



Clothing after wear

Textile recycling has a long history in the UK, but it is now under threat from cheap clothing imports. **Lotte Debell** finds out about a new project that aims to inject new life into this important industry.

What happens to our clothes when they wear out, or go out of favour or fashion? As an individual we have a number of choices, ranging from charity shops, clothing banks, jumble sales, or sometimes just throwing them in the bin. After all, you might say, who is going to want that moth eaten old jumper that has been hanging around in the back of the wardrobe for five years? The answer, quite probably, is no one, but just because a garment can no longer be worn does not mean it can't be recycled.

For the corporatewear industry, however, the question of the end of the life cycle of garments is more complex, and there are all kinds of things to consider. There is the option of sending serviceable garments abroad, but with more recognisably branded items, companies can be sensitive about allowing them to be worn by anyone and everyone. And even in developing countries, where garments are resold, corporatewear can be problematic, as Garth Ward of the Salvation Army Trading Company, a commercial enterprise that handles the organisation's textile recycling activities, explains. 'People forget, or don't realise, that even in developing countries there is an interest in fashion, and people don't want to look the same. They are not interested in receiving lots of supermarket uniforms, for example, and these have no resale value there or in the UK.'

Garth has been in the clothing recycling industry for almost 15 years, and the Salvation Army is one of the experts when it comes to the resale of clothing. 'The question you have to ask with reused clothing is: would I wear it? If the answer is no, the chances are no one else will either. A pair of trousers, or a skirt that is not logoed can probably be resold. Anything else – blouses, jackets, ties – that might be heavily branded, and it then gets more difficult. So corporatewear can be a challenge.'

Which often leaves recycling as an option, but even that has its problems. Textile recycling in this country has a long history, and has existed on its own for economic reasons, right from the

rag-and-bone men to the present day. There have been no government subsidies as there have for other recycling industries such as plastics. It exists because people can make money at it, but it is also a very volatile industry and money can be lost as well as made. Especially now.

In the modern economy several factors are coming together to make textile recycling more difficult, as Nick Morley from Oakdene Hollins, a waste management research company, explains. 'The traditional markets for clothing resale in the UK are being eroded. Although the markets are very volatile – for example, prices are currently quite high – there is a long term trend of lower prices generally. If the retail price of a shirt goes down, the price it can be resold for in a charity shop must also decrease. In addition, clothing sold to Africa, for example, is also affected as cheaper clothing is available from the Far East.'

Not only that, says Nick, but the traditional

markets for recycling are also growing smaller. Wipers and rags, one of the main markets, is disappearing. These used to be sold to industries like engineering, which is also suffering a decline here in the UK. Garth agrees. 'It is basically not economic to recycle clothing in the UK anymore. For example wipers and rags can probably be sold for about 10 per cent of what it costs to process them. In corporatewear terms, 500 uniforms could have an end value in this market of, say, £50, and the processors have to send a van to pick them up, then they have to process them. It is just not cost effective.'

'The influx of cheap clothing from abroad also needs to be considered,' adds Nick. 'As a result of lower prices people may buy more clothing, and certainly less recyclable clothing. Garments like woollen suits are easy to recycle because wool is a good quality fibre with several alternative uses, but items made with cheap polyesters, or polyester/cotton mixes are harder ➤

“As a result of lower prices people may buy more clothing, and less recyclable clothing”

The EU Landfill Directive has set demanding targets for the reduction of biodegradable waste that goes into landfill.





The charity shop is one of the traditional routes for the resale of clothing that is under threat from lower prices.

waste landfilled, to be reduced by 35 per cent by 2020. 'There are several technologies being developed,' says Nick, 'such as autoclaving, or anaerobic digestion. The difficulty is that textiles can sometimes be problematic for these methods.'

Many of those problems, explains Garth, are caused in the design phase, with some garments made in a way that makes it impossible for them to be recycled. 'This is true of sportswear, and any kind of performance or technical garment. There can be lots of layers welded together to provide different functionalities, and because these layers can't be separated the garment can't be recycled. Unless current research can find a way to do this, these garments will end up in landfill, and with chemically treated items like PPE there is the possibility of toxic waste.'

A new joint project to address this, and the other issues, has now been set up. It will conduct technical, economic and market development research into clothing recycling, with the aim of improving the economics of the industry, and has recently been awarded funding by Defra (Department for Environment, Food and Rural Affairs). The project is a partnership between Oakdene Hollins, the Salvation Army Trading Company, and the Nonwovens Innovation and Research Institute (NIRI), the commercial arm of the Nonwovens Research Group based at Leeds University.

The Recycling of Low Grade Clothing Waste project has two main aims: the first, to assess the implications of changes in clothing quality and price as a result of the end of the Multi-Fibre Arrangement, and the second, to assess the use of innovative technology in creating high value nonwoven products from grades of clothing that can no longer be worn, with the aim of generating new markets as the old decline.

Garth Ward is one of the instigators of the project, which grew out of a conversation with Nick Morley at a lecture at which Garth was a speaker. 'We were talking about what I would like to see happen in the industry,' says Garth.

market by making new products. Basically, taking items of unwanted low quality clothing that can't be resold in the UK or elsewhere and turning them into something that can. We are using about 30 per cent of the goods from Salvation Army collections for this purpose.' Research is not cheap, however, and they needed funding, which is where Defra came in, providing £150,000 for the project.

An important question the project will address, says Garth, is who should bear the costs of recycling clothing and textiles, the recycler or the manufacturer. 'When I started in this industry in 1991, recycled and resaleable products could be sold at a good profit. The government tended to ignore the industry because it had always supported itself. There was a market for recycled goods but that market is disappearing and textile recyclers are going out of business because of it.'

On the international scene, those textiles recyclers are fighting back. They have made a petition to Brussels for producer responsibility, ie that the company that manufactures the product has a financial obligation to see it disposed of and recycled. 'At some point in the process of recycling a fee has to be paid,' ➤

Incorporating many options

Careerwear supplier incorporatewear takes the end of life of garments very seriously, and it is an issue that is important to customers, says operations director Brian Lamb.

Incorporatewear uses an ethically and environmentally approved company based in the Midlands that specialises in textile recycling, reclamation and clothing exports. A skip on the company's premises is emptied every two days and the recycling company then commences sorting all the clothing, separating it by fabrics and styles, and where it is found to be still useable it is packed up and sent on to Eastern Europe and Asia. Some garments that re no longer fit to wear are ragged and sold to make such things as army blankets. None of the recycled garments are incinerated or go into landfill.

'When it comes to which garments can be reused, it depends both on the fabric and type of garment,' explains Brian. 'Warmer countries have no use for jackets, or polyester garments. They prefer cotton garments like polo shirts, and polycotton trousers. Anything manufactured from wool or wool blends, if it is past wear, is shredded and the fibre reclaimed through a process of secure destruction. The fabric is then processed through a milling machine and comes out looking like multicoloured sheep's wool. The reclaimed fibre is then dyed and sent to factories in countries such as Bangladesh where it is rewoven and reused.' ■

➤ to recycle. This means that more clothing will end up thrown away rather than recycled.'

The danger, he says, is that if we continue to import large quantities of cheap clothing that can't be recycled, the recycling industry in the UK may disappear entirely. 'There may be no more clothing banks, charity shops will stop selling clothes and there will be no money in recy-

“If we want to recycle clothes effectively there are going to be costs involved”

cling. Textiles will then start to go down the domestic waste stream and end up in landfill.'

The UK produces a staggering 1.75 million tons of textiles and footwear waste every year, about 1 million tons of which is clothing. This is at a time when the government is encouraging the development of technologies to replace landfill and incineration for waste disposal. The EU Landfill Directive has set demanding targets for the amount of biodegradable municipal

'Ideally we would be able to find someone making product X out of virgin material such as cotton, and someone with lots of old cotton, and bring them together to make a 50/50 old/new sellable product. It grew from there.'

New technology had been developed at NIRI at Leeds under a previous recycling research project for fibre waste and they were contacted about the possibilities of the idea. 'Our aim is to take a percentage of recycling and develop the

► Garth explains. 'If producer responsibility comes in, the fee would be paid to the recyclers. This kind of legislation already exists for some categories of goods, such as electrical items, and will probably move into others in the future, and textiles is likely to be one of them.'

One of the reasons for the research, says Garth, is to develop a dialogue with industry to find out if this kind of measure could work. 'We would need industry support, and that means the manufacturers and suppliers of the clothing, of corporatewear as well as retail. If we want to recycle clothes effectively there are going to be costs involved and who is to pay these costs is a difficult question politically and otherwise. Hopefully an industry dialogue will help to resolve the question.'

Another important question, in this industry as in so many others, is energy consumption, one of the major problems in the world today. 'Most of the attention is focused on transport and how to reduce its energy use, but if you consider an item of clothing, transport only accounts for about seven per cent of the energy needed to make that item. The washing, drying, ironing of the garment accounts of another 70

Energy consumption is one of the biggest concerns for all industries, and reducing the energy involved in the care of garments could really make a difference.



per cent. If garments are designed to require these processes less, it might be possible to bring down energy expenditure to 20 per cent which would be a huge saving. Buyers need to be aware of issues like this as they are the people that specify the garments. If garments become more energy efficient and easier to recycle it really could make a difference.' ■

BT clothing convoy

BT Corporate Wear chose the donation route for over two tons of surplus and returned clothing, sending it on a Communication Workers Union Humanitarian Aid convoy to Moldova. The CWUHA is a British-based charity operated by volunteers employed by Royal Mail, BT and Parcellforce and its convoys take much-needed supplies to Eastern Europe.

Heather Parks, the assistant branch secretary for the central and west Lancashire branch of the CWU approached BT after seeing a lot of clothing donated by the Royal Mail.

Heather contacted Tony Aitken of BT procurement and supply chain who arranged to let the CWU have the surplus and returned clothing. It was sorted and palletted and sent over to her room in Moor Lane Telephone House in Preston where she has been wading through pallettes of clothing. 'I have to de-bag everything before boxing it up ready for the convoy and have been busy washing and ironing mounds of clothing at home, in my lunchtimes and on annual leave from the office. But all the hard work will be worth it when we deliver the clothing and aid. I'm sure the men will be delighted with the trousers, shirts, jumpers and jackets.'

Heather organised a day at Moor Lane to show people from BT and the CWUHA organisers how the clothing was being handled. ■