

Fibre to fibre recycling of textiles

ASOS



Rijkswaterstaat
Ministry of Infrastructure and the
Environment



Project supported by LIFE funding



Company: ASOS

Product or service: Online fashion retailer

Pilot: ECAP fibre-to-fibre pilot

Key facts:

- ASOS wanted to increase the use of recycled denim in its menswear and womenswear ASOS Design jeans and develop knowledge and expertise internally.
- Through the Fibre to Fibre project and with the support of experts from ECAP, ASOS was able to increase the amount of recycled denim in the jeans selected for this pilot from 7% to 18% in 2017 and 20% in 2018.
- The online retailer used a mix of pre-consumer and post-consumer denim.
- This pilot achieved the following estimated environmental savings in 2017:
 - Water savings: 7,694 m³
 - Energy savings: 3,434 kWh
 - CO₂ reduction: 13,978 Tonnes
- In 2017, an estimate 1.1 tonnes of discarded textiles were saved from landfill.

Key findings:

- Collaboration is key to circular fashion, and engagement with suppliers, mills, and other brands can help deliver change
- Industry-wide collaboration efforts and guidance in this space would prove useful
- Drawing on a vertical supplier with years of yarn-spinning expertise helped make the pilot a success.

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Overview of the company

Intro

ASOS was founded in 2000 and has become a top fashion destination for 20-somethings around the world. It has more than 85,000 ASOS and branded products on site, with 5,000 new items added each week. It also offers fashion-related content through its websites, mobile apps, the ASOS Magazine and its social media accounts, which have more than 23 million followers. It serves 19.2 million active customers from fulfilment centres in the UK, US and Europe, delivering ASOS packages to almost every country in the world.

Mission and vision

ASOS' sustainable sourcing programme comprises four pillars:

- **Traceability** of raw materials: Mapping commodities to better understand and influence how they are sourced.
- Lowering **environmental impact**: Increasing the conversion from traditional materials and processes to lower-impact alternatives, including recycled fibres.
- **Craftsmanship**: Investing in suppliers and projects that support local skills and community development.
- **Engaging customers on sustainability**: Providing customers with opportunities to buy sustainable fashion and to reduce their environmental footprints.

Cooperation with suppliers and other stakeholders

As part of this programme, ASOS partners with a number of working groups and organisations to help it measure, reduce and report on the environmental impacts of its products throughout their life cycle.

It is committed to sharing its learnings, and to supporting cross-industry initiatives that will accelerate progress and minimise the burden on suppliers.

Why ECAP?

ECAP – the European Clothing Action Plan, is a project part funded by the EU LIFE programme. The project aims to achieve waste prevention, a reduction in water and energy use and a reduction in CO2 emissions in the textile chain. ECAP uses fibre to fibre pilots to support businesses in their commitment to circular textiles and the reduction in the use of virgin materials. The pilots are intended to develop knowledge and insight into the use of recycled textile material in new clothing.

As part of its sustainable sourcing programme, ASOS wants to increase its use of recycled fibre in its products. It aimed to use the ECAP project to increase its use of recycled denim in its menswear and womenswear ASOS Design jeans, and develop knowledge and expertise internally.

“ASOS' vision for circular fashion is a future where all customers recycle their clothing, and waste is re-used in the supply chain.”

Tara Luckman, Head of Sustainable Sourcing, ASOS

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What we did

The aim of the ECAP fibre-to-fibre pilot was to introduce recycled denim into ASOS' supply chain and to understand the opportunities and challenges this would present. ASOS also wanted to make use of a tool to measure environmental savings, and to use the pilot to develop knowledge and expertise on recycled fibres internally.

The ECAP fibre-to-fibre pilot was launched in March 2017 and was completed in December 2018. The following activities were performed:

Product selection

For the pilot, ASOS opted to focus initially on ASOS Design jeans across womenswear and menswear. A number of other products, including a wider range of jeans styles, jackets and skirts, were also identified for further implementation of recycled cotton once the initial pilot phase had been completed.

Engaging supply chain partners

In cooperation with REMO (The Recycle Movement), which advises on textiles recycling for ECAP pilot projects, ASOS selected a well-known vertical supplier of post-consumer recycled fibre in Spain with years of yarn spinning expertise as partner for the initial pilot.

Part of ASOS' strategy involves getting suppliers on board with the project to promote recycled fibres. Not all of ASOS' denim suppliers are vertical, and for these suppliers it is necessary to help them source and develop recycled yarns that are compatible with their existing production. Engaging with these suppliers to encourage the use of recycled fibres and improve their expertise with yarn spinning techniques is a focus area of the project moving forwards.

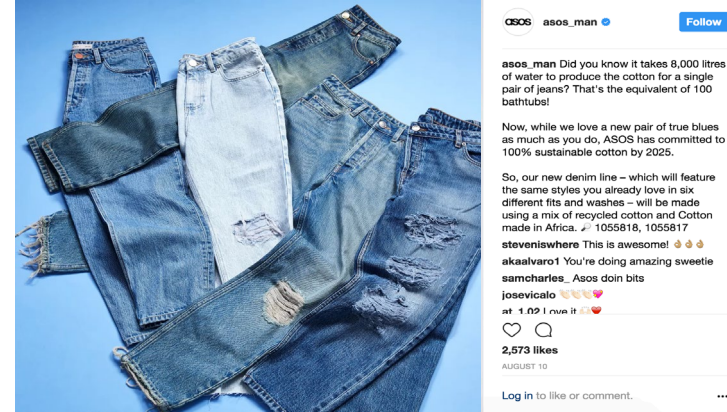
To support this aim, ASOS joined the Alliance for Responsible Denim (ARD). This allows it to collaborate with the other like-minded brands. Its main focus in joining the ARD is to increase post-consumer content in ASOS' denim, as well as unlock value and potential within circular approaches.

Development of yarn and fabric with recycled content

ASOS increased its use of recycled content from 7% to 18% for its ASOS Design jeans during the course of the pilot. A mix of pre- and post-consumer denim was used, and recycled fibres were blended with virgin cotton, including certified Cotton Made in Africa.

Communicating with customers

- REMOkey: ASOS partnered with REMOkey to add REMO labels to its jeans, which include a QR code customers can scan to find exact information about the percentage of recycled content included in the item and its resulting environmental savings.
- ASOS regularly communicates its sustainability initiatives to customers, and has promoted recycled denim on its social channels and on the Style Feed on its main site, here: https://www.asos.com/men/fashion-feed/2017_08_7-mon/new-recycled-denim-jeans/



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Challenges

- One key challenge with using a substantial amount of recycled fibre was maintaining a commercially viable product with consistent quality
- Recycled denim has different properties to virgin fibres, with different requirements in terms of washing and finishing. Greater expertise in recycled fibres across the industry would be beneficial.
- There is still limited availability of recycled fibres, so more must be done internationally to promote take-up.

Results and impact

- We have been able to help our suppliers source and develop recycled yarns that are compatible with their existing production
- ASOS increased its use of recycled content in ASOS Design jeans from 7% to 17% in 2017 and 20% in 2018.

Fabric consumption	product	number	Total RE cotton Weight kg
18% post-consumer Recycled denim	Jeans Production 2017	52,605	3,812

Indication of environmental savings (Source: REMO except for the waste figure)

	Per kg garment		Total ECAP pilot	
Water	1,255	litres	26,577	m ³
CO ₂	0.57	kg	12	Tonnes
Energy	2.28	kWh	48,284	kWh
Waste	0.18	kg	3.8	Tonnes

Tip: Start with a pilot to gather knowledge about recycled fibres

Next steps

ASOS wants to:

- Increase the amount of recycled cotton it uses across its ranges.
- Explore how wet processing affects recycled cotton denim jeans, both in quality and in its environmental impacts.
- Continue to collaborate to achieve results.

Tip:
Closely monitor and plan lead times

Success factors & lessons learned

- ASOS needed to draw on the support of industry experts to engage and educate suppliers on how to use recycled cotton effectively throughout production.
- Collaboration is key to circular fashion, and engagement with suppliers, mills, and other brands can help deliver change. Industry-wide collaboration efforts and guidance in this space would prove useful.
- Drawing on a vertical supplier with years of yarn-spinning expertise helped make the pilot a success.
- Regional differences, for example in availability of raw material, expertise, supplier capability, and transparency need to be considered if the use of recycled content is to be scaled through supply chains.
- Mixing pre- and post-consumer fibres can deliver a higher percentage of recycled content and give strength to the fibre/fabric
- Allowing some flexibility in the planning and critical stages of its project helped ASOS to experiment with innovative partners.

“You need to work closely with your suppliers to understand their capacity, their capability, and the machinery and laundry process.”

Sue Williamson, Established Sustainable Sourcing Partner, ASOS

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ECAP is €3.6 million EU LIFE funded project which aims to reduce clothing waste across Europe and embed a circular economy approach.

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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Case studies were generated as a result of pilots carried out for ECAP by Rijkswaterstaat and the named organisations from 2016 to 2018.

REMO
THE RECYCLE MOVEMENT

ASOS

ASOS
Change is in our jeans

ASOS has committed to 100% sustainable cotton by 2025, and partnering with REMO is one of the things we're doing to get there. The jeans you've bought were made using a mix of recycled cotton and Cotton Made in Africa (CMA) and you'll find full info on the energy savings this pair saved below.

[SHOP ASOS](#)

RECYCLED CONTENT:	ENVIRONMENTAL SAVINGS PER 1 KG:		
REMO 18% /C	 1255 LITERS	 0.57 CO2/KG	 2.28 kWh

ASOS HAS JOINED FORCES WITH REMO
Working together to make textile recycling visible, simple and transparent. Inspiring people towards sustainable consumption and 'closing the loop'.

By purchasing this product, you've made a valuable contribution!

YOUR CONTRIBUTION TO A BETTER ENVIRONMENT					
ENVIRONMENTAL SAVINGS	CO2 (KG)	ENERGY (KWH)	WATER (LITERS)	REFERENCE PRODUCT	
Per 1 kg	0.57	2.28	1255	Cotton	100%

PRODUCT HISTORY OF YOUR GARMENT			
PRODUCT HISTORY	REMO-ID	PRODUCER/BUYER	REFERENCE / CODE