

Environmental Audit Committee

Oral evidence: [Disposable Packaging: Coffee Cups and Plastic Bottles](#), HC 339

Tuesday 17 October 2017

Ordered by the House of Commons to be published on 17 October 2017.

[Watch the meeting](#)

Members present: Mary Creagh (Chair); Zac Goldsmith; Caroline Lucas; Kerry McCarthy; Anna McMorrin; John McNally; Dr Matthew Offord; Dr Dan Poulter; Joan Ryan; Alex Sobel.

Questions 162-259

Witnesses

I: Fiona Llewellyn, Project Manager, One Less Campaign, Dr Sue Kinsey, Senior Pollution Officer, Marine Conservative Society, Hugo Tagholm, Chief Executive, Surfers Against Sewage, and Derek Robertson, CEO, Keep Scotland Beautiful.

II: Dr Chris Sherrington, Head of Environmental Policy and Economics, EUNOMIA, Nick Brown, Head of Sustainability, Coca-Cola European Partners, John Mayhew, Director of the Association for the Protection of Rural Scotland (charity that spearheads Have You Got the Bottle?), and Sam Harding, Head of Litter Programme, Campaign for the Protection of Rural England.

Written evidence from witnesses:

- [One Less Campaign](#)
- [Marine Conservative Society](#)
- [Surfers Against Sewage](#)
- [Keep Scotland Beautiful](#)
- [EUNOMIA](#)
- [Coca-Cola European Partners](#)
- [Association for the Protection of Rural Scotland](#)
- [Campaign for the Protection of Rural England](#)



Examination of witnesses

Witnesses: Fiona Llewellyn, Dr Sue Kinsey, Hugo Tagholm and Derek Robertson.

Q162 **Chair:** I am delighted to welcome our witnesses this morning. We have, from left to right, Hugo Tagholm, Chief Executive of Surfers Against Sewage. We have Dr Sue Kinsey, Senior Pollution Policy Officer at the Marine Conservation Society, Derek Robertson, Chief Executive Officer of Keep Scotland Beautiful, and Fiona Llewellyn who is Project Manager at One Less Campaign. You will be pleased to see many of us have brought in our reused bottles. We are very keen to hear from you this morning in what is a very revealing inquiry so far.

I would like to begin by asking you about the scale of the problem that we face. We know that almost every local authority offers kerbside recycling, so there is no real excuse for any of these bottles not to end up in the recycling, but of course they are consumed on the go and they end up as litter. Of the 13 billion bottles that we consume each year, how many do you think are ending up as litter? Is the problem milk bottles, water bottles, other bottles? Is it concentrated in any specific areas?

Hugo Tagholm: The latest figures estimate that 700,000 plastic beverage containers are littered every single day in the UK. That is perhaps hardly surprising, given we use 38.5 million single-use plastic bottles in this country every day and only 57% of those are recycled. That estimate of the recycling rate might be significantly lower if we consider those beverage containers that are used on the go that often are not captured by our kerbside recycling facilities.

Q163 **Chair:** Where did that data come from?

Hugo Tagholm: That is EUNOMIA data.

Dr Kinsey: From Recoup's own figures, about 5.5 billion household bottles were not collected to be recycled from UK households last year. That is 15 million every day, so it is a huge problem. Not all those are littered but, as you may know, we carry out a regular beach litter survey every year around the UK and every year bottles, bottle caps and cans make up at least 10% of the litter we are finding on the beaches. That is very obvious, very clear litter, and there is the litter breeds litter mentality. If people see cans and bottles on the beach they are much more likely to litter other items.

Fiona Llewellyn: We have been running a litter monitoring programme along the Thames, working with multiple partners along the Thames since about April 2016. During that time we have collected over 17,000 plastic bottles from the shores of the Thames. When we look at litter as a whole along the Thames, we think about 10% of the litter is made up of single-use plastic bottles and of that about 45% are water bottles and the rest is made up of other beverages.



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Derek Robertson: I don't have the figures for the UK but I can give you some anecdotal evidence from Scotland. We continue to do the annual monitoring survey of cleanliness in Scotland in partnership with local authorities and I think two statistics are probably worth sharing: 38% of sites surveyed now carry drinks-related litter, so there is an increase there, and 70% of all our roadsides now have plastic bottles and cans, beverage containers. We are seeing an increase and I think that would be replicated across the rest of the UK.

Q164 **Chair:** Why do you think those recycling rates have stalled? What can we do to reenergise the recycling scene?

Dr Kinsey: As Hugo has already alluded to, the problem is a lot of these bottles are used on the go, so they are never going to make it back to the household in the first place. Maybe people have come to a certain point that they think they are recycling enough. I think we have to go further than the "education, education, education" kind of message. We can do only so much telling people what to do and something like a deposit system, for example, would have an immediate effect and would swipe up all those bottles.

Hugo Tagholm: It seems there is no incentive for people to recycle these beverage containers when they are out and about and there certainly is not the infrastructure to capture them cleanly on our city streets. This means that they go into our bins. It is estimated that beverage containers, plastic, glass and aluminium cans, make up to 40% of litter. This is not only a littering problem of those 700,000 bottles every single day but beverage containers are taking up space in our bins and stopping other litter that cannot be recycled so easily from making its way into the bins. This is a resource that is being wasted through those bins on our streets, through our infrastructure.

Q165 **Chair:** I am fascinated by this 700,000 bottles a day figure, because that is basically 2% of all the bottles every day. If you were to extrapolate that out across the 13 billion bottles a year—I can't do 2% of 13 billion but it is a big number, which I am sure we will reflect in our final report. It is millions of bottles littered every year. It is an absolutely massive problem.

Hugo Tagholm: It is a huge problem and, as Sue and Fiona have alluded to, we are seeing this at the coalface, at the beachfront and along our rivers. Let's not forget that 80% of marine litter originates from land-based sources. It comes down our rivers and escapes into the environment. That is why our Surfers Against Sewage volunteers found 50,000 bottles on our beaches last year. These are two of them here. We removed those and recycled lots of them, but we are seeing more and more of them on our beachfront and we need to stop the flow further upstream, the upstream thinking that can lead right back to a city like London on the Thames where I believe 10% of the litter in the Thames is plastic beverage bottle containers.



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Q166 **Chair:** That is the sort of figure that will horrify most people as they look at the river.

Mr Robertson, we have looked at the marine and river side of things. Are there any other particular areas where litter collects? Riding along the Embankment this morning, I could see bag after bag of cans and bottles, of people having a nice picnic, having a drink by the Thames, and then just dumping their litter all the way along the Embankment.

Derek Robertson: One of the things that we see as an organisation is we have a social norm where it is now generally accepted that people can throw away and I think we need to shift that social norm. I don't think people understand the value in the product. A plastic bottle is quite a valuable thing. It has a structure to it and it can be reused, but I don't think the public realise the value in the product. We lack a consistency and a national message. We do not have an approach now where it is fashionable to tell the general public what to do but if we look at some legislation that has shifted behaviour—if you take cigarettes, for example, and it is now socially unacceptable to drink and drive and we don't have cigarettes in public places—I think we need to make the same distinction for throw away and that behaviour.

Q167 **John McNally:** Following on from that point, we are all aware that Keep Britain Tidy's Local Environmental Quality Survey of England found that non-alcoholic drinks waste was the third most prevalent type of litter. Why is plastic bottle littering such an important issue? Is plastic bottle waste more concentrated in any particular socioeconomic areas?

Dr Kinsey: From our own beach surveys we found that plastic bottles, all drinks bottles, are about number 8 and their associated caps and lids. There is always more caps and lids simply because they are small and they float and you find more on the beaches, so we are probably underestimating the number of plastic bottles on our beaches. They are always very high up on the scale that we find. I think there has been some research done by Defra looking at areas of social deprivation and where litter is found, but that sits with Defra.

Hugo Tagholm: In all surveys plastic bottles are found to be top of the table and on land-based surveys they are consistently in the top three. In the international coastal clean-up that takes into consideration lots of beach cleans in the UK, plastic bottle containers are at number 2, bottle tops are at number 4 and glass bottles are at number 8. There are over 1 million plastic bottles found through that survey, which is a huge number. We consistently find some of the top brands such as Pepsi-Cola, Carlsberg, Coca-Cola in the top 10 of bottles on the beach. We find lots of the big names at the forefront of beach cleans.

Fiona Llewellyn: I can't talk for the rest of the UK; the One Less project that we run from the Zoological Society of London is very much London-focused. We did a big bottle count, as we called it, on 2 September with our partners Thames21. We surveyed 20 sites along the Thames, from



the Hammersmith and Fulham area east to Rainham Marshes, and within a couple of hours we picked up over 4,000 bottles. Some of the sites had more bottle concentration than others, but it is certainly a very prevalent problem here in London. We know from some of the research that has been done by other groups and the stats that we use that in London the average adult uses 175 plastic water bottles every year.

- Q168 **John McNally:** Could I bring Derek in here? I am very much aware, as we all will be, of the abundant litter on our road verges and especially you start to notice on slip roads at the end of the motorways or anywhere else where vehicles slow down or stop you get this jettisoning of particularly bottles. We have bottle holders and cup holders in our cars, vans and lorries now, so we are taking them out with us and I am not sure if that has contributed or not but I don't think it has been helpful in any way. Derek, could you talk about the initiative that you are launching at The Kelpies in Falkirk on 30 October about the roadside litter campaign? I am sure everybody would be happy to hear about that.

Following on from Derek, I would like to ask Sue about when you mentioned earlier that we need to go a bit further in what we are doing. Do you think we should looking at some more punitive measures to people; you can only educate so far? Do you think we need to have a modern form of the stocks? There is different types of stocks but maybe it is points and community licences, some community service. People have no excuse for ignorance now. We have our campaign locally "Litter - there's no excuse". I don't think that people are not aware of this. I think there is probably a lack of legislation somewhere along the line. I would like to hear all the panel's views on that particular question.

Derek Robertson: We are currently in the throes of delivering our national campaign on roadside litter in Scotland. That is being done in partnership with members of the British Soft Drinks Association plus other retailing organisations and corporates. I think it is their attempt to try to do something positive about the problem of packaging and the environment. We have a very simple message, which is to try to get people to take their litter home. It is focused on cars and drivers. If you take away cigarettes and chewing gum as the most prolific items of littering in Scotland, about 20% is plastic bottles and beverage containers.

It is a simple message. It is being done in partnership with Transport Scotland, the Road Haulage Association and the road operating companies, a whole cocktail of organisations that are pulling together in a collaborative effort. I think that is a demonstration that if we can pull all the necessary stakeholders together we can get a better and consistent message. It is very positive that local authorities in Scotland are engaging with it. On Friday of last week, Stena, one of the ferry operators, came on board too. We also have a principal port operator, Caledonian MacBrayne and Caledonian Maritime Assets Ltd, involved, which is carrying a message about don't throw it away on land because it will get to the sea. There are lots of initiatives and interventions and it is



a really strong collaboration with the private sector that is at least making a dent in the problem.

Dr Kinsey: To answer your question about further measures, I think rather than punitive measures, if you look at the example of the carrier bag charge, that was a very small charge and it caused a huge change in public behaviour almost overnight. As I am sure you know, we are very pro deposit refund schemes and I think that kind of scheme would see exactly the same kind of shift in behaviour from people throwing away bottles to seeing them as having a value, as something they can go and get money from. That is slightly more effective than a—we already have litter fines, so there is that possibility there already, but giving an item a value, showing people that they can get their money back, would be a much more effective measure than a punitive one.

Hugo Tagholm: I agree with Sue. I think encouraging the right behaviour is the right thing to do on solving the plastic pollution crisis. We have seen a huge public response to this and lots of stakeholders, lots of actors across different sectors coming on board in favour of deposit return systems. We have been delighted to see Coca-Cola, Keep Scotland Beautiful and other leading actors come on board with this. We delivered our petition calling for a deposit return system to 10 Downing Street in September with the Marine Conservation Society. We had 285,000 people supporting the introduction of deposit return systems here. We surveyed some of those people, with our partners at 38 Degrees, on plastic pollution. 61,000 people responded to that; 86% of respondents said plastic litter was either a problem or a big problem. The respondents said that the top two ways to reduce litter were to reduce plastic packaging and for a bottle deposit scheme to be introduced in the UK.

Dr Kinsey: We carried out a YouGov survey and one of the questions we asked was would people favour the introduction of a deposit return system for cans and bottles. 73% of people overall were in favour of such a scheme being introduced, so I think that is a very positive message.

Derek Robertson: Just a word of caution that I think is important to bring in. If we look internationally at countries that have deposit systems, they don't address the overall problem of litter. They are absolutely terrific for reducing the amount of plastic and aluminium in the litter stream and therefore it is a circular economy issue but it really is not about littering. Littering affects other products too. If we look at Denmark, for example, only 3% of littering that is counted in Denmark is made up of bottles and plastic, so we need to be careful about assuming that deposits will resolve our littering challenge.

Q169 **Chair:** If only 3% of the litter in Denmark is plastic bottles, doesn't that mean it is solved?



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Derek Robertson: Yes, but it makes up 3% of the litter stream, so 97% of all the things that are littered in Denmark that are not beverage containers are still quite prolific in the litter stream.

Chair: That are not beverage containers?

Derek Robertson: Yes.

Q170 **Chair:** But doesn't it imply that the volume has gone down?

Derek Robertson: Yes, of course. The recycling rates and the collection rates for plastic and aluminium have gone almost down to zero, to 3%, because they have a system. I merely make the point that a deposit system will not resolve the UK's litter challenges, but it will certainly help with the reduction of plastic and aluminium in the litter stream.

Dr Kinsey: Can I clarify that? In countries where there is a deposit system, the recycling rate is something like 90%, so it is obviously going to have an influence on the littering side of things. Something that is specifically targeted at bottles and cans is only going to solve that part of the littering problem but that is quite a significant part of the littering problem. As we can see from the carrier bag charge, that kind of mindset, people thinking about environmental matters and litter, does carry over into further behaviour in their normal lives. I believe that targeting the beverage containers will make people think further about other types of littering as well.

Q171 **John McNally:** I am very happy with the response to that. I know that one of the initiatives that Keep Scotland Beautiful is taking is they are going to provide bags in cars, so it goes back to this personal responsibility where people are not getting any excuse at all so they can recycle their plastic bags. I don't know if you want to say more about that. I come back to this personal responsibility. I think we are all very much aware of the need to take this personal responsibility. What you have indicated to me so far is that we are the architects of choice, we make a decision, but the people who make the products provide the architecture for us to work in. At the moment, when you look at the graph here of UK's deposit returns—well, we don't have it—we have 50% recycling and Germany sits at 98.5% with a deposit return scheme, so there is a huge gap for us to meet. I would also say that 50% seems to be quite high considering we don't have any incentive. I don't know if you agree with that but I think we need to be nudging people about taking that next step upwards.

Hugo Tagholm: As the panel has referenced before, we have stalled our collection rate. Since 2012 I believe it has grown by only 2% from our kerbside collections and for a dramatic change we need to see new architecture, as you referenced, new systems for people to be able to use. With the plastic bag charge, as Sue referenced, we have already seen 9 billion fewer plastic bags being given out and that is because of more effective legislation. It is something the public have embraced. It has been good news for the environment, good news for resource



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efficiency, which is another thing that a bottle deposit scheme can bring in.

This is not just a litter and plastic pollution problem. It is about the effective use of resources. It will be good for climate change because recycling plastic emits less carbon dioxide. It is good for water quality because ultimately all plastic gets ground down into microplastics if it ends up in the sea, so this is a water quality issue and, of course, resource depletion because virgin plastic uses oil that is pumped out of the ground and that is a finite resource that we should be very careful and prudent with moving forward as a nation and as the world.

Q172 **Chair:** Is there any correlation between social deprivation and litter?

Derek Robertson: Litter is prevalent across all sites that we survey. Clearly where we have a high footfall of people we are going to see more incidents of that. We released a report this week that showed that in areas of deprivation environmental quality was in greater decline than in more affluent areas. Perhaps the reason for that is the infrastructure that may be required for certain communities, the resources they have available, public sector investment may be channelled into different places, but we have no doubt that there is evidence that communities that are in most need are the ones that are suffering the most from environmental decline.

Q173 **Joan Ryan:** Could we focus specifically on the marine environment for a few moments? Although research is ongoing, there is clearly scope for significant harm to that environment from plastics. Our figures show that between 4.8 and 12.7 million tonnes of plastic enter the ocean from the land every year. Could you address the points of how does this plastic waste move from the land to the sea, how is it getting there and what actions could we take to reduce this movement?

Dr Kinsey: As Hugo has already said, about 80% of that litter is coming from the land itself. For example, this country is a very small wet and windy island, as people have seen recently, and that litter is getting there through the wind action, it is going into our rivers and then being swept out into the sea, and some of it is being dropped directly on to our beaches and then swept out to sea. Once it is out there, it is incredibly difficult to collect. The most effective and cost efficient way is to stop it getting there in the first place because once it is in our seas and oceans it starts breaking down into microplastics. As you probably all know, there has been a great deal of interest in microplastics recently. The smaller the piece of plastic the more likely it is to be eaten by animals of all sizes of the food chain. Not only are they eating it and that causes problems with digestion, reproduction and movement, there is the problem of toxins adhering to those small pieces of plastic and the potential for those toxins to be released into the tissues of the animals. We don't know yet but there is ongoing research that there is the potential of that bioaccumulating up the food chain and a potential human health hazard from eating shellfish or fish.



Hugo Tagholm: I understand that research shows that a third of all fish caught in the UK now have plastic in their gut and that the average seafood consumer in the UK will be ingesting about 11,000 plastic particles every year already. Those are figures to be very worried about. They are entering the food chain and studies have shown that over 600 species of marine organisms have come into contact with marine litter and particularly marine plastics. This is a big issue. Our members, Surfers Against Sewage volunteers, see on our beaches, week in, week out, animals that have come into contact with plastics and so the evidence is building. That is no surprise given that 8 million individual pieces of plastic enter the oceans every day. As you say, that is 12.2 million tonnes of plastic waste into the oceans each year, 80% of which comes from land-based activities.

Q174 **Joan Ryan:** Do you think there is a lack of awareness or less concern among the public about the marine environment and plastics compared to their view of plastic bags and plastic bottles?

Hugo Tagholm: I would say the contrary. I think the ocean has brought the plastic pollution crisis to the forefront of people's minds, this beautiful environment that people aspire to being in and around, particularly as an island nation here. It is something that has put plastic front and centre. I was at the Our Ocean conference in Malta recently. It is an international conference and the plastic pollution crisis was front and centre of all of the agendas, whether it is climate change or sustainable fisheries. I think this is something that has brought it to life for people. We have seen more and more volunteers coming to join us at beach cleans year in, year out. This year there will be 30,000 volunteers contributing 150,000 hours of volunteering time to protect our beaches. What we are seeing is the public asking for the solutions to be taken back upstream. They are happy to do their part but they would like to see more being done to stop the plastic arriving in the environment in the first place, whether that is our city streets or beaches of Cornwall.

Dr Kinsey: I agree with Hugo. I think the issue of marine plastics has shot up into everybody's consciousness very recently. There may be a slight disconnect between people seeing the problem and realising that they are part of that problem and can contribute to the solutions, but I think a lot of the blame is being put on ourselves as consumers. It is always we must educate people, we must educate consumers, but that education and that change has to go back right up the supply chain from the producers to the retailers to the recyclers. It is not just the people who are willingly throwing their product away; that product has to be easily recycled. There has to be facilities and infrastructure there for people to be able to do the right thing. We can't expect people to do the right thing because it is the right thing to do. Some people need an incentive and I don't think we can wait much longer before putting those incentives in place.



Fiona Llewellyn: On your point about the ocean, it is a really big inspiration for people in this issue. With the One Less Campaign we are trying to work towards London becoming a city that does not rely on single-use plastic water bottles and instead people switch to refillables. With a lot of the business engagement that we have had so far on the campaign with this issue we are finding that people are latching on to the value of the ocean element rather than just seeing it as a litter problem. Of course it is and that is an important part of it, but people are finding inspiration in the ocean messages and using the single-use plastic bottle as almost a flagship species for the wider issue of marine plastic pollution. Having something that people can see, touch and feel in their day-to-day lives and understanding the actions they are taking, that they can do something about, is quite empowering, which is what we are finding.

Q175 **Joan Ryan:** I think there is a lack of understanding and awareness about the impact on human health of polluting the marine environment in this way. I agree that people think the ocean is absolutely beautiful—how could you think otherwise—and they want to holiday there and make use of it, but I am not sure they have made the connection with polluting. Maybe that is because the research on microplastics is not as advanced as we need it to be, but I am not sure that connection has been made fully.

Hugo Tagholm: The research is only just emerging on the impacts on human health and how pervasive plastic pollution is and particularly microplastic pollution as it enters the environment. Plastic is being shed from multiple sources, whether it is car tyres, carpets, our trainers, lots of different sources, but where there are immediately available solutions we should be seizing those and not obscuring them with the rest of the problem for which we do not have solutions yet. That is why we are campaigning so strongly for a bottle deposit system. It is true to say that the health evidence and the medical evidence is still being formed, is still emerging on the impacts on human health, particularly from the chemicals that are embedded in plastics.

Fiona Llewellyn: The work being done in that area is increasing, isn't it? We were talking outside about the increase in media attention on the issue over the past couple of years. It has been phenomenal to see and as part of that we know that there is so much more research being done on all aspects of it but specifically on the health implications for humans as well. It is going to be interesting to see more and more of that coming out.

Q176 **Joan Ryan:** It sounds clear from what you say that we have to avoid the plastic getting into the marine environment in the first place. We have focused a lot on deposit return schemes, but what could the Government do further to support the work that you all do in cleaning up our beaches, rivers and coasts?



Derek Robertson: I think we have to have a consistent national message, one about education and one about changing behaviour. We don't have that at the moment. We don't have consistency about the right thing to do. Rewarding good behaviour is a good thing. In our surveys we have 45% of the population thinking that punitive measures need to be brought in. I am not sure whether that is the right way to go, but we have to do more to get that consistent message out there for people to understand the implications of their behaviour. Doing the right thing is the message we would all talk about. It is good for the planet and the environment. I think when we start to bring in the health, cost and resource implications of not doing things, people will get the message eventually but we have to have that message out there.

Dr Kinsey: The Government can help by not just looking at the end of the life of a product. We need to be looking at: do we need those products in the first place? Can they be redesigned for reuse or repair or for much easier recycling? All plastics are technically recyclable; whether it is economically or environmentally feasible to do so in this country is a completely different question. We need to go back to the production and design stages to make sure that we are not designing for obsolescence, we are not designing so it is a one-way system. That is something that potentially the Government could help in.

Hugo Tagholm: It is also important to realise that it is not an either/or. The deposit return system or deposit refund system is not the only tool in the toolkit and we need multiple tools in the toolkit to be able to solve the plastic pollution crisis and to be more efficient with our resources. We do need to have more improvements with our kerbside and encourage better recycling there but that is not exclusive to having a deposit return system or better public messaging, more recyclable products, designing out waste as early on as possible. We need to be considering all of these measures together and designing the best possible system. The beauty of a deposit return system is there are many very effective systems around the world, operating in many countries. There are good ones and bad ones and we have the opportunity to look at the very best ones that work efficiently for all actors in the chain to be able to bring it in to complement kerbside. I understand that a Reloop survey that studied 21 different deposit return systems found that there is always a benefit for the kerbside collection as well and so that is consistently the results from that.

Q177 **Kerry McCarthy:** Perhaps I should say that I am treasurer of the All Party Protect Our Waves group, which Surfers Against Sewage administers, although I don't think we get any money. If we have, it has not come my way yet.

There was a lot of focus in the last year and leading into that about microbeads and the ban, or the partial ban as it was, on microbeads. Do you think that that, although welcome, has given the impression that the job has been done on tackling microplastics and that people perhaps don't



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realise that a lot of microplastics don't enter the water stream as tiny little things in the first place?

Hugo Tagholm: I think there is a confusion sometimes in the public between a microbead and microplastics. The microbeads are specifically in some of those facial scrubs and household products, which legislation is looking to tackle. That would be the primary source of microbeads and some microplastics but a secondary source is all of the plastic that enters into the environment, the bottles, the packaging, the other sources that get broken down in the sea.

To echo Sue's point, all of the focus on the plastic pollution problem gets the public to think about the issue. It causes a spill-over effect, so people starting to think about the products they do and don't buy in the supermarket because of microbeads might get them to think about the next step in their lives in reducing their own plastic footprint, which is something Surfers Against Sewage is continually encouraging people to do, as is the Marine Conservation Society. That spill-over effect is something that is well documented on environmental behaviour. We hope that the bag charge, and then hopefully deposit return systems, will do the same. There will be other items that we will need to address as a society, whether it is single-use cutlery, single-use sachets, whatever it may be that we are finding all too many of on our beaches and in our environment.

Dr Kinsey: From the microbeads point of view, there is a myriad of sources of actual microplastics but we could do something about that kind of source relatively easily, relatively quickly and in quite a cost effective way. It is great for people to be able to see that we can do something about this problem, because sometimes people think, "It is such huge problem. How are on earth are we going to solve it?" But like any huge problem, you have to break it down into those doable little sections and people get a bit of satisfaction saying, "Yes, we have ticked that one off and now on to the next one". I don't think people think, "That's it, job done". They realise that it is just one small step on the road to trying to solve a much huger problem.

Q178 **Caroline Lucas:** In addition to the deposit scheme, in terms of what else the Government could be doing, do you think there is a role for greater regulation on, for example, the amount of recycled material in plastic in the first place? It seems to me that we could be doing things that if there were enough political will, which is another question, we could speed up some of this stuff. If it is possible to have 100% recycled material then why not do it?

Dr Kinsey: That would be ideal. The good thing about a deposit system is that it delivers very high quality, clean recyclate to the recyclers. I think you will find that most of the recyclers in this country are always bemoaning the fact that a lot of the plastic they get from this country is very poor quality and ironically some of the manufacturers that do make recycled content plastic bottles are getting that plastic from Norway,



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which has an incredible deposit system. That just shows that if we mandated, maybe, for minimum recycled content of bottles that would definitely push the case again for a deposit refund system.

Caroline Lucas: Could the UK do that on our own without falling foul of any—

Chair: —the coffee cups last week, that is right.

Q179 **Zac Goldsmith:** What percentage of bottles are not easily recyclable? Of all the bottles that are generated every year, roughly what percentage would not be easily recyclable?

Dr Kinsey: That is difficult to know. The most difficult ones to recycle are those that have a lot of colouring in them, the deeply coloured ones, and the ones with the extra plastic wrapping around them because you have got two different polymers. As to percentage, I am afraid I would have to go and research that and get back to you.

Q180 **Zac Goldsmith:** Is it a significant percentage?

Dr Kinsey: Yes, I would say a significant percentage, but a lot of the bottles that we have can be recycled and should be recycled, obviously.

Q181 **Zac Goldsmith:** Our job in the Committee is to look at all this and then come up with recommendations to the Government and try to persuade the Government to do whatever needs to be done. Do you think there is a case to be made for not allowing manufacturers to manufacture bottles that cannot be recycled? If we know that we could do alternatives, why should it be permissible to continue to manufacture them?

Dr Kinsey: It would be fantastic if it was not. I don't know if you have that power.

Q182 **Zac Goldsmith:** I am not sure. We will have to talk to our Chairman. She is very good at that. But is that something that is on the radar of your organisations? Is that something you are calling for?

Dr Kinsey: It is something that is slightly lower down the radar from getting a deposit system in itself, because we know that even though there are some bottles that cannot be recycled easily, probably the majority could be recycled easily. I would imagine that if there is some kind of mandate that so many bottles or so much percentage of bottles need to be recycled then those bottles are going to be redesigned.

Derek Robertson: There are certain plastic products that have been banned in some European countries. At the Our Ocean conference a couple of weeks ago in Malta the Commission said 5 million towards prevention and one of the two things they talked about was phasing out certain kinds of plastic materials for use, increasing education, improving waste management as well, so some things that were positive.

Q183 **Zac Goldsmith:** Can you give an example of which European countries?



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Derek Robertson: France has tried to introduce banning certain types of plastic, plastic tableware for picnics for example. There was discussion about straws and plastic lids and polystyrene cups and so on as well.

- Q184 **Zac Goldsmith:** I believe in Japan the scale of the selection of plastics on offer to manufacturers has been reduced dramatically and the purpose of that is to ensure that everything can be recycled but also that you do not endlessly contaminate the recycling stream. You have a much simpler approach so, for example, instead of 15 different types of soft plastics for children's toys, there are only two now that can be used and the same is true across the board, but that is not something that is happening at the European Union level.

Derek Robertson: I think that has to be the direction of travel. We have to look at more sustainable resources and reducing the number of products that we do not need.

- Q185 **Chair:** I think the issue is white milk bottles, which look good but are hard to recycle and contaminants, and things like Ribena and very brightly coloured orange and, as you say, the wrapper, anything that you cannot easily separate.

We did the microplastics report last year. As a result, the Chief Medical Officer is looking into the human impacts. I was speaking to a professor from the British Antarctic Survey yesterday who told me that they are seeing in the Arctic polar bears with two sets of testicles because the phthalates are leaching out from the plastic bottles in the Arctic environment and disrupting the hormones of large mammals. I am particularly interested to hear from you, Dr Kinsey, if you have any anecdotal or scientific evidence about hormone disruption in any marine species a bit closer to home.

Dr Kinsey: A bit closer to home? There is quite a bit of anecdotal evidence and some scientific evidence out there about hormone disruption from phthalates that people are thinking come from plastics, but I would have to go away and find that out for you. I am sorry.

- Q186 **Chair:** We would be grateful if either of you had any examples of this, because clearly this is something where public awareness is very low. But if a polar bear can be disrupted through eating a lot of fish then there are the human implications.

Hugo Tagholm: I do understand there is science and we have some on our website about the endocrine disruptors that do affect fish and will change the sex of fish. That may well be the same for mammals. This is research that needs to continue and it leads straight back to humankind.

- Q187 **Anna McMorris:** Turning to the current barriers to recycling plastic bottles and how perhaps they have led to a stalling of recycling, the Local Government Association has claimed that there is widespread confusion over what can and cannot be recycled. Do you think this has significantly contributed to a stall in recycling?



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Dr Kinsey: I used to work as a recycling officer so I can answer that from a recycling officer point of view. There is a certain amount of confusion over what can and cannot be recycled. I live in Gloucestershire and we have five different boroughs and they all do a slightly different recycling system. I think these days most counties, most boroughs, most districts do recycle plastic bottles and I think that is made very clear. There may be an element of confusion but I think most people know that they can put all kinds of plastic bottles in their recycling, so I am not sure that is a factor in the stalling of the recycling figures.

Q188 **Anna McMorris:** If the recyclable waste collected through the kerbside schemes is contaminated—there are varying different schemes. We have different schemes, regulations and targets in Wales than in England and different local authorities all over the place do things differently. Does that not lead to some sort of confusion among the consumers?

Dr Kinsey: I think in general it does lead to a great deal of confusion, especially in England where you have so many different systems, even in the same county, as I just alluded to.

Anna McMorris: And therefore a reduction in recycling.

Dr Kinsey: But if you are talking specifically about plastic bottles, I think a lot of the systems for collecting plastic bottles are very similar across England. It is basically just take your bottle and put it in your recycling box, so I am not quite sure what the stalling effect is due to. I think maybe for recycling in general there is a great deal of confusion but I am not so sure that that is a factor for plastic bottles.

Q189 **Anna McMorris:** In terms of consumers considering or thinking wrongly that plastic packaging has a nil effect, do you think that might have some sort of impact on whether or not the consumer recycles?

Dr Kinsey: With plastic packaging it is much more complicated because some councils do and some councils don't take that kind of packaging, so I would agree that that confusion adds to people not putting that kind of packaging in their recycling boxes. I don't think it is so much people thinking it has nil value. At the moment, I don't think that people perceive that most of the stuff they put in their recycling boxes has an actual value to them or even to the councils. I don't think people realise that councils will sell on that recycling, but the packaging definitely I think is a confusion of different systems, who collects what, when and how.

Hugo Tagholm: If we focus back on the bottles, of course kerbside recycling does not necessarily capture the food-on-the-go packaging, specifically beverage containers. I understand that 70% of beverage containers are consumed away from the home and so we don't have a strong infrastructure to be able to capture those. There is the focus on creating new systems to be able to increase those rates. With 40% of our litter bins being filled up with beverage containers, there is a lot more



scope to increase the recycling rates in any area just from that number alone.

Q190 Anna McMorris: There has been some figures quoted. I think Coca-Cola quoted that about 65% of their packaging is consumed in the home, 25% in other areas such as offices and only 15% on the go. I am not sure. That “on the go” seems quite low to me but that is something we can put to them later. What do you think could be done about looking at the on-the-go packaging, encouraging that confusion among consumers about how to recycle that?

Derek Robertson: In Scotland we have a Household Recycling Charter that is helping us to move towards a common approach across local authorities, which will help reduce the confusion in different systems. That is certainly something that has started to make a difference from our point of view. We should not underestimate the cross-contamination that happens in on-the-go recycling or waste collection systems in our high streets. We don’t separate out and decontaminate them. All of that goes to landfill, so part of our infrastructure needs to think about on-the-go consumption. From our statistics, if 57% or 58% of plastic packaging is collected at home, then that tends to suggest the rest is lying out in the environment somewhere, so it is probably much more prolific as litter in the litter stream than perhaps we might appreciate. I think consumption on the go is one of the biggest developments in recent times of increased packaging in the environment, there is no doubt about it.

Dr Kinsey: If you look at the bins that are meant to be for recycling on the go, most councils will tell you that they are incredibly contaminated and a lot of that litter that is meant to be separated ends up going to landfill. Again, to harp on about it, to go back to a deposit refund system would pull all those bottles and cans out of that system and deliver them straight to a clean recycling stream.

Fiona Llewellyn: I think people do take for granted the fact that if they put a bottle in the bin they just assume—and perhaps rightly so they assume—that it is going to be recycled. We are seeing this figure of 175 single-use plastic water bottles being used by the average adult in London every year. Many of the people that we are talking to who are using those bottles it is because, “I will recycle so that is absolutely fine” but only 50% of those bottles are going through. People have the assumption that if they are putting it in a recycling bin they are doing the absolute right thing, so that is why, as well as dealing with the issues of recycling and the contamination and that element, we are talking about reducing the amount of plastic that is in the system in the first place. That is why I refer to the One Less focus being on single-use plastic water bottles specifically, because we are in a really privileged position here in the UK. We have an alternative, we have safe and clean and healthy drinking water that is available to us out of our taps and from drinking fountains. If we could remove that plastic from the system, that



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would be a wonderful step forward, if the Government is doing anything to support that.

What we talk about is a shift in social norm, putting a value on these plastic bottles and suggesting to people that it is not okay to be chucking 175 plastic bottles every year into the system when we can just fill up our refillable bottles, quite often for free as well, so it makes economic sense. It is important to talk about reduction as well as the improvements that are absolutely necessary to recycling.

Q191 Anna McMorris: Surely some of that comes down to consumer awareness as well. Consumers are thinking that they are doing the right thing and it is all being recycled and it is all going back into the system. I am sure most people would not be aware of the stark figures that we have here about the amount of unrecycled or unrecyclable. Then there might be more of a shift in attitudes and wanting to do as you say, to reduce that amount or to ensure that the material is recyclable. You would agree?

Derek Robertson: I think I mentioned the point about the infrastructure being quite important. That is where we think about consumption in city centre areas. Our roadside litter workers helped us understand the volume that is taken by people through drive-throughs and other outlets.

Q192 Anna McMorris: What is happening in Scotland where that is concerned? You said that there is a memorandum on this.

Derek Robertson: The Household Recycling Charter is between local authorities and Government agencies to try to bring a consistent approach to how household recycling is done across different local authorities in Scotland.

Anna McMorris: Affecting the infrastructure?

Derek Robertson: Yes. What I was going to say was that if we look at road networks, the amount of packaging that is in our road networks should not be underestimated. Consumption on the go is not just about people walking down the street. You find a lot of cases where you have service stations or drive-through retail outlets and one mile down the road you will see the packaging. Putting bins in the service station does not necessarily help, although it is an important factor. It is further down the road networks that you see the packaging. You have to change the culture of throwing it out of cars and vehicles as well. We simply were keen to encourage the Scottish Government in, say, penalty points on a licence for anybody caught throwing litter from a car. We think that kind of deterrent would be very useful.

Hugo Tagholm: Can I add one figure there, referring back to our survey with 38 Degrees of some 61,000 respondents? Over two-thirds of those respondents said that bringing back bottle deposit schemes would encourage them to recycle more. There was some clear support for that figure.



Q193 **Dr Poulter:** We have picked up on the issue that clearly there has been a big focus on recycling and that the public think they are doing the right thing by recycling, which I am sure we would all agree with. But the Government's Waste Hierarchy Guidance put heavy weighting on the need to prevent creating waste in the first place. To pick up from what Fiona Llewellyn said a moment ago, how could the use of reusable bottles or alternatives be encouraged, or perhaps better encouraged?

Fiona Llewellyn: We have done a lot of research in the past couple of years into some of the sticking points as to the barriers to this change. I guess it is no surprise that drinking water infrastructure is one of those sticking points. Another one is the perception of tap water. Many people do not think it is okay to drink and do not like the taste of it. There is certainly a lot of awareness raising to do on that front, as we have already touched on.

One of the things that we are talking to stakeholders in London about here is the drinking water infrastructure and encouraging the use of drinking fountains and so forth in public spaces, but also the cultural shift for in-house businesses and so forth to be able to do to make it very clear to their staff, customers and visitors that they have safe and free drinking water available to them, to try to get people away from this disposable society.

We have done it at ZSL London Zoo. We have stopped selling some of these plastic water bottles and through our partnership with Selfridges, the project-ownership partnership, they stopped selling single-use plastic water bottles in 2015 and instead switched to selling refillable bottles and installed drinking fountains where people could fill up for free. At both of these sites it has been a real success. People have embraced it. At the zoo, of course, we have the conservation element anyway, so we have a nice captive audience there. But we have seen so far that people understand it and embrace it.

We are now working with businesses, organisations, visitor attractions across London to see what the barriers are to them in their particular circumstances and situations and tackling them step by step. In terms of wider policy support, it would be fantastic if we could have a bit more focus on drinking water infrastructure and the importance of having drinking water available to people when they are on the go, to help encourage this cultural shift from disposable to refillable.

Hugo Tagholm: Just to add to that, I think that the refill movement—and there is a great app out there that maps different locations you can refill your bottles around the UK—is complementary to the call for a deposit return system. These are not mutually exclusive. These are two tools in the same toolkit to help eliminate plastic in that prevention stream but also to make sure that we are reusing and recycling in the best possible way, the most effective way possible in the UK.

Q194 **Dr Poulter:** I will come back to the point on the ability to refill water in a



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moment, but a lot of people do not drink water and drink other soft drinks or fruit juice or other drinks. The solutions that you have picked up on so far have been very much water focused. What can you do more broadly in terms of other drinks for reducing the amount of plastic waste?

Fiona Llewellyn: Good question. The reason that we focused on water is because of the availability of drinking water. At the moment you cannot get fruit juice out of your tap, so we have focused on water and specifically focusing on the reduction part of it and looking at the volumes that we are seeing of single-use plastic water bottles. We are using 7.7 billion single-use plastic water bottles every year in the UK. For us it is a lot less complicated. I feel I have the easy job here on the panel, because water is simple and it is a very simple message. When we looked at the other beverages that do come in single-use plastic bottles, that is where we are absolutely supportive of the work that MCS and Surfers Against Sewage and Repeat others are doing to advocate for a deposit return scheme, because that is, as Hugo says, part of the wider toolkit of solutions.

I think we should not generalise the litter problem and the marine plastic problem in one big lump. It is one big lump but there are going to be different solutions for different parts of it. We can look at water. In this country we can look at water in a different way than looking at other beverages. I think, as Hugo said, the two will be very complementary to each other.

Q195 **Dr Poulter:** You cannot think of any immediate easy solutions for dealing with other beverages apart from recycling at the moment, or encouraging recycling. Is that fair to say?

Fiona Llewellyn: I think so. It depends on the situation, where they are at the point in time. Where you buy it from the supermarket, the circumstances there would be very different than if you were buying it in a sporting venue, for example, where you are in a captive audience. I know that there are different solutions for having refillable cups, within a sporting venue for example, that you can fill up the cup and take it back, and that stays there rather than having a throwaway bottle. Again, all of these I think will have different solutions depending on the different circumstances. As we move forward with One Less and with the water side of things, from all the lessons that we are learning through that we can start thinking about the wider problems.

One of the things that we talk about a lot as well is the design challenge. How do you design out these problems; how do you innovate around the problems? The sporting venue is quite a good example. There are some venues where you cannot take in a bottle with a lid on it because of health and safety issues. Getting in all the people who are far more intelligent than myself, how do you get engineers in and people who are going to understand how to switch that system into something that is different? With the wider beverages I would say the same thing again. It



just needs some innovative thinking around these to come up with some of the solutions.

- Q196 **Dr Poulter:** Returning to the water issue again, one of the challenges, I suppose, from the woman or the man on the street is that there is an anxiety about asking for free access to water. I remember when I was a lot younger being charged for drinking water in pubs, which fortunately is not the case anymore and licensed premises have to provide access to tap water. But there is still, in many people's mind, an anxiety about asking for that. We know that there is not ready access to drinking fountains in parks. In taking this forward at some sort of scale, what would you say needs to be done? You have given some very good examples of corporate responsibility and corporate partnership working, but what would you want to do in taking this forward apace at scale?

Fiona Llewellyn: That is a very good point and one of the things Hugo touched on as well. There are some great groups out there at the moment that are looking at developing apps so you can find out where to fill up. There is a group down in Bristol called Refill Bristol and we are doing some work with them here in London as well. There is an app that you can use and if a shop is in agreement to say, "Yes, you can come in and fill up for free. You don't have to buy anything. We are a refill station", they put a sticker in the window and they get put on the app. Things like that are going to start taking away, as you rightly said, the anxiety of people being too scared or embarrassed to go in and ask for it. What we are trying to work towards is having this cultural shift whereby it is the social norm that you can go into a shop, you can go into a Starbucks for example, and fill up there for free without having to buy anything. Apps as maps are certainly helping the situation as well. As the groundswell starts moving, then it becomes more the social norm, which again will have to perpetuate this movement.

- Q197 **Dr Poulter:** One final question is you talk about social movement. I initially started my question talking about Government guidelines and we sometimes have a carrot and stick in how we approach things. Would you want to look at any business regulations or incentives that could be introduced by the Government to help take this forward?

Fiona Llewellyn: Yes. We were going to be responding to the job draft London Environment Strategy around the planning and development side of things with regards to the responsibilities for providing drinking water, and drinking water availability in public places as well. With One Less we have not gone down the route of calling for a ban on some of these plastic water bottles or calling for a tax. We are very much going down the route of encouragement and looking at it as an opportunity rather than anything. I think in terms of the policy and legislation around it, the focus for us is the infrastructure and encouragement in that way but not as yet calling for a ban.

- Q198 **Alex Sobel:** You touched quite a lot on restaurants and pubs and those sorts of licensed premises. Do you think there is scope to look at licensing



takeaways and fast food places so they have to provide access to tap water? That is where you see a lot of littering, Food On The Go. Is that something that might help with this?

Fiona Llewellyn: Yes, absolutely. That would be something that we would really encourage as well. One of the real barriers to people not carrying these around is because there is nowhere for them to fill them up. You get caught short. Airports are whole different story; that is a nightmare in itself, absolutely. If it takes away the fear of it or the embarrassment factor—it is convenience. The reason why we have single-use plastic packaged water is because it is convenient to have on the go. If we can overcome some of the barriers to convenience for refilling, that would be a wonderful step in the right direction to this wider problem of plastic pollution and ocean plastic pollution. What you suggest would be very welcome.

Q199 **Chair:** Isn't it extraordinary that as a condition of your licence you have to offer water and yet every time you ask for it in a restaurant, "Oh, no, we don't serve it". Yet their licence conditions stipulate that. I was completely unaware of that and I think most people who eat out will be completely aware of that. You are also slightly belittled by, "Too cheap to pay £2.50 for a bottle of water". There is that moment when the waiter says, "No, come on, you are here to spend money. Spend some more on some water", some of which has been imported from Fiji. The carbon footprint of that bottle of water that has come from an aquifer somewhere in the Far East—Thames and Yorkshire Water are providing this abundantly for free and yet people do not feel empowered to do that. I think it is a particular restaurant and licensed premises problem. I do not think it is a sandwiches problem. How can we get that message out to people. It is that moment where you think, "I am going to do the right thing" and then you get told, "We are not allowed to not sell you something". Isn't that ridiculous?

Fiona Llewellyn: Yes, that is absolutely ridiculous. Personally I have seen a shift in it in restaurants. Again this might be a London thing but there are many restaurants that come out with a glass bottle, these pop-top ones, that is refilled from the tap, as a course of action and pop it down on the table. Where we are seeing changes like that, that is fantastic. But absolutely, I totally agree with you. You should not be made to feel belittled for simply asking for a glass of water.

Chair: Especially because it is a licensing condition. That is going to be my reply from here on in. I think we need to get that one out on Twitter.

Q200 **Kerry McCarthy:** We have obviously talked a lot about deposit return schemes so far and everyone seems to think that they would be at least part of the solution. Can I ask about the resistance to it from various quarters? The British Retail Consortium have said that it would put a strain on convenience stores. There is concern about the cost to local authorities that if they do not collect the plastics at kerbside they do not get the financial benefits of that. If I can start with the Government, I



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know that Michael Gove has been a little bit more positive recently and said that he is willing to explore a deposit return scheme. Perhaps if we start with Scotland. Why is Scotland up for doing things like this and England seems to think it would be far more difficult?

Derek Robertson: I would not want to comment about England but I think in Scotland we have had quite a debate about this for quite a long time and the general consensus is that it will be a positive thing for our nation. We have got very strong environmental policies and commitments in Scotland and this is one of the steps that further reinforces our ambitions environmentally as a country.

Hugo Tagholm: I would come in on the impact on local authorities, which has been one of the big questions. As you might know, Surfers Against Sewage has recently collaborated with Keep Britain Tidy, the Campaign to Protect Rural England and the Marine Conservation Society on a new report that shows the introduction of a well constructed deposit return system would save local authorities millions of pounds annually, vital funds that could be redistributed to other frontline services. Effectively the public is already paying a deposit they can never reclaim, because they are paying it through their council tax for waste services that could otherwise be paid for with a deposit return system. Between individual authorities there is a potential saving of between £60,000 and £500,000 a year. That was an interesting report that we can make available to the Committee.

Dr Kinsey: There is a further report from Reloop, a European environmental group. They have looked at I think 20 different schemes and each one of them has shown a saving to the local authorities. There was that big fear that taking that plastic out, particularly plastic out of the recycling scheme for local authorities, would mean they would lose some money. They will lose that money, of course, but they make so many savings in other areas that that loss of money is well offset.

Q201 **Kerry McCarthy:** When you say savings in other areas, do you mean the litter?

Dr Kinsey: The litter, and also if they are not picking up so much stuff from the kerbside they are saving on time at kerbside, they are saving on volume at kerbside. If the litterbins around the streets are not stuffed full of cans or bottles, they need emptying less often, there is less litter. There are lots of other savings associated with the deposit return system that offset any losses that council might have.

Kerry McCarthy: Plastic is quite high volume.

Dr Kinsey: Yes, it is very high volume of course.

Derek Robertson: The conversation in Scotland is now moving on to system design, and that is really important. Many of us will have experience of looking at different deposit systems around Europe, for example, to see how they operate. We need to think about culture in the



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UK; we need to think about our own waste management infrastructure; we need to think about a variety of things to make sure that we get the best systems that will work for us. I think if we are going to have a system it might be more sensible to have one across the UK than one in each country because we have the issues of fraud in bottles and a whole range of other things to consider. System design becomes really quite fundamental to ensure that it is going to work effectively for us.

Q202 Kerry McCarthy: There are quite a lot of other countries that have already implemented the schemes, so presumably you can learn from them. It is not as if you have to start from scratch in developing a system.

Derek Robertson: Taking the best practice from other things is probably the ideal model to make sure it is fit for purpose for our country.

Q203 Kerry McCarthy: Do you have a view—I know you have done lots of modelling on this sort of thing—about what would act as an incentive to return a bottle to, say, a vending machine?

Dr Kinsey: The general consensus is something like 10p or 20p deposit. I think in the next session you will talking to EUNOMIA and they will be able to give you much more information on that.

Q204 Kerry McCarthy: In terms of the littering side of things, again some people have said—British Retail Consortium, I think—that it just means that you reduce the littering of plastic bottles and you think that means the job is half done and it does not help with other litter. What would you say to that comment?

Hugo Tagholm: I would say it would help with other litter if it is taking out that volume from bins. 40% of the volume of litterbins is taken up with a high volume of tins, cans and bottles. Let's not confuse litter counts with that volume either. Sometimes we have confused the systems by comparing chewing gum staining and plastic bottles in litter counts. It is important that we recycle what we can but we cannot currently effectively recycle chewing gum. That is an important point.

Dr Kinsey: Also I think it would be quite strange if something that was specifically aimed at getting people to recycle bottles and cans would encourage people to stop throwing chewing gum on the ground. They are comparing apples with pears there. This is a scheme that is specifically designed to stop that type of littering. For other products, obviously there are other solutions out there that need to be put into place.

Q205 Kerry McCarthy: I think it also encourages the mindset that if you think that plastic is something that has some further use and should not be thrown on the ground, presumably that would make people think twice.

Dr Kinsey: Yes, absolutely, and once you get that mindset that plastic is a useful material and a resource, you might think, "This is plastic too, so maybe I should do something with this".



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Q206 **Caroline Lucas:** I am really sorry, you might have said this and my mind might have just missed it. Apologies if you did. Have we already discussed about small shops in particular? I noticed that some of them were saying that they felt if people were bringing bottles back to a small independent shop and they do not have very much space to store bottles that have been brought back, are there good arguments to deploy? On the one hand you can see their point. I think there is some evidence here about if they were to have somewhere in their shop to store all these bottles coming back, that would mean they would have less space for selling some other line of whatever it is. Is there any good argument to counter that?

Dr Kinsey: In most of the systems that are in operation around the world, there is a size limitation for shops. They do not have to take part if they are below a certain square footage but they can if they want to. I know in certain countries, even though small businesses are below that limit, they choose to take part because it is beneficial for them. They get a handling fee for the products that they take back and also they have footfall through their shop that may encourage people to spend more in their shop. In a well designed system, you would hope that they are not going to be stacking up tens and tens of bottles and cans in some small part of the room, but that system would be designed well enough that those items can be picked up efficiently and quickly.

Kerry McCarthy: Also if you have reverse vending machines where you just feed the bottles in and then they are crushed, presumably, to save space, then it is a third party that administers that. Although it might take up some space in the shops—

Q207 **Caroline Lucas:** I think it was the space question that they were worried about. Hopefully, as you say, shops will recognise that it is in their interests to do it, but if the Government were proposing an exemption or a possible opt-in exemption for smaller shops, you would not fight that?

Dr Kinsey: That is a common system in many of the deposit return systems around the world already. It is recognised that if you are a tiny, tiny shop you may not have the space. Also sometimes what happens is small businesses can impose a limit on the number of bottles or cans that are brought back and they may only accept the products that they sell, so you will not get someone bringing back a ton to a tiny, tiny shop.

Chair: There are no further questions from the panel. I want to thank you all very much indeed for coming and sharing your wisdom with us. I am sure in time we will find a use for chewing gum but until that day we will keep on probing and prodding this problem. Thank you all very much indeed.

Examination of witnesses

Witnesses: Dr Chris Sherrington, Nick Brown, John Mayhew and Sam Harding.

Q208 **Chair:** I am delighted to welcome our second panel to be with us today. I



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am observing that we have competitive reusable containers. I do not think we have ever seen such a parade of reusable containers. With us today we have John Mayhew, Director, Association for the Protection of Rural Scotland; Sam Harding, Litter Programme Director, CPRE; Nick Brown, Head of Sustainability at Coca-Cola European Partners; and Dr Chris Sherrington, Head of Environmental Policy, EUNOMIA Research & Consulting. You are all very welcome.

Can I begin with a question to you, Nick, about your evidence to this Committee? This is our second iteration. We were interrupted by a general election. We noticed a change in tone from your first submission to your second submission. You were quite enthusiastic six months ago and then you did another submission to us where you toned it down. You originally said you were in favour of a deposit return scheme. Now you are saying that you are in favour of a well designed trial scheme, but obviously the world has moved on and you are going to be in a scheme in Scotland that is going to be rolled out without a trial. Are you getting cold feet?

Nick Brown: No, not at all. We understand that things need to change both with the household and collection of packaging on the go. Through the discussion this morning I am sure we will talk about options for improving household collections and for improving the producer responsibility scheme, but we think a well designed deposit return scheme can work in that context with those other policies. We see from other countries you get higher recovery rates and less littering.

Q209 **Chair:** What difference do those high recovery rates make to you as an operator in the 40 other countries where presumably you operate and sell soft drinks?

Nick Brown: In the UK we have committed to make all our packaging 100% recyclable, all our plastic bottles 100% recyclable, plastic bottles are 100% recyclable. We use recycled content in all our bottles in the UK. We want all our packaging to be recovered and we see, from those other schemes in other countries, that you can get high 80% and low 90% recovery rates on plastic packaging. There is no reason why in the UK we should not be striving for a scheme that achieves those kinds of outcomes.

Q210 **Chair:** That was not my question. My question was do you see, in the other 40 countries and states in which a deposit return scheme operates, benefits to your business?

Nick Brown: We do.

Q211 **Chair:** What are those benefits?

Nick Brown: Improved recovery rates of packaging, improved quality of the packaging so more of it can be reused and they do make a contribution towards littering, which is something we feel very passionately and very strongly about.



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Q212 **Chair:** Are the bottles are reused in some states and countries?

Nick Brown: There are deposit schemes for refillable packaging and there are deposit schemes for what is called one-way packaging, but all our bottles and cans are designed to be recycled so that that material can be reused again. There is both refillable and single-use.

Q213 **Chair:** Do you refill your bottles in other countries?

Nick Brown: We have refillable product in other markets, yes.

Q214 **Chair:** Which markets are those?

Nick Brown: The closest one is some of the product in Germany is still in refillable packaging.

Q215 **Chair:** They are a separate DRS scheme and you take those bottles, you wash them out, presumably at some very high temperature, and they go back into production, they go back in to be refilled?

Nick Brown: That is right. Refillable packaging is typically collected through the retail chain. There is a sorting operation and it is shipped back to a factory somewhere where it is cleaned and washed and refilled to be reused.

Q216 **Chair:** What do you mean by a well designed deposit return scheme?

Nick Brown: When we look at schemes around Europe and the other countries where we operate, we can see that there are some consistent things and some things that would potentially be a bit different for the UK. We think any scheme would need to be underpinned by legislation to level the playing field to make sure that everyone plays a role, plays their part. We think it is very important to do something on a UK-wide basis. We also think it needs to work for the consumers and the householders, it needs to work for local authorities and it needs to work for those retailers and the small businesses that were talked about in the earlier session.

Q217 **Chair:** What do the retailers who buy your product think? Are they supportive?

Nick Brown: We can understand that they have some questions about what a scheme design would do for their businesses. Typically stores do not have a lot of space anymore, the small stores but also the bigger stores, so the design of any scheme for the UK would have to have people like the retailers and local authorities, involved so that they can be involved in what those specific solutions would look like.

Q218 **Chair:** Tesco is involved with you in the waste working group looking at the DRS. Are they positive?

Nick Brown: Yes. The way that group has worked so far is it has put together a call for evidence on deposits and other mechanisms by which we could reduce littering and increase recycling. We are at the stage of that process where we are waiting for that call for evidence to close, I



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think at the end of this month, and then we will look at reviewing the responses.

Sam Harding: Can I just clarify just about Tesco's and others' role on that working group? As I think you may know, CPRE is providing the secretariat for that group to support Defra, but the purpose of those companies and bodies and associations who have been invited by the Government to be on that working group is that they bring their expertise from their particular perspective. In the case of Tesco, that is as a large retailer, but they are there to bring that expertise to bear on the evidence that they are presented with rather than presenting Tesco's opinion on a deposit return or other solutions.

Q219 **Chair:** Thank you for that clarification. I want to finish with you, Nick, about deposit return schemes. Do these cover glass bottles and aluminium containers as well in other countries?

Nick Brown: There are schemes that do and there are schemes that focus on one particular packaging type as well.

Q220 **Chair:** A lot of these countries have had DRS schemes for years. It is just part of the fabric of life. You buy a crate of beer, you get charged £2 deposit on all the bottles and you bring them back when you have drunk that crate of beer. You bring the crate and the bottles back. Can you give us an example of a country that did not have any sort of DRS scheme and some of the lessons learned from that, anything that is similar to the UK, or perhaps a US state?

Nick Brown: It is quite difficult. The UK has spent the last 10 or 15 years investing in household collection systems, which, as you say, is quite different from the history that lots of these other territories have come from. There are pockets of schemes, as you say, some of the states. Estonia is one that always gets talked about as one that has had household schemes and then has brought in a deposit scheme on top of it. I think the things that we would see as being really important and some of the things we talked about before are because it is a change and it will take a cost of implementing and there will be winners and losers financially in that, it is really important that any scheme is mapped out clearly and underpinned by legislation so that it is fair for all involved about where the costs sit.

Our view would be that in terms of management of any scheme there will be a management body that would be obligated by the legislation to run the scheme. It is really important that that scheme has clear targets set by Government and would have accountability for delivering against those targets. It is also important that that group would be set up as a not-for-profit organisation and would have a clear remit for communicating any kind of scheme. You absolutely have to make sure that consumers understand and join in with the scheme because ultimately this is a different mechanism by which to encourage their recycling of packaging.



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Q221 **Chair:** What changed your company's mind, the corporate mind, given that you opposed this a year ago, apart from obviously the excellence of your work as in internal advocate?

Nick Brown: I would like to claim a lot of the credit for that. We have seen the recovery rates in the UK the same as everyone else has. We have seen that in the early 2010s recycling rates for plastic bottles were growing quite healthily as local authorities expanded their collection systems and they have done a great job in doing that, but we see that that is beginning to stall and we see that there is no national approach to on-the-go recycling or to littering. Both those things are really important to us. We think reforms to the producer responsibility scheme can definitely help to contribute to some of the things that came out of the last panel: how do we encourage better design for recyclability; how do we encourage better use of recyclable materials; how does industry contribute funds better to local authority collection systems and to on-the-go collection systems? I think all those things can be delivered through a producer responsibility reform. A DRS could complement that further by specifically targeting the on-the-go elements.

Q222 **Chair:** That is a great answer but it does not really answer the question about why your company changed its mind. Are you saying it changed its mind because recycling rates stalled, because you could see it coming on the horizon with Scotland? Was it that you thought it would be better to jump before you were pushed?

Nick Brown: No. We operate schemes in many different countries. We can see the strengths of them. When those recycling rates are stalling, we have to look at different ways of progressing.

Q223 **Caroline Lucas:** There is a bit of shifting responsibility going on here. As I understand it, you have got less than halfway towards your own 2015 target, which was to get a mere quarter, 25%, of plastic bottles from recyclable or renewable resources. That is something that you have more control over, presumably. Given that at the minute you are only using 25% of recyclable materials in your bottles, why do you not move more quickly on that?

Nick Brown: We did launch in summer a commitment to move from the 25% recyclable content, where we currently are in all our bottles, to 50%.

Caroline Lucas: But you have not even met the initial target by 2015.

Nick Brown: No, in the UK we have been using 25% recycled content since 2012 in all our bottles. We started really pushing for reuse of recycled plastic in our packaging around 2012. We could see that there was no domestic reprocessing capability in the UK to recycle bottles back to food grade. We invested in the plant in Lincolnshire to do it. We have learned a lot in that time and we have been using 25% recycled content for the five or six years since and we will be at 50% in three years' time.



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Q224 **Caroline Lucas:** Is that more than 50%?

Nick Brown: We would like to go further.

Q225 **Caroline Lucas:** What stops you being really dramatic and pushing yourself out there as the leader on this? That is a serious question. What are the obstacles to your doing that?

Nick Brown: I would argue that committing to 50% is something that no other organisation of our kind of scale has done, and we use around twice as much material as any others and we have committed to use that material. One of the challenges in the plastic reprocessing industry is that sometimes there is a premium to the price of recycled material against virgin material. We have committed over those last five years over the future that we will buy that material even when it is more expensive than the virgin material. I absolutely believe that we have made game-changing commitments. We have built the factory and there is 150 people employed in that.

Q226 **Caroline Lucas:** Is it the cost that is more of the issue than the availability?

Nick Brown: It is a combination of things. What we would like to see is more collected through the schemes because that improves the economies of scale for all people involved. We would like to see more people make a commitment to use those kinds of materials, we would like to see more people follow Design for Recyclability Guidelines. There is no single intervention that is going to do it, but a combination of improving what gets put on the market and the use of recycled material through the producer responsibility schemes definitely can contribute.

Q227 **Caroline Lucas:** Can I check one last figure? You were correcting me on that 25% of plastic bottles. The figures I have here is that if you took global plastic bottle sales, Coca-Cola currently uses 7% recycled content if you look on average across global plastic bottle sales. Does that sound accurate to you?

Nick Brown: I know those numbers have been used before. I obviously lead the work in GB, so I can speak specifically about what we do in Great Britain.

Caroline Lucas: Could you find out for us and tell us what the figure is globally?

Nick Brown: Sure.

Q228 **Chair:** Thank you. Perhaps I can widen the question out to the Scottish Government and its recent change of mind. It started as a trial and now it is going to go full ahead. Why do you think that happened? Was it the result of the general election, lobbying pressure? What happened there?

John Mayhew: There has been quite long history of a debate. Derek Robertson mentioned some of it earlier on. The debate about a deposit return system in Scotland has been going on really since 2009, so the



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Scottish Government already have legislative powers given to them by the Climate Change Act 2009. That was the start, the legislative powers are there and the decision is then at what point to use them. There were pilot projects carried out in 2013 by the Scottish Government in places like universities and sports venues and farm shops, which demonstrated the feasibility of it on a small scale, although those were not likely to be as effective as having a national system because they were only relatively small areas that they covered.

There was then full-scale research carried out by EUNOMIA—and Chris can give more details of that, I am sure—and a public consultation on that two years ago. That is when we launched our campaign because we felt it was important that somebody should be making a positive case for a deposit return system and encouraging the Scottish Government to do it. The debate has carried on since. There has been a working group exploring further issues with people from retail, people from manufacturing and from ourselves and MCS, who are on the pro-deposit returns side. We have been recruiting partners, building support, demonstrating public opinion.

Then there were two shifts that happened this year. One is that the Scottish Government decided to ask Zero Waste Scotland to design a specific system for Scotland. Zero Waste Scotland is a programme of the Scottish Government, so they were basically asking part of their own civil servants to work on the system. The reason they did that, we think, was because some of the questions about how a system would work relate to some of the details: what would it cover; what would the deposit be; what would the exemption be for small shops—the sorts of things that you have been asking this morning. Some of those issues need to be teased out before the system can go ahead.

Then finally, only a month ago, the Scottish Government decided that they are going to go ahead with it and that that work to design a system will be work to design the system that will be introduced, not just to theoretically design a system on which a decision could be made. It has been quite a long process and all of the issues that you have been asking about this morning have been debated in Scotland as well and it is a political decision. The Government have decided that the advantages outweigh the disadvantages and they have decided to do it.

Sam Harding: If I could make a contribution. I am sure that Mr McNally can probably throw light upon why the SNP made that decision more than I can, but certainly from having worked on this issue for nine years, for many years we have been arguing and debating and discussing the principle of this solution, which is deposit return. I feel that over those intervening years there has been increasing evidence that has addressed some of the concerns that you were talking about this morning, such as the impact on kerbside recycling and whether consumers are supportive of it. The global average for support for deposit return is around 79% and we now also have some more insight into how these schemes impact on



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small retailers. I think we moved from discussing the principle to agreeing that deposit return systems do work.

Then the question to be answered, which I suggest is the question the UK Government need to answer, is whether that is the system we want here. Do we want a 95% return rate? Do we want to address the global ocean plastic pollution problem? I believe that the Scottish Government did also respond to the very compelling evidence of the impact of plastic pollution along its own coastlines, which was gathered not only by the Scottish campaign run by APRS but also that run by Greenpeace, SAS and MCS.

Dr Sherrington: There has been a steady process of gathering the evidence and answering the questions and addressing the concerns that are there. Also I think for Scotland there are two key things. One was the Sky News campaign and the other was *The Daily Mail's* support for it. That really put the pressure on, the two things together. You cannot discount the impact of a good campaign.

Q229 **Chair:** I wonder if England would be more receptive to pressure from *The Daily Mail*. Maybe the SNP are fans. I do not know.

Dr Sherrington: I am not sure where their attention will turn next, but Scotland identified that this is a measure that has been shown to work elsewhere. It will address the littering issue, it will improve recycling and Scotland was closest to going ahead with a deposit scheme.

If I can pick up on some of the points raised earlier, Nick is absolutely right that a well designed system is important. That is absolutely right. We have looked at a number of schemes in North America and Europe. You have some really good designs and you have some not very good designs. Some of the North American schemes, where the state is very heavily involved to the extent that the state will gather the unredeemed deposits, the deposits that are not claimed back will go to the state.

Typically in a well designed deposit scheme, the unredeemed deposits, along with the value of the high quality materials that are collected, are two of the key sources of funding to the scheme. Then the top-up is provided by the producers. The producer fees pretty much make up the difference between the revenue for the materials and the unredeemed deposits.

Q230 **Alex Sobel:** To follow up those questions on Scotland and how that might be implemented across the UK, do you think a DRS would be more effective if it was not just in Scotland but would be co-ordinated right across the UK?

John Mayhew: I think as waste management is a waste issue it is inevitable that there will be separate systems under separate legislation, but that does not mean that the systems in the different parts of the UK could not be co-ordinated, and they absolutely should. It is going to be more successful having a system in Scotland if there is also a system in England, Wales and Northern Ireland. It goes back to the consumer



perception that you were talking about in the first section, in that many people travel around the UK and if the system is either similar or identical in different parts of the UK that is likely to reduce confusion and it is likely to make it much easier from the consumer's point of view.

We are certainly making the case that the system being designed in Scotland should be one that would easily be compatible with one in England or elsewhere. We are encouraging the staff in Scotland who are developing the system to talk to their opposite numbers in the rest of the UK to make sure that that is likely to happen at some point in the future, because it will benefit all parts of the UK if we do that.

There are some of the details of the system that matter more in that respect. The level of the deposit, for example, is particularly important that it should be the same in countries that share a border. It might matter less if the exemption for small shops is different. I can imagine that a more urbanised country might wish to have a different exemption level for small shops than a more rural or island country such as Scotland. That will not impinge upon the consumers' familiarity with the system. That is something behind the scenes that would matter less. Some aspects of the system are particularly important to co-ordinate between the different administrations and others rather less so and there would be room for the different administrations to deciding different system designs that suited their territory better.

Dr Sherrington: I am not entirely sure we do necessarily have to have separate systems that are forced to be compatible. If you look at the Norwegian system, there is no government mandate saying that you have to have a deposit system. There is simply a tax in place with a varied element and the higher the recycling rate, the lower the tax you pay. Industry got its act together and said they were going to design a really efficient scheme, and it works very well.

Q231 **Chair:** Where does the tax fall?

Dr Sherrington: The tax is for beverage containers specifically.

Chair: Does it fall on the producer or the consumer?

Dr Sherrington: It is on the producer, but obviously things do get passed through to the extent that they can be. There you have the tax, you have a base element for bottles that are not refillable and then there is a variable element on top, so there is no legislation saying you should have a deposit system.

Another possible approach is to simply say we want very high recycling targets for beverage containers within the current packaging recycling targets. You could say we want 90% for beverage containers and then let industry go ahead with that. You could potentially have a UK-wide system if the same recycling targets are set or if a tax were put in place.



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Sam Harding: That is certainly something for the Committee to consider in its questions and recommendations to the UK Government, in that we are aware that there is a preference for not following primary legislation within England at the moment on this issue.

Chair: From the Government?

Sam Harding: Yes, but if we are to follow Scotland's lead on this and build on our success with the bag charge and the ban on microbeads, it is possible potentially for the UK Government to set some sort of regulatory target that would allow, in effect, a deposit return system to be introduced in England that would be compatible with Scotland, without the UK having to mandate specifically for deposit return in England.

Q232 **Alex Sobel:** On a point that John made, you said that one of the differences between England and Scotland, or the rest of the UK and Scotland, is that Scotland is more rural and has islands. Are there any other significant differences between the rest of the UK and Scotland in implementing a DRS? Are there any other things that should be taken into account by the UK Government?

John Mayhew: Not really. It is a system that works well in many parts of the world. If it works in Norway, which is even more rural and has even greater distances to travel and has even more populated islands, then it can certainly work in Scotland. It has been shown it can work in small countries, large countries, it can work in states within countries. It can work in states with low population and with large ones, in very urbanised places and in rural places. The same issues apply very much across the world and it has been shown to work in many different places across the world.

Nick Brown: We feel that there is a massive opportunity for bringing schemes together into one that covers the whole of the UK. There are some specific challenges that would need to be overcome in order to manage different schemes in different parts of the UK. Packaging effectively becomes a currency in these kinds of schemes. The cross-border flow of material is very important and needs to be designed into any scheme.

Q233 **Chair:** Does the Republic of Ireland have a scheme?

Nick Brown: The Republic of Ireland, no.

Q234 **Chair:** It is also affected by Brexit with border transfers. One of your concerns was about fraud, people collecting bottles in Ireland and then claiming them back in Northern Ireland. That is potentially fraudulent use. That is the same as people collecting them in England and then taking them up to Scotland to get money on them, is it not?

Nick Brown: That is right. Depending on how the scheme is designed, there would be an incentive to buy your products in England and recycle them in Scotland. You need to design your packaging and your labelling



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and your supply chains quite carefully and quite specifically in order to minimise the risk of that kind of fraud. It is not so much an individual consumer doing it. It is more that it leaves a loophole that is open for exploitation of a larger scale.

Dr Sherrington: It is worth noting how this is addressed elsewhere. In Norway for an example, and Estonia as well, the level of the producer fee can be varied by whether or not you have an international barcode or a national barcode. If you have a product that is sold just in Norway or just in Estonia, you have a lower fee. There is an incentive built within the system to encourage producers to go for the packaging and the labelling so that there cannot be fraud with the return.

Sam Harding: My understanding as well is that the technology relating to reverse vending machines has improved significantly, certainly over the last five years. In a sense you would want to be encouraging somebody in England to be crossing the border and putting their aluminium cans and plastic bottles into a RVM because you would end up with a higher quantity or better quality material. It is very unlikely that on a day-to-day basis a reverse vending machine would be giving back a deposit if it was marked on the can as sold in a country without a deposit system.

John Mayhew: It is perfectly possible that you can buy a drinks container, whether plastic or metal or glass, in one country, take it to another one if you are travelling, and put it into the reverse vending machine. The machine will accept it but it will not give you the deposit because the barcode tells it that it was not bought in the country where the deposit was applied. There are technical solutions to any of these issues, but it would be easier if there were deposits on both sides of the border and therefore that would not arise.

Q235 **Alex Sobel:** That is very helpful. How much do you think a well designed DRS scheme would increase plastic bottle recycling in the UK if we had a UK-wide scheme?

Nick Brown: If we look at a European comparison as to deposit schemes in other countries, they are measured in slightly different ways in different countries, but high 80%, low 90% is a reasonable expectation for where the UK could get to over a period of time.

Sam Harding: If I can clarify at this point that there is the figure of 57% of plastic bottles being recycled at the kerbside, which I understand is a recoup figure that gets used quite a lot, but it does not specifically relate to beverage containers. They will be included in that figure but that also includes all the other plastic bottles that we collect through our kerbside, so I think we have to be very cautious about that figure. In fact, I suspect what we are collecting is lower than that. We also need to be aware that what we collect is not necessarily what we recycle. A lot of councils have switched to comingled collection services to increase the tonnage that they collect because that is how they are measured on



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performance, but what they collect is not necessarily what comes out of the recycling facility.

John Mayhew: Could I add an example to what Nick said about how you could reasonably expect the percentages of beverage container recycling in the high 80s, low 90s? The most recent system introduced in Europe was in Lithuania. They predicted that in the first year, 2016-2017, they would get a 57% rate to start off with and then increase that later. In that first year they saw 74% of the containers returned. They easily exceeded their expectations and they have now set a target of 90% in the current year. So not only could the system ensure consistent rates of over 90% but it could potentially do it quite quickly.

Q236 **John McNally:** Congratulations to John on your campaign. I think you have been absolutely excellent in leading the way in Scotland. You managed to get some 60 organisations together.

John Mayhew: Ninety. Thank you very much. That is much appreciated.

John McNally: Ninety. It has been welcome. You have provided the good foundations to provide to the Government. I think it has been extremely difficult to resist the evidence that you have produced. Yes, I think there is the political will to drive that forward. You can have the anecdotal evidence but you need to have the hard evidence to produce those facts.

I have one fairly simple, straightforward question, and I think we have touched on it this morning. Is there a danger that a lack of a coherent waste strategy in England will undermine the effectiveness of the DRS? What is the legislative landscape, the difference between Scotland and England or the rest of the UK on waste management?

John Mayhew: I do not think that the state of the waste strategy in England would affect the effectiveness of the DRS that is going to come in in Scotland. That will work for the same reason that it works elsewhere. I will leave others to answer about the legislative basis in England but we have already heard suggestions that it might not require primary legislation and there might be other ways to achieve it more quickly without the time that that would take.

Dr Sherrington: One of the differences is the impact on local authorities. In England we have the two-tier system whereas it is not the case in Wales and Scotland. One of the things we did in our recent research looking at the impacts, the loss of material revenues and the other savings for local authorities in England was to consider to whom those savings accrued or who was faced with extra costs. That is an extra hurdle that England would face; how to share the savings effectively. It would not be the case in Scotland. But beyond that I do not think anything England is doing is going to cause problems for Scotland.

Q237 **Alex Sobel:** What do you recommend the deposit should be with DRS? What level do you think we should be setting it?



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Dr Sherrington: The simple answer is what return rate you want to get but we have looked at various deposit schemes, and we have looked at the level at which the deposit is set. We convert it into sterling and you get an increase; 5p is too low, 10p you are getting round mid-80s, 20p you are getting higher. That is average because where you do see differences in deposit levels typically it is the smaller bottles, the cans, that have a lower deposit level than the large one that has the higher. But 10p to 20p is where they are at.

John Mayhew: It needs to be large enough to be effective and it needs to be small enough not to make a significant difference to producers and retailers. Precisely where that lies will be a matter for detailed research but in Europe it tends to be about 10 euro cents—so roughly 10p—and that has proven to be enough just to make the difference that we seek.

Sam Harding: In some of the older schemes we give a good example of the importance of another aspect of a well designed system as being able to have some flexibility in the deposit brought into the legislation. Some states in America are locked into 5 cent return rates, which obviously in 1973 was entirely reasonable but here we are, apparently in the 21st century, and it is not enough. The effort that is required to get that deposit increased can often be quite difficult for those wanting to make those systems more efficient and effective.

Nick Brown: I agree with both of those points. Chris raised a very important point. The targets are the important thing and then in the effective schemes the operating company has the ability to flex that to make sure those targets are being met.

Q238 **Kerry McCarthy:** The British Retail Consortium has expressed concern about the impact on consumers and the quote that they give is that it would add tens of millions of pounds to the cost of living for people. First with Nick: if there was a tax that fell on the producers would you pass that on to the consumer?

Nick Brown: A deposit is not designed to be a tax. It is designed to be a small charge that the consumers pay that is refunded to them at the point where they return the packaging, so it is directly introduced by—

Q239 **Kerry McCarthy:** It would increase the price of a bottle of drink but people should be able to get it back?

Nick Brown: It is very important how you communicate any scheme because our own research says that around 63% of people will welcome a deposit scheme but when you talk to the people who either expressed some concerns or still welcomed it but wanted to understand it better, 43% of people thought that it would put their prices up. Any scheme would have to be carefully thought through; how it was designed, how it was communicated to householders and consumers, both at that point where they are buying their products, they are making their purchase choices, but also when they are back at home.



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Q240 **Kerry McCarthy:** It partly depends on how accessible, trying to ensure that everyone has access to a deposit return scheme.

Nick Brown: That is important. A scheme has to be designed to make it as easy as possible for consumers to do the right thing. You need to have easily accessible redemption points, return points. You have to make sure that they are not just in the kind of places that only people with cars can get to, those kind of things. You do need to look at the detailed design to make sure no groups are disadvantaged and everyone has the opportunity to do the right thing reasonably easily.

Sam Harding: On a point of costs, that messaging around it increases the cost of the drink, as I understand it, the cost of the drink would not increase it. It would be at the point of purchase the person pays an additional deposit that they then get back. The only possibility that the cost of the drink might increase slightly is if the producers decide to pass on the average 0.7 pence per container that it may cost them in their producer fees to be part of the system. But it is only once for the consumer that they have to find the additional 10, 15 pence to pay for the initial deposit and then every time forward from there that deposit is just going backwards and forwards from their wallet between them and the retailer.

Q241 **Kerry McCarthy:** There is an upfront cost that would not necessarily be recouped by the consumer, I guess.

Sam Harding: Only if they did not return the container.

Nick Brown: If someone is doing the family shop and they are not necessarily the person that is consuming it, and therefore they might not be the person who is redeeming the package. There might be some shopper behaviour elements that we need to look at.

John Mayhew: But it is the messaging that is important, that we emphasise this is a deposit, it is not a tax. It was the same with the carrier bag charge. It was referred to by people who opposed it as the carrier bag tax. It is not a tax, it is a charge and it is an avoidable charge if you bring your own bag. A deposit is not a tax, it is a deposit. So my opinion is it will add precisely zero to the cost of living as long as you take your beverage containers back, which is the whole purpose of the system.

Dr Sherrington: It is worth also considering where we are now and who pays what. At the moment with the kerbside collection we have some element of funding from producers under the PRN system. The finances are opaque but estimates suggest only about 10% of the cost of that system are covered by producers, so 90% is covered by taxpayers, who are citizens. The distinction between citizens and consumers is an important one. You may use no beverage containers in a year but you are still paying through your council tax for the collection and onward processing of those items. We know that for cans, for example, there is



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research showing that the average consumption is about six cans a week. Some people consume very few, some people consume a lot. You can see there is a distinction. If we are trying to respect the polluter pays principle, or at least the consumer pays, this kind of approach is a lot fairer than the current system that we have.

Q242 Caroline Lucas: Coca-Cola's European partners have called for reform to the producer responsibility system and I wanted to know what kind of reforms you were recommending and how they would reduce plastic waste?

Nick Brown: That brings us very nicely to some of the things Chris has just been saying. If we look at a European comparison, the best country without a deposit system is achieving 84% recovery of plastic bottles, and that is Belgium. It has a well established producer responsibility scheme. Following up on the point that Chris was making, the producer responsibility scheme for packaging in the UK was designed and put in place about 20 years ago. There has not been any reform to that and it was in an era before we were trying to recycle and move towards the circular economy in the way that we are now.

Q243 Caroline Lucas: What is the difference between them?

Nick Brown: A good producer responsibility scheme can encourage people to those eco design, design for recyclability principles that people were talking about before; some kind of credit for people who are using easy to recycle packaging, some kind of disincentive to use non-easy to recycle packaging. It could incentivise the use of recycled materials. It could help smooth some of those financial challenges that smaller businesses might have about using recycled material.

Q244 Caroline Lucas: You think it needs incentives as financial incentives. What would they look like?

Nick Brown: Typically in other countries it is a modulated fee structure. There will be a certain contribution for packaging that meets a certain design criteria; there will be a higher contribution for packaging that does not meet that criteria; the same for recycled material usage.

There are also things that work well in other countries. We have all talked about the opportunities there are to improve household collections by maybe moving towards a more harmonised system, definitely communications campaigns, and we have all talked about the lack of an on-the-go recycling infrastructure. Arguably, the producer responsibility scheme makes contributions to all of those currently but it is very opaque. I do not think it is on the scale that it needs to be to drive the step change that we need to see. There is an opportunity not only to encourage the packaging that gets put on the market to be thought about in a different way but also what the funds are contributed towards so that business collaborates much more with local authorities and makes a bigger contribution to the genuine end-of-life costs of packaging that it puts on the market.



Q245 **Caroline Lucas:** Is your advocacy of that approach parallel to and consistent with your support for a well designed DRS scheme as well?

Nick Brown: Yes. There are lots of packaging formats that are not soft drinks and there is material that is still going to be collected in. Households is still going to be disposed of on the go. None of these deposit schemes reach 100% so there is still some material that needs to be managed. A better produced responsibility scheme can work beyond just soft drinks but for a much broader packaging.

Q246 **Caroline Lucas:** Could you give us a figure? We have some evidence here that Coca-Cola is the only company out of the six top soft drink brands that refuse to say how much plastic it was selling every year. I do not know if that is right, but an estimate was made that Coca-Cola produces about 110 billion single-use plastic bottles globally every year. Does that sound like a figure that you recognise?

Nick Brown: There are some questions and some challenges about exactly how you report that. Making a like-for-like comparison with different methodologies of how different types of packaging is counted makes it difficult to give a global number. But we have been transparent in the UK. It is in our corporate responsibility to report it.

Q247 **Caroline Lucas:** I want to push you on the global though because if the other main five brands are able to do it then they must also be grappling with those same kinds of assumptions. Whatever assumptions you build into the model when you are estimating how many bottles are used globally surely you can express what those are and then come up with a figure rather than just saying, "We are not going to tell you".

Nick Brown: I know discussions are going on with the global organisation about how to calculate and share that information.

Q248 **Caroline Lucas:** What timeframe is that on? When will we have a figure for the global—

Nick Brown: I cannot tell you.

Q249 **Caroline Lucas:** You are comfortable with the fact that the other five top brands have no difficulty in giving this figure but Coca-Cola does?

Nick Brown: What I have said is we are absolutely transparent in Europe and in Great Britain and we report that and we will show our progress on this journey to—

Q250 **Caroline Lucas:** If you can be transparent in those two regions why can you not be transparent for the rest of the operation?

Nick Brown: It is not something I can comment on, on behalf of the global organisation. I lead our work in Great Britain.

Q251 **John McNally:** I would like to pursue the actual waste hierarchy in the sense that Defra's waste hierarchy clearly promotes waste prevention over reuse and recycling; an ounce of prevention is better than an ounce



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of cure. Most people are quite law-abiding citizens; I think we would all agree with that. Would it be better to focus resources on encouraging a culture of reducing and/or reusing plastic bottles and how could this be achieved? What impact might a DRS have on efforts to prevent waste in the first place?

John Mayhew: We have to tackle all of these things and the waste hierarchy is a sensible way of looking at how we manage waste. We certainly need to try to reduce more and to recycle more and to reuse more. These things are not incompatible. We need to tackle all of them. While we still have one-way plastic bottles, a deposit return system is a proven way of capturing them and bringing them back for recycling. It is both reducing and recycling and it can also apply to metal and glass as well as to plastic.

We heard earlier this morning about other anti-litter measures and these are all very welcome. By all means encourage people with education campaigns not to drop litter in the first place but also give them the financial incentive not to do so. The combination of the incentive and the education programme is very powerful. We also pick it up. There are fantastic organisations like the Marine Conservation Society and Surfers against Sewage, who are out there every day picking the litter up. We, as a society, need to tackle it at all levels.

Sam Harding: I would also suggest that the question is raised of how long do we have. I completely agree that ideally we would all be sitting with bottles like this. Sorry to say that, Nick. Obviously it is your finding to fill bottles with your product, which is great, but we do not have time in terms of the level of pollution and impact that we are experiencing to instigate some generation-long shift between now to a brand new culture.

Q252 **John McNally:** You mention a time here. Can you develop that a bit more and what you think is going on in your head? I need to understand what you are thinking—as well as everybody else—because I think we are all aware that time is of the essence here.

Sam Harding: For me, my thinking is sitting within this broader principle that we have seen the bag charge deliver, where we could have spent many years and maybe millions of pounds working collectively to explain to people that it is much better to take your own bag and that it is having a big impact on the environment. There are issues there that some of us know very well and there are some issues there that many people do not know, never mind care about. Historically we have spent a lot of time trying to get people to understand and then to care and then to change their behaviour.

But what we saw with the bag charge is that very quickly we put something in place that everybody changed their behaviour, and for some people the changing of mind came afterwards. What we achieved very quickly was a 9 billion reduction in plastic bag use. I would argue that with something like a deposit return or by the setting of a target that



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encourages those types of return rates we could achieve the type of environmental and social change that we are trying to achieve. Then maybe once you have achieved that people become more open in their behaviour and in their mind to hearing about things around waste prevention and reduction. But as John said, they are not exclusive.

Q253 John McNally: You need to have a normalisation of people reusing their plastic bottles—and you are absolutely right to mention the plastic bag—because there is an embarrassment when you begin to think about it, and that needs to be the normality.

Sam Harding: There is a very interesting study by the University of Cardiff that looked at the English bag charge, which unfortunately did not follow the Scottish or Welsh template of having a universal charge. But nevertheless we do have a charge on plastic bags sold by large retailers. The University of Cardiff found that following that charge people were far more open to hearing about other types of environmental incentives and positive behaviours. There is a snowball effect there that we cannot plan for but is coming along with us as we continue with this work.

Q254 John McNally: Would you agree that most people want to be led? They are law-abiding people. They want the Government to take action, to lead them, to say, “Yes, we want that because we believe in this” but they have to at least back this up by legislation.

Sam Harding: I do not even know if people would even have time in their daily lives to think about that in such a clear way as you are suggesting. In terms of the bag charge there were some people who were for it, there were some people who thought it would be a disaster, #bagmageddon. There was a whole load of people in the middle who were just busy getting on with other parts of their lives and the bag charge came in and they just adjusted.

Dr Sherrington: One point on that is an example where on the exemption side there is an exemption for smaller retailers on the bag charge in England and smaller retailers have not asked for an exemption. In fact, they lobbied hard against it. We talked about the impact on small retailers briefly earlier and I would suggest.

Chair: They lobbied hard against what?

Dr Sherrington: Sorry, being exempt from the bag charge.

Chair: So they did not lobby against the plastic bag charge?

Dr Sherrington: No, there was concern initially but for small retailers—the National Federation of Retail Newsagents—when the English bag charge had been put in place, they said, “What is this exemption? We do not want the exemption. We want to be able to charge and we want it to be a level playing field”. We talked about the impact on a deposit on small retailers particularly earlier on, and I would suggest do not go for a blanket exemption for smaller retailers because some of them may want



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to participate. In Norway all retailers are required to take rubbish containers back. There are no exemptions. In Estonia there is a minimum floor space for kiosks where people can take it back. It would not be sensible to stop small retailers participating.

One thing they can do in many places is if you have a lot of small stores nearby they can set up a communal return point, which can be a reverse vending machine in a shopping centre, that kind of thing. But just putting a blanket exemption for their participation on principle is not a sensible approach.

Q255 Alex Sobel: Moving on to impact on local authority. Obviously local authorities use kerbside recycling, so what effect would a DRS scheme have on kerbside recycling? Would it make it more costly? Would it make kerbside more inefficient?

Dr Sherrington: No. I can say that with some confidence because we published a report on it last week. This was something we looked at. We did the feasibility study for the Scottish Government and we did a little bit of an initial analysis on the impact on local authority kerbside collections for the Scottish Government and we identified about £4.6 million annual savings.

Material revenues will be lost. The aluminium is high value and the plastic and glass. There is no question of material value revenues will decline. But we looked at the efficiencies in the collection. Collections can be strained by volume or by weight and we looked at a number of different situations. We have savings on the sorting. You have, importantly, savings on the beverage containers that end up in the residual waste stream. That will go for incineration or landfill. This is much more expensive, so stuff that is littered or in litter bins would typically end up in those routes. So you save money there.

We worked closely with four of the highest performing local authorities in England in terms of their recycling because if the concern is the loss of material revenue, the loss is going to be greatest for those who currently collect the most and the savings on avoided landfill of residual treatment will be the smallest. We work with those and estimates £1.47 per household per year. There are different size to authorities so we then, in our headline result—these are some of the highest performing authorities—if we scaled that up it is £35 million savings across English local authorities per year.

We also looked at some of the less well performing local authorities. They had much bigger savings on avoided disposal and the savings were much greater. If we took the average between the four highest and the four lowest you get to around £50 million annual savings per year. The £35 million is a conservative estimate but the issue, because we have two-tier authorities, some of the savings will accrue to the disposal authority and some of the material revenue reductions will accrue to the collection authority. Collection authorities might perceive a real threat unless they



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can adopt a revenue-sharing approach, which is not unheard of, it happens on other issues, but the taxpayer will save money.

Q256 **Alex Sobel:** Following on from two-tier authorities, we can have a centrally-run scheme, like in Germany, or we could have it run at local authority level. What are the pros and cons for both of those options?

Dr Sherrington: The German scheme is not what I would call a centrally-run scheme. You do not have one system operator; you have a number of system operators. Germany is not a good example to follow. Norway and Estonia are the kind of modern schemes I suggest you look at.

You want an overall one system operator that can constantly seek efficiencies in the collection. This is why retailers will have higher handling fees with beverage—each beverage container collected by a compacting reverse vending machine saves a huge amount on the logistics when the containers are compacted. A not for profit operation, which is typically owned by the bottling companies and the large retailers, will be charged with constantly looking at how to improve the efficiency. I would not suggest anything run at the local authority level.

One concern local authorities have raised is that it will affect their recycling figures because they will not physically have the staff to measure but there is no reason why you could not—if you have the identification of all the retailers and the RVMs where they seem to return—attribute that to the local authority in which it is based.

Q257 **Alex Sobel:** In other countries how have they dealt with the same problem of kerbside collection when they have introduced a DRS, particularly the issue of the collection authority?

Dr Sherrington: The Reloop reports that looked at 20, 25 found the impacts on local authorities and municipalities were positive in all of those.

Sam Harding: On the central system, it is worth quickly referencing a report that CPRE published in 2011, which was a follow-on report from the first UK-wide cost benefit analysis that EUNOMIA conducted for us, which was motivated by whenever we said that a deposit return could be a good idea we were told it would be too expensive. Then when we asked how much it was nobody had an answer. So we wanted to find out as to whether we should continue campaigning for it or not.

But following on from that we did an additional piece of research called "From Waste to Work", and we found that across the UK if a deposit return system would be introduced at that time there would be a net gain of jobs up to 4,300 new jobs across both the public sector and private sector in the recycling sector specifically. Also the central system can be located anywhere in the country. It would not need to be in any particular location, so it could also be located in an area of high unemployment.



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Q258 **Chair:** On your first piece of research, how much was the cost of introducing the scheme? Obviously they will have been arranged. Can you remember?

Sam Harding: I remember the savings to local councils was in the—

Dr Sherrington: That has been superseded but I think it was fairly close. It was reasonable. The cost was about a penny per beverage container.

Q259 **Chair:** What is the maths on £35 million a day? What was the round number: £15 million, £50 million, £500 million?

Dr Sherrington: I do not have the figures to hand. When we looked at Scotland we had the set-up costs for the system and then we had the annual ongoing costs. But the way you think about it is then you look at material revenues that the deposit system will get, you look at what the return rate is likely to be, and you will get unredeemed deposits providing support for the system. The way you work it out is what is the cost per beverage container placed on the market, which will be effectively the producer fee. It will vary between 0.7p and 1.6p, I believe. It is that kind of figure.

Chair: Thank you, that is very helpful. It has been a fascinating panel, Thank you all very much for staying with us and we will be grateful if you could write to us with some of those details just to inform our deliberations. Thank you very much.