

Environmental Audit Committee

Oral evidence: Electronic waste and the circular economy: follow-up, HC 675

Wednesday 17 April 2024

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Members present: Philip Dunne (Chair); Duncan Baker; Sir Christopher Chope; Barry Gardiner; Chris Grayling; Ian Levy; Clive Lewis; Caroline Lucas; Jerome Mayhew; Cat Smith; Claudia Webbe.

Questions 1 - 88

Witnesses

[I](#): Katy Medlock, UK General Manager, Back Market; Andrew Mullen, Chair, Joint Trades Association; Chris Chandler, WEEE Lead, National Association of Waste Disposal Officers; and Sam Mountain, Director, iWaste.

[II](#): Izzi Monk, Environment Policy Adviser, Royal Society of Chemistry; Scott Butler, Executive Director, Material Focus; and Libby Peake, Head of Resource Policy, Green Alliance.

Written evidence from witnesses:

[Green Alliance](#)

Examination of witnesses

Witnesses: Katy Medlock, Andrew Mullen, Chris Chandler and Sam Mountain.

Q1 Chair: Good afternoon and welcome to the Environmental Audit Committee where we have a one-off oral evidence session today into electronic waste. This is a subject that the Committee considered in 2020 and there has been an opportunity for the Government to take action since then. We would like to understand how that is going and get a sense from our witnesses of what more needs to be done.

I will start the session by referring to a letter that was published yesterday that I wrote to the largest retailer of electronic goods, which is Amazon, inviting them to appear before us today. They provided written evidence last time and appeared before us, I recall. They have said that they will provide written evidence to this session today but they have declined to appear in person, which I find peculiar. That is why I wrote to them and published that letter. They make considerable play of the sustainability of their electronic goods business and I thought they ought to be in a position to come and explain to us in person but they have declined to do so.

For those who are here, it would be very helpful if you could start by introducing yourselves and what your roles are in the organisations you represent.

Chris Chandler: I am Chris Chandler. I represent the National Association of Waste Disposal Officers, which represents local authorities that have a statutory waste disposal function. We get rid of people's waste.

Katy Medlock: Katy Medlock, General Manager for the UK of Back Market. We are the world's largest online marketplace for refurbished devices. We are a circular economy player with around 10 million customers worldwide and have raised about \$1 billion to fight e-waste globally but entered the UK market in 2020.

Chair: Andrew Mullen, welcome back. You gave evidence to us last time.

Andrew Mullen: Yes, I did, the same day as Amazon actually. I am employed by Beko as a sustainability and regulatory affairs specialist. Beko is a large domestic appliance manufacturer. I am also a non-executive director of Repic, which is a member-owned not for profit WEEE compliance scheme. I chair the Joint Trades Association, which is 11 trade associations whose members are affected by the WEEE regulations.

Sam Mountain: Sam Mountain, Director of iWaste. We specialise in the collection and treatment of waste electronics specifically for businesses across the UK.

Q2 Chair: Thank you. I will start by asking some but perhaps not all of you to give me an overview of the main challenges affecting the waste



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industry for electronics and electrical products. What are the good things that have happened since 2020 and what are the things that have not happened that should have happened since 2020?

Andrew Mullen: Let's start with the positives. I work in an industry and work alongside other industries that are committed to dealing with electrical waste. I cannot speak for every manufacturer but we do a huge amount of work on taking recycled materials and reusing them. There is a lot of work going on, certainly within Repic, which is the largest WEEE compliance scheme, making sure that we collect WEEE and process it to a high quality and working with the recyclers who do that. As an industry, we are now considerably more focused on promoting, first, repair of products and, secondly, the durability of products.

On negatives, there are still too many compliance schemes that rather than being involved in the physical collection and processing of waste, simply trade evidence. That is not how the WEEE obligations were envisaged. It was supposed to be something that people actively participated in and trading evidence was not really what it was about. There is too much WEEE that we don't get control of, too much that disappears into the grey market. Most washing machines, for example, left outside people's houses generally get picked up by a scrap metal dealer rather than going through the WEEE system. That gets lost and there is no control over the processing of that WEEE.

Q3 **Chair:** Is that because consumers are charged to take their white goods to recycling centres and they get paid by a scrap metal dealer?

Andrew Mullen: No. As far as I am aware, the scrap metal dealers very rarely pay for them. They simply drive around and collect them. People can take them to a civic amenity site for free. If it is bulky waste collection—and I am sure Chris will have a view on this—my understanding is that they are generally asked to leave it outside their house, from which the local authority will come and pick it up at some point. If it is something where there is value in the steel it will disappear before then.

Q4 **Chair:** Chris, are your members seeing an increase in white goods being left for household collection?

Chris Chandler: There are bulky collection services that local authorities offer. I think there is a charge-for service and generally they have to be left outside the house for collection. I am not sure about the scrap man thing. Probably it is a very urban environment, but in rural non-urban areas it is unlikely to be picked up. At the minute, the public have a choice of either taking it to a recycling centre or bulky collection.

Q5 **Chair:** In Shropshire there is a current consultation going on about household recycling centres and there is a potential closure of two out of the five centres.

Chris Chandler: Yes, that is a threat at the minute.



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Q6 **Chair:** Are you seeing that more often in other local authorities as a result of pressures on authorities' finances?

Chris Chandler: Yes, there are several consultations going on. Several authorities are consulting on closing sites or restricting opening hours, restricting access through booking systems and that sort of thing. Unfortunately it is a result of continual budget cuts.

Q7 **Chair:** Have you actually seen any close yet or is it all at consultation stages?

Chris Chandler: I have not seen any close recently. In my local authority we closed two about a decade ago.

Q8 **Chair:** Are your members seeing an increase in collection of electronic waste through recycling centres? Are volumes going up or what is the picture? Is it static?

Chris Chandler: I don't have that figure to hand but I am aware that the big challenge from our point is the 155,000 tonnes of small WEEE in people's bins, as shown by a study done by Material Focus—Scott is in the room later. That goes on to landfill or for incineration and it is costing local authorities about £25 million a year just to get rid of it. It then goes out of the circular economy. Should it be councils and taxpayers paying for that rather than producers with the producer responsibility legislation? It is a big number and the challenge is to try to get that WEEE that is convenient to put in your bin back into the WEEE system proper.

Q9 **Chair:** That leads us on to Katy. How is the recycling going of these items? Do you recognise Chris's figures of 155,000 tonnes in the black bin?

Katy Medlock: Yes. Certainly we are seeing a real awareness of alternatives in the UK. We have a lot of conversations about recycling but I think that UK consumers are becoming aware of what can be done further up the chain. That is where refurbishment as a viable alternative really steps in. The UK is a forward-thinking market from consumers in that perspective, which is great because it is also one of the second highest producers of e-waste per capita globally. From a refurbishment perspective, you have seen the likes of Back Market come in and offer a commercially viable alternative to recycling. We have done research that shows that the average Brit has £4,000 worth of tech sitting in their top drawer. We are offering a way to refurbish that and put it into the circular economy.

Q10 **Chair:** Is that the second-hand value of this equipment?

Katy Medlock: Exactly, it is the second-hand value, so it is extremely valuable that we are the step before we talk about the recycling target. It is about reuse, refurbishment not only has commercial value but huge environmental value as well.

Q11 **Chair:** How do consumers become aware of this value? What are you



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doing to try to encourage them to make it available?

Katy Medlock: As a company, that is our reason for existing and we are continually advertising and marketing and doing public relations activities to make sure that people are aware of this as a viable alternative. It is extremely important because obviously with 2 million tonnes of e-waste being produced each year it is not possible that we would be able to cope and make sure that it is being responsibly recycled with that kind of volume, which is where the refurbishment industry steps in.

Going back to your original question, what has happened that is positive is consumer awareness of that. The likes of Back Market, as an example, has grown to the same size as our German market in nearly a third of the time that it has been open. The UK is responding to this very well, but a lot of the regulations that are in place here refer to big, large, bulky goods, televisions, washing machines and so on. I think the next step is quite clearly to expand that to the smaller devices and to expand the right to repair in regulations for smaller devices.

Q12 **Chair:** Can you give us a sense of the scale of the marketplace that you have just referred to? The UK is now the same size as Germany; what does that mean?

Katy Medlock: Yes, of course. I am trying to think what is the best way to paint the scale of it. We have 10 million customers globally and the UK is frequently one of our second or third biggest markets, so you can estimate there would be 1 million to 1.5 million customers in the UK who are already actively engaging with refurbishment.

Q13 **Chair:** Are these one-off customers? If I change my mobile phone and provide it to you, I am a customer for a year?

Katy Medlock: No. We have both one-off—in the UK we have been open for only three years in this market so it is new, but for sure where we have a longer standing there is a lot of repeat customers trading in one, two, three devices. The reason I stress that your mobile phone is an important device for the right to repair regulations to be expanded into is exactly what you have touched on. The average UK consumer is replacing their phone on a contract every two years. There is a lot of devices in circulation, they are extremely valuable because now everybody uses one, and while they are such a tiny piece of equipment, they are extremely damaging to the environment to produce.

A lot of that damage is happening at the manufacturing stage. For example, ADEME, which is the French ministry for the environment equivalent, shows that a phone if made refurbished uses 91% less raw materials and produces 89% less e-waste, and yet this is currently not included in the regulations.

Q14 **Chris Grayling:** You talked about the smaller devices. If you go to a recycling centre now you will find a large skip full of small devices. Televisions, for example, are separated these days. Of that mountain of



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small devices, what route is there, if at all, to get those devices into the world you operate in? What proportion of what is supposed to be in a recycling bin ends up being recycled? My sense is that a lot of this is not going anywhere near the recycling at the moment. It is just being dumped or incinerated.

Katy Medlock: I think that Sam is fairly well placed to answer, but before I pass to him what we are trying to do is intervene before it gets to that point. At that point it is already in the recycling piece and the chances are that it has been damaged during collection and it has become even further away from being reuseable or repairable. The reuse, refurbish industry is stepping in before that point and providing a commercially viable and attractive solution.

Q15 **Chris Grayling:** Therefore, is it not sensible to have a route at the recycling centre that is not just dumping them in a big skip?

Katy Medlock: Absolutely.

Chris Chandler: The skips at the recycling centres are provided by the producer compliance schemes. The WEEE producer compliance schemes provide the skip for that material and then they have to go through the treatment process that is audited. The stuff in the skip is recycled but it is not reused.

Andrew Mullen: That is categories 2 to 9 in the WEEE regulations and there is a small mixed WEEE target. In its entirety that is what the target is set on and there are protocols that were set some years ago that split out what is in each of categories 2 to 9.

Q16 **Chair:** I will bring in Sam who has not had a chance to say anything yet. Do you want to go back to my original question?

Sam Mountain: On scope, there are so many elements of waste electronics that it is difficult to encompass everything into one. We can have a drawer for the phones, we have a cupboard for the bulk printers and things like that. I think the messaging that comes down to the top and what we see probably at the bottom of the chain is on the East Hampshire website, which is my local council, "How do I recycle a printer?" It takes me to three or five different links. I then go to Hants Council, which is our local council. They have a doorstep collection service. I think the messaging across the board is quite mixed and varied and not uniform.

We want to take these products out of the waste element so they can be reused and repurposed before they even touch the skips or go to the council sites. The issue with them is the sensitivity of what is on the devices, on my phone, banking, all my socials; everything is contained in that device and if not handled correctly it can be picked up by anyone. Anyone can go into a container that is placed at a local authority site and pull out a mobile phone and tablet.



There is a lot of misinformation and disinformation and misdirection. We live in a throwaway society and last year's phone is obsolete to some people. It is making sure where they are going if we are refurbishing them and not putting information out that says, "Phones are great but a five-year-old phone has got no value". You can throw it on eBay and it ends up being bought by someone in another country, is shipped abroad and it just becomes someone else's problem.

Q17 Chair: Are there any specific barriers that you would like to draw to our attention that could be removed with the right action that would improve either reuse or recycling or just take them out of the waste stream altogether?

Chris Chandler: I think it is trying to get the public engaged or provide the public with an easy, convenient service for them to be able to hand over their small WEEE. I know that the regulations that have been proposed are looking at providing kerbside collections. That would provide an easy, convenient service for everybody and instead of putting an item in their wheelie bin they would put it in their recycling bin for collection. It is very simple, very straightforward and very convenient.

Chair: And feasible with the kerbside collection complexity with food waste coming in in three years' time.

Chris Chandler: The regulations as proposed look to try to partner the WEEE producers or the WEEE administrator with local councils if they can have the ability to work together. Some councils are providing WEEE collection at the minute but some can't because there is not enough space on lorries and that sort of thing. With a bit of help from the WEEE schemes in adding cages or other assistance they could work together, but even if it is physically impossible for a collection round to take WEEE, the regulations are proposing that the WEEE administrator finds a different route to do that. There are lots of postal couriers and other commercial groups that could collect WEEE if necessary but probably the best way is for them to work together with councils.

Sam Mountain: From our position, we have vehicles on the road and drivers who can provide a doorstep collection service. In the past we used to provide a local doorstep collection service in and around Aldershot, Basingstoke, within a 30-mile radius, and that produced great results. However, there was no incentive from the councils, the producers and the compliance scheme. On the value of what comes down to us, there is no real value in the raw material and the evidence value that we get as well does not sustain funding. For iWaste, just on the doorstep of Reading, we have the ability to provide a doorstep collection to people but there is no incentive for the councils and the councils don't have the funding or want to get involved. There is red tape around that. I think if you had companies like iWaste around the country that have the ability to provide doorstep collections, the facilities are there. It is just being able to help fund it and where the funding comes from.



Q18 Chair: I think what Chris is saying is that if councils are obliged to have some kind of collection service that would be creating value because, as several of you have been pointing out, these are high-value items, much more so than other material collected at kerbside.

Chris Chandler: The regulations as proposed put the onus on the WEEE producers to provide that service. Effectively, you would get a country-wide doorstep collection service not funded by local authorities but funded by the producers, and the producers can implement that as they see fit.

Andrew Mullen: If I might add to that from a producer perspective, I agree. It is about consumer attitudes. There is certainly concern among producers that any gains from kerbside collection will be fairly small compared to what will just effectively shift the WEEE that is currently collected at civic amenity sites or local electrical retailers into kerbside. There is certainly a risk that what we won't collect in kerbside is the high-value products—the phones, the tablets, the laptop computers—because people will be worried about data theft. I think that is a very real concern and I suspect you probably agree with that.

On producers paying for it, at the end of all this the consumer will pay for it. The producers will not generate enough profit to cover that. It will be the consumer.

Q19 Jerome Mayhew: I am interested in trying to get a view as to what has happened since 2018 with the publication of the Government's resources and waste strategy. I was looking at the data in our brief. It says that in Q1 2015 127,074 tonnes of e-waste was produced compared to Q3, which was 114,000 tonnes. Do you agree that they are modest grounds for encouragement or do you think there are other factors that have led to that reduction in the production of e-waste?

Andrew Mullen: I think that depends on what you mean by production of e-waste. As manufacturers we don't produce e-waste. We produce electronic equipment. Waste is what comes off the market as a result of that. Collection levels have been pretty static across the years although the markets have grown. Where we stand at the moment with the biggest products that affect the WEEE collections, which tend to be the products I am involved with—washing machines, fridge-freezers, dishwashers, those types of products—the market is pretty static. In fact it is a little bit down at the moment.

Q20 Jerome Mayhew: That would be the opposite message. The market itself has increased and there is more kit out there but the collection rate is static. Therefore, the percentage that is being collected for recycling has actually reduced.

Andrew Mullen: Sales are down at the moment. The market generally sits somewhere between 10 million and 11 million units a year. It is currently about 8.5 million units a year, but there is a huge amount of product traded on places like eBay. I had a look yesterday. For our



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washing machines, there is currently over 3,000 used washing machines of our brands available on eBay. There is no correlation between product placed on the market and WEEE coming off the market.

One of the reasons for that is products change. If it is a 15-year-old fridge-freezer coming off the market and it is being replaced by a new fridge-freezer, the new fridge-freezer is probably a much bigger product. It is far more likely to be, for example, an American side-by-side fridge-freezer as opposed to a two-door combi fridge-freezer. TVs is another example where TVs going on to the market tend to be much bigger than TVs coming off the market. There is no direct correlation. We as producers would rather see WEEE measured in units because it is much easier to do a comparison of units placed on the market against units coming off the market.

- Q21 **Jerome Mayhew:** This is slightly off topic but I am interested in your answer. There is a huge reuse market in eBay and others, Freecycle, which we use a lot at home. The consumer is doing a lot of this work for you without government intervention because they are following the money. That is how markets work and it should be encouraged.

Andrew Mullen: I think that is absolutely what is happening. If a consumer sees value in the product they have they don't just take it to the civic amenity site. They give it to friends or neighbours, they sell it on eBay, they gift it to a charity. There are charities out there who get more electrical products than they know what to do with.

- Q22 **Jerome Mayhew:** Where WEEE effectively comes in is when the product stops working. It is obsolete and it does not have an obvious commercial value to another consumer.

Katy Medlock: I think that there is a lot we can do to make that pathway to repair more viable. What you are saying makes sense when the product is working. There is a lot of e-waste going into collection that is working and that should be prevented, but in instances where it is not working we are asking for change. The barriers that are placed to repair are quite easy to remove. For example, there is the availability of parts. Often when they are produced by the original producer of the electronic waste there are things that can be done to make them less available, more expensive and difficult to obtain, which means that there is a planned obsolescence in that cycle.

- Q23 **Jerome Mayhew:** Is that still the case, because we have been talking about this for a while now?

Katy Medlock: It is still the case and also happening at the moment is not just parts hardware but software changes that are being introduced.

- Q24 **Jerome Mayhew:** Does anyone name and shame manufacturers who are designing in complexity in repair, obsolescence? Is there any movement to force a more responsible approach?



Katy Medlock: So that we are all clear on an example here, I can give an example of what is happening on the market at the moment. Back Market has done a lot of research to understand why consumers might have a barrier to purchasing refurbished rather than purchasing new.

Let's take the smartphone example. Part of the research showed that one of the fears was around battery life. Everybody has the fear of your phone running out of battery. We have placed more focus on talking about battery replacement in the phones that we sell. A challenge that we have is that some original producers are now putting out software updates that unless it is a genuine part from that producer, you receive an error message to say that this has a non-compatible part, an error message to say, "We can't show you the battery health of this product any more because it is not a compatible part". The compatible original part is extremely expensive and makes repair completely difficult and prohibitive and no longer attractive for the customer whereas the parts that exist are perfectly safe, they are tested. They are perfectly compatible and work really well. They have the same durability, but because the producer is controlling the software update they have the strength to be able to prevent that.

This is why the right to repair needs to be considered and why we need to extend it particularly to small devices where the software updates are regular and it is a much more commercial question.

Q25 **Jerome Mayhew:** Going back on track, has there been any impact on your businesses of the Government's strategy since 2018?

Andrew Mullen: As the right to repair was mentioned, for a business like ours, and for most branded businesses, it made no difference at all because all it required us to do was things that we were already doing. To pick up on some of the points that were just made, on difficulty to repair, we repair 200,000 products a year. If we can do it and they are not hard to repair our engineers will be in and out of the customer's house in 45 minutes to repair their washing machine or fridge. They don't suddenly become hard to repair once they are out of warranty. We put over 300,000 spare parts in stock across 42,000 different—

Q26 **Jerome Mayhew:** That is the advert for Beko but about the industry more widely, perhaps Chris?

Chris Chandler: From local authorities' point of view I think that WEEE has just been steady. The low-hanging fruit has been easily harvested but there is the figure I keep going back to of 155,000 tonnes of WEEE still in the bins that are going for disposal, so that is our challenge. Now that DEFRA has pushed out the proposals for the WEEE regulations reform, if it sees that through and it is going the right way it will certainly help dramatically get that WEEE back into the right place.

Q27 **Jerome Mayhew:** I just want to get a flavour for the proportion of e-waste that is going via your guys, that is coming out of the bins and how



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much is being recycled or reused. You have talked about 155,000 tonnes per annum?

Chris Chandler: Yes.

Jerome Mayhew: Then I was using data for a quarter with about 120,000 tonnes per quarter. Do those figures feel about right to you? Sam, this is your area.

Sam Mountain: From our perspective, there is a lot of waste getting in the industry and it is about finding numbers. We work with the compliance community, local councils, but it is so easy to obtain a licence to collect waste electronics. The missing numbers, we report to the compliance schemes, so there are thousands of smaller versions of us that are collecting waste electronics that go through the recycling system but—

Q28 **Jerome Mayhew:** Do we collectively just not know how much is being repurposed by the producers or the takeback schemes? Do we just not know what that number is?

Katy Medlock: Certainly, on our side, it is nearly impossible to quantify.

Andrew Mullen: If you are talking about the products that are collected in civic amenity sites in skips or stuff that might be collected via kerbside, which will probably go through a very similar route, that will go to a WEEE treatment plant, a recycling centre, and get tipped into a crusher. Quite often with the small mixed WEEE, by the time it has got to that point it is not salvageable anyway.

Q29 **Jerome Mayhew:** How can we tell whether the Government's policies have been a success or not if we do not measure what the take-up has been? Do we know? No one knows?

Andrew Mullen: I think that is probably a fair assessment.

Q30 **Jerome Mayhew:** That is great. In which case it is quite hard to answer the next question. Is there currently sufficient economic incentive for businesses to get involved in this sector? The answer is that we do not know because we could have 100% effective collection, though I doubt it, or we could have almost none, because you just do not know the numbers.

Andrew Mullen: I think the truth is that the stuff that is worth saving, which can be reused and go through a reuse system, gets pulled out before it gets into the WEEE system. It is never counted as WEEE. It has gone to a charity shop, it has been given to a neighbour or it has been sold on eBay or Facebook Marketplace. It has never entered the WEEE system. That is why we cannot measure it, because it is not there for us to count. It is a peer-to-peer market that we just have no access to.

Q31 **Jerome Mayhew:** That is the most effective and natural part of this.

Andrew Mullen: Absolutely.



Q32 **Jerome Mayhew:** It is working. It is the market.

Chris Chandler: It would be a low-value product, the old, manky electric toothbrush or whatever, which no one wants to reuse.

Q33 **Jerome Mayhew:** Or the printer that does not work.

Chris Chandler: Yes, which is worth less than £10 or whatever, which would typically go in the wheelie bin. That is the stuff that can be measured via surveys and that sort of thing. Those small items are making up this 155,000 tonnes a year figure.

Q34 **Jerome Mayhew:** Let's take those as an example, the obsolete printer, the electric toothbrush, the cabling, all the stuff I have drawers of, like everyone else by the sounds of it. Are there sufficient economic incentives in the global schemes to find a route other than the black bin for those? If not, what are your thoughts about how that could be improved?

Chris Chandler: The system at the minute with the WEEE regulations is that the producers are responsible for that via the producer compliance scheme. They would go and collect that material at recycling centres. However, with the economics they have a target to meet to collect a certain tonnage and if they do not meet that target they have to pay a compliance fee. Often, the compliance fee is less than the cost of collecting it, and sometimes it is easier just to pay the compliance fee than go and do the work in the first place. It is that balance that needs to—

Q35 **Jerome Mayhew:** Maybe a negative incentive, as opposed to a positive incentive, is what is needed at that base level. What about marketable? I have just had a quick look at your website and basically it is iPhones and laptops. It is the high-value stuff.

Katy Medlock: Of course, because they are, as you have pointed out, the easiest commercially viable option. Yet there is still lots that could be done with the right to repair elements that I mentioned before to make that more commercially viable. The more products that is expanded to, the higher the chance we have of preventing things from ending up in the skip. The availability of parts, software and so on still has a huge part to play in expanding what we can offer.

Restart, which is a fantastic charity around right to repair, has done some great research on consumer repairability. Take the printer you have, for example. There is normally around 30% discounting between buy new and the cost to repair, and an individual member of the public might decide that it is worth it or not. So often it is cheaper to buy new, rendering that product useless. Repair schemes, repair vouchers and repair indexes are things that have been introduced in other markets that would be worthwhile to consider in the UK to help repairability.

Q36 **Caroline Lucas:** I want to pick up from that point and focus in particular



on the Government consultation that is out at the moment. Katy, I was struck by something you said about the UK generating the second highest amount of electrical waste in the world per head of population, which is quite a stunning statistic. Looking at that Government consultation on e-waste, do you think, first of all, that it is broad enough? Do you think that, for example, a focus on the need to reduce the amount of electronics used in the UK in the first place is something that should have been in there and is not?

Katy Medlock: That is definitely an ask from us. So much of the consultation, the regulation and general speak is always around recycling, which is a hugely important part but it is also the ambulance at the bottom of the cliff. It is a conversation that we would like to continually have, to move upstream and stop devices and electronics—no matter their size and scale—getting into the recycling process in the first place.

With the startling stats that we have, whether on a per capita or absolute tonnage basis, we will always struggle with recycling of that volume. You are absolutely correct in that if we could look at how we can prevent so many new electronics being purchased, refurbished, reused electronics are a very viable stream to prevent the obsession with new electronics. All of the things we have been asking for in this consultation—the right to repair and talking about reuse targets rather than recycling targets—will help tackle the problem at the source.

Q37 **Caroline Lucas:** To completely capture that so that it is hopefully a recommendation from the Committee in our report, if you are talking about a genuine right to repair, a right to repair that is expanded beyond what we have now, what should have been in that Government consultation or what should they take into account in what would make a real difference?

Katy Medlock: There are two very clear asks from us there. One is that we have firm reuse targets, rather than having the conversation only about recycling. The second is expanding it to small devices. With that there is the pressure on the original producers to remove the barriers that impede repair, the software updates that I mentioned and the availability of spare parts, to make repair affordable and commercially viable.

Sam Mountain: I can only echo what Katy said. As I said, from our perspective we receive hundreds of tonnes of waste electronics but very few of those items are salvageable, and even if they are salvageable you come up against hurdles. We collect laptops, iPads and phones from businesses. A small percentage of them might be able to be data-wiped; the rest of them are put through recycling because they could be locked. Businesses have their own incentives and they do not want them to go back on to the marketplace either. Again, that is education from the top that needs to fall back down.

Q38 **Caroline Lucas:** Does anyone else have something they think the



consultation should have covered and has not?

Chris Chandler: It is clearly focused on more recycling and it is looking at more reuse. Your point about reduction in consumption in the first place is an interesting one. It did not look at that, but the public love their stuff. For example, I love a bargain. You can buy so much electronic stuff for next to no money these days but it lasts a year, then it breaks and you just buy another one.

Q39 **Caroline Lucas:** People do not love the fact that they cannot repair things. The amount of frustration you get from people who would be perfectly happy to get something repaired if they thought—

Chris Chandler: Yes. It is not flooding the market with stuff that is so cheap that it appears to be a great buy but lasts 12 months and then breaks. I do not know quite how you would ever stop that.

Sam Mountain: Ultimately, we live in a throwaway society, don't we? Everyone is after that next thing.

Q40 **Caroline Lucas:** That has not happened by accident. It has happened because of price signals. It has happened because of a lack of regulation. I am trying to invite you to be a bit more radical in your proposals on how we might do something about that, rather than just saying, "Well, it is a throwaway society and what can you do?" You could have, for example, much higher costs for using virgin material. If the Government were serious about a circular economy they would not just be tagging about with this recycling, it would—

Katy Medlock: Exactly.

Chris Chandler: You could mandate products that last a certain length of time, not just 12 months, but obviously you would have a big cost to the consumer that would—

Q41 **Caroline Lucas:** If they insisted on buying virgin, but they will not need to because we are going to have this wonderful repaired and refurbished market.

Katy Medlock: When you talk about the price impact on virgin materials, this is potentially not the best group to discuss how that might be done as it is quite different from our business models. However, subsidising in a way that could be "producer pays" but also subsidising the repair element will make virgin materials comparatively more expensive.

Some schemes exist in other markets. VAT on repair is a conversation. Repair vouchers have had great success in Austria and France to help you get to that 30% level. In addition, there is a French repair index, which is a bit like an ingredients card on a milk bottle or on produced food. This repairability index will show you how easy it is for your item to get repaired. France has had a huge impact there. I think in their first year of launching that they had something like 60% consumer awareness of the



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scheme. I would certainly be able to make, as a consumer, more viable choices for the environment if I knew what was—

Q42 **Caroline Lucas:** Has that been, as far as you are aware, discussed at all within DEFRA or more broadly here?

Katy Medlock: I am unsure if it has been discussed. It must be. I look at Restart's Right to Repair movement and it is one of the big core five asks.

Andrew Mullen: I can say that it has been discussed with DEFRA.

Q43 **Caroline Lucas:** What are the reasons, as you understand them, for why it is not gone further?

Andrew Mullen: As in the right to repair?

Caroline Lucas: In particular the kinds of measures that Katy was just outlining.

Andrew Mullen: Katy has covered a number of areas, and I will try to remember them all and cover off the ones I can. The first point about right to repair—you have mentioned parts pricing—is that right to repair does not cover parts pricing.

Katy Medlock: No, it covers the availability of parts, which will have an impact on supply.

Andrew Mullen: It covers the availability. It will make them available; it does not cover pricing.

Katy Medlock: Perhaps it could also.

Andrew Mullen: If you are going to start looking at that, making parts available for a set period of time and pricing, you also have to look at that as a manufacturer we hold huge numbers of parts that we end up throwing away because nobody wants them. There is an environmental impact in holding spare parts. It is not often talked about but I think it has to be at least in the mix.

On the focus on reuse, the problem within the WEEE arena is that by the time it is in the WEEE arena, everybody else has had a look and decided that the product has no future. They are just going through the dregs of what is left. If we look at what goes on, I imagine that your products have never entered the WEEE system. They have gone from consumer to refurbisher, who has refurbished them and is then selling them. They have never entered the WEEE system.

Katy Medlock: Often, yes.

Caroline Lucas: Often they have, sorry?

Katy Medlock: No, often they have not. Again, it is upstream.



Andrew Mullen: If we want to look at WEEE reuse we have to look at things like that, but we also have to look at things like eBay, what goes through charity stores, what gets traded peer to peer and what gets given to neighbours. By the time it goes to a recycler, it is probably so beaten up that it is hard for them to refurb. That is not to say that they cannot and there are some products that they can do, but it is a relatively low percentage because of the journey it has had. Again, if it is a fridge or a washing machine, it has not been protected on that journey. It has been fairly beaten about. There is a place to look at reuse but it is perhaps not that.

On using more recycled material, at the risk of doing another advert for Beko, we are currently working with AO Recycling, taking plastics from their fridge plant and putting them in new fridges. That is all taking place now and will grow.

Q44 **Caroline Lucas:** Would you be in favour of a reparability index, as has happened in France? Why would people not be in favour of being given that information? It feels so basic.

Andrew Mullen: The reparability index in France has challenges. I understand the theory behind it, but it will talk about availability of spare parts but not how much those spare parts cost. It is quite an easy system to manipulate should you choose to do so. We have products that are covered by that and we score quite well. I am not saying we manipulate them—we do not—but some manufacturers could, if they choose, score highly on one part but score badly on other parts. There is a place for a system like that but the French system is probably not it.

Q45 **Caroline Lucas:** I am sorry that we need to move on because it is far more fascinating than one would have imagined, isn't it? Do you think a substantial producer-paid collection scheme will be effective in tackling issues such as costs to local authorities on managing the waste or planned obsolescence?

Chris Chandler: If producers pay for that service, it would be great. As I say, this figure of 155,000 tonnes of WEEE in the bins has a cost to local authorities to get rid of. It is not going through the circular economy. If producers come along and cover the cost of picking that up, great.

Q46 **Caroline Lucas:** Is the idea of a business-led scheme administrator the right approach? I would love to know the implications of that for local authorities.

Chris Chandler: The scheme administrator would attempt to work with local authorities first, but if they cannot, they will have to work with others like couriers or Tesco doing household deliveries to get this WEEE back. Getting rid of this material is a cost to local authorities at the moment. If someone else takes that material and properly recycles it, we will not cry about it, no.



Sam Mountain: In our position, we would be incentivised to do something like that as well. We tried in the past, but ultimately the value to do that against our standard day-to-day business is not there. You get support from the compliance schemes, but what comes down is quite minimal, let us say. If other schemes are available to us, we have vans, people, warehousing and infrastructure to facilitate that. We could look into that. But ultimately, when we try to push that ourselves, it falls on deaf ears.

Andrew Mullen: I will make this point on kerbside again. I make no apology for making it again. If the cost is put on producers, it will be passed back to consumers. We cannot afford it within our current business model. If it is put back to producers and producers have to build it into their costs models, it will go to the retailer, who will put a margin on it and then VAT on top. That will be extremely expensive.

Chris Chandler: At the minute, the taxpayer pays for that, rather than the producer. It should be a producer responsibility system.

Andrew Mullen: With respect, I am not sure I agree with that. At the moment, there is no requirement for kerbside on WEEE.

Chris Chandler: The taxpayer is paying for it. It still goes in the bin and so councils still have to pay to put it in landfill or incinerate it.

Andrew Mullen: Customers should not put it in the bin. WEEE requirements are that it should not go in household waste.

Chris Chandler: The whole problem with the WEEE system is that it goes in the bin.

Andrew Mullen: That is what consumer education is about. That is why Scott spends so much money through Material Focus on telling consumers what they need to do.

Chair: This is the most interesting bit of the conversation that we have had for some time. We do not often have our panellists having a good old ding-dong. But I am afraid, if you have finished, Caroline, we will have to move on. Barry had a tiny question, very tiny because we have Cat's questions to get through.

Q47 **Barry Gardiner:** Yes. I want to pick up on the French system of repairability. It seems that we often talk about repairability or something being recyclable. Therein lies the problem.

What would happen if, in fact, the obligation was placed on the manufacturer to repair something always within a certain period of sale? It could be either through the establishment of repair shops or by collection and return to the manufacturer. It seems that simply talking about something being repairable does not solve the problem.



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Andrew Mullen: As I made the point before, we repair 200,000 of our products every year. They are repairable products. They do not stop becoming repairable when the warranty runs out. We offer an out-of-warranty repair service, which is considerably less than the cost of a replacement product. Consumers have the right to go to an independent repairer. There is a repair option.

Q48 **Cat Smith:** At the risk of starting a ding-dong again, will any amendments to the WEEE directive be beneficial for the management of waste? I got the impression that, Chris, you were edging towards answering some of that earlier. Andrew perhaps might have some suggestions as well. I am not sure if they are the same suggestions or different. What amendments would be helpful?

Chris Chandler: DEFRA's publication on the new proposals for the WEEE regs go in the right direction to tackle the WEEE in the bins and to make it easy for householders to do the right thing with their WEEE. The proposals, if seen through, will be great. But you will get businesses saying that it will cost consumers a few quid extra on their £500 telly.

Q49 **Cat Smith:** Does the industry need more direction from the Government generally to address this issue?

Chris Chandler: These new regs will sort it out, if they are seen through.

Q50 **Cat Smith:** Katy, do you want to say something?

Katy Medlock: It is heading in the right direction. Faster action is required on an ever-growing problem, but I also reiterate my two points earlier. Sorry for repeating old ground. It must also include reuse and a producer-pays system. If the responsibility is passed on to producers—Beko excluded because you seem to be doing a fantastic job in this space already—smartphone software updates might not be such a problem.

The other piece on that is, yes, the regulation in place, if it moves forward, will work. We also need to extend it to smaller devices, particularly smartphones, because of quite how damaging they are.

Q51 **Cat Smith:** Are any items of e-waste particularly challenging? You have alluded to it already. Are smaller electronic devices like phones, iPads and laptops more challenging than larger white goods?

Katy Medlock: For smart phones and laptops, we have a commercially viable solution that needs to be leant on a little bit more. The challenge with the bulkier devices is that they struggle to retain their value. There are two different challenges for two different products. The smaller devices are low-hanging fruit because of their commercial viability.

Sam Mountain: As well, the biggest problem in the industry is when the batteries inside the smaller devices, certainly phones and tablets, go into skips, go into shredders, burst into flames and cause millions of pounds worth of damage. That element needs tackling. Vapes is a big issue at



the moment. It is a similar sort of problem. It is quite easy to chuck it in the bin and it becomes someone else's issue down the line.

- Q52 **Cat Smith:** Certainly when I do litter-picking in my community, which most of us probably do as Members of Parliament—it seems to be part of the job—vapes are seen as throwaway. Katy, do you have any thoughts on that? I am conscious that you have worked with a lot of smaller electronic goods, not particularly vapes, though, presumably.

Katy Medlock: Vapes are too difficult, but I know Scott is still in the room and probably will have a lot to say on the vapes front shortly.

Cat Smith: I will leave that for the next panel.

Chris Chandler: Hopefully, a ban on vapes will sort that one out.

- Q53 **Cat Smith:** Let us all hope. Katy, what if anything is being done to improve the reliability of products by manufacturers so that they do not break or need to be replaced? What has been done and what needs to be done? You have alluded to the software updates. Should manufacturers and producers do anything else? You have covered it. I am making sure.

Katy Medlock: I am repeating old ground with your precious time. It is about the affordability and the availability of the parts. Certainly the topics like repair index would help.

Chair: That conveniently brings us to the end of our first panel in good time for us to not have to suspend the sitting. I thank our panellists, Chris Chandler, Katy Medlock, Andrew Mullen and Sam Mountain.

Examination of witnesses

Witnesses: Izzi Monk, Scott Butler and Libby Peake.

- Q54 **Chair:** Welcome back to the Environmental Audit Committee. I am grateful to our witnesses for our second panel, who have been able to stay following our spell in the Chamber. I will start by inviting Scott on my right to introduce himself. Scott, welcome. You have given evidence to the Committee before but not all our members may have been here when you spoke last time.

Scott Butler: Thanks for having me back. I am the Executive Director of Material Focus. We have existed for about four years and we work on all things, waste, electricals and portable batteries.

We work in three areas. Our insight strand produces a lot of research. Some of the numbers you have heard today emanate from that. Our investment strand puts grants and other funding to local authorities and others to collect more electricals for reuse and recycling. Our inspiration strand has a "Recycle your electricals" campaign and also, as part of that, gets out the message and the story about waste electricals far and wide. For example, we were on "The One Show" last night talking about an interesting project in Newcastle. Across the BBC a couple of weeks ago,



we were talking about the drawers of doom, which unite us all, those drawers full of cables and remote controls.

- Q55 **Chair:** You are being broadcast again today and so that is a triple for you in a fortnight. Good. Welcome to Libby Peake, who has given evidence to us before, from the Green Alliance.

Libby Peake: Thank you very much. I am Head of Resource Policy at Green Alliance, which is a charity and think-tank that focuses on achieving ambitious leadership for the environment. We return to the issue of waste electricals and electronics time and time again because of its massive environmental impact, which has not yet been addressed.

- Q56 **Chair:** Thank you. This is your debut, Izzi Monk, from the Royal Society of Chemistry.

Izzi Monk: Thank you very much. I am the policy adviser for the environment at the Royal Society of Chemistry, which is the UK's professional body for chemical scientists. We have more than 56,000 members around the world. We have a global not-for-profit publishing business and we are a leading investor in UK chemistry education. Also, alongside my time at the RSC, I have recently completed an MSc in sustainability and behaviour change. I researched what end users in the UK do with small items of electrical equipment and the underlying reasons for this behaviour.

- Q57 **Chair:** Thank you. This panel is focused more on WEEE's role within the circular economy and what we can do from your perspective as observers rather than such active participants. Perhaps we could start with another general question. What more should the Government do to support a transition to a circular economy within electronic and electrical goods?

Scott Butler: Interestingly, the impact of the proposed changes to the waste electrical regulations will be to start to tackle the circular economy of electricals as a whole by getting better measures in the system. At the moment, the weight-based target does not capture what we heard about earlier today and previously in the inquiry. How much stuff is reused? What materials do we get out of the electricals? What is in the electricals in the first place? How much aluminium, steel, copper and critical raw materials?

How easy is it for the public to do what we want them to do? How accessible are drop-off points and kerbside collections? They are key drivers. A key part of not losing electricals to bins or to drawers or to landfill has to be making it easier for the public to do what we want them to do. That is behavioural science, nothing new.

Of course, we heard about the costs associated with that before, but they are on the table now. We need to decide, based on evidence, on the best route for us to make it easy.



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Also, what collection methods are right for different products? How you collect a washing machine or a fridge is not how you want to collect a smart device, a toaster, a kettle or some of the cheap fast tech that we have talked about. Half a billion items a year are sold and thrown away. They will never be reused or repaired. They are not designed to be. We need measures around whether they should be on the market. That is not for the waste electrical regulations to fix.

At that back end, we want to make recycling the worst thing that we do with our electricals. Lift everything out of the bin. Across the top of that, we need much more activity around reuse, donation for digital inclusion, selling electricals to give them a second life.

A lot of stuff is in there and it signals the right behaviours, but I want to make the point the waste electrical regulations will not fix all of the issues around the circularity of the electronics industry.

Q58 Chair: You raised lots of issues there. Are you making recommendations through the consultation at the moment about some of the best ways to do this?

Scott Butler: We are not making recommendations. We are acting. We have been acting over the last four years. We have funded 50 projects that have made it easier for 12 million more people to do what we want them to do. We built a national postcode locator to recycle your electricals. You can meet our HypnoCat, who will guide you if you pop in your postcode. Yes, we have a pink, psychedelic, trance-loving HypnoCat as our messenger. We use tactics to cut through a noisy world. We started with 3,500 collection points. We now have 22,000. Our recommendations are in our actions and in what we do.

Q59 Chair: Thank you. Libby, you are more in the business of making recommendations. What are you telling the Government they should do?

Libby Peake: Yes, I have a lot of recommendations. It will be hard to distil them into a concise statement. One of the best recommendations in your previous report is to ensure that levels of consumption are brought to within sustainable levels.

We were quite shocked that neither the consultation document or the call for evidence recognised the fact that we consume far too many of these materials or the supply chain impacts that will have. Recently, the UN published new data that showed the UK is clinging on to its rather unhappy title of being the second-worst waste electronics producer in the world, behind Norway. We produce three times the global average and nearly 50% again compared to the EU. We have a real problem in the UK with producing too much electronic waste.

The focus from the Government is perpetually on recycling as most important. That was the focus of the consultation. There was a bit more in the call for evidence but not too much more. Our No. 1 recommendation is to start targeting reduction.



With this WEEE consultation, it is frustrating that the Government did take new powers after your initial inquiry that would allow them to set reduction targets. They took new producer responsibility obligation powers that allow them to set all sorts of different targets. The focus still remains on recycling, which is what you want to do at the end after exhausting all the other options.

There are various reasons for this, but this should be an issue across the Government. Lots of different Departments have interest in it and play a role and talk about the circular economy but, when it comes to exercising powers, they continually point to DEFRA as holding the levers but within DEFRA, the focus is on end-of-life and keeping materials out of landfill. A lot more needs to be done with design and business models. I hope we get on to that throughout the session.

Q60 Chair: Have you engaged with the Business and Trade Department, as it now is, to see how interested it is in this?

Libby Peake: Yes. It is interested and is doing a programme of work looking at resource efficiency options across various sectors. One is electronics. It has not published that report but will soon. It will look into opportunities for reducing emissions associated with electronics.

The trouble is that that is not actually policy. We are frustrated that this consultation is nearly four years overdue and, during those four years, the Department did not take the time to develop real policy recommendations that would bring producer responsibility and would change the incentives to produce all of this electronic waste.

One big disappointment and one area with a firm commitment from the Government to match or exceed the EU is eco design, which is normally used with energy-related products. At the first hurdle, they have fallen. They have not done that. We have not heard what they will do about that.

The EU recently brought in new standards for tablets and phones, which do good things. There are standards for durability and repairability. Spare parts have to be available for seven years after a product is on the market. We have had radio silence about that from the UK Government and so we will not do that.

The EU is now bringing in a new regulation to replace the eco design directive, which looks to make horizontal standards for products. At the moment, it is done product by product, which is quite laborious. But in the future, this new approach will allow them to set standards for similar products across the board to say, "These have to last this amount of time. These have to have this amount of repairability. They have to have this information."

We do not know what the UK Government will do but, so far, they have not followed through with their promise to match or exceed the EU.



Q61 **Chair:** Izzi, I was going to ask you about manufacturers, but would you like to say anything about what the Government should do?

Izzi Monk: Yes, absolutely. The Government should develop and deliver a clear and coherent strategy that enables a circular economy of materials in the UK.

We have talked a little bit already about some of the materials that these products contain. Everything that we use impacts the environment and human health. The UN's recently published "Global Resources Outlook" was clear that our unsustainable resource usage globally is driving the triple planetary crisis of climate change, waste and pollution, and biodiversity loss. Not only do the extraction, processing and usage of these materials and then the end-of-life waste have environmental and human health impacts, but many of these products contain critical minerals as well.

The Government's strategies so far—for example, the critical minerals strategy—do talk about the need for a circular economy. The recently published battery strategy, again, alludes to the circular economy, but we lack this clear, overarching coherent set of measures that are needed to enable the circular economy.

I know that investment in recycling infrastructure is at the bottom of the waste hierarchy, but it will be important to recover those materials. Measures to move up the waste hierarchy overall, supporting repair, remanufacturing and reuse will all be crucial and, in the product design phase, incentivising eco design choices, supporting research into materials that are overall better for the environment and supporting material substitution decisions as well.

Q62 **Chair:** You mentioned the precious metal content in the smaller devices in particular. An innovative business in my constituency used a pyrolysis system to break down printed circuit boards into components. I was shown an ingot of gold extracted at a prototype plant. Unfortunately, they did not get planning consent to proceed because of concerns about noxious emissions, which may or may not have been justified. It was disappointing because that would have been the first such plant in the UK.

Given your role within the Royal Society, do technological advances make you confident that we can extract cost-efficiently and environmentally safely some of the constituent critical minerals that go into these products?

Izzi Monk: Yes, mainly at the moment pyrometallurgical processes use heat to extract and recover metals. They are particularly good for recovering precious metals like gold but are less good at recovering some of the critical minerals, which are vital not only in electronics but in the healthcare sector, in security and in renewable technology. About 20% of critical minerals currently go into low-carbon technology and so they are vital to support the net zero transition.



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We need investment and support for those recycling technologies that maybe are better able to recover some of those critical minerals. Some of those are in their infancy and are in the research stage and need to be supported through the valley of death. Others are building the infrastructure to do this.

Libby Peake: In the case of gold and other precious metals, a business case is possible even if you cannot get planning permission. I hear quite often that there is 100 times more gold in a tonne of electronics than there is in a tonne of gold ore. Extracting that is easier than mining and you get a lot more value out of that.

It is much harder with the critical raw materials, which are not used in such vast quantities and are quite often destroyed through shredding processes. Some recycling technologies are being developed for that. Some of them use bacteria, but they are quite often at early stages. Definitely more needs to be done on that.

In the discussion about recycling and what more could be done, it is best to preserve those by not putting them into any mechanical or chemical recycling process to begin with. If you can ensure that products are designed to be disassembled, you can maintain that value.

Green Alliance did some work a little while ago that found that the shredded materials in a smartphone were valued at less than £1 but the value of the parts was over £100 and the value of the entire phone was close to £300. The focus on recycling, again, will destroy a lot of value.

Q63 **Chair:** If there is £300 of value in a phone once it has been used for a year or two years on a contract and sold, why do the manufacturers not do more to retain their value instead of producing them as disposable products?

Libby Peake: I suppose phones is one area where we have seen change. You had Back Market on earlier. I got my last phone from Back Market. It is becoming much more popular with Gen Z and the younger generation. Hubbub and Virgin Media O2 did some research and over 50% of people in that age bracket had repaired phones or bought second-hand phones, which is a high proportion. That is becoming more possible. Where there is a clear business case, that will happen.

We also need to be concerned about those areas where there is not a clear business case. I will point to Scott as having some good data again on the growth of fast tech. These cheap products do not retain much value and are purchased frequently. Electronics will not have resale value across the board, only the big-ticket items like phones, tablets and laptops.

Scott Butler: I was pondering this the other day. The origins of the waste electrical regulations are probably about 25 years ago now. At the time, the big concern was CFC gases, which were used as coolants for



fridges. It was about ozone depletions and there were conversations about fridge mountains. What has happened to technology since then is outstanding. The iPhone did not exist 20 years ago and now smartphones are ubiquitous.

The point I made earlier and will continue to make is that we need a degree of sophistication in how we target the behaviours we want around different types of technology. Not all electricals are the same and yet they are clubbed together. A fridge is different from an iPhone. It is different from that cheap cable that you bought at the newsagent at the train station when you forgot your old one. It is the cliché of horses for courses. You need the right solutions for the right things.

We see as well this rise of fast tech. The poster child of that fast tech is a single-use vape. There is a whole story around vapes, but let us focus on the environmental bit because that is the bit that we focus on. You have £5 million a week thrown away, binned or littered because there is no effective solution for taking them back instore. Producers have flooded the market with them and, either through ignorance or deliberation, have not signed up to pay the bills that they should pay, despite the longstanding existing regulations. Big high-street retailers, not just specialist vape retailers, have clear longstanding obligations to offer takeback and have not done that. They are starting to after two years of us and many other people doing a lot of shouting about how this needs remedying.

We are seeing this rise of fast tech. If you are on the London underground or any public transport system across the UK, many people now have personal fans that they pick up from newsagents, from low-priced clothing retailers who add tech lines all the time and from convenience stores dotted all around that well. Within that fast tech are normally portable lithium-ion batteries. Vapes pose the same challenge: the waste of one of the most important materials that we need for a green technology future. They are in the wrong place and cause hundreds if not thousands of fires across the UK at the moment.

That storm is coming. It is already over the horizon. As a sector, we need to focus on that because it is a real challenge and is not going away as fast as they are sold.

Q64 Chair: A last comment from me: you mentioned retailers and takeback schemes. We looked at that in our last inquiry. Could you elaborate a bit on that progress there? We hoped to speak to the largest retailer and they chose not to come.

Scott Butler: Yes. On the physical retailer side—I can namecheck the retailers—three retailers go above and beyond what they should do. Currys take back instore without you needing to buy anything. B&Q have some great units outside entrances where you can recycle small electricals, batteries and lightbulbs. John Lewis and Waitrose are now



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stepping up and will take anything back regardless of whether you buy something new.

The current legal obligation is like for like. A big part of what we do is communicate to the public. Every point of friction and every complication you have in your message means you lose people. That like-for-like confuses people. It is not instantaneous. It is another problem. "I cannot be bothered." What will they do with it? They will put it in a drawer or they will put it in the bin. Simplifying that process means that we can simplify the communications, which means that we collect more electricals. It is a simple X-Y-Z.

Also, the challenge with the good retailers is that even they sometimes struggle to communicate this offer to their staff. We have had recent feedback that somebody working part-time over the weekend is not sure whether they should take something back. They think, "Do I want to get in trouble with my assistant manager or my manager? Maybe I will not."

We also see an increase in traction. More and more people are aware of this because we get more stories. We communicate through local authorities and through those retailers. The opportunity to do more in that retail environment is definitively there, but online retailers do not have those physical spaces. They can bury messages. They can meet the law by putting a message on page 983 of their website. Pages literally do not exist on websites but you get the drift. The challenge needs to be there.

The Government are proposing changes to online marketplaces. We have the known online marketplaces and now, with fast tech and other things, these unknown online marketplaces are a new challenge. From a regulatory perspective, they pose a lot of challenges because they exist outside of our jurisdiction. There is some progress but, as with everything, as you progress, new challenges appear and we will have to work together to tackle them.

Q65 Chair: Have either of you looked at online marketplaces at all in this context?

Libby Peake: Not in this context, although when we reviewed the eco design regulations, we found and we heard from a lot of people we interviewed that already a lot of online marketplaces do not adhere to the current regulations and do not necessarily display the wanted information. It is a problem throughout the EU with regulation, but it results in vast amounts of excess carbon emissions from these online marketplaces not meeting the requirements that instore places do.

Q66 Chair: Do you have a study into that to send us or is it not published?

Libby Peake: I have a study. It is a bit old, but it will show the scale of the problem.

Chair: I would be interested to have a look. Thank you.



Q67 Ian Levy: I would like to take a few minutes to look at the challenges that the industry suffers at the moment and what the industry does to maximise the length of life, reusability and recyclability of technology, and how the industry can be encouraged to improve.

I purposely asked for this question from the Chair because we bought a well-known vacuum cleaner a few years ago and it stopped working. The brushes at the front of the vacuum cleaner were not turning but the motor was running and I could hear everything else was working. I took it apart to fix it. I love doing things like that. I stripped it down and, when I got to the problem, a metal shaft came down from the motor onto a plastic cog. The metal shaft wore the plastic cog away, which stopped the brushes turning. I could not buy a replacement plastic cog. I had to bin the whole item. From the minute I bought it, from the minute I started using it, it was doomed to fail. There was nothing I could do once that plastic cog had finished. Had it been a metal cog on a metal shaft, it would have worked for years. It was a fantastic vacuum cleaner.

I wonder what challenges you have at the moment and what we could do to support you or what we could put in place.

Scott Butler: Previously I worked for a producer. The focus for our work has been at this end, but I have some experience in the sector.

From a European perspective, pieces of legislation look at design for durability and design for recyclability. We heard earlier about availability of right to repair of products and spares. Most producers say that they design with a performance and a price point in mind and they make decisions based on how they can produce a product that will hit that price point and that performance. Instinctively, as an environmentalist and a bit of an engineer, you would like to think that products are built to function, but we see that often they are not.

I will go back to the point I made earlier around the particular consultation now. That is the end-of-pipe stuff. The UK does have opportunity. It will, dare I say it, need to follow closely what happens at the EU level. People do not make products for the UK. They make products for broader markets than that. It is real-life experience. I imagine it is the same for other products, too. Yes, they are questions that we should be asking. Unfortunately, in these circumstances, you do not take the product apart when you buy it and say, "This will break in the future."

Q68 Ian Levy: When you looked at the vacuum cleaner, it looked like the Rolls-Royce of vacuum cleaners. It was going to last for years and years. At one time, you could take your vacuum cleaner into a shop on the high street and someone would fix it. We do not have them now.

Scott Butler: Yes, that culture has definitely gone and maybe it is ripe for a revival. Often lots of conversations about the circular economy are about the big picture and global things, but it is actually about building communities and skillsets. It will need change. It will need access to good



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parts. Maybe some way down the pipe are opportunities for 3D printing and localised micro-industrialisation. There is a long way to go but there is hope. That is good, I guess.

Libby Peake: Probably everyone in the room has a story like yours. Every time we talk about it, people have personal experiences of frustration. Some survey work we did a few years ago found that two thirds of people are regularly frustrated by how long products last. The problem is widespread.

There are definitely known solutions. I do not want to point to just the EU as leading the way, but it is doing a lot more and the UK could follow suit. The EU passed some consumer rights legislation that focuses on planned obsolescence. It did not necessarily get it right because it did not directly address planned obsolescence, but—and it is a regulation and so member states will have to lay regulations—it will be illegal to market something that you know has a life-limiting factor. It will now be a crime to knowingly promote something that has planned obsolescence as a feature.

The only country, as far as I am aware, that has banned planned obsolescence is France. We quite often point to France as leading the way on a lot of these things. From 2015, it is illegal there. You can face millions of pounds in fines and up to two years in jail if you do something along those lines. As far as I am aware, that power has been used only once. Apple was taken to court in 2017 for a software update that limited the life of iPhones and had to pay a €25 million fine. No one went to jail but it was a deterrent. The EU is doing something. We could do a lot more.

The idea of a genuine right to repair is important. The right to repair has three pillars. First, products should be designed to be repaired, which has to be the starting point. Secondly, people should have access to information because things are not only difficult to repair but expensive to repair and people do not know how to do it themselves. They have to get either a professional or someone linked to the original manufacturer to repair it, which adds a lot of cost and inconvenience. Thirdly, spare parts have to be available and affordable.

The EU is about to publish some new right to repair legislation, which is not as ambitious as the right to repair movement wants to see, but it is definitely a step in the right direction. The UK could follow suit and could exceed that.

The Government, when they introduced their last set of eco design standards, claimed that they were giving people a right to repair, but I strongly contest that claim. Those were just a few sets of white goods, televisions and lighting. They did not give people any sort of right to repair but mandated that those products had to be repairable and that information had to be available to professional repairers but not to the



public. A lot of the time, the public should be able to fix problems themselves. It will only happen that way because convenience is key.

The EU has brought in these new eco design standards that say you have to have repairability and durability for smartphones and spare parts have to be available. The EU has not laid any regulations to do with affordability, which is important. France has a repairability index. The UK Government have expressed interest in pursuing that route as well but has not done anything on the ground with that yet.

Izzi Monk: Much of what Scott and Libby have said already I echo. It is crucial to keep materials circulating for as long as possible at as high a value as possible. Repairability, remanufacturing and reuse are all absolutely vital. It comes back to the design of the product, and that is not just about design to disassemble it, which is extremely important. The screws that are used and the adhesives that are used and whether things are glued onto circuit boards makes a big difference. It also goes back further than that. The chemical material design needs to be thought about carefully. This involves people right across the value chain or the lifecycle of a product.

There is a need, potentially, at times to balance durability, recyclability and longevity because we want to circulate materials at high values. The choices that need to be made are not necessarily absolutely clearcut. The lifecycle analysis of a product right from the extraction phase to the waste phase is crucial and making evidence-informed decisions about the best thing to do.

The Royal Society of Chemistry has heard quite a lot from our communities that a lot of silos of people across the value chain do not talk to each other. We risk burden shifting of emissions so that we displace greenhouse gas emissions from one part to another part. We need to make sure we do not do that.

Q69 **Barry Gardiner:** To each of you, what was the last piece of electrical equipment that you took back to a shop? Libby, do you want to go first?

Libby Peake: I have never actually used a shop. I have recycled my electricals but I have never dropped them off at a shop.

Scott Butler: I have had to buy quite a few vapes to look at them and take them apart and so I did take some vapes back to my local supermarket, partly to cause a bit of trouble as well. My last repair was when my new dog ate six remote controls. I was pleased because I took one bit from one and another bit from another and put them together. I forgot to put the remote control on the mantelpiece and I came down in the morning and he had eaten another one. But, yes, I did take a vape to a shop.

Barry Gardiner: You are of the Ian Levy school—take it apart and try to repair it.



Scott Butler: Yes, for about eight hours I was chuffed with myself. Then it all went away again.

Izzi Monk: I have also not managed to take any electricals back to a shop, partly because I live in quite a small town and there are not any opportunities to do that. I also do not have access to a car and so I have not been able to take electricals to a household waste recycling plant, apart from when I have asked someone else to take them for me. That illustrates the importance of convenience. I am highly motivated to do the right thing with my electricals.

Barry Gardiner: I did not ask the question to embarrass you. I asked the question to make the point about convenience.

Scott Butler: Yes. There are different types of products and different people. There are demographics with this. If you live semi-rurally and you have access to a car, you have had a family, you are used to visiting your local authority site, it is harder now than it was with booking and all these other things but you have the time and you will do it. But if you are a 22-year-old living in digs in Camden, you do not have space or a lot of room. You cannot access your local authority site anyway because you need to be in a car from a safety perspective to even get on the site. That is when those options kick in. I guess that is what you are leading into.

Q70 **Barry Gardiner:** I wanted to focus on the sustainability of the supply chain. You can take the sustainability of the supply chain in a number of ways. It can be the political sustainability and the geographical monopoly that certain countries might have on raw materials. You can take the sustainability of the materials themselves and the impact they have on the environment. Take it whichever way you like. How sustainable are the supply chains that surround, first of all, the electronics? Does it make sense to talk about the sustainability of the supply chains of electronic waste? Having “sustainability” and “waste” in the same sentence jars with me.

Libby Peake: There is a lot to say about the sustainability of the supply chain and what more needs to be done to, first, understand the risks. Particularly when it comes to critical raw materials, we are increasingly aware of the risks but not so aware of what needs to be done.

In the UK, again, we should be particularly concerned about this because, in comparison to other similarly developed countries and allies, we have relatively few resources and few critical raw materials. Some that we did have are already exploited and those that remain—notably lithium, which we hear about a lot, and cobalt and other things—tend to be in treasured national park areas. It is difficult to see a willingness in the future to dig those materials up. We particularly rely on other countries to supply our materials and we are particularly exposed to volatile markets and supply chains.



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To its credit, DBT has started digging into this. It commissioned a task and finish group on resilience of supply chains for critical raw materials. I certainly commend that task and finish group report to this group because it has some interesting findings.

First, there are lots of different types of risk. The concern is geopolitics and we are right to be concerned about that. China is quite dominant in not only the mining and production but also the processing of a lot of these different materials. We rely on countries we do not necessarily want to rely on, but so does the rest of the world.

It is not only geopolitical risk. There are environmental and social risks. A lot of companies, although there are now due diligence obligations coming into place in the EU and regulations about conflict minerals, the due diligence and supply monitoring is largely seen as a tick-box exercise. The amount of data does not allow us to understand the risks. It is rising up the agenda but a lot of people still do not understand the risks. The environmental impacts include biodiversity loss, water stress, pollution, greenhouse gases. There are all sorts of environmental risks.

Barry Gardiner: And human rights?

Libby Peake: When it comes to social rights, things like health and safety, forced labour, child labour can be associated with the accessing of materials but not always. We are quite blind to it. We do not necessarily know. A lot of people we have spoken to feel that we almost always underestimate those sorts of risks. We are talking about geopolitical risks but not necessarily the others. That is the first lesson.

The second is that electronics are far from the only sector that needs this. Izzi has already alluded to this. It is needed in chemistry. It is needed in renewable energy. It is needed in defence and aerospace. It is needed in medical devices. We have heard from some in the consumer electronics sector that they might in future struggle more than these other sectors to access these materials. A major point of concern at the moment is that there is no strategic look at what the demand will be and how to reasonably distribute the demand, prioritise the sectors in need and reduce the demand elsewhere.

The final point specific to electronics that you will find in that report is that electronics have non-substitutable demand for not just critical raw materials but the four conflict minerals, which are quite often associated with severe human rights abuse and armed conflict. We are at real risk of offshoring our impacts, yes.

Q71 **Barry Gardiner:** You have given us a wonderfully comprehensive analysis of the problem. This Committee, of course, has to produce a report with recommendations about solutions. How can we improve the sustainability of those supply chains? You spoke about no comprehensive strategy. What needs to be in that strategy? What measures should the Government take to improve the sustainability of the supply chains?



Libby Peake: By far the most important thing that the Government need to do is to look at how we can reduce demand for these materials. The Government's critical minerals strategy had circularity as one of its pillars and said that we need to do that, which is true, but by far you can reduce exposure to these international markets and reduce impact most effectively by needing less of them in the first place.

This is not related to consumer electronics, but the approach would be the same if we were to look at consumer electronics. We looked at how far we could reasonably reduce our demand for energy in this country through improving public transport, through better insulating our homes and through slightly changing our diets. That report showed that if we took demand reduction seriously, we could reduce our need for a couple of critical raw materials such as cobalt and lithium for renewable energy by 50% by 2030 compared to business as usual. That is the most sensible way to approach it, but it has not been talked about.

To relate that back to consumer electronics, there has been no mention at all of how we could reduce our use of consumer electronics. If you did that, you could meet your demand much more sustainably and then meet the remaining demand with recycled or reused content.

Q72 **Barry Gardiner:** Disrupt business as usual, in effect, yes. Mr Butler, what changes made by business have had the biggest impact on improving supply chains?

Scott Butler: I will take a different interpretation of "supply chain", which follows on. I agree fully with everything Libby was saying there.

You will have heard of the concept of the urban mines surrounding us. All of these materials are embedded in our buildings, our homes, our lives. We carry them around with us as well. We do not know what is in that account. We do not have a national account of all the materials that are already out of the ground and out and about. We do not know how many are redundant or could be changed for more environmentally preferable options.

We have 880 million consumer electronic items sitting in UK homes. We throw away—the number has gone down a little bit—about 105,000 tonnes of electricals at the moment. That is not good, either. It has gone down a little bit. It was the second time we have done that research and so it is not a trend yet.

Q73 **Chair:** Sorry. Is that the figure for 2023?

Scott Butler: For 2022. It is with the Committee. You have that. Over £1 billion of material value we know is lost through consumer electronics. Some 200,000 tonnes of business electricals such as cabling are thrown away every year.

Q74 **Barry Gardiner:** Again, you are analysing the problem—quite correctly and I am totally with you—but I want to know what businesses have



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done or can do to provide us with a solution and what recommendations we should make in our report.

Scott Butler: I was trying to get there. UK electrical recyclers are great businesses that make investments in recovering many materials and employ lots of people. One of the recommendations in the UK WEEE consultation is to run better metrics and do that bank accounting in the first place. When we understand what materials we have, we can start to plan for how to access them and how to measure that.

The first stage, though, is already in the consultation itself: measuring them. That will take a little chunk of time. From that, we can make plans and continue to invest in technologies that can target the materials that, together, we agree are critical. It is not the sexiest answer, but the first thing is to do some counting. Let's do some maths.

Q75 **Barry Gardiner:** The Office for National Statistics is fairly far from looking at its natural capital accounts of the mountains around us that you talk about, but would you like to see us prioritise that as the baseline, in effect, from which we can begin to move to get more sustainable supply chains?

Scott Butler: It is what we did with the communications campaign. First, understand what you are looking at. If you set a plan without understanding what you are looking at and you are successful, it is not luck. It is not skill. It is not judgment. The first step always has to be to understand the game in front of you before you decide to play 4-4-2 or 4-5-1 or whatever tactic you want to play.

Libby Peake: The Government asked the ONS to look into the business case for a national materials datahub. I have never met anyone who does not say that is a fantastic idea. As far as I am aware, it is not dead but has completely stalled. They have not yet started the pilot product, which should have started ages ago. To get that off the ground and to fully comprehend the flow of materials in our economy they expected to take 10 to 12 years. Every year that it is delayed means a decade on from where we need to be.

I certainly recommend as a priority revitalising the drive for a national materials datahub and particularly, probably, having critical raw materials as a priority to investigate because so much risk is associated with them.

You could recommend using material passports more effectively. The Government are still in an exploration phase of using digital product passports. They could do a lot more and that could be effective. When it comes to consumer electronics, the EU is bringing some in probably from 2027 as a second thing brought in after batteries. We could adapt and follow and benefit from that solution there as well.

Q76 **Barry Gardiner:** Great ideas there. Ms Monk, did you want to come in? Could I ask you to focus also on the facilities that we have in the UK for recovery and reprocessing materials from e-waste, which I suspect is



more your department in the Royal Society of Chemistry?

Izzi Monk: Yes. I want to echo this point about data collection. It is extremely important that we track and map critical mineral and material streams both within electronics and in so much other stuff in society. As Scott said, without that information it is difficult to make good decisions from that. One reason why the RSC calls for this clear overarching strategy is to prevent things falling through the gaps between Departments or between different Government strategies.

Improving the sustainability of supply chains, recovery, recycling and enabling a circular economy does not have a silver bullet. Reduce is at the top of the waste hierarchy and is key, but we need to work on investing in developing technologies and also the needed recycling infrastructure. Some of those alternatives to pyrometallurgical processes and hydrometallurgical processes may need to be looked at and considered.

Q77 **Barry Gardiner:** Formulate that for me, if you will, a little bit more into a recommendation.

Izzi Monk: We recommend investment in recycling infrastructure and technologies to enable the recovery of critical minerals and other materials that we need to be used as secondary resources and to prevent their leakage from the economy. That would be our recommendation for recycling alongside the clear overarching strategy for a circular economy.

Q78 **Barry Gardiner:** You also referred to that being at the bottom of the hierarchy, but we have not talked much about the top of the hierarchy, the importance of design and the importance of modularity. Would you like to add any recommendations that the Government should look at there?

Izzi Monk: Again, incentivise eco design principles and think about those carefully and make sure the balances and the trade-offs between repairability, recyclability and durability are carefully considered. That requires evidence and understanding.

Q79 **Barry Gardiner:** How should that incentivisation take place? Are we talking about penalties if people do not do it? Are we talking about subsidies if they do? What mix of carrots and sticks can the Government use to get businesses to think about this design process right at the start of product development, rather than developing a product because they see a gap in the market and then thinking, "What do we do with it after its life has finished?"

Izzi Monk: I am probably not best placed to comment on the specifics of that.

Libby Peake: I certainly endorse again the need for eco design standards. I point out that eco design standards for energy efficiency are potentially quite useful for resource efficiency. You can set standards. The



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EU will set them horizontally for product categories on durability, repairability and reusability. You can set those.

You can also incentivise people to make the right purchases by labelling. You have seen the same thing with the energy efficiency labelling complementing the standards. You set a standard so that you push the worst things off the market and you pull people towards the right things. That is effective.

You could also use the design standards or information about design to influence the fees paid through the producer responsibility scheme. That is touched upon in the call for evidence but they have not developed their thinking on that. Setting a standard to say, "You cannot put anything on the market unless it is this good", is more effective than incentivising people to do the right thing.

Scott Butler: It is easy to underestimate the power of us as consumers. I was reflecting the other day. With my new dog and the walks, I now have more time for reflection.

Barry Gardiner: You put the dog down because it ate your remote control?

Scott Butler: No, I could not, not yet. Maybe one more time. I was thinking about the waste electricals for free-range eggs. Bear with me on this.

Twenty years ago, I had a conversation with a mate of mine in a pub and he said, "What is the point in buying free-range eggs? It does not do anything." We did not just talk about football. We talked about free-range eggs. I said, "It sends signals. You send signals to the farming industry. You send signals to food manufacturers about what you care about." If you think about where we are now, free-range eggs are the biggest market, not least when struggles with other things go on, but also within products. Those big mayonnaise brands have free-range eggs.

We are in the same place with waste electricals, arguably. The power of the consumer is there. We need to nourish it and turn it on. Start making more sensible decisions in what you buy, how you buy, how you treat and how you value this tech. Tech gives us loads of value in our lives—connectivity, productivity, health, home, cooking, all of these things—but we do not value it when we no longer need it. We do not value the materials inside it.

That can also then link through to some of the purchasing decisions we make, maybe embracing more business model options, not becoming so obsessed with ownership and being more interested in the delivery of services we need. It is that callout, ultimately. More mindful consumption and use of all these things will ultimately be a much bigger driver than a piece of legislation, which will always be 10 years behind the times because of rapid innovation.



Q80 Sir Christopher Chope: Can I first apologise for not having been here earlier to listen to your opening remarks? This is a fascinating subject and I know so many of our constituents are interested in it as consumers.

The Government issued a consultation paper in December asking people what they thought could be done to improve the situation. I do not know whether you as individuals or collectively have responded to that, but we in this room are legislators and that means we are interested in what specific legislative or regulatory proposals the Government should bring forward to improve the situation. Could each of you in turn summarise the legislative proposals you would like to see in place?

Libby Peake: I have so many I would like to see in place. I have mentioned a few of them. I will highlight again that it is most important to focus on reduction. The Government do have the power to do that now. They could set reduction targets. They could set reuse targets. Reuse targets got a look-in in the call for evidence document, but reduction did not.

Some of the most important things that I have not touched on yet but need to be addressed are powers related to Treasury because Treasury has been quite silent on this agenda, not just for electronics but for resources and the circular economy in general. The tax system and Treasury's investment policies have not driven the right behaviours.

The Committee last time around picked up on the need to reduce VAT on repairs. That still needs to be done. We could, with our Brexit freedoms, reduce VAT to zero on repair and go beyond what other EU countries have done. They have 6% for repair practices. We charge full rate on repairs. We know that cost is one main reason why people do not pursue this and so that does not help.

Other countries also, in addition to using those tax incentives, offer people vouchers and incentives to take part in repair, Austria and France in particular. France's scheme is funded by EPR fees. If you are looking to overall EPR, you could get incentives in place to drive the activities that you want to see, not just place obligations on recycling.

The tax system also drives the wrong sorts of things in other ways. One is not only VAT on repair but VAT on resold products. Unless you are a charity, for the most part VAT is charged on resold products, which does not make any sense because no value is added at that point. You double tax that product. Eliminating that double tax on products would be quite helpful.

Also, seed investment funds and tax-relief funds that the Treasury administers have some problems. If a company has assets over £200,000, it cannot access those tax incentives. If you have expensive electronics, it is easy to see that you would hit that threshold quite soon. That disincentivises an approach where the company maintains the



assets and can lease them out. There are plenty of other things. We have a whole report on what more Treasury needs to do.

From our conversations with businesses, lots of small businesses do the right thing but struggle to scale up. There are problems with accessing the finance and with the structure of the tax system.

Q81 Sir Christopher Chope: Before asking the others, can I ask a couple of supplementary questions on that? You mentioned VAT on repairs. Would you include servicing? One problem with a lot of products is that people do not have them serviced, which means that they break down more quickly than otherwise. Have you calculated the “cost”—in inverted commas—to Treasury of introducing such a change in the VAT regime? Treasury always talks about the costs being prohibitive but, if we can ascertain the cost, we can work out the benefits on the other side of the equation.

Libby Peake: We have done some analysis of the jobs from increasing repair and manufacturing and we have that sort of data. We have not done analysis of the impact on Treasury for this VAT reduction and we have not done it for other areas. But in other areas it is notable that Treasury looks at the impact on the VAT revenues but not at the impact on the wider economy. We would make the point to Treasury is that it cannot just look at that in a vacuum if it is to incentivise a lot more jobs because it will be getting revenue in another way. From the analysis that we did of jobs in the circular economy, most are in remanufacturing and repair. The potential is nearly 500,000 if we go for this sort of circular economy across the board and so it would get revenue from that as well. I would like to see in the future Treasury take account of the second order implications of these changes.

Sir Christopher Chope: On servicing VAT?

Libby Peake: We have not done that analysis.

Q82 Sir Christopher Chope: Would you like to have a go, Izzi?

Izzi Monk: Sure. I cannot, from the Royal Society of Chemistry’s remit, talk about some of the specific incentives here but, as Libby has already said, repair is often quite expensive and so incentivising or supporting that repair infrastructure will be important.

Also, if we look at the material value contained within many electronics, the UN global resource outlook stat is that US\$62 billion worth of recoverable metals was lost in 2022 from the circular economy and only US\$28 billion worth was brought back into the circular economy. That economic value is potentially significant. Those are global numbers. But again, it comes back to this point of not knowing the scale of the urban mine in the UK and the economic value contained within these materials.

It is not just about economic value as well. There are also the environmental impacts of the extraction, the processing and the waste.



Without being able to make specific recommendations for incentives, incentivisation will be important. The market for secondary raw materials will be important. Making the mechanisms to make that happen will be key.

Scott Butler: As an independent not-for-profit, we tend not to make recommendations per se. DEFRA is one of many stakeholders that we have. Sometimes how we talk about it makes it clear where we are and what we think.

I would like to put the consumer hat on for what we would like to see. From what we have learned over the last four years through all the work that we have done, I am confident that if we have an easy, low friction, clear standard offer to the public for easily accessing reuse and recycling points, we can communicate that and we can drive change. The problem we have is too much friction and too much uncertainty.

Options are on the table for easier retailer takeback, easier retailer delivery takeback, doorstep, kerbside. As has been pointed out, rightly, they do not come for free. It has also been pointed out, rightly, that costs are often in the system already, such as the cost of fires in monetary terms, in air pollution, in disruption to services and the knock-on impact. It is the £1 billion of lost value in material. That loss is not recovered.

There are lots of reasons to make it easier. We need a decision to make it easier and where that is distributed. But unless we make it easier, we will only end up exactly where we are now because that is the biggest limiting factor.

Also, we need to keep talking about this over and over again. We live in a busy, noisy world. Our competition for the "Recycle your electricals" campaign is not an environmental NGO. It is producers of electricals. It is Chanel, BMW, Taylor Swift, Spotify. We are trying to cut through an incredibly noisy world. We have that cat because we concluded that was the best way to do it. We have to keep talking about it because it is the fastest growing waste stream in the world full of valuable materials. To not prioritise it is a failure of common sense.

Q83 Sir Christopher Chope: Have the Government asked the right questions in their consultation paper?

Scott Butler: They have asked some of them. As I said before, they have asked them in the context of the waste electrical regulations, not the entire electrical and electronic sector regulations, which do not exist. The call for cross-governmental things is important. Fast tech is not just an environmental issue. It is about restricting hazardous substances and persistent organic pollutants. It is chemicals, REACH, VAT, excise, border control, the Environment Agency, to name but a few. It is cross-sectoral.

In the context of what they were looking at, the Government probably have asked the right majority of questions. We look beyond that.



Q84 Sir Christopher Chope: Libby, have the Government asked the right questions?

Libby Peake: No, they had quite a lot of blind spots and I have highlighted a lot of them. One is a bit surprising that they did not ask in the context of what they were asking because, basically, all they asked in the consultation document is, "How can we increase the collection of electronics for recycling?" The call for evidence section had broader questions, but the consultation itself was about incentivising increased recycling. It never asked—and this is not on the radar at all—about the best use of these things once we collect them to incentivise reuse. Reuse was not in there.

We would like to see the Government think about in future how to tackle the twin problems of this massive amount of digital waste that we create and also at the same time digital exclusion. We expect that in less than a decade, by 2023, 5.8 million people will be digitally excluded in the UK. Although we are awash with it, these people do not have the smartphones or the laptops that they need to function in a modern society. Community groups redistribute, but 68% of them do not have enough electronics to distribute. At the same time, so many of them go to waste. We lack joined-up policy to make sure that they tackle both of those things at the same time, which they could do if they asked the right questions.

Q85 Sir Christopher Chope: A specific topical issue at the moment is the value of electric vehicles after three years. Their value after three years looks low. If you speak to motoring organisations, as I have done, they say, "For crying out loud, do not buy an electric vehicle. Lease it for three years because, at the end of three years, it will not be worth much." That is now recognised in the market, which undermines the sale of electric vehicles. They are a large electrical item.

What advice would you give the legislators or regulators or indeed the manufacturers to try to encourage a boost to the second-hand value after three years of electric vehicles?

Scott Butler: I know absolutely nothing about the electric vehicle market and so I am not able to answer that. I am sorry.

Sir Christopher Chope: We always respect demonstrations of ignorance.

Scott Butler: Speak to what you know.

Q86 Sir Christopher Chope: What about you, Libby?

Libby Peake: I have colleagues who know the electric vehicle market. We did a report specifically on increasing the second-hand market for electric vehicles, which I am happy to share with the Committee afterwards.

Sir Christopher Chope: That would be useful, yes. Thank you.



Q87 Claudia Webbe: I want to go a bit broader. I remember the days when a salesperson came to the door and sold you a Kirby, which would last for life. I still have a Kirby but no mechanism for repairing it. Many African countries are used for exploitative extraction of minerals, raw materials and chemicals and then, in a parallel way, dumped on with electrical waste. What is your industry saying about this and what challenges should we make to the Government about this?

Libby Peake: I should have highlighted this in answer to the last question. It was surprising that there was no mention of export in either the call for evidence or the consultation document because we know that it is a major problem and we know it is a high risk. The EAC's report the first time around did a good job of highlighting that.

I do not know why that was an oversight because it is such an important issue and it is desperately needed. The recommendation is that you stop greenlighting the export of used electricals, not just waste electricals. At the moment, it is quite easy to mischaracterise them and/or to sell them on legitimately as used electrical but to a country that, when those electricals eventually reach their end of life, will not have the capacity to safely handle the materials. That was another shocking oversight in the consultation document.

It would be useful to press the Government to respond to your initial recommendations from the previous inquiry, which still stand and still need to be addressed.

Scott Butler: Our electrical waste challenges and opportunities report, which is the mass balance of flow of products and waste in the system, which we updated and is with the Committee, revealed an increase in illegal exports over the last four years to about 180,000 tonnes now, as much of the smaller electricals we are recycling, in total electricals. A lot of that is bigger stuff, displays and other things, not tending to be small electricals.

That stuff gets out in peculiar places. Sometimes retailers and others do big stock sales and stuff is graded. Some of it is sold and some of it is shipped. It is linked to significant disruptions in border controls over the last four years linked to the pandemic of course and Brexit, too. The Environment Agency, like many public sector bodies, is struggling to finance the activities it was doing before. It is also linked to some more work that the UN has done on the amount of export.

Regretfully, any sector has illegality. It is a good point. I agree that more needs to be done. The agencies are trying to do this stuff. Of course people are trying to stop it. But that illegal route is used as an option too much. The best thing that the public can do is to get it into the right place. Get it into the local authority network. Get it into the retailer. That is where it has the least chance of leaking into the wrong place. We can do that as the public. But as the system as a whole, more effort needs to go into stemming that flow because it is not wanted in any way.



Q88 **Claudia Webbe:** Izzi, what about the exploitative extraction of those raw materials, chemicals and minerals taken from countries?

Izzi Monk: Yes. The extraction and processing of raw materials has environmental impacts and social impacts as well, as has already been covered. It is important that we think about how to make that primary extraction as good for the environment as possible with as low social impact as possible.

One way to do that is to minimise the amount we take from virgin materials, which is where the circular economy comes in. If we mine our electronic waste for these metals, we diversify some of our supply chains with an opportunity to reduce some of that primary extraction. It would be naive to say that we will ever get rid of primary extraction, but it is about trying to minimise it and do it in the best way possible.

I also echo the point Libby was making about used electrical equipment. We made a similar point in our response about the need to make sure that this does not happen. Plenty of evidence shows that the improper processing of e-waste impacts the environment and human health. It is absolutely vital that any loopholes around that are closed.

Chair: Thank you very much indeed for your patience this afternoon. I thank our witnesses, Scott Butler, Libby Peake and Izzi Monk, for joining us for our second panel and our first panellists for an interesting session on e-waste. Thank you all very much indeed.