

# Fibre to fibre recovery Business Models



Rijkswaterstaat  
Ministry of Infrastructure and the  
Environment



From 2016 until 2019 nine fibre to fibre pilots have been implemented by the European Clothing Action Plan - ECAP. The fibre to fibre pilots were aiming to support the use of recycled post-consumer textile fibres.

Three workwear companies, a linen supplier and five fashion companies were involved in the ECAP pilots. They individually trialed the use of fibres from post-consumer textiles in new garments and shared the learnings from their experiences in case studies and factsheets.

## Key findings

- The price of the recycled material is still high compared to normal raw materials, due to higher labour wages in Europe and trade limitations on import of textile materials
- Using recycled fibre collected from your own waste material will help reduce costs
- A growing demand for fabric with recycled content in future could result in lower prices
- Workwear clients are aware of the added value of circular workwear and are willing to pay more.

Cooperation

Design

Communication

Logistics

Business  
models

Internal support

Quality of fabric

## Factsheet Business Models

Most pilot companies began with their current business model as a starting point. The challenge was to find whether yarns and cloth from post-consumer materials can be obtained for a price and quality comparable with 'normal' products. In the pilots, the costs for the recycled fibers were higher than those for virgin material.

For collection, transport, removal of non-textile parts and fiberisation, it seems the labour for processing is not more intensive as for virgin material is needed. In return, some savings were gained in the production of recycled fibre fabrics. Especially when it comes to cotton, less water, energy and dyes are needed. The price difference is mainly caused by the difference in labour costs between Europe and Asia.

Still, a large number of companies have had their yarns developed in Europe because cooperation is easier and there are companies that have a great deal of knowledge about recycling. The expectation is that an increasing demand for recycled content will lower prices in the future.

**“We definitely see circularity as our new business model”**

**Shirley Schijvens, managing director of Schijvens**

## Cost reduction

The pilot companies had various experiences attempting to reduce costs. For example, lower prices were associated with a higher minimum purchase. This is primarily a solution for collections with large volumes. Another option is to export your own textiles or fibres to a country with lower wages. For the latter it must be taken into account that import duties or requirements entail additional costs. An example is the need to mutilate discarded clothing to prevent it from being sold as clothing after exporting.

## Added Value in workwear

Higher costs are not problematic if the customer is prepared to pay for it. This proved to be no problem in the pilots for work clothing. The companies that choose to buy recycled content workwear clothing are aware of the added value in sustainable clothing and are thus willing to pay for it. The pilot company Schijvens has chosen to expand the business model and to combine the sale of clothing with recycled content with the development of a new service for the collection of clothing. The customer pays for the service of taking the clothing back after disposal. This way, the company obtains its own discarded material of which the composition is known which can reduce the cost price of recycled fibre.

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## Take back system - case workwear Schijvens



When clients want to take part in the circular process, Schijvens places for free bins with recycling bags in stores and big containers at distribution centres, including instructions how to use it. The full recycling bags are gathered in the distribution centres from where it is transported to a sorting centre. Here the garments are sorted according to color and quality. After the sorting process the clothing returns to Schijvens to be converted into bales and send to Turkey for the recycling process.

### Added value in fashion

This method isn't as easy for the fashion companies. Most pilot companies estimate that consumers do not (yet) want to pay a higher price for sustainable and circular clothing. In their case, a take-back system could generate money if part of the discarded clothing can be sold again as vintage or second-hand. In another ECAP project, consumer research showed that consumers are increasingly buying second-hand clothing. This could be a chance for fashion companies who want to use their own discarded products for recycling.

### Service model - case Blycolin

Circular textiles can also be realised by a different business model in which the customer does not purchase the product but purchases the service of suitable, clean and non-broken clothing or textile.

The service provision by Blycolin is based on the pay per use principle. The sheets are and will remain the property of Blycolin.

The latter ensures reliable delivery of sufficient sheets that meet the set requirements. The model works on the basis of multi-year agreements. The clean sheets must meet high requirements.

The washing, pressing and mangling / drying process is intensive, with high temperatures and high pressure. The better the quality of the fabric, the better the treatment by the user, the longer a sheet lasts and the better the system works financially for all parties. A long service life is also better for the environment.

This model offers a good starting point for closing the material loop. The added value of recycled content for clients is not totally clear yet. So the reduction of the costs for recycling still is a struggle.

### Important questions related to a take back system

- How many take-backs do you expect?
- What kind of volumes are we talking about?
- How to collect and take care of logistics?
- What is our communication strategy?
- Are there import fees and export rules with regard to 'waste' involved?

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The European Clothing Action Plan - ECAP is €3.6 million EU LIFE part funded project. ECAP contributes to creating a more circular approach to reduce clothing waste and water and energy use during production.

### ECAP mission

Cutting the environmental impact of clothing across the supply chain. Generating value for business through collaboration, measuring and sharing best practice.

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The fact sheets were generated as a result of pilots carried out for ECAP by Rijkswaterstaat and the named organisations from 2016 to 2019.



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