

CONTEXT: Interviews conducted as part of an investigation into the barriers to, and opportunities for, achieving Circular Synthetics. Research was funded by Business of Fashion, Textiles and Technology Creative Research & Development Partnership (BFTT CRDP—£5.5 million) led by the University of the Arts London, part of the UK Creative Industries Clusters Programme (CICP) funded by the Industrial Strategy Challenge Fund, and delivered by the Arts and Humanities Research Council (AHRC) on behalf of UK Research and Innovation.

Interview ID: BFTT-WP5-040620-18

Interviewee: Senior research analyst, government-funded waste-reduction organization

**1: Interviewer**

**2: Interviewee**

**1:** Okay, great. The first question is quite a background question. Can you tell me a bit about [redacted]'s work in the area of textiles and your role within the organization?

**2:** [redacted]

**1:** That sounds really interesting and exciting.

**2:** It is.

**2:** Waste is, I think harder-- We have a suite of improvement actions that we look at encouraging people to undertake to tackle each of the targets that we've thought and the main measures that we've got on waste have been around encouraging greater reuse and recycling. And it is difficult, I think, simply to increase the amount of reuse going on [redacted] direct reuse, when the value of second hand has sort of fallen whilst at the same time prices for the new clothing are also really, really low. Consumption going up and up, so promoting the amount of reuse has been hard.

That has been one of the main ways that we've looked to reduce actually supply chain wastes as well, and because we're looking at how much gets displaced if you buy a second hand product, how much primary production gets displaced, and there's some supply chain waste arising at various stages on the production cycle so from fiber preparation and perhaps making trim more than other stages, but-- We think, based on the information we've got at the moment. If you reuse something, you've avoided some of that and help meet the other targets as well. But those were the main actions that we had to do something about waste, was increased for reuse, and it's just been more difficult than we hoped it would be, to do that. We've had some great work from the recyclers and the re-processors. But their markets are A, quite volatile. [redacted]

**1:** Yes, that's difficult.

**2:** They're up against various challenges in the markets that they're facing. I think that's been the hurdle.

**1:** [redacted]

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1: All right.

2: [redacted] I think there's a difference between being able to collect used garments and to recycle them and get them into reuse as much as possible-- There's difference between just continuing that versus growing it, and we were asking them to grow that, to divert and prevent more waste. And they've managed to maintain. I think in difficult circumstances, that's been a pretty good effort. But they haven't grown the amount of reuse and it's not for the lack of trying.

1: No.

2: The hard challenge, I think, is to offer them and find them ways of doing that, that they can implement, that will help them to divert stuff from waste, so practicable, workable solutions, is encouraging the retailers, giving them the right levers to pull in their organizations to be able to [inaudible 00:19:03] some of the circular business model that I proposed, some of it is around-- There is a real-- We wanted to see fiber to fiber real circular recycling happened, and it's still in its infancy in terms of, "let's see what happens." This conversation feels very relevant, and your research feels very relevant. There's a lot of people looking out for what the opportunities will be in that.

1: When [redacted] was being formulated, and I guess as well, [redacted], was there any talk at all about slow down? So trying to get retailers and brands to pull back a little bit or is that seen as just, "no, not possible to start that conversation"?

2: I don't think it's been put in those terms. I think that it's something that we've talked about. There are several reports that have mentioned- that we published- which from the start of the agreement we were saying extending the life of garments is actually the best way to reduce the impact of garments is just to keep them in use for as long as you can, and then you find closed loop reuse solutions for them. Almost a hierarchical approach to how to reduce and reuse. That was the basis that the agreement started from.

Then as we've gone along we've seen really high consumption and a lot of fast fashion that's really taken hold. Recent reports have highlighted the fact that consumption has risen. The efforts that they've made in substituting fibers, for example, simply approved cotton that's being used, have made a difference. But if the total volume continue to go up, then it eliminates any gain. I highlighted that in our reports and discussed it with some of the retailers who've looked at their individual results because we're shared with them. I can't share even with you now, I'm afraid. Sorry.

1: It's all right.

2: We do show their individual results with them, and go through them with them. Partly for quality assurance, just to make sure that the numbers are right. To highlight what they need to do next and help them use that information strategically. They do sometimes say, "Look, we've done all this. Buying all this improved cotton, enormous BCI, all this organic-- How come our numbers aren't better?"

1: Stop making so much.

2: It's a tough conversation sometimes.

1: It is, it's probably the biggest--

2: You do have to import more, don't you?

1: Stop making so many clothes. That's brilliant. Just around what [redacted]'s roll is, could you just talk a little bit about, or illuminate for me, how [redacted]- what [redacted] does, it relates to the policy around waste and potential future policies, for example, the EPR that potentially could happen at some point?

2: We've been looking at how is that going to be implemented. We have to be a little bit careful in terms of-- I have to be a little careful in terms of leaping ahead here [redacted].

It's helping the retailers to be able to make choices that will genuinely reduce their impact. At the same time, how can they be-- How can there be sufficient evidence test to make sure that that stands up? That they are genuinely able to implement in the way that that it's intended, that they're genuinely able to take responsibility. It's quite difficult, I think to take responsibility for what happens to garments once you've sold them. [redacted]

1: It sounds, by the way that you talk about it, that [redacted] almost-- That relationship with the brand, they're almost a bridge between business and the policy, in a sense. Is that how you see it?

2: Yes, and I think our role is really in providing research insights, on the one hand, and also in brokering that relationship between-- This collaborative relationship with the retailers and the recyclers where they can all get together in an open forum and discuss what are the solutions with each other.

1: Brilliant.

2: I need to highlight, there are very strict terms with which do that. We operate within competition, or I'd have to make it very clear every meeting that we have for these agreement that the competition has to be kept in mind. It is a really important part of that area of working is that we're getting them to collaborative looking for solutions to problem. By getting them to agree to it, to a way forward, hopefully they're able to adopt more progressively faster. Those things that we think once it happens it will make a difference.

1: Perfect. Do you have any particular insights around synthetics or polyester in the work that you've been doing for [redacted]? Is there anything that stands out as something interesting that you noticed or a particular experience of what's happened with synthetics?

2: With my analyst focus in particular, global synthetic is growing massively. [redacted] Globally, polyester is huge, and the volume being manufactured and bought for garments is clearly growing much faster than anything else. And UK

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retailers have carried on buying cotton. I think that probably reflects the market best selling that we perceive cotton in the UK, we perceive that to be, our quality material exists, a high quality fiber and it's environmentally friendly, people think. It's a natural fibre [pause] Cotton is still really, really popular. I think polyester is the next most popular fiber. It's not that we don't buy polyester, or don't use polyester in really large quantities. It is hugely popular, it just that it hasn't quite overtaken cotton yet, where elsewhere you would expect to see more of it.

**1:** That's interesting. Do you think that that's-- I don't know if you have off the top of your head. I can look at the figures, but do those tend to be cotton blends or do you think it's more--?

**2:** It varies. We do see quite a bit of garments that are listed as being 100% cotton. I'm not including any trim in that, obviously, or any thread, but we see quite a lot of garments on the label, "100% cotton." That's certainly quite a substantial proportion of the cotton that is used, but it's not all. I think the proportion that is a blend is now increasing. So, the stretch fabric that includes a certain amount of elastane, or something like that, just to name just one example. There's lots and lots of cotton/synthetic that's now- certainly that's a growing trend. There's still quite a lot of 100% cotton. Particularly where brands have taken the decision that that's a selling point.

**1:** That's interesting. The next question is, you talked a little bit about what the barriers are. Just to focus specifically on that. What do you think are the main barriers to achieving a system for circular synthetic specifically?

**2:** Goodness. I think the main barrier, if I had to try and prioritize, would be economic. The cost of changes that are needed, and this is a summative cost of the changes that are needed for putting in place the collection infrastructure in a way that will work to capture garments, fabrics, in a good condition, a suitable condition. Communicating to people how to, or where to take them. Sorting facilities, collection infrastructure. Also that is sensitive to local situation or infrastructure that is already in place. We've learned that it's not a one size fits all. Yes, just having this technology. I don't know if you're aware that [redacted] have got textile recycling grants open available at the moment. People who are looking to start up or develop and start taking to market new technology for [inaudible 00:34:37] or recycling.

**1:** Sorry to interrupt. They're quite small though, are they? Is this the same as the-- There were some other grants, weren't there? Maybe they weren't [redacted].

**2:** They're quite small grants. [redacted] We're looking really for people who perhaps they're already starting down that route, just need investing and extra piece of equipment, or one extra sort of thing that will help them get there. It's a sort of a boost to that sector, rather than necessarily buying big, big plants. Helping the existing infrastructure to grow and develop.

**1:** That's interesting. I know you've been working quite a lot with communication, or maybe not you personally, but the [redacted] program involved quite a lot of trying to communicate to the public. I'm just wondering-- We talked to people and to stakeholders within the system about transparency, and information providers and

service providers that are dealing with that issue. I'm wondering if there's anything that you wanted to say about the transparency of- not just in the supply chain, the upstream supply chain, but also downstream.

What people understand happens to the clothes that they throw away, as a sort of way of motivating people to do one thing or another. Do you think that's an issue or a barrier that there's not enough knowledge about where textile waste, or waste in generally, actually goes?

**2:** I think that people are improving their knowledge and they're understating.

[redacted]

We've been asking people just a really simple message [redacted] I'm aware that doesn't answer all of the questions that they've got about what to do with their garments. I'm aware that for some people they're looking for really detailed advice, but as we've been saying, there isn't a one type fit's all [redacted]. We've discussed with our stakeholders and a number of people on how to get that messaging right so that it's understandable, and as much as possible, encourages the right outcome. That was the thing that we decided we needed to really focus on. I think it probably still is. I'm sure it still is. Obviously the recent few months that we've just had been locked out have been a bit difficult. [redacted]

**1:** That's really interesting. Did that research involve also looking at how much people are buying, or are you not looking at that end so much?

**2:** With this particular survey, I haven't asked a lot of questions on buying. In the past we have looked at what drives acquisition, and what kind of things people are looking to buy. Also would people consider buying secondhand rather than new. [redacted]

**1:** That's good. Perfect. From looking at the main barriers, what do you think are the main opportunities for achieving circular synthetics? Where could be the best opportunities in pushing forward with this?

**2:** Best opportunities for circular synthetics? If I think about what the retailer's and the brands want, there is a really big enthusiasm for closely recycling of textiles back into textiles. That I think is the thing that people are most keen to drive forward on, the next wave of progressive targets that I've seen coming out, and that people want to continue bringing out are around including a quiet proportion of recycled content. There are various things that need to happen to make that feasible, but I think to group all of those, get them into one heading, that's the next step. I'm still really keen on seeing growth in certain business models. Reuse of garments is the next stage beyond that.

I think it isn't necessarily about clothing rental, although that is clearly one of the options available, but other sharing models are available. There is plenty of potential also just for retailers to take back their own garments, then sell them again. We've seen that pushed very much so far. I think that if consumer attitudes are starting to shift towards that, and as we see that change happening- and it is happening-

towards greater acceptance of secondhand stores valuing our clothes, and wanting them to last longer, then retailers visibly taking responsibility for what happens to their garments at end-of-life, repairing them, and getting them back into use again. That's going to payoff for them. Actually, they're going to end up looking much stronger, it's a good brand move. That's the next thing that-- They're not championing that with the targets as yet. I think the reason is it's harder to achieve.

**1:** That's interesting. I'm just thinking about what you said, about there being a great enthusiasm for fiber to fiber, but what we're hearing from the producers of-- The technology owners I guess, is that brands are not willing to pay more though for that material. This seems to be a real gap there between what the technologies could do if they were invested in, and what the brands say they want to do, but are not willing to invest in. That's just a comment, you don't have to defend it.

**2:** No, but the thing is, it is a genuine problem. I think that you are right to highlight it, and I think that that's perfectly true. I'm sure that the experience we've got of the improved cotton taking off, that started to happen once it became something that they could do without having to pay a lot more for it. That really is ultimately what made the difference, was the price point, it came down.

The same will apply for other circular fibers. If they can be bought at a lower price or an equal price to buying virgin fibers, then that will make a really, really big difference. But for recycling it's a big challenger, and that's whether you're recycling textile fibers back into the textiles again or recovering other materials and recycling it in an open-loop, and we need them still keeping the price point down, and it's really hard to achieve. I think we're going to run out of feedstock if we rely too much on plastic bottles as the source of all recycled content.

**1:** Yes, for sure. Some of the people--

**2:** That's not a bad thing maybe.

**1:** It's not exactly a virtuous loop is it? Some of the conversations I've been having recently, the suggestion is that in the interim, we should be focusing more on industrial production waste, byproducts from the manufacturing, because it's a safer intermediary step, but that doesn't obviously solve the problem of post-consumer waste.

**2:** Again, there's only so much post-industrial waste to recycle. I don't think that people want to encourage or make it okay to waste material because it's going to be recycled. At the end of the day, they're going to end up paying more for doing it that way, than if they can source another way. It's perhaps a short-term step, but it's certainly not really the answer in the long-run.

**1:** Sorry, I don't know if I made myself clear. By post-industrial I mean the off-cuts rather than dead stock or clothing which hasn't been sold. But yes, for sure, it's not going to be...

**2:** There are more efficient ways of cutting, and less efficient ways. It's possible to reduce your off-cuts or not, then make sure that you're channeling what you have got

into the right stream next, or not. I suppose we want any waste that doesn't arise from CMT to be handled responsibly, that's without a doubt. I don't think it's the wrong thing to-- I can't see how we can rely on it as the feedstock with targets of 100%.

**1:** Of course, yes, you're right. Just moving on to the next question. You've said a little bit about this, but I just wonder if there's anything else you're going to say about this, around COVID-19, the pandemic. We just wanted to take this opportunity because we're interviewing you at this time, to ask how you think that the pandemic might change short-term plans for circular textiles, and in the long-term as well.

**2:** I've watched on in horror for a while thinking, "Are people going to lose all sense, and forget all the things that they said they were going to do?" There did seem a real risk of that for a while, but I don't see it happening. I actually think coming out of the phase that we've been in there's a renewed commitment and determination to driving forward on what was already planned. I don't think it's getting easier, particularly, with the challenges that are faced by the industry, but there's a real recognition that brands doing the right thing do fare better, do come off better in challenging times at the moment.

I've seen some really interesting research pointing to the share price of brands who were doing the right thing during the lockdown versus the share price of brands who were not seen to be ethically as responsible. The latter category were doing a lot worse, were losing faster.

**1:** That's interesting.

**2:** There were quite a lot of changes then that happened after the initial wave of canceled orders. People saying, we're achieving, we will fulfil, or we do still need orders et cetera. I think we can expect actually after a period where the dust will have to settle, I think we'll see a renewed determination to drive forward. In some respects actually as a consumer, the consumer mindset has shifted. I think we'll see people potentially going further and moving faster in the right direction than had been thought possible previously.

**1:** That's positive. Nice to hear a bit of positivity. Great, thanks for that.

**2:** If they don't, they're facing really difficult times and I think that that can really make people's minds clear.

**1:** Yes, like a fresh start almost, isn't it?

**2:** Yes.

**1:** I'm going to move on to the next part, which I said at the beginning relates to these specific garments. I'm going to paste in the chat, a link to a Google Doc, which is just some slides that I'm going to write into as we talk just as a reference point. Also to show you the garments that I'm talking about. Do you see those?

**2:** Not yet, no, I'll just make sure that I'm--

**1:** In our chat, there should be a link.

**2:** Oh, sorry. I thought I was looking to see why your screen wasn't shared.

**1:** Oh, screen shared, no. No, no, sorry. There's a link in the chat.

**2:** Got it.

**1:** Okay, perfect. The two garments are a pair of running tights or leggings, which are 100% polyester. I thought that the company said that they didn't have elastane in it, but I'm doubting myself the more I talk to people. They could potentially have some elastane in. Then the other is a polyester fleece with metal zips I think they have. Both have logos on which can be either printed or embroidered. Looking at the life cycle of these garments now, where do [redacted] mostly work with these types of garments within the life cycle?

**2:** With the role we've got I would like to think that we're working along the full length of the lifecycle. Having said that, the fiber extraction or their extrusion, for example, perhaps refer to a way in that we're working more with retailers and brands and recyclers, and retailers and brands that are also further away from the original fiber production. That is the furthest away but if the loop is closing, then that's much within reach as anything.

**1:** Would you say that your focus is mainly where the brands - I can't type and talk at the same time - on the brand's activity [redacted]? Is that fair to say?

**2:** No, I don't think it is. We work on the full life cycle. The reporting to the brands is on the impacts of their full life cycle. We're working with recyclers and re-use organizations as well. We're working with consumers so the use phase. We message directly to consumers through the [redacted] and we're working with firms to make sure that they're working with their suppliers. We're increasingly working direct with the manufacturers themselves, just to try to make sure that impacts are minimized there.

Although fiber production is rarely the-- there's kind of a tier that the brands go directly to [redacted]. I don't think it's right to say that we're focused on 'a' point of the life-cycle, we're not, we're intentionally looking at the whole life cycle, that being integral the way that we work.

**1:** I'll write that down.

**2:** Sorry.

**1:** No, no, no, it's obviously fine. I want to get to the-- That's what this is for, is so that we can establish some kind of truth. Do you talk to the manufacturers or do the brands talk to the manufacturers?

**2:** Both. It's primarily the relationship brands and we're encouraging them to go and have the right conversations with their manufacturers. There are occasions where they bring us in to go and support that conversation. For example, a couple of years



ago, we did a survey of manufacturers about their supply chain waste, about the amount of waste they have, and from different processes.

We spoke to manufacturers at all stages of the supply chain and received data from them about which of their processes were producing how much in the way of textile and garment waste. An interesting piece of research and just an example of where we would go and work directly with the manufacturers as well.

**1:** That sounds interesting. Is that piece of research on the [redacted] website?

**2:** I wish it was.

**1:** It's not?

**2:** It's not. There are a couple of relevant reports that we've published. One, fiber to fiber recycling.

**1:** Yes, I've read that one.

**2:** Another is published the [redacted] was looking at collection sorting of used textiles [inaudible 00:56:34]

**1:** I think I read that one as well. This piece of research with manufacturers, is it not available for, I can't see that one?

**2:** No. [redacted] We were still validating the data at the time [redacted] It hasn't been included yet. I think the point at which we use that data, which is planned for the iteration that is used in the new agreement which launches next year, at the point at which we would also be publishing details of the data included in the background. There's a published technical report on our data sources for our footprint calculations when we next update that. It's planned for publication, but there's more work to do yet in terms of validating that data.

**1:** Looking at the life cycle of these garments right now, what would you say would happen to them at the moment within their life cycle? What happens to them now?

**2:** Legging and a-- was that a fleece, did you say?

**1:** Yes, it's a fleece. They're both polyester.

**2:** It's a good question. I think I've heard from the charity organizations and from the recyclers that these, in good condition, they're garments that they could sell. At the same time, there's a huge amount of fleece material around, and that's not always the most good quality or the most needed in secondhand condition. It depends on the condition it's in. I don't recognize them as garments that are frequently recycled. I think it really does depends on whether they're able to be resold or not.

**1:** Okay, so there isn't really a recycling option for them?

2: At the moment, in most cases, there isn't. I'm sure that it's possible, but I just think it's quite rare that they would end up in the right place, is what you were hoping for. Is that where the option exists? Is it widely available? No, it's not at the moment.

1: That's to do with not having much in the way of recycling options for these garments. Really their best opportunity was if they'd be in good condition, they could be going to a re-use?

2: Yes. Actually it would be anyway. Even if they were able to be recycled in that area, if they could go to reuse, that would still be preferable environmentally. Recycling is an improvement on landfill or incineration from what I've seen, but it's not necessarily the optimal solution.

1: No.

2: I could be wrong about that. I think so much of the view to being better depends on displacement of a sale of a new garment. Perhaps if recycling stands a better chance of displacing the sale of a new garment than used clothing sales, then recycling's better, but we're really getting into--

1: Life cycle analysis.

2: Yes. This is the fine detail in the background, but what if I change this factory and made it 60%? It sounds like a fine detail, but it makes a really big difference.

1: Of course, yes. [redacted] This idea of what are you substituting-- It's difficult to make a sweeping statement, but it's even more difficult to make that decision on a case-by-case basis. That's always a challenge, isn't it?

2: You chose an interesting two garments here, in that looking at them both, they're likely to be synthetic. If not entirely, then primarily. The recycling options potentially are much needed whilst the reuse options for sportswear, people are crying for used sportswear that they can buy.

1: Really?

2: Really.

1: There's a big market for reused sportswear?

2: Because the charity shops currently find it's really hard to get hold of in good condition, there isn't enough, and people too often think, "Nobody's going to want my used sportswear." Because of that perception that it's something that isn't going to be wanted, there's not enough of it, bizarrely. I think it really is that sort of-- People trying to predict what will sell. The reality is that people who will buy sportswear secondhand, in many cases would be quite happy to.

1: That's really interesting. [redacted]

2: I was going to say, it depends on the brand.

**1:** Yes. Personalized I guess is the word. If it's personalized, it's not going to be as saleable, is it?

**2:** No, probably not. This where we've ended up in that parachute where you think, "Well, okay, maybe we need a recycling option for these garments."

**1:** That's interesting. Right, I'm just going to pop that over there. I'm just going to move on now to talk about-- On slide 2 it's the same thing, but this time if we could just talk briefly about what would be the best-case scenario in the future for these garments from your perspective, what needs to-- In an ideal world. Let's try and put all of the barriers to the back.

**2:** Yes. I haven't really bought into what do we do with the trim, what about the-- For recycling, the things that are potentially a problem for reuse are also a problem for recycling, if a different thread is being used, what about the zip? Setting aside the barriers. I think one of the things that would be helpful would be people just to be able to access secondhand good, and access it easily with the normal shop, to be able to see it when they go shopping, for it not to be something that they can't get through their normal shopping channels.

**1:** Okay, that's interesting.

**2:** That isn't necessarily the high street or the mall, it increasingly online. The options are there, and the technology, it's already there to make that sort of thing happen.

**1:** Does that also follow on that people know where to send their reusable in good condition sportswear?

**2:** Yes. To make that feasible, it needs to be something that people can easily access. To drop stuff off somewhere or take it somewhere or get it back just as much as to buy it. I think there's another side to it which is that not all garments are going to be bought secondhand, there's still going to be a really big market for brand new, and there will continue to be. There's something around just making sure that the ambitious targets that we've got for 100% recycled content fibers or just much higher percentages of recycled content are actually achievable. At the moment, that's going to be really difficult. Industry's set itself a massive challenge, and it's got to get there. We've got to be able to do it, it's not really an option.

**1:** At the moment, a lot of the sports brands, they do have quite ambitious targets for recycled content, but of course, it's all coming from bottles, and I'm not sure the consumer understands that or they don't understand why that isn't a long-term solution. Is there something in the communication of fiber to fiber when and if it starts to become online, that needs to be differentiated from the bottle to fiber targets if you like, because what is to stop a brand from just saying that it's 100% recycled, but they're - Sorry, you can probably hear my children in the background - saying that it's 100% recycled content, but actually they're still relying on a bottle?

**2:** That's a good question. I think it isn't necessarily the case, I don't think it's necessarily the answer. The improved cotton take-off has happened as we discussed, but more around the price point being right. I think probably for recycled

synthetics, a similar thing needs to happen, and it's not necessarily communicating it to customers which will make that possible, it may be more to do with the price, and more to do with, then, retailers consciously making the right decision that will make it achievable. I think they have to, it's not really so much around whether or not customers know what they're getting.

That having being said, I think at the same time, we're still driving forward for greater transparency let's say, for people who are concerned, who do want to know, and who are very capable of making a big fuss if they don't think the right thing is being done, then that information does need to be available. I'm not sure that it's what you expect on the front of the garment the original source of the fiber, but I think it's the information that will be available, that needs to be made available in the backgrounds somewhere.

**1:** Yes, and on the websites. This has been my observation. People seem to be buying into sustainable brands rather than particular items of clothing. You see a lot of information for example, on Nike's website on Patagonia's website, but that doesn't follow necessarily the particular thing that they buy from that brand is better than-- They might not really know that, but they do know that the brand's doing what it can to do something towards sustainability. It's almost like buying into the brand, rather than looking for a specific item of clothing which does something, like have 100% recycled content. I don't know if that-

**2:** Yes.

**1:** -makes sense? Anything else that you'd like to add to that slide or we move on to the roadmap?

**2:** Do move on. I'm sorry, I'm conscious that I'm keeping you.

**1:** No, sorry. Do you have a meeting that you have to move on to?

**2:** I'm okay at the moment actually. I have a report that I need to finish re-writing.

**1:** If you go on to slide 3, this is just a blank roadmap, but looking at now, in 5 years' time, 10 years' time, if we think about some of the things we've just been talking about, what do you think needs to happen first and who are the main people who are involved in those key moments if you like?

**2:** Yes, I don't know. I feel as if-- I don't know whether I'm necessarily the best person to answer of all these questions and I know you've been talking to other people as well so perhaps I don't need to worry too much.

**1:** No, you don't.

**2:** Okay. To highlight a few things, and again thinking partly from the analyst point of view, analyst perspective, the things that stand out to me from the data that I've been looking at include the lack of available feedstock, the difficulty in collecting clothing and getting into the right channels, with the money available. I think that one of the first things is knowledge of impending legislation and what the requirements will be and evidence to support that legislation to show what needs to happen and how it

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could be achieved and what difference it will make. The reasons that I think that really has to come first and the barriers at the moment are such that they're almost insurmountable, without something else.

1: You mean that the barriers that we're facing we can't really do it without the legislation and the policy to provoke change, is that--?

2: I think it's going to be incredibly difficult to achieve without some sort of policy initiative to push people over that hurdle or the hurdles that we're facing. I think that because economic factors are critical in terms of what the barriers are, so leaving aside technical issues-- for the technical issues to get sorted out, but economic barriers need to come down first. It will help with that, it's around wider adoption and the thing that will help wider adoptions. It's not going to happen actually while economic barriers are still there unless we've got no other choice.

1: Yes, policy will drive the reducing economic barriers, particularly if there's investment and incentivizing via tax and those sorts of mechanisms do you think?

2: [redacted]

1: EPR we're thinking might happen in the next five years or might at least start happening in the next five years. Is that a realistic?

2: Yes, I think it could be realistic but I think there's still quite a lot to do that we've got to do to prepare for that to be able to start then.

1: Okay, perfect.

2: I really hope so.

1: Yes, for sure, met too. Anything else? Anything else more into the future or is it cloudy because this needs to happen, but then it'll become clearer once the EPR gets a bit more defined?

2: I think there are some other really interesting things that are going on at the same time. If you look at the collaborative initiative space, where you previously got some really good collaboration going on that was making improved fibers happen and getting people to gather around how they could make that happen. We've now got much more activity around how do we make circularity happen.

That's an interesting tell-tale sign of a future where industry's going to drive itself forward anyway, so even with or without the policy initiatives there are going to be steps in that direction part of what will become of that are some more circular business models. We've seen investment in startups happening particularly if you look at benevolence as an example but also in the UK and the States in other parts of the world. I think we'll see more of [inaudible 01:15:16]. I think some of the challenges with this stuff will take a bit longer for those to scale up, for those business models to scale up, and for the technology to scale up. I think that will take a bit of time. We could probably put those becoming more mainstream.

1: It's almost like they're already starting but to mainstream them.

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**2:** [crosstalk] over that line. Yes, exactly, so it's mainstreaming those initiatives that we're seeing starting in the next few years or beginning to gain some ground or get known about.

**1:** Perfect, okay. I can't write when I'm doing-- mainstream initiatives, get there in the end. Okay, perfect. Right, I won't keep you much longer. On slide 4, I've just copied again down those definitions. I'm just wondering, did you have a look at them, and did you have anything that you thought was missing or needed changing or wasn't quite right?

**2:** I think they're pretty good actually. I did have a look at them and I thought good because you're actually-- you're really insisting on circularity, not in some vague sense that leaves lots of scope to say, well as long as it's circular in the sense of keeps on going around, then we won't worry about anything else. You're holding the process itself to account almost. It's intended to reduce these negative impacts, let's make that part of the requirement. I really like them.

**1:** Oh good.

**2:** I think you've managed to raise the potential issues in there, so, "Manufacturing minimizing fiber and chemical pollution, maximizing potential re-use." There's not a lot that stands out to me as not being mentioned.

**1:** Okay, great. We're asking everyone this obviously so some people have some comments to make, but we hope, at the end of it, we'll be able to say, "Well, of the people we've interviewed, there seems to be some consensus around this." All I was going to say was that if you think there's anyone else who'd be able to feedback on these at [redacted], then that would also be useful in insight and input, so feel free to share them and get whoever to email me back any suggestions. That'd be fantastic.

**2:** I will. Yes.

**1:** Perfect. Okay, so I think we're done. Is there anything else that you wanted to say or that I didn't cover?

**2:** No, I feel as if we've done a fairly thorough talk.

**1:** Good. Perfect.

**2:** We didn't talk about labels and ecolabels so much. I suppose if there's one thing that has just jumped into my mind, it was the conversation that we were having about what could happen. We were talking about EPR and the possibility of an eco-labeling initiative. How would you communicate to consumers about that and garments were coming from the right place. I think that there is potential for that whether it is necessarily on the label or as you say on the internet, but that's worth mentioning.

**1:** Okay. I'm just putting that onto the life cycle map that we did, and I'll put it onto the roadmap as well. We've looked at different ways that, that could happen just through the literature review but also we're talking to a couple of people who are working in that area. In terms of how we might create a system around information throughout the lifecycle and the values, the gains, that, that could have different stakeholders.

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There's definitely something very interesting there. It's a very important feature I think of all of this.

**2:** [redacted]

**2:** Okay. Great.

**1:** Perfect. Thanks, 2. Have a good rest of your day.

**2:** Thank you very much, and you.

**[END OF AUDIO]**