Occupation	Scenario		
	1	2	3
Managers	+	+	+
Computing professionals, associate prof	+	++	++
Engineers, associated engineers	+	++	++
Business professionals, associated prof	-	+	+
Other professionals	--	=	+
Office clerks and secretaries	--	=	+
Service and sales workers	=	+	++
Textile, garment and related trade workers	++	--	--
Pelt, leather and shoemaking trades workers	++	--	--
Other craft related trade workers	+	+	--
Textile, fur and leather products machine ops	=	--	--
Plant and machine operators, assemblers	-	--	-
Labourers	-	=	-
European employment impact to 2020	**-20-25%**	**-50%**	**-20-25%**
++ strong increase; + increase; = no change -- strong decrease; - decrease			

Source: Vogler-Ludwig K and Valente A C (2008)

Scenario 1: Globalisation Limited

The implications of this scenario on the UK and Wales will be that the demand for UK and Welsh produced goods driven by the sustainability agenda (and to an extent increasing less advantage of wage drivers to off-shore and outsource) will continue to find a market.

Assuming specialisation on existing operations occurs, there will be a large increased demand for trade workers within the apparel sector. At the same time this change will also see moderate returns for managers, computing professions (in relation to increasing technological changes in both production and management of supply chains functions) and engineers to enable this process to happen.

Scenario 2: Asian Dominance – European Excellence

The trend that has occurred over the past ten years will continue to impact on the UK and Wales. Textiles and clothing firms continue to move production away from the UK as the duel impact of increasing sophistication of overseas competitors able to replicate current high value goods produced in the nation. Whilst this has large negative effects on the industry, it does create opportunities at managerial, computing, engineering and business professional levels as design functions and management of supply chain activities become an even more premium required function and vital to the on-going success of Welsh businesses to manage global supply chains closer to home.

Scenario 3: Advanced New Member States

The UK and Wales will experience continuing structural changes as supply chains reconfigure themselves once more. Production will slowly creep back to new EU member states driven by increasing consumer demands for more responsive fast fashion and the sustainability agenda. The ability of UK producers to compete lies on their ability to cultivate

customer relations and manage production from design through to branding and marketing activities.

In summary

Recapping these competencies, Vogler-Ludwig K and Valente A C (2008) offers their thoughts on how these competencies impact the sectors skills needs of people within vrious occupations and is presented in Table 17.

What is interesting to note is that the competencies listed by the firms within the Skillfast-UK analysis sit easiest within the Asian Dominance-European Excellence model. Whilst this has the greatest issues in terms of potential loss of employment, the competencies needed to take full advantage of global opportunities as reported in the priorities from the education sector, suggest employers at this moment in time believe this model is the one that will drive forward the sector.

However, pre-recession, given the slowing down of the rate of decline in employment and businesses within the UK fashion and textiles sector, monitoring of the situation is something that must be taken into account. This is especially pertinent given the requirements of fast-fashion and the increasing importance of the environmental agenda.

Table 17: Critical competences

	Scenerio 1 Globalisation Limited	Scenario 2 Asian Dominance-European Excellence	Scenario 3 Advanced New Member states
General Management	Change management Network management	Strategic, visionary, intercultural	Quality management, market orientated
Marketing and Sales	Consumer-orientated, socially and environmentally responsible	Client orientated, technical know how, trend-setting, intercultural	Competition-orientated, Market knowledge; Intercultural
Administration	Environmental legislation (REACH)	International business	International business
Research & Development	Sustainable products and technologies; Traditional techniques	Interdisciplinary; Multi-skilled Creative	Market –orientated Efficiency orientated Creative
Process Engineering	Energy and emission control; Cost control	Supervision of global supply chain	Cost control Quality control
Production	Small-scale, specialised, crafts-orientated	Client orientated, Technical know-how	Quality orientated; mass production
Quality Control	Environmental standards Network operations	Diversified standards	Large-scale control systems Network operations
Logistics	Energy-efficiency-orientated	Delivery-time orientated	Delivery-time-orientated

Source: Vogler-Ludwig K and Valente A C (2008)

12. Geography

To understand how the factors reported translate into a Welsh sub-regional analysis and current and future skill requirements, it is important to understand the geographical sensitivities of Wales.

Given the vastly diverse and geographically sensitive nature of the Skillfast-UK footprint, it is important to understand how industry drivers, current skill needs and potential scenarios will impact the sector on a sub-national level.

Recent research by Skillfast-UK as part of the Step-Up program (Skillfast-UK 2009b) has uncovered the following patterns of employment within each of the unitary district by key Skillfast-UK fashion and textile sub-sector that will help to contextualise the sector.

The findings of the research are presented below along with a summary on each sub-sector that ABI data allows us to report on.

Table 18: Distribution of sector employees by sub-sector and unitary district

Welsh Region	Total	Apparel & Sewn Products	Textiles	Footwear & Leather	Laundry & Dry Cleaning
South Wales	48%	30%	88%	56%	47%
North Wales	30%	42%	6%	17%	32%
West Wales	15%	18%	4%	19%	20%
Mid Wales	6%	10%	3%	8%	1%

Source: ABI 2007

Quoting directly from the 2009 Step-Up report for Wales (Step Up 2009):

12.1 Apparel and Sewn Products

Employment in the apparel sub-sector, the largest of the four sub-sectors in Wales, is quite heavily concentrated at local authority level.

In North Wales, Flintshire alone accounts for more than a third of total Welsh employment in this sub-sector; this is combined with a high average firm size in this district

In the South, Bridgend and Cardiff together account for around one fifth of total national employment; Bridgend also has a high average firm size, although employment in Cardiff is mostly distributed across smaller firms

There is a pocket of activity in South West Wales focusing on Swansea and Camarthenshire.

Mid-Wales accounts for 10% of total employment in this sub-sector in Wales

12.2 Textiles

Almost 90% of employment in the textiles sub-sector is clustered within districts in South Wales. The most notable of these are:

Caerphilly, with nearly two-fifths of total textiles employment in Wales and a high average firm size

Merthyr Tydfil and Rhondda, Cynon, Taff, which together contribute a quarter of total Welsh employees in this sub-sector

Cardiff and Torfaen, each of which accounts for just under one tenth of employees

12.3 Laundry and dry cleaning

Activity in the laundry and dry-cleaning sub-sector is more evenly distributed across Wales than either apparel/sewn products or textiles. Consequently, there is no district with as dominant a share of employees as Flintshire has for apparel and Caerphilly has for textiles. Nonetheless there are some districts that are clear leaders:

Gwynedd in North Wales contributes just under one fifth of total Welsh employees in the sub-sector and has a high average business size

In South Wales Monmouthshire also accounts for almost a fifth and again has a high average size of business. In contrast Cardiff's 9% of total employees is largely made up by smaller dry-cleaning establishments

In West Wales Pembrokeshire accounts for one tenth of employees again distributed across relatively large businesses

12.4 Footwear and Leather

Footwear and leather is very much a niche area of activity in Wales, although there are several companies of significant size. The main focus is on footwear rather than leather processing or leather-goods. Only two districts, Cardiff and Monmouthshire, each contribute more than 10% to the total number of employees.

12.5 Mapping of the sector indicating geographical hotspots

The following map summarises the overall picture, with the "M4 corridor", extending from South Wales into South West Wales, being the main focus for all sub-sectors. There are "outlying" districts with Flintshire being the most notable, as a result of its high preponderance of apparel/sewn product activity.

As the Table 18 above and the map shown in Figure 24 show, it gives a good indication of where the key occupational areas and with it skills needs are located.

Figure 24: Sub-sectoral priorities at unitary authority level
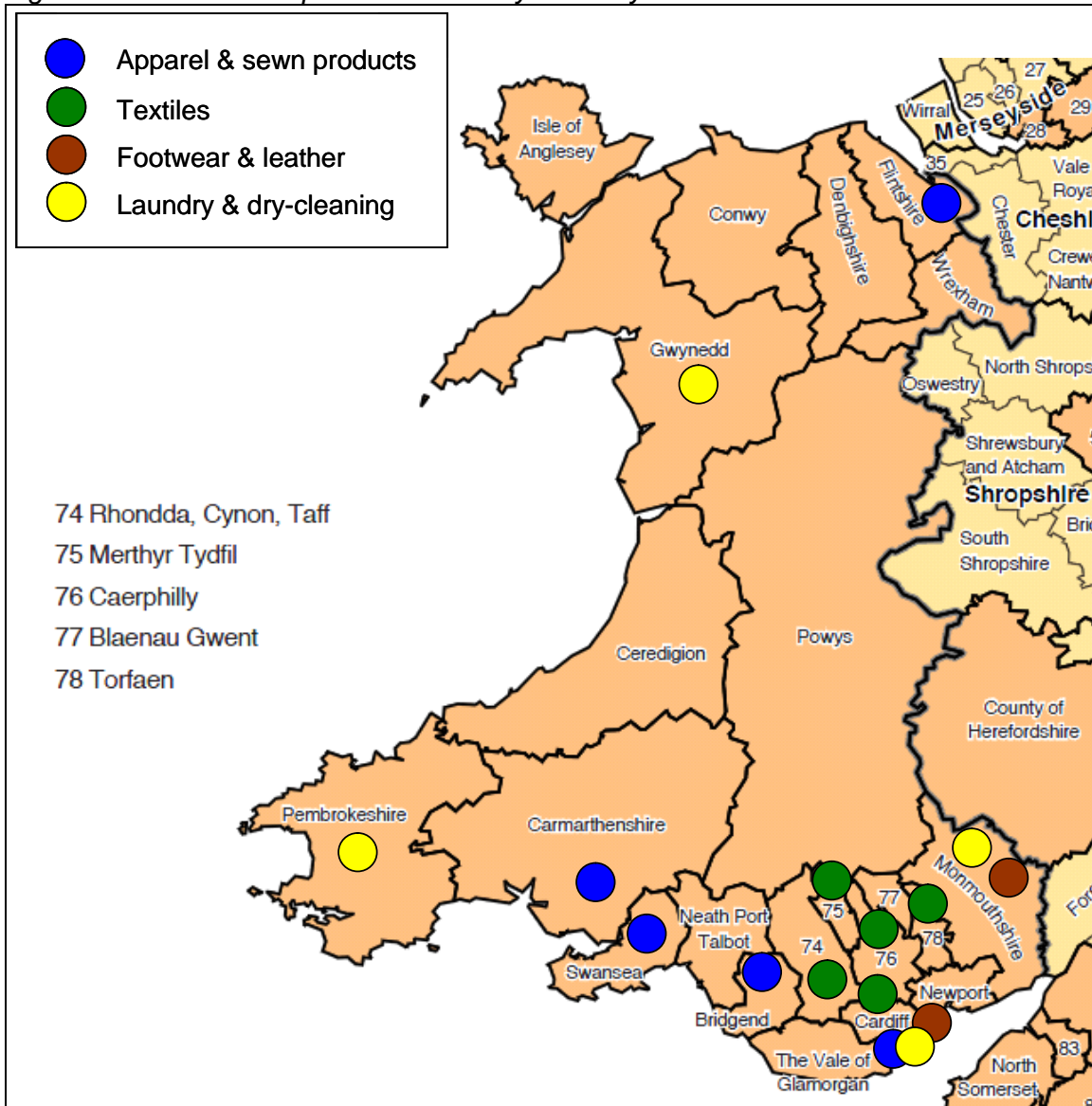
Source: ABI 2007 from Step-Up report Wales 2009

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13.   Appendices

13.1 Annex A: The Skillfast-UK footprint

The Skillfast-UK sector boards defined by four digit Annual Business Inquiry.   n.b. This analysis is based on the 4 sector boards for which is possible to gather information on. It therefore excludes the role of design, manmade and technical textiles in the analysis.

Apparel and Sewn products

1821 : Manufacture of workwear
1822 : Manufacture of other outerwear
1823 : Manufacture of underwear
1824 : Manufacture of other wearing apparel and accessories not elsewhere classified
5116 : Agents involved in the sale of textiles, clothing, footwear and leather goods
5142 : Wholesale of clothing and footwear

Textiles

1711 : Preparation and spinning of cotton-type fibres
1712 : Preparation and spinning of woollen-type fibres
1713 : Preparation and spinning of worsted-type fibres
1714 : Preparation and spinning of flax-type fibres
1715 : Throwing and preparation of silk including from noils and throwing and texturing of synthetic or artificial filament yarns
1716 : Manufacture of sewing threads
1717 : Preparation and spinning of other textile fibres
1721 : Cotton-type weaving
1722 : Woollen-type weaving
1723 : Worsted-type weaving
1724 : Silk-type weaving
1725 : Other textile weaving
1730 : Finishing of textiles
1740 : Manufacture of made-up textile articles, except apparel
1751 : Manufacture of carpets and rugs
1752 : Manufacture of cordage, rope, twine and netting
1753 : Manufacture of non-wovens and articles made from non-wovens, except apparel
1754 : Manufacture of other textiles not elsewhere classified
1760 : Manufacture of knitted and crocheted fabrics
1771 : Manufacture of knitted and crocheted hosiery
1772 : Manufacture of knitted and crocheted pullovers, cardigans and similar articles
2470 : Manufacture of manmade fibres
5141 : Wholesale of textiles

Footwear and Leather

1810 : Manufacture of leather clothes
1830 : Dressing and dyeing of fur; manufacture of articles of fur
1910 : Tanning and dressing of leather
1920 : Manufacture of luggage, handbags and the like, saddlery and harness
1930 : Manufacture of footwear
5124 : Wholesale of hides, skins and leather
5271 : Repair of boots, shoes and other articles of leather

Dry-cleaning and laundry

9301: Washing and dry cleaning of textile and fur products

13.2 Annex B: Employer SWOT analysis

Employer SWOT analysis specific to Wales conducted for the Sector Needs Analysis 2007. This is in addition to the UK Sector Needs Analysis headline findings that were found to impact the sector in each of the four home nations.

Strengths	Weaknesses
- Unique/bespoke/niche product - Flexibility – fast turnaround, small order sizes, responsiveness to customer needs - Creative design - Close relationship with customer - Loyal, skilled workforce - Location (in some cases) – low costs	- Lack of skills among staff - Ageing workforce - Negative image of industry – difficult to attract recruits - Location (in some cases) – difficult to attract staff, lack of disposable income in area, transport costs - Lack of production capacity, reliability - Sales/marketing capacity - Lack of time to develop business (sole traders, micros) - Lack of investment
Opportunities	**Threats**
- Exploitation of niche markets - Overseas sourcing - Development of new sales channels (eg direct sales, e-commerce) - Development of export markets	- Increasing competition from overseas producers – pushing down retail prices and UK manufacturers' margins - Product counterfeiting - Changes in consumer preferences (eg shift towards low-priced products) - Rising input costs (eg minimum wage)

Source: SSA interviews

13.3 Annex C: Technical Textiles

Sector	Products	Key Drivers
Automotive and Aerospace	• Airbags and seat belts • Upholstery yarns and fabrics • Needle-punched headliners, carpets, boot-liners, sound-proofing and insulation • Lightweight non-wovens used in filters • Tyre cord fabrics • Clothing for space suits – lightweight and highly flexible • Mechanical rubber goods (MRGs) ie hoses and belts • Various composites	• European 'space race' and potential commercial flights • Continuous reviewing of safety standards • New materials producing improved performances • Improved flexibility raising new standards creating new markets
Composite Textiles	• Aerospace components (tails, wings, fuselages propellers) • Boat and scull hulls • Bicycle frames and racing car bodies • Fishing rods, storage tanks, and baseball bats • The new Boeing 787 structure, including the wings and fuselage is composed largely of composites.	• Develop product development and service capabilities to assist users with individual design • Application and technical troubleshooting issues • Provide QR manufacturing and distribution capabilities to cope with a wide variety of individual customer specifications and supply requirements • Supply and service increasingly global markets
Industrial Biotechnology	• Medical textiles, including all those textile materials used in health and hygiene applications • Incontinence pads, and diapers • Artificial veins • Prosthesis etc • Breathable, temperature-regulating materials • Lightweight shock-proof materials • Water and dirt repellent materials	• High crude oil prices • End consumer 'pull' for green biotech products • Bio-based based materials v crude oil based materials • Concerns about greenhouse gas emissions • Scientific progress, ie advancements in synthetic biology
Nanotechnology	• Nano-sized whiskers protrude from the fabrics, allowing any spill to be easily wisped away without damage to the fabric. • Antimicrobial and anti-mosquito protection into a vast array of products. • Leather degreasing • Textile dewatering • Applications of nanotechnology in textile production • Electronic textiles • Fibre modification • Textile pressure and strain sensors, used in clothing that can measure heart rate and respiratory rates, and to detect movement in buildings and structures • Electrically conductive textile materials, used in health monitoring garments, utilised by the military for inconspicuous communication tools, and for fashion items i.e. Ipod jackets or mp3 players integrated into snowboarding gear	• Less-invasive procedures and pressures for medical conditions, all point to nanotechnology as offering a new approach in healthcare materials • World textile and clothing overview • Macro and micro value chain of the textiles industry • Overview of the market potential for nanotechnology in textiles • Nanotechnology in the textile-related categories of; technical/non-woven/industrial textiles, high-performance textiles, multifunctional textiles and Smart/intelligent textiles
Others, eg cross cutting performance clothing, work-wear and technical textiles	• High visibility clothing (for joggers etc) that incorporates reflective materials • Protective clothing is another related area that includes garments which offer a higher level of protection than offered by standard work wear garments	• Growth of sporting and outdoor pursuits demanding performance apparel

Source: Adopted from UK Technical Textiles: A Strategy for Growth (2004-2009)