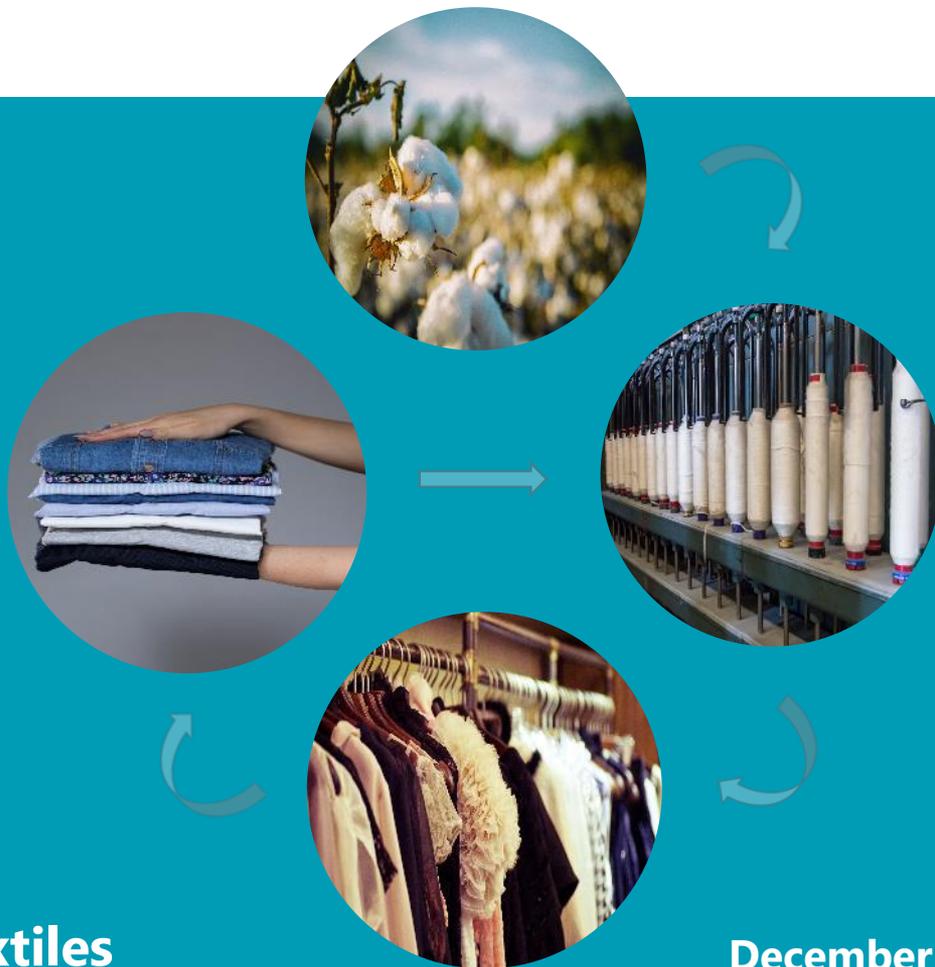


# European Clothing Action Plan



Driving circular fashion and textiles

December 2019

## ABOUT ECAP

The European Clothing Action Plan was a pioneering project that aimed to bring environmental and economic benefit to the clothing industry - across design, production, consumption, public procurement, collection, recycling and reprocessing.



Part funded by EU Life, ECAP was a team effort, coordinated by WRAP - who led the overall project management, evaluation and communications and the European consumer engagement action.

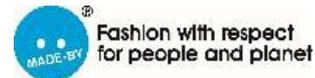
Dutch government agency Rijkswaterstaat led on Public Procurement, Collections and Fibre to Fibre Recovery actions.

London Waste and Recycling Board (LWARB) led on the action to engage young consumers in London.

Danish Fashion Institute led on the development of the Design for Longevity platform, becoming Global Fashion Agenda in May 2018.

MADE-BY led the actions on fibre strategies and manufacturing production processes, until November 2018.

**This initiative ran from September 2015 to December 2019 and is one of the first EU LIFE funded projects to address clothing sustainability and to aim to influence the entire supply chain.**



## DanishFashionInstitute

WRAP and the project partners would like to thank the following people and organisations for enabling us to use their photographs and diagrams in this report: Johanna Minnaard, LWARB, MADE-BY, Shutterstock and Pixabay. Images are subject to copyright.

While we have taken reasonable steps to ensure this report is accurate, WRAP and ECAP partners do not accept liability for any loss, damage, cost or expense incurred or arising from reliance on this report. For more details, please see full terms and conditions on our website at: <http://www.ecap.eu.com>

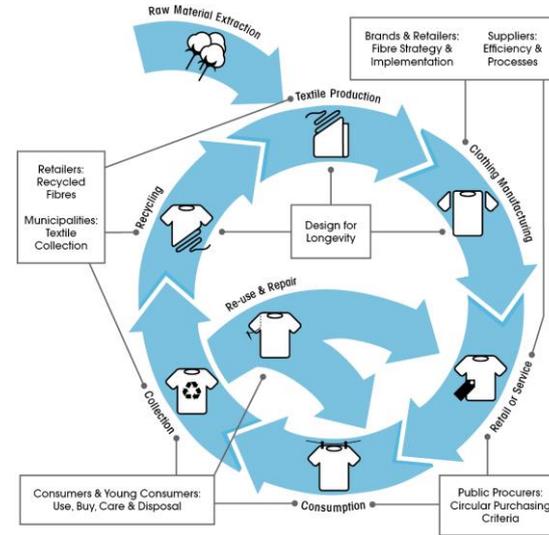
## OUR CHALLENGE



The clothing industry creates a huge amount of waste, both in the supply chain and at end of life and the environmental footprint of clothing is extremely high. Our challenge was to change the way we produce, supply, use and dispose of clothes and a framework of action was developed:

1. Engaging designers & buyers to adopt more sustainable design practices
2. Working with apparel manufacturers on reducing and re-using waste material in production processes
3. Measuring the current fibre usage of brands and retailers and developing sustainable fibre strategies
4. Influencing how European governments procure more circular workwear
5. Engaging European consumers to purchase, care for and dispose of their garments more sustainably
6. Engaging directly with 16-24 year old consumers in London on how to purchase and dispose of their garments
7. Working with local municipalities across Europe to improve textile collections
8. Working with brands and retailers to integrate recycled textile fibres into their products

Clothing, footwear and household textiles is the fourth highest, or fourth worst ranked – pressure category for use of primary raw materials and water (after food, housing and transport). It is the second highest for land use (after food consumed in the EU) and the fifth highest for greenhouse gas emissions <sup>1</sup>.



**ECAP's overall objective was to adopt a more circular approach to clothing and textiles across Europe, with specific aims to:**

- Reduce the carbon, water and waste footprints of clothing
- Ensure that fewer low-grade textiles go to incineration and landfill
- Prevent waste in the clothing supply chain
- Encourage innovation in resource-efficient design, recycling of textile fibres and service models to encourage business growth in the sector
- Influence consumers to adopt more sustainable behaviours

Note: 1. [EEA Textiles in Europe's circular economy](#)

## DESIGN FOR LONGEVITY

Designers and product developers have the power to make change for the better. Design impacts how clothing and textiles are produced, how long they will remain wearable and whether they can be reused or recycled.



Created in collaboration with designers and product developers across Europe, the **Design for Longevity platform** showcases the importance of their role in the fashion sector.

The platform has integrated best practices and raised awareness, inspiring innovations and empowering designers and product developers to influence and change design. Read more [here](#)



**Up to 80% of a product's environmental impact is through design.<sup>2</sup>**

*Note*

2. Mark Sharfman, *The Academy of Management Review* Vol. 20, No. 4 (Oct 1995)

## INFLUENCING PRODUCTION PRACTICES

Manufacturers producing textiles and clothes for many of the world's major fashion brands and retail outlets are 'spilling' an average of 25% of virgin material resources<sup>3</sup>, and it is unclear how much makes its way back into the supply chain.



Working with brands, manufacturers, fabric traders and recyclers, this action was to look at new models that enable material leftovers to be used, through re-manufacturing and recycling solutions.

MADE-BY formed a partnership with Reverse Resources, completing research into production spillage/waste.

Unfortunately, despite interest in understanding how to reduce material waste in the supply chain, this action could not be taken up because MADE-BY went into liquidation.

### Key learnings:

- Engagement across manufacturers and their brand customers is essential - as spilling involves design and production processes

- Other stakeholders with potential to improve the flow and transparency of material leftovers include textile collectors and traders, fibre recyclers, buying houses, spinners and fabric mills
- Each supply chain requires a bespoke plan to tackle manufacturing waste
- There are many current end of life waste initiatives and some brands have limited capacity to also address manufacturing waste at the same time

Attention will need to turn to the topic of material circularity in order to find solutions - not only for post-consumer waste, but for the entire system in a holistic way. Read more [here](#)

*Note*

3. [Reverse Resources White Paper](#)



## SUSTAINABLE ACTION PLANS

This action area succeeded in helping a range of European based brands and retailers source more sustainable fibres and reduce the overall environmental impact of clothing being produced for and sold within the European market.

Twelve retailers and brands took part, each with different approaches and outcomes. They were able to calculate their environmental impact and act to develop improvement strategies. We have created case studies so that others can learn from their experiences – read them [here](#) on the ECAP website.



### BOBO CHOSÉS

s.Oliver  
GROUP



BONOBOS  
JEANS

PeakPerformance®

STAR SOCK

OVS

PRIMARK®

DACMAR

zalando

(Formerly Z-labels)

### Key successes

- Development of sustainable fibres strategies, targets and new product collections
- Increased purchase of lower impact fibres including eco friendly cotton and recycled polyester - with one pilot achieving 70% sustainable cotton in their first year
- Use of recycled fibres and PFC (perfluorinated compound) free water repellent treatment
- Reduced water and carbon footprint
- More sustainable finishing processes explored

### Key learnings

- Understanding your fibre baseline is a valuable first step
- Invest in internal engagement and involve senior management team from the start to help shift mindsets and change behaviour
- Communicate your challenges and achievements with your suppliers and colleagues, making it a shared journey
- Use a third party to verify your claims
- Learning by doing is an essential part of the sustainable fibres journey
- Team empowerment and the emotional connections from making more sustainable choices shouldn't be underestimated

The [CottonUP Guide](#) aims to unravel the complexity of sustainable cotton sourcing, to support businesses with strategies. Through ECAP, MADE-BY contributed to the development of this guide.



## INFLUENCING PUBLIC PROCUREMENT

This action was developed to help public procurers reach their environmental goals - by using their buying power to help direct change in developing circularity, and set a practical example to other buyers.

The current drivers and barriers for circular procurement of workwear in Europe were researched - on a tactical and operational level for customers and suppliers, including legislation - feeding into the following key outputs to stimulate circularity in textiles.



### Workwear reports

- European Textiles and Workwear Market Report
- Embedding Circular Procurement in Purchasing of Workwear Report



### Circular procurement criteria for textiles

As part of ECAP, the Dutch agency Rijkswaterstaat helped develop circular procurement criteria for textiles.

This was shared with the European Commission, to include in the green public procurement criteria, which The European Union developed to facilitate sustainable requirements in public tender documents.

It can also help or inspire both workwear companies and fashion brands to make their procurement more circular and sustainable.



### Masterclasses for procurement

Masterclasses were delivered in Amsterdam, Rotterdam, London and Malmö, helping the 82 attendees make more sustainable choices about workwear, purchase, use and disposal.

Content was developed from the knowledge gathered from the workwear reports, practical examples and pilots, the procurement process and circular procurement criteria. To view the masterclass, go [here](#).



### Recommendations to European Commission Advisory Group

Based on procurers' experiences and our research findings, we presented our recommendations to the Green Public Procurement Advisory Group of the European Commission on what public procurement actions could be undertaken, and they were received with great interest.

We hope to have given the Commission a solid basis and the instruments to develop an integral policy towards stimulating circular workwear on a European level - to set an example for the entire textile industry.

## BEHAVIOUR CHANGE IN EUROPE

ECAP worked to positively affect buying, caring for, repairing and disposing of clothing, in order to help prolong garment life and divert clothing from incineration and landfill across Europe. This worked alongside the action for engaging young consumers through the #LoveNotLandfill campaign.

In 2016 an EU Clothing Survey gathered information around clothing related behaviours across Denmark, Germany, Italy, and The Netherlands. A similar but smaller survey was conducted in the UK. In 2019 there was a follow up [survey](#), to allow a comparison and measure the effectiveness of a consumer facing campaign. Some key results were:



**Disposal routes** - both Denmark and Italy experienced increases in the number of items disposed of via charity/community shops.



**2<sup>nd</sup> hand purchases** - increases were seen in four nations – for example Denmark (9%-13%) and Germany (5%-8%).



**Clothing longevity** - Germany experienced a significant increase in estimated longevity from 3.8 years in 2016 to 4.4 years in 2019.



**Laundry** - In the UK there was an increase in the percentage of people washing their clothes at 30 degrees and a decrease in the percentage washing at 40 degrees. In Italy there was a decrease in people washing at 60 degrees.

## Behaviour change material

Four consumer campaign packs were created - based on materials and messages developed through WRAP's successful [Love Your Clothes](#) campaign in the UK and adapted and tested with consumers in Germany, Italy, the Netherlands and Denmark.

The [freely available pack](#) includes messaging guidance and a series of campaign case studies and action plans to help you take action - including social media and infographic templates, animations, posters and flyer templates.

## Behaviour change interventions

- Web content for consumers with hints and tips on clothes care and repair was developed and used in The Netherlands through Milieu Centraal and Aldi published Love Your Clothes material on their websites
- Regional digital communication campaigns ran in Bologna (Italy) and Wales (UK) to encourage clothing donations, also testing a promotional leaflet to households





## ENGAGING YOUNG CONSUMERS

This action area's challenge was to tackle a throw-away attitude to clothing amongst young Londoners and to work with a fashion brand to pilot a take-back scheme to re-market unwanted clothing and reduce the volume of clothes in landfill.

**#LoveNotLandfill** was a campaign set up by The London Waste and Recycling Board (LWARB) to encourage young Londoners to stop throwing clothes in the bin and shop more for second hand clothes.

### Swap and style events

The campaign launched in 2018 with a 'swap and style' event at LM Barry textile recyclers, raising awareness amongst influencers of the scale of the issue. Regular public clothes swaps have also taken place over the life of the campaign.

### Clothing banks

Multiple clothes banks, 5 of which were designed by street artist Bambi, were placed in key locations to encourage young people to donate old clothes, such as shopping centres and outlet stores.

### Pop up shops

Temporary shops were created to sell 2<sup>nd</sup> hand clothes in a vibrant, spacious and friendly environment. The first #LoveNotLandfill charity pop up shop ran in November 2018 – in collaboration with charity retailers and their influencers and online vintage clothes sellers - attracting 2,000 visitors over 4 days and achieving some great media coverage. The second ran in November 2019 and more than doubled its footfall and sales compared to 2018. Read more [here](#).

### School activities

#LoveNotLandfill created a menu of activities for schools, delivered through PSHE (Personal, Social and Health Education sessions which run in UK schools) - including a clothes bank on-site, a talk at the school and a clothes swap.

## Key findings, results and impacts

- Building strong relationships with partners such as textile recyclers, influencers, charities and sustainable fashion activist groups was key
- Insights from a youth panel were invaluable to the campaign
- Changing thinking to be like a brand rather than like a local authority
- Going to where young people are - rather than expecting them to come to you - by using the people and platforms they were already engaging with to build a following
- Making clothes banks look different to achieve stand out
- These types of activities (such as arranging for clothes banks in shopping centres) can have a long lead time

Find out more at [www.lovenotlandfill.org](http://www.lovenotlandfill.org)  
[www.instagram.com/lovenotlandfill](https://www.instagram.com/lovenotlandfill)  
/ [www.twitter.com/LoveNotLandfill](https://www.twitter.com/LoveNotLandfill)



Europeans consume on average 26kg of textiles per person per year, and discard 11kg per person<sup>4</sup>

In November 2017, online brand ASOS began working with LWARB on a project to assess the commercial viability of circular business models.

These exercises covered price points, back-end logistics and investigating customer interest in variations on a resale proposition.

Although the trial did not result in a business pilot, a number of insights were gained along the way. These are summarised in a white paper produced by ASOS which can be found [here](#).

Note: 4. [EEA Textiles in Europe's circular economy](#)



## IMPROVING TEXTILE COLLECTION

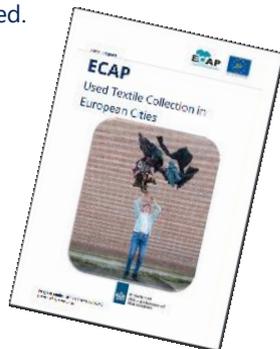
In most Western European countries, a large amount of clothing discarded from households is not collected for recycling, instead being sent to landfill or incineration. Materials lost could have been reused on the second-hand market or recycled.

### 1. Report

We conducted a study on practices in six cities across Europe to establish insights that can inspire municipalities to improve textile collection. In all cases, city authorities have directly, or indirectly, increased their level of engagement. More details can be found in the published [Textile Collection in European Cities report](#).

### 2. Regional meetings

Regional meetings were organised in Denmark, the Netherlands, Italy, Northern Macedonia, the UK and the Baltic countries and in the ACR+ network. The aim was to inspire with practical examples and lessons learned, sharing views, agenda setting and building networks.



Also presentations were held for the Bureau of International Recycling (BIR), the Ellen McArthur Foundation, the Extended Producer Responsibility (EPR) Club and International Solid Waste Association (ISWA). [View an example presentation](#).

With the Revised Waste Framework Directive 2018, member states now have a mandatory requirement for the separation of additional waste streams including textiles by 2025.

### 3. Guidance

A Guidance was published in July 2019 providing municipalities with information to help them take a leading role in collection of textiles. [Find the guidance here](#).

### 4. Case study

Under ECAP, Leger des Heils ReShare ran a trial to collect more textiles by adding more clothing banks in Utrecht and testing labels communications.



### Key findings and results:

- Set measurable targets related to textile collection and then set up systems for monitoring
- Increase collection convenience if collection levels are low, by increasing collection point densities, or collection at home, or in the workplace
- Collaboration between different players can

strengthen collection, subsequent processing and sale. Map important players and get to know them before you start

- Increase transparency in the processes for collected textiles and in how the money that is raised by their sale, is used. For example, via an accreditation system such as the [Nordic Re-use and Recycling Commitment](#).

[Read more about this action area here](#).



[View more lessons learnt in the guidance here](#).



## INTEGRATING RECYCLED FIBRES

This action demonstrated that the use of recycled fibres is possible, to experiment with this and see what barriers need to be tackled. It aimed to reduce the use of virgin materials in the production of clothing in order to save water and energy, and to reduce the amount of clothing going to landfill and incineration.

Nine companies, from fashion brands to work-wear companies and from children's wear to hotel linen, started an innovative pilot to recover fibres and turn them into new garments.



Case studies for each of these pilots were developed, which are available [here](#) on the ECAP website.



A [Fibre to Fibre Guidance Tool](#) was created to inspire others to take action to adopt a circular approach to textiles. It is aimed at professionals working for the textiles industry, including designers, fashion brands, retailers, workwear suppliers and textile recyclers. The Fibre to Fibre Guidance Tool contextualises the work amongst other developments in the sector.

## Lessons learnt



**Leading the way.** Retailers and brands can take the lead and make fibre to fibre recycling common practice by working in new ways - with or without consumer demand.



**The importance of design.** Have an impact from the start and create products that will be made to last and can be recycled.



**New ways of working.** Circular economy is all about collaboration, sharing of knowledge and information. New ways of working not only in terms of technology, but also in the supply chain.



**Co-operation in the supply chain.** Know your suppliers - they are partners and you will need them for their expertise. Co-operation with other brands and retailers can also help in developing new business models.



**Consumer engagement.** Empower consumers to make sustainable choices and the demand for sustainable garments will help drive change.

The experience and knowledge gained from the pilots has been captured in useful [factsheets](#) including how to find internal and external support and co-operation, organise communication or logistics and address issues like design and quality of the garment – to inspire other companies and brands to recycle fibres.

## PROJECT RESULTS

Retailers reduced the environmental footprint of garments they sell by:

- implementing sustainable fibre strategies, reducing certain fibres' emission factors and changing high-level fibre compositions
- workwear retailers and brands worked alongside organisations in the textiles production chain to trial pilot fibre-2-fibre schemes, to increase the amount of recycled fibres in their clothing

Clothing collections for recycling and re-use were increased by campaign activity and work with collectors and municipalities.

### Total savings achieved by ECAP

CO <sub>2</sub> e savings (tonnes)	834,000
Water savings (m <sup>3</sup> )	50,100,000
Waste diversion from landfill (tonnes)	4,670

*"We would have wanted to do a similar project but I don't think we would have got it off the ground for a long time ... ECAP has provided practical support as well as the theory behind doing things - it has helped us to convince internal management that it is something that we can do, and guidelines on where we start and how to do it in practice. Furthermore, I feel we can contact other ECAP participants - they seem to be open to sharing insights and collaboration which is much needed for change like this to happen."*

*Clothing brand in Belgium*

The impact of ECAP will continue after the project finishes, with retailer sustainable fibre strategies and consumer facing campaign activities continuing, providing savings across carbon, water and waste well into the future.



### WATER

The majority of the 50 million m<sup>3</sup> water savings came from the implementation of brands and retailers' sustainable cotton fibres action plans and from the fibre-2-fibre pilots.



### CARBON

Most of the total carbon saving of over 830,000 tonnes came from retailers' lower carbon emissions for polyester, regenerated cellulose and nylon, with smaller contributions from sustainable fibre use and changes in fibre composition.



### WASTE

Waste reduction of over 4,500 tonnes was achieved, mostly by retailers changing high-level fibre compositions and increasing quantities of used textiles collection for recycling and re-use. ECAP also succeeded in increasing recycling rates through consumer campaigns, to encourage responsible textiles disposal and diversion from landfill and incineration.



*" ... 845 tonnes of used clothing have been collected, +240 tonnes compared to the quantities collected in the previous year..."*

*La Fraternita consumer case study - Recooper*

## KEY IMPACTS

**9** Fibre-2-Fibre recycling pilots - inspiring others in the industry



**Users are registered to use ECAP'S sustainable design platform**

Establishment of valuable partnerships and collaborations across countries in Europe

**CO<sub>2</sub> savings of over 800,000 tonnes**

**Water savings of over 50 million m<sup>3</sup>**

**Waste reduction or diversion from landfill and incineration of over 4,600 tonnes**



**European-based apparel brands and retailers implementing sustainable fibre action plans**

Development of a toolbox of resources, including: reports, guidance, case studies and learning outcomes - available to inspire and inform others

**Consumer communications in Denmark, Germany, Italy, The Netherlands, Republic of Ireland and the UK**



Continued impact from sustainable fibre action plans, more resource efficient supply chains, informed consumers and designers and progress on fibre-2-fibre recycling, will deliver savings after ECAP completes and into the future.



## POLICY

The sustainability of the clothing sector is an issue that has been rising up the European political agenda over recent years. In her agenda for Europe the new Commission president Ursula von der Leyen announced that the European Commission will propose a new circular economy action plan for textiles.

While the ECAP project cannot claim responsibility for this increased focus from policymakers, our research and evidence helped to put the issue on the agenda and inform policy debate on a European, national and municipal level.

ECAP has developed circular procurement criteria for textiles, which have been fed into the ongoing development of the Commission's Green Public Procurement guidance.

Recent amendments to the EU Waste Framework Directive, arising from the Circular Economy Package, will require

member states to organise the mandatory separate collection of textiles from 2025.

This should encourage municipalities and the textile recycling sector to consider how best to maximise the value of textiles at end of life. ECAP's guidance on how to improve textile collection rates will be directly relevant here. Low grade textiles in particular will not be recycled unless there is a viable business case.

ECAP case studies demonstrate how this can be done, and should inform policymakers of the necessary conditions for success.

Several European member states are now consulting on the introduction of Extended Producer Responsibility (EPR) for textiles, which if implemented, will provide a clear incentive to brands to redesign their clothing to minimise environmental impact over the whole lifecycle and find solutions for innovations in the recycling of fibres. ECAP's Design for Longevity platform and Fibre to Fibre guidance tool will help them to do this effectively.

ECAP has concluded that solutions will have to be found on a European level, to ensure a viable business case for the recycling of textiles, especially if, due to separate collection and EPR, more low grade textiles will be collected for which there are currently no viable end-markets.

“Clothing ranks sixth in household spending<sup>5</sup>, but its environmental cost is far greater. The clothing industry has a huge environmental footprint across its supply chain, and at end of life. Its reach is global, and its impacts profound. We too, as consumers, directly contribute to the stress put on the planet by how we dress. ECAP's challenge has been to improve production, supply, use and disposal of our clothes in ways businesses and people, will adopt.”

*Peter Maddox, Director, WRAP*

Note: 5. European Commission [Eurostat](#)





## WHAT NEXT?

Those involved in ECAP are proud of its value and partners and advisors will continue to reference the project's resources at textiles events and will inform the development of future projects. It is expected that the political and social landscape will also drive recognition of its importance.

"This has been a huge amount of work for many partners, in many countries. Through ECAP, retailers have reduced the footprint of garments they sell; workwear and brands have piloted cutting edge fibre2fibre schemes increasing recycled content used in clothing and household textile collections have increased. I am very proud of what everyone has achieved and how these resources will now help drive sustainable fashion in the future."

*Peter Maddox, Director, WRAP*

Learning and results over the four years of the project have been captured in valuable resources. These include interactive guidance documents, case studies and action plans that will continue to be available from [ECAP's website](#). They can be used, referenced and incorporated in further innovative projects to continue to drive positive change in the sector.

Digital platform Design for Longevity and the Love Not Landfill campaign, will be managed by ECAP partners and built upon as a means to enable more change in design practices and sustainable consumer behaviours.



Partnerships and collaborations that were formed in ECAP, during pilots and at events, will have the potential to expand and crystallise. Feedback suggests that many participant organisations who developed sustainable or circular strategies with ECAP, will continue to implement these and achieve more environmental savings.

"ECAP is one of a few ground-breaking and innovative projects on textiles, clothing and the environment which have resulted in textiles being a priority sector for the European Commission and its next circular economy action plan."

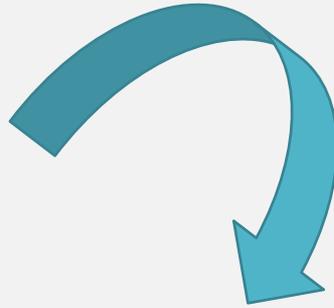
*Lars Fogh Mortensen,  
Consumption, Products and  
Plastics Expert, European  
Environment Agency*

Greater awareness of the environmental impact of fast fashion and the role that consumers play, may give rise to more people seeking more sustainable practices and contribute to a slow down in thoughtless clothing waste.

There is also increased awareness of and interest in the impact of textiles waste and more action is now needed to try to halt this.

ECAP was a project to start the collective movement for driving circular fashion and the ground is now ripe for ECAP's resources to flourish.

## CONTACT



To access resources referred to in this report, please go to <http://www.ecap.eu.com/resources/>



If you want to know more about the ECAP project, then please see <http://www.ecap.eu.com> or contact us at [ecap@wrap.org.uk](mailto:ecap@wrap.org.uk)



[www.wrap.org.uk](http://www.wrap.org.uk)



Rijkswaterstaat  
Ministry of Infrastructure  
and Water Management

[www.afvalcirculair.nl](http://www.afvalcirculair.nl)



LWARB  
London Waste and Recycling Board

[www.lwarb.gov.uk](http://www.lwarb.gov.uk)

## DanishFashionInstitute

In May 2018, Danish Fashion Institute legally became Global Fashion Agenda  
[www.globalfashionagenda.com](http://www.globalfashionagenda.com)