

Closing the Loop – The Recycling Imperative

By Olaf Rintsch, of the Bureau of International Recycling, Textiles Division

From a historical perspective, early rag collections were the pre-industrial equivalent of scrap-material removal. The rag-and-bone man of the early modern age disposed of the waste material, which primarily accumulated with a rural population unable to put it to any further use. In the paper or bone mill, he was then paid for the goods he had collected.

With industrialisation, rags lost their significance for paper production, following the transition to other raw materials. It was not until the beginning of the 20th century that the rag collector regained his importance.

There are four methods of collecting second hand clothes:

Recycling Containers

Recycling containers are steel bins fitted with a special depositing mechanism. The mechanism is designed to make the containers easy to fill and to maximise their capacity. It is particularly important that the clothes do not become wet when it rains, as this would render them unusable.

All towns have sites with recycling banks for glass and paper that are operated by the local



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waste-management authority (town or municipal council or a legally independent partner company). In many cases, these sites also include recycling containers for clothing, although the procedures involved differ greatly.

These bins often display the logo of one or more organisations (eg. Red Cross, Oxfam or Caritas). However, the organisations have nothing to do

with the collection activity and have, instead, leased their names and their logo to the waste-management authority. Regardless of the logo used, all the organisations receive a percentage of the fee for the volume collected.

Alongside the recycling containers on municipal recycling sites, containers can also be found on private property, usually in the car parks of shopping centres, supermarkets and DIY stores. The property owners mostly tolerate these containers or receive a small rental fee for the space, in the hope of increasing customer frequency.

Recycling Yard

At recycling yards, materials are collected using recycling containers that have been provided there. Larger volumes can also

sometimes be handed in directly. As a rule, the recycling yards are operated by local authorities or by independent subsidiary companies that report to the local authorities. The used textiles collected here are distributed to various recycling channels (charitable organisations, commercial collectors, etc.).

Street Collection

In many places, street collectors do not need to be licensed or registered. However, a number of German states have recycling legislation that includes obligatory registration. In some places, the responsible licensing authority specifies that certain approval procedures have to be followed. The Collection Services Act also sets out responsibilities for issuing approvals and permits, depending on whether collections are made on a local/regional level or an inter-regional level. Towns and local authorities often have little knowledge of individual collections.

The street collections are carried out by small businesses and other organisations that distribute leaflets to all households in the area concerned. The leaflets mostly give the impression that the collection is on behalf of a charitable institution. Even when reputable-sounding names are used, they are, as a rule, false and do not actually exist.

Usually, checking the contact number on the collection ticket will help the recipient identify just how open the organiser is willing to be. If the collection ticket gives only a mobile number with no further details about the collector, this strongly suggests a dubious background.

Other Collection Points

Evangelic and Catholic churches sometimes have their own collection bins on their property. Some parishes and aid organisations also accept clothing directly in their parish



Quantities of textile recycling in clothing and domestic textiles (Germany)

	1996		2007	
	Tonnes	%	Tonnes	%
Domestic availability	1,008,250		1,126,000	
Collected waste	635,010		750,000	
Collection banks	126,500	20%	600,000	80%
Street collection	466,540	73%	150,000	20%
Recycling yard	7,050	1%	na	na
Other disposal channels	153,000*	25%	na	na
Reclamation potential	615,000		750,000	
Reuse (trade)	290,000	48%	322,500	43%
Recycling (cleaning cloths etc.)	110,500	17%	120,000	16%
Recycling (Secondary raw materials => automotive industry etc.)	153,000*	25%	232,500	31%
				(21% / 10%)
Reclamation rate	594,500	90%	675,000	90%
Rubbish for disposal	61,500	10%	75,000	10%
Circulation rate	554,500	55%	675,500	60%

* incl. mattress filling

offices or clothing banks. This clothing is sold through their own second-hand shops or handed out again from the clothing banks. Unwanted clothing is transferred to partners with whom they cooperate.

The BIR (Bureau of International Recycling), textiles division, predicts a relatively stable future for the global textile-recycling sector. The prices for original products with a high proportion of wearable clothing currently seem to have stabilised at a relatively high level.

However, in almost all industrial countries, the worldwide financial crisis has had a negative impact on the sale of cleaning cloths, into which a high proportion of the reclaimed textile material is converted. The worldwide trade in graded textiles is strongly dependent on used clothing, which has to bear 100% of the costs. Traders in Europe are still struggling with partially unclear EU environmental legislation, which categorises used textiles as waste and complicates transportation across borders.

A German example: in terms of textile recycling, both the BVSE (Federal Association of Secondary Raw Materials and Waste Management eV) and the FTR (Trade Association of Textile Recycling eV) differentiate between domestic availability (annual consumption of clothing and domestic textiles) and collected waste (amount of used textiles which are collected through varying channels). For the year 2007, BVSE/FTR calculates the consumption of textiles (domestic availability) at 1,126,00 tonnes, of which 750,000 tonnes were collected (collected waste). Around 80% of this volume was placed into collection bins and the rest was collected through other means.

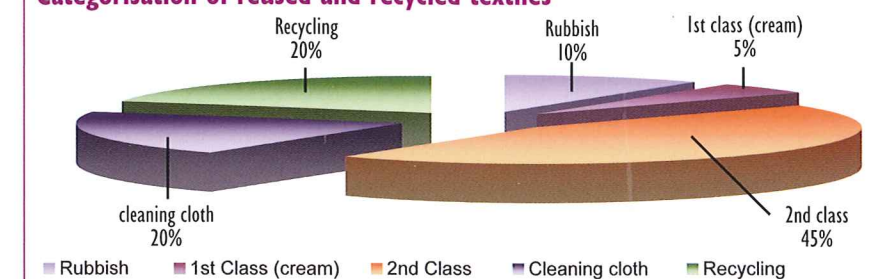
Over a period of 10 years, there has been a

disproportionately small increase in availability (in comparison with the rates of increase of 2-3 % for waste management and recycling). This relatively slight growth is the result of qualitatively low 'shopping-basket' developments (reduction in buying power) and of demographic factors, with an increasingly ageing population resulting in lower use of textiles.

The reclamation rate, that is the proportion of collected waste actually reclaimed, amounts to 90%. In 2007, a total of 322,500 tonnes (43%) was reused through worldwide trade on all 5 continents; 120,000 tonnes (16%) was recycled to produce cleaning cloths; and 232,500 tonnes (31%) was recovered in other ways (secondary raw materials, insulation materials, the manufacture of rear parcel shelves for cars, interior upholstery, etc). The remaining volume of collected goods, 75,000 tonnes (around 10%), could not be recycled and was reclaimed thermally.

The vast majority of collectors operate locally or regionally. The collection channels have changed fundamentally in the last few years: in 1996 over 70% of the goods were still picked up from street collections but nowadays 80% of used textiles are collected from modern collection bins. Collection bins

Categorisation of reused and recycled textiles



are simply better suited to today's environmentally conscious individuals, who also take bottles and used paper to the relevant recycling bins.

However, this also involves large investments for the collection businesses, resulting in the creation of entry barriers for smaller businesses with low capital. The proceeds from recycling and reclamation do not constitute positive product profitability. In sorting businesses, which categorise used textiles into up to 150 different classes or qualities, high staffing costs likewise make for dwindling margins. Depending on the seasons, categories such as 'summer mix' and 'winter mix' take up a large share. The general trend in textile recycling, however, is in the direction of 'cleaned original products'.

Reclamation potential for recycled textiles

Although the reclamation rate for the amount collected is already very high at 90%, the circulation rate (60%) could be increased by optimising the amount collected from overall domestic availability. Not only would this be economically worthwhile, but it would also make sense from an ecological perspective. First and foremost, consumer interest in textile recycling needs to be boosted in order to increase both recycling potential and the amount of clothing collected.

Within the EU Commission, efforts are under way to create general provisions for textile recycling as part of the new directive on waste. The intention is to secure the management of used textiles from their origins to their final disposal. In future, this would involve subjecting collection businesses, transport firms, brokers, traders, etc. to compulsory registration or licensing.

Within Europe (France), there are also plans to pass on the disposal costs for used textiles according to the 'originator principle'. Under this proposal, both manufacturers and consumers are counted as originators. Thus, the costs for disposal and recycling are passed on to the 'originator' accordingly. Second-hand clothing and other reusable goods are excluded from this.

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