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Executive summary

This report presents evidence collected from 18 expert interviews with stakeholders in the circular fashion and textiles arena. This research is part of a larger piece of work which aims to build a roadmap for circular synthetics for the fashion and textiles industry.

The findings are presented in relation to questions 2 & 3, regarding the impact of the pandemic, and 9, 10 & 11 in relation to government action to support clothing collections and address textile waste.

In relation to question 2 our research suggests that of all of the stakeholders interviewed, textile collectors and sorters were most affected by the pandemic. A fairer more profitable system for collectors and recyclers could help build resilience in the sector, with subsidies or other incentives for collecting and sorting recycling grades to build future stable markets. A more connected sector, with more transparency about where collected textiles are distributed would also help to build stability.

In relation to question 3 interviewees reported both positive and negative viewpoints on how the pandemic had impacted the supply chain. Overall, participants felt that companies with a long-term circular strategy and strong supplier relationships would fare better in the pandemic.

In relation to question 9, interviewees felt that the UK should step in line with the EU and aim for mandatory separate textiles collection by 2025 or sooner, as this would help drive the move circular fashion and textiles. However, a number of other collection models are also being pioneered in industry and there is a sense that pre-use factory and warehouse waste must also be a priority for collections, reuse and recycling.

In relation to question 10, by far the strongest consensus amongst interviewees was the need to level the prices of conventional materials such as petrochemical polyester and the emerging circular and alternative materials. Government could assist here either through a minimum garment price or through a levy on 'virgin' petrochemical polyester, allowing the emerging circular materials to compete.

In relation to question 11, EPR was seen by all interviewees as essential for driving and mainstreaming circularity and sustainable business models. However, the design of the policy is beyond the scope of this research.

Introduction

The research presented arises from the Creative Research and Development Partnership (CRDP) The Business of Fashion and Textiles Technology (BFTT), led by PI Professor Jane Harris, University of the Arts London. BFTT is part of the £80m [Creative Industries Clusters Programme](#) (2018-2023), which is being funded by the [Industrial Strategy Challenge Fund](#) and delivered by the Arts and Humanities Research Council on behalf of UK Research and Innovation (UKRI). The BFTT partnership is a multi-disciplinary consortium including **Loughborough University, University College London, University of Leeds, Queen Mary University of London, University of Cambridge** and the **V&A Museum London**.

This research relates to one of 7 challenges which make up the BFTT project, led by **Dr Kate Goldsworthy** and **Dr Rosie Hornbuckle** of [Centre for Circular Design](#), Chelsea College of Arts, UAL, which aims to build a 'UK roadmap for circular synthetics'. In order to build the roadmap, the researchers aimed to interview a range of stakeholder representatives from the field of circular fashion and textiles. These expert interviews provide insights into the barriers and opportunities to achieving circular fashion and textiles, and identify the actions that need to be taken by a variety of stakeholders, including central government. The full research outcomes will be published as an internal report and a public report in Spring 2021. A digital resource is also planned. Here we present the findings of the interviews that relate most closely to the specific questions identified in the Call for Evidence. Additional details of the research can be provided on request, this is only a selection of the full results.

Methodology

The aim of the interviews was to gain a holistic understanding of the steps that could be taken towards creating an effective system for circular synthetics. By creating a 'holistic' view we intended to represent as many stakeholders in the eco-system of circular synthetics as possible, in order to include varied viewpoints and reveal barriers and opportunities that may have been hidden if a more micro-focused study design was used.

In total 18 interviews were conducted, 16 were 1:1 and 2 were 1:2. Each interview lasted approximately one hour. Interviewees are detailed in table 1.

Table 1: Participants in the research

Name	Organisation	Description	Reference
Eco-system mapping stage			
[REDACTED]	[REDACTED]	Chemical recycling	P1
[REDACTED]	[REDACTED]	The textile collection and sorting industry	P2
[REDACTED]	[REDACTED]	Sportswear brand	P3

Interview stage			
[REDACTED]	[REDACTED]	B2B secondary post-industrial textile supply	P4
[REDACTED]	[REDACTED]	Chemical separation of PES / CL	P5
[REDACTED]	[REDACTED]	Demonstration of textile recycling innovation and technology	P6
[REDACTED]	[REDACTED]	Sorting technology and demonstration of circular PES	P7
[REDACTED]	[REDACTED]	Brands using recycled PES	P8
[REDACTED]	[REDACTED]	Collection, sorting and onward markets for Post-consumer textiles	P9
[REDACTED]	[REDACTED]	Information / knowledge in the supply chain - data innovation	P10 & P11
[REDACTED]	[REDACTED]	Campaigns	P12
[REDACTED]	[REDACTED]	Waste mapping	P13
[REDACTED]	[REDACTED]	Collection, sorting and end markets	P14
[REDACTED]	[REDACTED]	Recycling technologies (B2F F2F)	P15
[REDACTED]	[REDACTED]	Mechanical processing of textile waste into yarns	P16
[REDACTED]	[REDACTED]	Young consumers - campaigns (re-use and recycling)	P17
[REDACTED]	[REDACTED]	Policy - regional / national perspective	P18
[REDACTED]	[REDACTED]	Brands using recycled PES	P19 & P20
[REDACTED]	[REDACTED]	Charity collection and sorting	P21
[REDACTED]	[REDACTED]	Non-wovens consultancy and research	P22
[REDACTED]	[REDACTED]	Infrastructure & Technology Investment	P23

The interview design was intended to be a fairly simple and open structure which could be adapted to each interviewee, to aid comparative analysis. The questions aimed to identify and draw out leverage points for actions which could support a system for circular synthetics. Interviews were transcribed and coded manually. Codes were determined following a detailed literature review and further developed during the interview process.

In addition to the transcripts, interviewees had been asked to help map the current and future life-cycles of two garments produced by project partner SME **Kukri Sports Ltd**, a fleece hoodie and a pair of exercise tights (leggings). They were also asked to map the key events on a 'roadmap for circular synthetics' and co-edit definitions for circular synthetics. This provided additional material for analysis. These diagrams can be made available on request.

Findings relevant to the call for evidence

Question 2: What impact has the pandemic had on fashion waste?

When considering the effect on 'fashion waste' it is important to take into consider the impact of the pandemic across the recycling sector. Interviewees representing collectors, sorters and recyclers reported that the immediate impacts on their business would have a negative impact over the next two years, which could be devastating for the longer-term outlook of their business. These impacts related to:

- closing down of markets for post-use garments and other post-use textile products;
- cancelled orders for recycled materials
- a fear that funding and investment in new plants and infrastructure would be impeded;
- the temporary loss of personnel during lockdown due to furloughing and illness,
- the low price of crude oil leading to low prices for petrochemical-derived polyester which could diminish the demand for both re-wearable textiles and recycled materials.

Interviewees reported that markets for both re-wearable and non-rewearable post-use textiles closed during the pandemic which resulted in a backlog of materials. This devalued an already low-value 'product'. Anecdotally, clothing collections stopped which could have had a knock-on effect on consumer perception, behaviour and confidence in recycling systems and negatively impacted donations.

Several interviewees feared that the pandemic would lead to fewer textiles being collected and more textiles being thrown in the general waste bin, although it is not known if this would be a short-term impact or have longer-lasting effects.

What can be done about this? A fairer more profitable system for collectors and recyclers, with subsidies or other incentives for collecting and sorting recycling grades. A more connected sector, with more transparency about where collected textiles are distributed.

Question 3: What impact has the pandemic had on the relationship between fashion retailers and suppliers?

Interviewees had both positive and negative viewpoints on how the pandemic had affected the supply chain. There were reports of fashion retailers cancelling orders that had already been dispatched, with one interviewee (CEO of a supply chain data and transparency company) estimating that the pandemic would result in the loss of a third of retailers and the same of manufacturers. Table 2 summarises the negative and positive impacts reported by the interviewees.

Table 2. The impact of COVID-19...	
Negative impacts...	Positive impacts...
... very low crude oil prices, leading to cheaper petrochemical polyester, putting pressure on manmade cellulosic and circular polyester prices.	...a drive for transparency and knowledge in the supply chain to build resilience
...funding and investment being put on hold, which will slow-down progress in circularity	...textile collections and sorting for recycling being highlighted as 'system critical' operations
... a reduction in personnel in the recycling industry	...companies that have sustainability at the core of their business and longer-term strategies with better supplier relationships faring better.
... fewer orders for material because of manufacturing shutdown	.. It's short-term. The longer term policy (ie the EU textile collections) are not easily swayed
...an increase in contaminated synthetic textile waste from PPE / wet wipes etc.	...entrepreneurial collectors finding opportunities in the changing markets ... a doubling-down on the sustainability side – reinforcing the idea of resilience, connectedness and long-term strategy.
	... highlighting the need for localizing materials flows
	...increase in UK capacity for manufacturing PP/PES non-woven textiles for PPE

Question 9: What actions could Government take to improve the collection of fashion waste?

One of the strongest messages that came through the interviews was a need for mandatory kerb-side collections. The EU revised Waste Framework Directive, which makes it obligatory to separately collect textile waste by 2025, was seen by interviewees as important for driving textile circularity. The UK government should mirror this commitment.

Interviewees reported that a major problem with textile collections is that currently collections are focused on re-wearable textiles because they represent the most profitable fraction. The combination of collecting something classed as 'waste' and something that is classed non-waste makes textiles collection complex for operators. The government could look at reforming textiles collection to make the collection of both re-wearable and recycling grades of textile more profitable, perhaps through incentives and a revision of the classifications for collected textile grades and the associated handling regulations.

A further barrier to effective collections is insufficient data in the post-use phase of the textile life cycle. Interviewees stated that very little is known about consumer behaviours when passing on their used textiles, and little is known about where those textiles go, as well as their condition and material composition. This makes it very difficult to create effective feedstock strategies towards the most appropriate re-use or recycling routes. Transparency in the recycling industry would be a useful focus for reform.

In-store collections by retailers and at specific events (such as marathons) are seen as an important feature of future textile collections, as they are often cleaner and dryer than textile collected in clothing banks. Encouraging this approach by supporting relationships between retailers and collectors would be a useful focus for policy. This approach would also grow if EPR were implemented. Central government infrastructure grants and funding streams for collection and sorting is an important part of this, building capacity and sophistication into the industry that will be needed to prepare feedstock for emerging recycling technologies.

There is also a significant amount of pre-use material that can be collected from overstock, end-of-line and cutting room floor. This needs to be segregated and diverted for re-use or recycling. Government can help by incentivizing the segregation of this waste in factories and warehouses, ensuring these pre-use textiles are not diverted to landfill and incineration.

[Question 10: What actions could the Government take to incentivise the use of recycled or reused fibres and materials in the UK fashion industry?](#)

The greatest barrier to circular textiles identified by participants is the low price of polyester derived from petrochemicals. The single most important action for government should be to help level the pricing for 'virgin' and circular (recycled) materials. This would drive the transition from petrochemical derived polyester to circular (recycled) polyester, and would also take the pressure off many other alternative materials with a lower environmental footprint than conventional materials.

As an example of possible policy instruments, participants in this research discussed the possibility of a minimum price for garments, or a levy on (virgin) petrochemical-derived polyester. In addition, an ambition for policy in this group is to ban materials of unknown origin, and look to phase out blends which inhibit longevity and recycling such as elastane. This would

then drive the emerging sector of innovative service providers focusing on digital tracing, tracking and transparency.

Attention could also be paid to the careful management of staple fibres when used in the fashion and textiles industry. Interviewees were keen to stress that staple fibres are known to be a source of fibre loss resulting in micro-fibre water pollution. By comparison, filament fibres are likely to result in minimal fibre loss, particularly during laundry and use.

Question 11: How could an Extended Producer Responsibility scheme for textiles be designed to incentive improvements in the sustainability of garments on sale in the UK?

Participants in this research emphasized the importance of EPR for driving the wider uptake of the circular practices already being demonstrated by a small segment of industry. However, the research didn't look specifically at the design of EPR.

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