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Environment, Food and Rural Affairs Committee

Plastic food and drink packaging

Sixteenth Report of Session 2017–19

Report, together with formal minutes relating to the report

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The Environment, Food and Rural Affairs Committee

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Summary

Plastic pollution of the marine environment, of which food and drink packaging is a significant contributor, has captured public interest over the past two years, and the Government has set out its ambitions to eliminate all avoidable plastic waste by the end of 2042. In the backlash against plastic, other materials are being increasingly used as substitutes in food and drink packaging. We are concerned that such actions are being taken without proper consideration of wider environmental consequences, such as higher carbon emissions. Compostable plastics have been introduced without the right infrastructure or consumer understanding to manage compostable waste.

The Government is not placing enough emphasis on reducing plastic food and drink packaging in the first place. Reduction is far more important than recycling and a fundamental shift away from all single use packaging, plastic or otherwise, is now necessary. Parliament should lead by example, with the ambition to remove single use packaging from all its catering facilities. We have also called on the Government to conduct a review of reusable and refillable packaging systems to determine what works and where Government intervention might be appropriate.

In 2018, the Department for Environment, Food and Rural Affairs (Defra) published its waste strategy “Our waste, our resources: a strategy for England”, followed in early 2019 by consultations on a plastic packaging tax, Deposit Return Scheme (DRS), consistency in recycling collections and reforms to the packaging producer responsibility system. These consultations all focused on improving domestic recycling rates and capacity and our key conclusions are:

- The Government does not know how much plastic packaging is placed on the market in the UK, nor how much is actually recycled. We have called for the de minimis threshold that determines which businesses must report on packaging, to be significantly lowered.

- The plastic packaging tax would apply to packaging with less than 30 per cent recycled content. This threshold is too blunt an instrument, and we have called for the tax to be modulated, so that there are lower fees for higher levels of recycled content. In addition, imported, filled packaging should not be exempt from the tax, as the Treasury has proposed.

- Local authorities should be required to collect an agreed core set of dry materials for recycling. This should make it easier for packaging to be labelled, telling consumers whether that packaging is recyclable or not, thus boosting recycling.

- We support the introduction of a DRS, but the Government must monitor the financial impact on local authorities as material is diverted away from kerbside recycling.

- We support extended producer responsibility (EPR) so that producers pay the full costs of managing packaging waste. The financial benefits of this should help local authorities to manage other changes, such as increasing consistency in recycling collections and the introduction of a DRS.
1 Introduction

1. First developed in the 1800s, plastics “have transformed all our lives as few other inventions have, mostly for the better”.\(^1\) An early application was replacing elephant ivory in products such as billiards balls with celluloid, which was hailed as a material that would eliminate the need “to ransack the Earth in pursuit of substances which are constantly growing scarcer”, thus preventing “an environmental catastrophe”.\(^2\) Global mass production of plastics took off in the 1950s, and in 1955, *Life* magazine introduced the concept of “throwaway living”, with an article depicting “the liberation of the American housewife from drudgery” as a result of disposable plates and cutlery that no longer required washing.\(^3\)

2. Over 70 years later, public attitudes to throwaway plastics have changed, and life in plastic is not considered to be quite so fantastic. In 2017, plastic pollution of the marine environment captured public attention with the broadcast of the BBC series *Blue Planet II*.\(^4\) Recent public and political interest in reducing plastic use has been attributed, in part, to the Blue Planet Effect.\(^5\) In November 2018, the Government published its 25 Year Environment Plan (25YEP), which estimated that “8.3 billion tonnes of plastic have been produced since the 1950s [and] without urgent action to cut demand, this is likely to be 34 billion tonnes by 2050, the majority of which will end up in landfill or polluting the world’s continents and oceans.”.\(^6\) Disposable, single-use plastics used for packaging food and drink are particularly problematic; a 2018 report by the United Nations Environment Programme (UNEP) stated that “the most common single-use plastics found in the environment are, in order of magnitude, cigarette butts, plastic drinking bottles, plastic bottle caps, food wrappers, plastic grocery bags, plastic lids, straws and stirrers, other types of plastic bags, and foam take-away containers”.\(^7\) The Government’s 25YEP highlighted that a recent Great British Beach Clean Up had found “718 pieces of litter for every 100m stretch of beach surveyed” of which “rubbish from food and drink made up at least one fifth”.\(^8\)

3. The 25YEP set out the Government’s ambition to “work towards eliminating all avoidable waste by 2050 and all avoidable plastic waste by end of 2042”.\(^9\) In December 2018, the Department for Environment, Food and Rural Affairs (Defra) published *Our waste, our resources: a strategy for England*.\(^10\) This set out Defra’s plans to move towards “a more circular economy”.\(^11\) Several relevant Government consultations were held between February and May 2019 on:

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1. “We Depend On Plastic. Now, We’re Drowning in It.” National Geographic, June 2018
3. “We Depend On Plastic. Now, We’re Drowning in It.” National Geographic, June 2018
4. “Blue Planet II”, BBC iPlayer, last accessed 2 September 2019
5. “One Year on from Blue Planet II - how is conservation and sustainable development of the ocean viewed?”. BusinessGreen, 10 December 2018
a) Reforming the UK packaging producer responsibility system;
b) Consistency in Household and Business Recycling Collections in England;
c) Plastic packaging tax; and
d) Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland.\textsuperscript{12}

In July 2019, the Government published summaries of consultation responses and the Government responses to these consultations.\textsuperscript{13}

Our inquiry

4. We were particularly interested in plastic food and drink packaging, given the environmental consequences of plastic marine pollution and our 2017 Report on \textit{Food Waste in England}, which touched on the role of packaging in reducing food waste.\textsuperscript{14} In addition, all materials, including plastic, have environmental impacts beyond marine pollution. In March 2019, we launched our inquiry, asking for written submissions on the potential impact of Government proposals, the development of alternatives to plastic, where plastic packaging was necessary and barriers to innovation.\textsuperscript{15} We received 84 written submissions and took oral evidence from a range of experts. In addition, we held a private roundtable discussion with small and medium sized companies developing products designed to replace, reduce or maximise the benefits of plastic packaging. A note of that discussion is at Annex A. We also wanted to ensure we captured a range of public views and ran a web forum discussion, asking about recycling, packaging and food waste and the role of retailers and take-away outlets.\textsuperscript{16} We would like to thank everyone who contributed to our inquiry.

5. Chapter 1 of this Report looks at current use of plastic packaging and Chapter 2 covers recycling, which is where most of the Government’s recent proposals have focused. Chapter 3 looks at alternative packaging materials, particularly compostable plastics, and Chapter 4 examines ways to reduce single-use packaging for food and drink.


\textsuperscript{14} Environment, Food and Rural Affairs Committee, Eighth Report of Session 2016–17, \textit{Food waste in England}, HC 429, paras 68–76

\textsuperscript{15} Environment, Food and Rural Affairs Committee, \textit{Plastic food and drink packaging inquiry launched}, 28 March 2019

\textsuperscript{16} UK Parliament Discourse, \textit{EFRA Committee}, last accessed 2 September 2019; the link to the web forum was public and was also emailed to those who signed petition \href{https://petition.parliament.uk/petitions/222715}{222715} (Require supermarkets to offer a plastic-free option for all their fruit & veg) and petition \href{https://petition.parliament.uk/petitions/232684}{232684} (Ban the use of all non-recyclable and unsustainable food packaging)
2 Plastic packaging

6. The Government uses the following definition of plastic, taken from the EU Directive on Single-Use Plastics:

‘plastic’ means a material consisting of a polymer […] to which additives or other substances may have been added, and which can function as a main structural component of final products, with the exception of natural polymers that have not been chemically modified.17

There are many different plastics, made from various polymers (large molecules comprising many similar units). Commonly used plastics for food and drink packaging include:

a) polyethylene terephthalate (PET) which is used, for example, for water and soft drinks bottles and fruit/vegetable punnets;

b) high density polyethylene (HDPE), which is used, for example, for milk cartons and yogurt pots;

c) polyvinyl chloride (PVC), which is used, for example, for meat trays;

d) low density polyethylene (LDPE) which is used, for example, for food bags;

e) polypropylene (PP) which is used, for example, for margarine tubs and microwave meal trays; and

f) Polystyrene (PS) which is sometimes used for yogurt pots and meat trays.18

Biodegradable and compostable plastics are covered in Chapter 3.

7. All plastic can technically be recycled, but it is not always economical to do so. Plastic bottles made from PET or HDPE are commonly recycled because there is a good market for the material.19 Polystyrene, on the other hand, is almost never recycled.20 Introducing consistency in plastic recycling is covered in the next Chapter.

Why is plastic used in food and drink packaging?

8. The Waste and Resources Action Programme (WRAP) highlighted that plastic packaging is “light, durable, flexible, airtight and mouldable”.21 Parkside Flexibles highlighted that “for significant amounts of fresh meat products, the modified atmosphere and robustness of the packaging is critical to supply chain efficiency and waste management”.22 Barry Turner, Plastic and Flexible Packaging Group Manager, British Plastics Federation (BPF), highlighted that plastic was “very resource-efficient” and had “lower impacts in terms of […] greenhouse gas emissions”.23 The BPF stated that “plastic packaging recycles well, leading to a significant reduction in landfill waste”.24
Plastic food and drink packaging is one of the most important contributors to protecting food from spoiling" and that "food waste has a significantly higher environmental impact than the packaging that keeps it fresh, particularly in the form of its carbon footprint".\textsuperscript{24} It explained that "wrapping a cucumber in a few grams of plastic extends the shelf life up to 14 days, steak by 10 days and a banana by 3 days".\textsuperscript{25} However, plastic packaging must still be used in a manner that doesn’t encourage food waste, such as multipacks that encourage consumers to buy too much food.\textsuperscript{26} Our 2017 Report on Food waste in England found that the role of packaging in preventing food waste was insufficiently recognised or understood, limiting its impact on reducing waste.\textsuperscript{27}

**Plastic waste statistics**

9. There is uncertainty around how much plastic food and drink packaging is used in the UK. WRAP estimated that “the total amount of plastic food and drink packaging put on the UK market and dealt with directly by consumers is 975,000 tonnes”.\textsuperscript{28} In addition, “plastic packaging used in the hospitality sector (most of which will be associated with food and drink) was just under 200 thousand tonnes”.\textsuperscript{29} This is out of a total of approximately 2.36 million tonnes of plastic packaging that WRAP estimates was placed on the market in 2017.\textsuperscript{30}

10. Libby Peake, Senior Policy Adviser on Resource Stewardship, Green Alliance, stated that “we have quite poor figures in general to do with resources and packaging placed on the market” and that:

   Part of the problem is that the information is provided by the producers themselves. There are a large number of producers that are not currently obligated under the producer responsibility scheme. The UK has the highest de minimis threshold under which people do not have to report their figures. It is 50 tonnes and a turnover of £2 million, which is the highest in Europe.\textsuperscript{31}

11. Nick Brown, Head of Sustainability, Coca Cola European Partners, pointed out that “while the current producer responsibility scheme obligates companies to report what they put on the market, they only have to report it at a reasonably high level, so ‘plastics’—you do not know what type of plastic it is or what type of application”.\textsuperscript{32}

12. The recent Government consultation on reforming the UK packaging producer responsibility system stated that “removing or lowering the de-minimis to bring every (or nearly every) producer in to scope could improve our understanding of the packaging that is placed on the market as the current complying producers do not account for 100% of all packaging”.\textsuperscript{33} However, it acknowledged that “there would be a proportionate increase in

\textsuperscript{24} British Plastics Federation (PPP0029), para 3
\textsuperscript{25} British Plastics Federation (PPP0029), para 3
\textsuperscript{26} Hackney Council (PPP0033), para 3.3
\textsuperscript{27} Environment, Food and Rural Affairs Committee, Eighth Report of Session 2016–17, Food waste in England, HC 429, para 70
\textsuperscript{28} WRAP (PPP0079), para 7
\textsuperscript{29} WRAP (PPP0079), para 7
\textsuperscript{30} PlasticFlow 2025: Plastic packaging flow data report, WRAP, August 2018, p 1
\textsuperscript{31} Q2
\textsuperscript{32} Q170
\textsuperscript{33} Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system, February 2019, p 38
Plastic food and drink packaging

compliance monitoring and enforcement costs”.34 The consultation document proposed two options: lower the current de-minimis threshold so that small and micro businesses, such as independent cafes, would still be excluded, or “retain the current de-minimis threshold and obligate wholesalers and direct-to-retail sellers of unfilled packaging” to pay “modulated fees or deposits on the unfilled packaging products (or own brand products) they sell to producers (i.e. brand owners, pack fillers) below the de-minimis threshold”.35 Dr Thérèse Coffey MP, then Parliamentary Under-Secretary of State for the Environment, considered that “we have a reasonable balance at the moment” but explained that the issue was still under consideration.36 The Government subsequently published a summary of consultation responses which stated that in response to questions on “whether the current de-minimis threshold should be removed, lowered or changed”, there was “no clear consensus”.37 The Government intends to carry out further research to improve its understanding of “the number of businesses that would be obligated if the point of compliance and/or the de-minimis was to change”, in order to understand “the costs and benefits of the different options”.38

**Recycling rate**

13. WRAP estimated that UK plastic packaging recycling rates were “between 43% and 47% for 2017”.39 Government statistics state that 46.2 per cent of plastic packaging waste was recycled or recovered (through “energy from waste”, a type of incineration) in 2017.40 The Minister confirmed this figure.41 However, recycling estimates are based on Packaging Recovery Notes (PRNs) and Packaging Export Recovery Notes (PERNs) which are sold by accredited reprocessors and exporters to packaging producers.42 Only obligated producers meeting the de minimis threshold (with a turnover of at least £2m and handling at least 50 tonnes of packaging per year) are required to obtain PRNs/PERNs to show that they meet an individual target.43 In its 2017 report on *Plastic bottles: Turning Back the Plastic Tide*, the Environmental Audit Committee recommended that the Government “lower the de minimis packaging handling threshold from 50 tonnes to 1 tonne” to “ensure that all businesses who handle a significant amount of packaging are obligated to recycle”.44 Libby Peake, Green Alliance, agreed with the one tonne threshold and acknowledged that it

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34 Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system, February 2019, p 38
35 Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system, February 2019, p 38
36 Q289
37 Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system: Summary of consultation responses and next steps, July 2019, p 11
38 Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system: Summary of consultation responses and next steps, July 2019, p 11
41 Qq283–285
would be “important to ascertain” the cost of doing so.\textsuperscript{45} She added that “other European countries have either no de minimis or very low de minimis” levels, so “it is possible to do that and to have producers still be viable”.\textsuperscript{46}

14. In 2018, the consultancy Eunomia published \textit{Plastic Packaging: Shedding Light on the UK Data}, which highlighted that “there are reasons to believe [that the amount being reported as recycled] may be an over-estimate” and that:

\begin{quote}
\begin{itemize}
\item in calculating the recycling rate for plastic packaging, the quantity reported as recycled often […] reflects measurement of waste which includes moisture and other contaminants. The material reported as ‘placed on the market’ is effectively reported when it is clean, dry and free from extraneous material and contaminants. This approach seems to be structurally inclined to over-estimate the recycling rate.\textsuperscript{47}
\end{itemize}
\end{quote}

15. An additional complication is that around 60 per cent of plastic packaging that is counted as recycled is exported abroad.\textsuperscript{48} However, “the proportion of what is exported that is actually recycled is not known”, and there have been reports suggesting that some is not recycled and is instead burned or discarded in landfill.\textsuperscript{49} As well as causing environmental problems abroad, the UK’s historical reliance on exports has also “resulted in a lack of infrastructure and investment in the UK”.\textsuperscript{50}

16. \textbf{In order to make evidence-based policies and assess their impact, the Government needs access to reliable data. It is shocking that it does not know how much plastic packaging is placed on market in the UK, nor how much is really recycled.}

17. \textbf{The current de minimis threshold that determines which businesses are obligated to report on how much packaging they produce is too high.} \textit{We consider that the current de minimis threshold should be lowered from 50 tonnes to one tonne, to enable more accurate data gathering on how much plastic packaging waste the UK produces and how much is recycled. This should ensure that small and microbusinesses are still exempted.}

18. \textbf{The UK recycling rate for plastic packaging is estimated to be around 46 per cent. However, because of the de minimis threshold, uncertainty over how much exported plastic waste is recycled and whether waste is weighed to take contamination into account, that figure is likely to be inaccurate.} \textit{The Government and WRAP should set out what the margin of error is for current and future plastic waste recycling statistics, taking these factors into account.}

\begin{itemize}
\item \textsuperscript{45} Q11
\item \textsuperscript{46} Q11
\item \textsuperscript{47} \textit{Plastic Packaging – Shedding Light on the UK Data}, Eunomia, 6 March 2018, Executive summary
\item \textsuperscript{48} Qq169–170 [Barry Turner]
\item \textsuperscript{49} \textit{Plastic Packaging – Shedding Light on the UK Data}, Eunomia, 6 March 2018, Executive summary; UK household plastics found in illegal dumps in Malaysia, Greenpeace, 21 October 2018
\item \textsuperscript{50} Q170 [Barry Turner]
\end{itemize}
3 Recycling

19. The waste hierarchy “ranks waste management options according to what is best for the environment”.\textsuperscript{51} It “gives top priority to preventing waste in the first place” and “when waste is created, it gives priority to preparing it for re-use, then recycling, then recovery, and last of all disposal”.\textsuperscript{52} Recycling is therefore lower in the hierarchy than prevention and reuse, but it has been the focus of recent industry and Government proposals to tackle plastic packaging. These initiatives are examined in this chapter, and we consider reduction and reuse in Chapter 4.

The UK Plastics Pact

20. In 2018, WRAP launched the UK Plastics Pact (the Pact) to facilitate a shift from a “linear plastics economy, where we take, make and dispose of plastic, and towards a circular system where we keep plastic in the economy and out of the natural environment”.\textsuperscript{53} The Pact is a coalition of “more than 120 businesses, governments, local authorities and organisations” and its business members “collectively make or sell 85% of the plastic packaging used in UK supermarkets”.\textsuperscript{54} The Pact has four targets, to be achieved by 2025:

a) Target 1: eliminate problematic or unnecessary single-use plastic packaging through redesign, innovation or alternative (re-use) delivery models;

b) Target 2: 100 per cent of plastic packaging to be reusable, recyclable or compostable;

c) Target 3: 70 per cent of plastic packaging effectively recycled or composted; and

d) Target 4: 30 per cent average recycled content across all plastic packaging.\textsuperscript{55}

In May 2019, WRAP published a progress report, highlighting actions taken against the Pact’s targets, including reduced use of unrecyclable black plastic by retailers and beverage companies exceeding the target to have 30 per cent average recycled content for PET bottles; in some cases, with 100 per cent recycled bottles.\textsuperscript{56}

21. However, despite this progress, the Pact attracted criticism. Keep Britain Tidy, a signatory to the Pact, stated that it had “been useful in developing further commitments”, but that “it doesn’t target all producers and retailers” and “it is voluntary in nature meaning that targets can be missed (as dictated by commercial and economic pressures)”.\textsuperscript{57} Most of the major grocery retailers are members of the UK Plastics Pact, but Iceland and the Co-op are not.\textsuperscript{58} Iceland has instead pledged to “remove plastic packaging from [its] own label range completely by 2023”.\textsuperscript{59} Stuart Lendrum, Head of Packaging for Iceland, explained that:

\textsuperscript{51} Department for Environment, Food and Rural Affairs, Guidance on applying the Waste Hierarchy, June 2011, p 3
\textsuperscript{52} Department for Environment, Food and Rural Affairs, Guidance on applying the Waste Hierarchy, June 2011, p 3
\textsuperscript{53} The UK Plastics Pact, WRAP, last accessed 2 September 2019
\textsuperscript{54} The UK Plastics Pact - Member progress report, WRAP, 21 May 2019
\textsuperscript{55} WRAP (the Waste & Resources Action Programme) (PPP0027), para 10
\textsuperscript{56} The UK Plastics Pact - Member progress report, WRAP, 21 May 2019
\textsuperscript{57} Keep Britain Tidy (PPP0022), para 1.2
\textsuperscript{58} The UK Plastics Pact members, WRAP, last accessed 2 September 2019
\textsuperscript{59} Plastic Free By 2023, Iceland, last accessed 2 September 2019
Our ambition goes really far beyond [the Plastics Pact], and for us it is not about recyclability of plastic. It is about what the alternatives are to plastic […] that is where we focus our attention, as opposed to on the Plastics Pact, which is focused on plastics.  

22. Defra stated that while it was “fully supportive” of the UK Plastics Pact, it recognised that “more needs to be done” and that “Government will continue to maintain the pressure for change and through regulatory changes to the packaging producer responsibility regime and will consider other policy measures where evidence indicates that this is necessary.”

**Government proposals**

**Extended producer responsibility (EPR)**

23. In early 2019, the Government consulted on its plans to reform the packaging waste regulations. The current producer responsibility system for packaging has been in place since 1997 and “the current system is in need of radical reform.” The consultation incorporated a wide range of issues, some of which, such as the de minimis threshold, are covered in other chapters. The key proposal, however, was for extended producer responsibility (EPR), a principle that “places responsibility on producers for the cost of managing their products once they reach end of life and gives producers an incentive to design their products to make it easier for them to be re-used or dismantled and recycled.” In short, the Government has proposed that “businesses will bear the full net cost of managing the packaging they handle or place on the market at end of life”. Subject to consultation, this “should include the cost of collection, recycling, disposal, the clear-up of littered and fly tipped packaging, and communications relating to recycling and tackling littering”. Defra stated that currently, “around 10% of costs are covered” at most. The majority of costs “are funded by local authorities, other public authorities and businesses who consume packaged goods” meaning that “producers have been able to put packaging on to the market without taking account of the true cost of managing it at the end of life.”

24. The principle of EPR was supported by the majority of those who responded to our inquiry, across all sectors. The Local Authority Recycling Advisory Committee (LARAC) stated that it had “the potential to fundamentally change how elements of local authority
waste services are funded”.69 The British Retail Consortium agreed that “not only would it mean retailers pay an appropriate charge for packaging to increase investment in recycling infrastructure, it would also incentivise best practice by charging retailers more for packaging which is harder to recycle”.70 However, some cautioned that it was not clear whether the proposals would effect the desired change, and Parkside Flexibles was concerned that “by placing the burden on the packaging producer, it completely removes the burden from the recycling industry to invest appropriately in commercially viable recycling schemes and absolves the consumer of any responsibility toward disposing of packaging appropriately”.71

25. **We support the Government’s proposals for extended producer responsibility so that producers pay the full net cost of managing packaging at end of life.**

26. The interaction of EPR ambitions with the proposed plastic packaging tax and Deposit Return Scheme (DRS), as well as moves to introduce consistency in recycling collection in England, are explored further below.

**Plastic packaging tax**

27. In 2018, the Government announced that “from April 2022 it would introduce a world-leading new tax on the production and import of plastic packaging with less than 30% recycled content, subject to consultation”.72 Defra explained that “the intention is to set the tax at a rate that provides a clear economic incentive for businesses to use recycled material in the production of plastic packaging”.73 It added that “this tax will complement reformed Packaging Producer Responsibility regulations [which] will encourage businesses to design and use plastic packaging that is easier to recycle”.74 Two significant concerns were raised during our inquiry: the exemption for filled imported packaging and the 30 per cent threshold.

28. The Government proposed that the tax “would apply to all plastic packaging manufactured in the UK and unfilled plastic packaging imported into the UK” because:

> There may be greater administrative costs associated with complying with the tax, if it applied to imported filled packaging. This is particularly true when the importer has no direct relationship with the packaging manufacturer, and when there are multiple manufacturers and businesses involved in the supply chain.75

Barry Turner from the British Plastics Federation highlighted that “we import 50% of the packaging we use in this country”.76 The Food and Drink Federation told us that “exempting pack/filled products […] could damage UK competitiveness”.77 Green Alliance

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69  LARAC (PPP0097), para 6
70  British Retail Consortium (PPP0042), para 6
71  The University of Sheffield, Grantham Centre for Sustainable Futures (PPP0011), para 5.1; Parkside Flexibles (PPP0003), para 5
72  Department for Environment, Food and Rural Affairs, Resource and Waste and Plastic Packaging Tax Consultations, 18 February 2019
73  Defra (PPP0006), para 5b
74  Defra (PPP0006), para 5b
75  HM Treasury, Plastic packaging tax: consultation, February 2019, para 1.9, para 6.14
76  Q172
77  Food and Drink Federation (PPP0040) para 31
stated that the exemption “represents a considerable loop hole that will lessen the tax’s environmental impact and disadvantage UK manufacturers” because it would incentivise businesses “to shift to production abroad to avoid paying the tax” and explained that:

Valpak and WRAP have suggested that, at the packing stage of the supply chain, filled imports account for 474 kilotonnes out of 1,898 kilotonnes of obligated packaging destined for the UK market (25 per cent of the total). Whilst there is uncertainty over data, not least because it does not account for non-obligated companies and free riders, it is safe to say that filled packaging already accounts for a substantial minority of plastic packaging in the UK market, and this would only be expected to increase if filled imports are exempt from the tax.

The Government acknowledged that most respondents to the consultation “disagreed with the government’s proposal not to include filled plastic packaging imports in scope of the tax.” The consultation response stated that “recognising that imported filled plastic packaging falls within the scope of the current Packaging Producer Responsibility system, the government could consider taxing imported filled plastic packaging if it could help to sustain a level playing field for UK manufacturers.” When we put this concern to the Minister, she responded:

I think that the responses to the consultation have been very informative […] it has been pointed out to it that there are many products that come into this country that would not be covered by the proposals, so I think Treasury will respond to that.

29. We are concerned that exemption for imported, filled packaging from the plastic packaging tax could encourage off-shoring of production, to the detriment of UK manufacturing. It would also undermine the environmental ambition of the tax to increase recycling. Imported, filled packaging should be subject to the plastic packaging tax.

30. The 30 per cent threshold for recycled content was supported by around a third of those who responded to the consultation as a “clearly defined and memorable stretch target that can be understood by consumers, converters and those through the supply chain.” Some respondents also thought that it was “helpful to use a target in the same range as the UK Plastics Pact and the EU Single-Use Plastics Directive.” Others considered that the threshold should be “more ambitious given that some brands and retailers have already pledged to reach an average of 30% recycled content across all their plastic packaging by 2025 through the UK Plastics Pact.” Policy Connect feared that the 30 per cent threshold “could potentially end up working as a cap” as there would be no incentive to go further.

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78 Free-riders are businesses that are obligated under the packaging producer responsibility regulations, but do not register and comply.
79 Green Alliance (PPP0009) para 5.3.1
80 HM Treasury, Plastic packaging tax: summary of responses to the consultation, July 2019, para 5.6
82 Qn349–350
83 HM Treasury, Plastic packaging tax: summary of responses to the consultation, July 2019, para 3.11
84 HM Treasury, Plastic packaging tax: summary of responses to the consultation, July 2019, para 3.11
85 HM Treasury, Plastic packaging tax: summary of responses to the consultation, July 2019, para 3.12
86 Policy Connect (PPP0041) para 25
31. Others considered the threshold too high for plastic packaging in contact with food, because currently there were few plastics available that met the strict regulatory requirements for food contact.\(^{87}\) According to the Grantham Centre for Sustainable Futures at the University of Sheffield, “only two types, PET and HDPE [as used in water/soft drink and milk bottles respectively], out of a range of plastic types used for packaging are currently available in recycled grades suitable for direct food contact”.\(^{88}\) The Food and Drink Federation (FDF) argued that “in most cases food and drink producers will be unable to avoid paying [the tax]” and that therefore “the tax risks having an impact on the price of food and drink for consumers”, in particular for “the least well off in society”.\(^{89}\) Just Eat, a marketplace for over 30,000 restaurants to provide takeaway food, stated that “given the size and independent nature of these restaurants” it was likely that the tax’s “knock-on effect on packaging pricing” would be “passed directly on to the consumer”.\(^{90}\)

32. The Minister was “conscious of the issues about food-grade plastic” and told us that “they are being very carefully considered”.\(^{91}\) Chris Preston, Deputy Director of Resources and Waste at Defra, explained that:

> There is a process in Europe, so people can get their plant certified to say, “Our processors are safe and the product that comes out the other end is safe for contact with food.” A number of UK companies have gone through that process and so are accredited to produce food-grade, safe recycled packaging content. Obviously, over time we would hope that more companies apply through that process, so that they can produce material that can help to meet the 30% recycled content.\(^{92}\)

33. Keep Britain Tidy considered that “the packaging tax should be modulated with lower fees for higher levels of recycled content above the proposed threshold of 30% recycled content”.\(^{93}\) A modulated fee system for packaging placed on the market was one of the Government’s proposals for reforming the packaging producer responsibility system, whereby producers would “pay more if their packaging cannot be recycled or is difficult to recycle and less if their packaging is readily recyclable”.\(^{94}\) With regards to the packaging producer responsibility consultation, the Minister stated that she was “minded to go for the modulated fee […] but that decision is still to be finalised”.\(^{95}\)

34. The Government has not proposed or consulted on the tax rate that would be applied to plastic packaging, and therefore it was difficult to determine how large an incentive there would be on producers to change behaviour.\(^{96}\)

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\(^{87}\) Legislation requires that packaging in contact with food must not transfer harmful or detrimental chemicals into food or drink, with the onus on food businesses to ensure the compliance of food packaging used; see The Food Standards Agency (PPP0092), para 21.

\(^{88}\) The University of Sheffield, Grantham Centre for Sustainable Futures (PPP0011), para 5.2.

\(^{89}\) Food and Drink Federation (PPP0040), para 29a.

\(^{90}\) Just Eat (PPP0024), para 5b.

\(^{91}\) Q352.

\(^{92}\) Q353.

\(^{93}\) Keep Britain Tidy (PPP0022), para 5.6.

\(^{94}\) Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system, February 2019, p 33.

\(^{95}\) Q291.

35. **Having a fixed 30 per cent threshold for the plastic packaging tax is too blunt an instrument.** In some cases, it is too low, considering that packaging such as PET bottles are already on market with a higher percentage of recycled content. With regards to food contact packaging, it is too high, given the regulatory limitations around using recycled plastics.

36. **Rather than having a fixed 30% threshold, the tax should be modulated, so that there are lower fees for higher levels of recycled content.** This would avoid the threshold acting as a cap, beyond which there is no incentive for using recycled plastic. Food contact packaging should be exempted from the tax for a period of 18 months to allow new materials that meet the necessary, strict food hygiene requirements to be approved for use.

**Consistency in recycling collections**

37. Currently, the materials collected for recycling and the approaches to collecting waste and recyclables from households and businesses vary across the UK and within each nation. In other words, what you can throw in your recycling bin depends on where you are. Defra stated that “while many local authorities continue to make improvements and have introduced new services some have seen a drop in recycling rates and do not collect the full range of materials that can be recycled”. As a result, “householders who want to recycle more are increasingly confused over what can and cannot be recycled in their area”. Defra has proposed that all local authorities could be required to collect a core set of dry recyclable materials, which would include “plastic bottles and plastic pots tubs and trays, glass packaging (bottles and jars), paper and card, and metal packaging. It could also include food and drink cartons”. In addition, the Government consulted on whether local authorities should offer separate, weekly food waste collections.

38. We found widespread support for increasing consistency. Hampshire County Council considered that “robust behavioural change campaigns are needed to encourage the public to recycle more” and that “consistent collections will assist greatly by providing clarity on what can be recycled and where”. A comment on our public web forum summarised the popular view that “recycling should be the same nationwide and not a lottery with some things recycled in one area but not others”. However, Dan Roberts, Vice Chair of LARAC, stated that “99% of councils in England collect paper, card, cans and plastic bottles; 88% collect glass; and 80% collect pots, tubs and trays”. He added that “there is a concern that local authorities offer some wildly different services, but 99% of councils collect four of the core materials already”.

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97 Department for Environment, Food and Rural Affairs, *Consultation on reforming the UK packaging producer responsibility system*, February 2019, p 44
98 Department for Environment, Food and Rural Affairs; *Consultation on consistency in household and business recycling collections in England*, February 2019, p 8
99 Department for Environment, Food and Rural Affairs; *Consultation on consistency in household and business recycling collections in England*, February 2019, p 8
100 Department for Environment, Food and Rural Affairs; *Consultation on consistency in household and business recycling collections in England*, February 2019, p 9
101 Department for Environment, Food and Rural Affairs; *Consultation on consistency in household and business recycling collections in England*, February 2019, p 9
102 Hampshire County Council (PPP0026), para 3.8
103 UK Parliament Discourse, *EPRA Committee*, last accessed 2 September 2019
104 Q241
105 Q251
39. Jacob Hayler, Executive Director of the Environmental Services Association (ESA), stated that “there are two aspects when it comes to collections: what you collect, which should be imposed from the centre, and how you collect it, on which councils need a certain degree of flexibility”. He explained that councils “do not need 300 different systems; they need about three. WRAP has designed a consistency framework with three different solutions, which should […] make it straightforward”.

Labelling

40. What local authorities collect for recycling has a direct influence on the recycling information provided on packaging and labels. WRAP’s Recycling Tracking Survey, an annual survey of UK households, “gathers evidence on consumers’ current attitudes, knowledge and behaviour in relation to recycling”. The 2018 survey found that “the key factor for contamination [of recycling] – recognised by almost half (46%) of UK households - relates to presuming that on-pack labels/guidance applies to their local collection”. Figure 1 shows some common symbols found on plastic food and drink packaging and what they mean.

Figure 1: Common symbols on plastic food and drink packaging

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="https://example.com/symbol1.png" alt="Symbol" /></td>
<td>The On-Pack Recycling Labels (OPRL) tell you whether you can recycle packaging in the UK. They are based on local councils' recycling collections and services.</td>
</tr>
<tr>
<td><img src="https://example.com/symbol2.png" alt="Symbol" /></td>
<td>The Mobius Loop is an international symbol that simply tells you that somewhere in the world it is possible to recycle the packaging material. If there’s a number in the centre this gives the recycled content of the packaging.</td>
</tr>
<tr>
<td><img src="https://example.com/symbol3.png" alt="Symbol" /></td>
<td>The Green Dot is not a recycling symbol. It’s used in some European countries to show that the producer has paid a tax towards recovering and recycling packaging.</td>
</tr>
<tr>
<td><img src="https://example.com/symbol4.png" alt="Symbol" /></td>
<td>The ‘Seedling’ is a European-wide label which tells consumers that the material is a bio-plastic which can be composted by industrial processors.</td>
</tr>
</tbody>
</table>

106 Q252
107 Q252
108 Recycling Tracking Survey 2018: Behaviours, attitudes and awareness around recycling, WRAP, June 2018, p5
109 Recycling Tracking Survey 2018: Behaviours, attitudes and awareness around recycling, WRAP, June 2018, p 9
110 OPRL: What is the Scheme?, OPRL, last accessed 2 September 2019
41. The British Retail Consortium stated that “currently the materials collected by local authorities varies meaning retailers cannot label products under the On-Pack Recycling Labelling (OPRL) scheme as always recycled [which] deters customers from recycling more”. The proper functioning of OPRL also requires packaging to be labelled correctly. A July 2019 investigation by the consumer group Which? assessed the recycling advice printed on 46 of the most popular own-brand items from the 11 major supermarkets. It found that “42% was labelled either incorrectly or not at all” and “all the supermarkets made mistakes in how they labelled products”. We asked Stuart Lendrum from Iceland why only 38 per cent of packaging samples from Iceland were correctly labelled. He stated that it was due to “the cyclical nature of updating labelling of products”, typically on a one to three year cycle creating a lag between the introduction of labelling updates and their implementation. Karen Graley, Packaging and Reprographics Manager at Waitrose, explained that “having 17,000 own-label lines, we do not update all those every year” and “we also would not want to create any further waste or write off those packaging goods because a label change takes place”.

42. We asked members of the public through a web forum whether it was easy to understand which plastics you can and can’t recycle. Responses included:

- “The symbols used to denote whether plastics are recyclable is very confusing and misleading. […] A clear and consistent system of labelling plastics is required.”
- “Despite the fact I am a compulsive recycler I find it such a drag trying to find the tiny triangle (with an even smaller number inside) [the Resin Identification Code] indicating whether the item is something that my local authority are currently recycling. It feels as if this vital information is hidden away on purpose it is so difficult to find.”
- “I think the problem is lack of standardisation at the council level. What we should have on packaging is labels saying ‘put it in the X bin’. Instead we get useless labels like ‘may be recycled where facilities exist’ [On Pack Recycling Label]. The whole system allows manufacturers to produce material that is technically recyclable, but in practice can be anything but.”

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111 Standard Practice for Coding Plastic Manufactured Articles for Resin Identification, ASTM International, last accessed 2 September 2019
112 Standard Practice for Coding Plastic Manufactured Articles for Resin Identification, ASTM International, last accessed 2 September 2019; OPRL: What is the Scheme?, OPRL, last accessed 2 September 2019
113 British Retail Consortium (PPP0042) para 9c
114 What are supermarkets doing to wrap up the plastic problem?, Which?, July 2019, p 17
115 What are supermarkets doing to wrap up the plastic problem?, Which?, July 2019, p 17
116 What are supermarkets doing to wrap up the plastic problem?, Which?, July 2019, p 17
117 Q133
118 Q137
119 UK Parliament Discourse, EFRA Committee, last accessed 2 September 2019
43. Through its proposed reforms to the UK packaging producer responsibility system, Defra has proposed “a mandatory UK-wide labelling scheme that provides clear information to help consumers to recycle.” Producers “would label their packaging as ‘Recyclable’ or ‘Not Recyclable’ (exact wording and messages would need to be determined), informed by […] the packaging that local authorities and waste management companies would be required to collect for recycling”. Dan Roberts stated that “LARAC supports a mandatory labelling system on packaging” and “would certainly support a binary ‘recyclable/not recyclable’ system.” Of those who responded to Defra’s consultation, 90 per cent agreed that “it should be mandatory for producers to label their packaging as Recyclable/Not Recyclable”.

44. Stuart Lendrum, Iceland, added that there was “still a lot of other information on-pack that purports to make claims about its recyclability but just causes confusion”. Our web forum highlighted that one such source of confusion was the Green Dot logo. It was pointed out that having the Green Dot on packaging “does not actually mean it is recyclable all of the time and it can contaminate whole batches of recycling waste”. LARAC supported “the removal of [other] recycling symbols as it is these are meaningless to residents and so have the potential to cause doubt in the public’s mind about what they can do with a piece of packaging”.

45. Defra’s consultation on reforming packaging producer responsibility, which ended in May 2019, stated that:

other on pack recycling labelling (such as Green Dot, Mobius Loop and labels specific to plastic, glass, steel and aluminium) risk undermining the effectiveness of a clear ‘Recyclable’ and ‘Not Recyclable’ labelling system. For instance, a piece of packaging may be labelled ‘Not Recyclable’ but also bear the Green Dot recycling symbol (as the product is also sold in Germany, for example). Government therefore intends to explore the extent to which the use of confusing or conflicting labelling relating to recyclability could be restricted.

However, in July the Minister stated that the Green Dot was “just a brand marketing sort of thing, on a European scale. I am not aware that we are planning to regulate or get rid

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120 UK Parliament Discourse, EFRA Committee, last accessed 2 September 2019
121 Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system, February 2019, p 57
122 Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system, February 2019, p 57
123 Q257
124 Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system: Summary of consultation responses and next steps, July 2019, p 77
125 Q89
126 UK Parliament Discourse, EFRA Committee, last accessed 2 September 2019
127 UK Parliament Discourse, EFRA Committee, last accessed 2 September 2019
128 LARAC (PPP0097), para 20
129 Department for Environment, Food and Rural Affairs, Consultation on reforming the UK packaging producer responsibility system, February 2019, p58
of it”. She added that the Government intended “to have a clear labelling system for recycling” but that “on all these other dots or logos all over the place, I am not sure that the Government need to get into that area”. She hoped that “the on-packaging labelling that is now part of that programme will make it much more straightforward to people” and that “manufacturers can then decide whether it is still worthwhile to put on that green dot”.

46. We support the introduction of consistency in recycling collections across England. The Government should allow local authorities to decide how recycling should be collected, but all should be required to collect an agreed core set of dry materials for recycling. This would aid the development of more consistent labelling for consumers.

47. The On-Pack Recycling Label (OPRL) scheme, while visually clear, is based on local recycling services. Inconsistencies in recycling collections make it impossible for plastic packaging to be labelled with accurate and useful information for consumers. As consistency in recycling collection is introduced, the Government should encourage the development of a binary labelling system whereby packaging is simply labelled either as recyclable or not recyclable.

48. Some symbols on plastic packaging misleadingly indicate recyclability, confusing consumers. While the Resin Identification Codes are used by recycling reprocessors, the Green Dot symbol serves no useful purpose for either consumers or the recycling industry in the UK. In addition, the Green Dot logo could be misinterpreted to indicate that the packaging is recyclable, thus leading to contamination of recycling. We recommend that the Green Dot should be removed from plastic packaging produced and placed on market in the UK.

Deposit return scheme

49. Between February and May 2019, Defra consulted on Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland. As well as boosting recycling levels, Defra anticipated that a DRS will help reduce the amount of littering, noting that “disposable drinks containers, or parts of them, regularly featuring among the most commonly found items on UK beaches”. A DRS would apply to drinks containers, and would “see a deposit added to the price of drinks in in-scope drinks containers at the point of purchase, which would be redeemed when consumers return their empty drinks containers to designated return points”. The consultation proposed that “in-scope” drinks containers could include “PET and HDPE plastic bottles, steel and aluminium...
cans, and glass bottles”. Milk and plant based alternatives were considered “an essential product which is only widely available in containers” and therefore those containers would not be included.

50. The Government consulted on two options for the DRS; “all-in” or “on-the-go”:

a) With an ‘all-in’ DRS, there would generally be “no restriction on the size of drinks containers in-scope”. The consultation document explained that “some groups argue that, for greatest behaviour change (litter reduction and increased recycling rates), participation in a DRS has to become the ‘norm’ for consumers regardless of where they consume the drink and regardless of the size/format of its drinks container”. Multipack containers would be included in an all-in DRS. Larger containers over a certain size that were excluded from a DRS (for example beer kegs or containers used for water coolers) would be included in a reformed packaging producer responsibility system. However, “one risk with this option is that valuable material would be removed from kerbside collections”.

b) An ‘on-the-go’ DRS would cover the same materials as the ‘all-in’ DRS option but would restrict the drinks containers in-scope to less than 750ml in size and would exclude multipack containers, to target those most often sold for consumption outside of the home (‘on-the-go’). This could also “minimise the potential impacts of a DRS on kerbside collections for recycling as people may more commonly dispose of drinks containers within this scope outside of their homes”. This option would therefore mean that consumers would dispose of different drinks containers in different ways. Larger containers, that are not subject to a deposit, would continue to be recycled through household recycling.

51. Some deposit return schemes are already in use. Stuart Lendrum told us that Iceland was “the first retailer to start trialling deposit return schemes” and that:

By the end of May/start of June this year, we will have taken back in over 750,000 plastic bottles, which is phenomenal. […] The customers have absolutely bought into it. […] It has settled down and become part of what people do. […] it really works. We are hugely supportive of deposit return.

In August, it was reported that since May 2018, Iceland had “collected more than one million plastic bottles from five stores”. Shoppers returning used plastic bottles receive a 10p voucher per bottle.

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136 Department for Environment, Food and Rural Affairs, Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland, February 2019, p 6
137 Department for Environment, Food and Rural Affairs, Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland, February 2019, p 6
138 Department for Environment, Food and Rural Affairs, Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland, February 2019, p 50
139 Department for Environment, Food and Rural Affairs, Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland, February 2019, p 51
140 Q106
141 Iceland banks over one million plastic bottles in a year of reverse vending, BusinessGreen, 27 August 2019
142 Iceland banks over one million plastic bottles in a year of reverse vending, BusinessGreen, 27 August 2019
52. LARAC was less welcoming, stating “that a Deposit Return Scheme for the UK should be deferred at this moment in time” as it would be appropriate to allow “potentially big changes” through EPR and introducing consistency “to be implemented and settle in”.143 Dan Roberts, LARAC, stated that “examples are given of the success of deposit return schemes abroad, but the UK has a mature kerbside recycling infrastructure, which many countries on the continent did not have”.144 With regards to “preventing waste in the first place”, he was concerned that a DRS “is effectively going to require a continual supply of material to satisfy the vast supply chain that is going to coalesce around this service”.145 LARAC was also concerned that a DRS would “adversely affect local authorities financially” through removal of recyclable material from kerbside collection.146

53. In contrast, Councillor Peter Fleming, Deputy Chairman of the Local Government Association (LGA) and Leader of Sevenoaks District Council, stated that an all-in DRS “is not a threat” to kerbside recycling and that:

if people were taking part in a deposit return scheme instead of putting things out to be recycled, there would be two ways of looking at that. In terms of the threat, it is a cost to local authorities anyway, so the less stuff there is in the waste stream, the better the bit we have to collect is. However, as was said, 99% of councils pick up plastics for recycling, so the plastic bottles that are not recycled tend to be the ones outside the household waste stream.147

54. On 16 July, the Rt Hon Michael Gove MP, then Secretary of State for Environment, Food and Rural Affairs, stated his belief that “an ‘all-in’ model will give consumers the greatest possible incentive to recycle”.148 We put the concerns we had heard about a DRS, particularly an all-in model, to the Minister who was “conscious that councils are worried” as “it is fair to say that the majority of what they can sell at the moment is PET bottles”.149 However, she added that:

We need to get more recycled. As it stands, kerbside recycling has plateaued, by and large. […] I have heard their concerns, but we believe that through the new EPR system, the amount of money going to local authorities for kerbside recycling will be significant and should not alarm them, in terms of what they are trying to achieve in recycling at the kerbside. […] I don’t think there is any threat [from an all-in DRS] to the sustainability of kerbside collections.150

55. The subsequently published summary of responses to the DRS consultation stated that “the majority (69%) of the 672 respondents […] preferred the ‘all-in’ option, compared with 15% who preferred an ‘on-the-go’ scheme”.151 The Government concluded that “based

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143 LARAC (PPP0097) para 9
144 Q268
145 Q268
146 LARAC (PPP0097), para 11
147 Q268
148 Michael Gove asks: If not now, when?, Wildlife and Countryside Link, July 2019
149 Q303
150 Q303–304
151 Department for Environment, Food and Rural Affairs, Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland: Executive summary and next steps, 22 August 2019, para 36
on the [...] strong support for the introduction of a DRS, we are minded to introduce a DRS for drinks containers in England and Wales”. 152 Acknowledging the support for an all-in model, the Government stated that:

As we develop the policy, we will consider which drinks containers are to be included. We anticipate this could be drinks containers up to 3L in volume but the final upper limit will be subject to the outcome of additional evidence and further stakeholder engagement. The specific details of a DRS, including the material and drinks to be included in scope, will be developed using further evidence and through ongoing engagement with stakeholders. 153

The Government will “seek general primary powers in the Environment Bill to introduce deposit return schemes”. 154 Following further evidence-gathering and consultation on the specific details, the Government aims to introduce a DRS from 2023. 155

56. The Government’s DRS consultation would apply to England, Wales and Northern Ireland. The Scottish Government “hopes to introduce legislation later this year “for a deposit return scheme” and “once this is passed by the Scottish Parliament, there will then be a minimum 12-month implementation period before the scheme is operational”. 156 The Scottish DRS would include “all drinks (both soft and alcoholic) that come in PET plastic, aluminium or steel cans and glass bottles” sized “from 50ml to three litres”. 157

57. We support the introduction of a Deposit Return Scheme (DRS) for drinks containers. It is likely to reduce littering which leads to pollution of the natural environment and would provide consumers with more choice over how to recycle. We acknowledge concerns that an all-in model for the DRS might be a threat to kerbside recycling. However, extending producer responsibility so that producers, rather than local authorities, are fully responsible for the cost of dealing with plastic waste would reduce the financial impact of a DRS on local authorities. The Government must monitor the financial impact on local authorities carefully.

58. A DRS scheme should ideally be applied consistently across the UK. The Government should ensure that it learns from and collaborates with the Scottish Government as it introduces a DRS in Scotland.

Overall Government strategy

59. The recent Government consultations examined above have focused predominantly on improving recycling. Hampshire County Council was “disappointed at the lack of emphasis on the role that waste prevention can play in avoiding the waste in the first
place”. Juliet Phillips, Ocean Campaigner at the Environmental Investigation Agency (EIA) agreed that “the gulf between the consumption of plastic and current recycling facilities, particularly in the UK”, meant that “much more focus is going to be needed on reduction and reuse”.159

60. The Minister explained that “the priority is still about preventing the creation of waste in the first place” but that legislation, via the imminent Environment Bill, would be required for “quite a lot of these things that we are considering doing” on recycling, while “measures on how we can reduce overall waste can still be taken forward” without legislation.160

61. In an attempt to boost domestic recycling and the recyclability of plastic packaging, the Government has consulted on a wide range of proposed measures. Many of the Government’s proposals, particularly introducing consistency in recycling collections and extending producer responsibility, are welcome and long overdue. However, it is disappointing that comparatively little emphasis has been placed, in recent Government consultations, on reducing plastic waste. Reduction and reuse are more important in the waste hierarchy than recycling. We focus on reduction of single use packaging in the final chapter.


4 Alternative materials

62. This chapter explores some of the alternative materials that can be used for food and drink applications, and whether they are better for the environment than conventional plastics.

Assessing environmental impacts

63. Earlier in this Report we highlighted the “Blue Planet” effect and public interest in marine plastic pollution. However, all materials have a range of environmental impacts. The Royal Society of Chemistry considered it “critical” to “consider the environmental impact of a packaging choice across all stages, from manufacture, transport and use, through to recycling and disposal”, adding that “many materials used as alternatives to plastic in packaging, such as cotton, glass, metal or bioplastics, can have significantly higher CO2 impact or water usage compared to plastic packaging”. WRAP added that “if we focus too heavily on a single type of impact (e.g. marine pollution), while neglecting others (e.g. carbon impact, impact on food waste), we risk making poor decisions which have unintended consequences”. Even though there is “a huge amount of public interest” in marine pollution, Peter Maddox from WRAP pointed out that “we know quite a bit about carbon, water impacts, energy and maybe recycling, but we are in a period where we are really trying to build up the knowledge base on marine pollution”. Juliet Philips, EIA, highlighted that “the production and manufacturing of plastic also comes with [other] problems” including “health and pollution costs all the way from extraction, when you are involved with the fossil fuel in production, right through to consumption, transport et cetera”. She added “you cannot just look at it once it becomes a piece of disposed plastic”.

64. Despite these concerns, Green Alliance stated that “some companies are already switching to alternatives including bio-based and compostable plastics, paper, cartons or other materials in ways that will not ultimately prove sustainable”. Libby Peake from Green Alliance stated that “you cannot have a wholesale switchover to bio-based plastics, to aluminium, to glass, or to paper, which all have environmental consequences themselves”. Sarah Greenwood, University of Sheffield Grantham Centre for Sustainable Futures, explained that “on average over food packaging”:

\[
\begin{align*}
\text{if you replaced plastic packaging with alternatives, you would increase the} \\
\text{weight of the packaging by 3.6 times. You would increase the energy use} \\
\text{by 2.2 times. You would increase your carbon dioxide emissions by 2.7%}. \\
\end{align*}
\]

Some companies are conscious of wider environmental impacts. For example, during our roundtable meeting with SMEs, we heard from Garçon Wines, a company that has

161 Royal Society of Chemistry (PPP0015) para 3i
162 WRAP (the Waste & Resources Action Programme) (PPP0027) para 6
163 Q32
164 Q32
165 Q32
166 Green Alliance (PPP0009), Summary
167 Q25
168 Qq12–13
developed PET “eco wine bottles” that require less energy to produce and are 87 per cent lighter than traditional glass bottles, thereby cutting carbon emissions associated with logistics and transport.169

65. Life Cycle Assessment (LCA) is a method for comparing the environmental impacts of providing, using and disposing of a product throughout its life cycle.170 In other words, LCA identifies “the material and energy usage, emissions and waste flows of a product” over its entire life cycle to determine its environmental performance.171 In August 2019, Green Alliance published an infographic, based on peer-reviewed literature, comparing the environmental impacts of plastic bottles to other materials.172 It demonstrated that aluminium, glass and cartons all have different environmental impacts and Green Alliance concluded that “refilling reusable bottles is the only low impact option”.173

Figure 2: The impacts of single use vs refillable containers (Red = high, amber = medium, green = low)174

66. UK Research and Innovation (UKRI) stated that “there is little reliable, science-based information on which manufacturers and retailers can base decisions to permanently switch into alternative materials or novel, less environmentally harmful plastics and/or methods of product delivery”.175 UKRI added that it had “consulted with industry from across the plastic packaging supply chain” and that “a consistent message has been that this information deficit is preventing action or in some cases leading to action with inadvertently worse environmental outcomes”.176

67. All food and drink packaging, whether plastic or another material, has an environmental impact. There is a lot of emphasis on plastic waste and pollution, but other impacts such as carbon emissions must also be considered when determining which materials are most suitable for particular applications. In some cases, plastic may be the most suitable material, if waste is properly managed. A lifecycle approach

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169 Sustainability, Garçon Wines, last accessed September 2019; Annex A
172 Losing the bottle Why we don’t need single use containers for water, Green Alliance, August 2019
173 Losing the bottle Why we don’t need single use containers for water, Green Alliance, August 2019, p 4
174 Losing the bottle Why we don’t need single use containers for water, Green Alliance, August 2019, p 4
175 UK Research and Innovation (UKRI) (PPP0016), para 7
176 UK Research and Innovation (UKRI) (PPP0016), para 7
is necessary to ensure that when producers and retailers are considering packaging materials, they are informed about the wider environmental impacts. The Waste and Resources Action Programme (WRAP) should conduct a study that compares the environmental impacts of common food and drink packaging materials using a lifecycle approach. The study should review existing research, including on the environmental impacts of production, transportation, and waste management. Rather than pinpointing which materials should be used, this study should present evidence that retailers and consumers can use when making choices.

**Biodegradable and compostable plastics**

68. Biodegradable and compostable plastics, although not widespread, are becoming more commonplace. We were therefore interested in these alternatives to conventional plastics.

69. All plastics are made from either fossil-based or bio-based materials. Bio-based plastics are made using polymers derived from plant sources, such as starch, cellulose, oils and lignin. Either source can be used to make non-biodegradable, biodegradable and compostable plastics; the material used “does not necessarily dictate the way [the plastic] will behave at the end of its life e.g. a bio-based plastic or bioplastic does not automatically mean it will biodegrade”. Biodegradable plastics are those that “can be broken down by microorganisms (bacteria or fungi) into water, naturally occurring gases like carbon dioxide (CO2) and methane (CH4) and biomass”.

70. Compostable plastics are a subset of biodegradable plastics, that degrade in specific conditions. The Environmental Services Association (ESA) considered compostable packaging to be “particularly suited to food packaging where in theory the compostable product can go in the food waste bin without having to be cleaned (unlike for dry recycling)”. The Bio-Based and Biodegradable Industries Association (BBIA) considered that “compostable materials are an answer to specific packaging challenges and could substitute around 5–8% of current plastic packaging”. It considered that “compostables do not have a role to play where plastics can be easily recycled – water, juice and milk bottles, pallet shrink wrap, long shelf life products etc”. Instead, it suggested that “compostability is the most practical solution”:

   a) where food contamination prevents recycling or reuse, for example, tea bags; labels on fruit/vegetables; food prep gloves; disposable plates, bowls, napkins, sandwich boxes, hot and cold drinks cups and lids; and condiment sauce sachets;

   b) “where the item is too small or otherwise impractical for mechanical recycling”: for example, sweet wrappers;

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177 Understanding plastic packaging and the language we use to describe it, WRAP, last accessed September 2019, p 2
178 Understanding plastic packaging and the language we use to describe it, WRAP, last accessed September 2019, p 3
179 Understanding plastic packaging and the language we use to describe it, WRAP, last accessed September 2019, p 2
180 Understanding plastic packaging and the language we use to describe it, WRAP, last accessed September 2019, p 9
181 Environmental Services Association (PPP0012), para 10
182 BBIA (BIO-BASED AND BIODEGRADABLE INDUSTRIES ASSOCIATION) (PPP0007) para 4.2
183 BBIA (BIO-BASED AND BIODEGRADABLE INDUSTRIES ASSOCIATION) (PPP0007) para 5.2
c) Where the product can be “used or reused as a food waste caddy liner”: for example, carrier bags, bin liners and bags for packed fresh produce.\(^{184}\)

**Composting standards**

71. There are two types of compostable plastics: “industrially” compostable plastics that only compost in specific industrial conditions; and “home” compostable plastics that should break down in domestic composting systems.\(^{185}\) Our inquiry focused on industrially compostable plastics.

72. Industrial composting conditions require “elevated temperature (55–60°C) combined with a high relative humidity and the presence of oxygen”.\(^{186}\) In order to demonstrate that they are compostable, these plastics must adhere to the standard BS EN 13432 and pass tests relating to disintegration and the chemical composition of the product.\(^{187}\) Then the packaging is awarded a “unique packaging product certification number” and allowed to use the compostable “seedling” logo (see Figure 1 in the previous chapter).\(^{188}\) Futamura highlighted that this regulatory requirement caused a “cost disadvantage”.\(^{189}\) This matter was also raised during the roundtable session we held.\(^{190}\)

73. Richard Kirkman, Chief Technology & Innovation Officer, Veolia UK & Ireland, suggested that “standards are set for what is truly biodegradable and under what conditions” and then “you can label materials as passing that standard, and then we [waste management companies] can manage them”.\(^{191}\) In July 2019, Defra launched a call for evidence on *Standards for biodegradable, compostable and bio-based plastics*.\(^{192}\) The consultation, which closes in October 2019, seeks views on the suitability of “existing industrial and home composting standards”, whether a home composting standard would be desirable and the “potential unintended consequences [that] could arise as a result of a growth in use of compostable plastics”.\(^{193}\)

**Consumer awareness and waste collection**

74. Producers aside, we heard little support for compostable packaging. Sarah Greenwood, University of Sheffield, explained that “there is a perception with compostable packaging that it turns into compost” but “it does not”.\(^{194}\) It turns into “carbon dioxide, water or methane” with “a tiny amount of biomass left behind”.\(^{195}\) She likened the process to “a very,
very slow version of burning it”. Juliet Phillips, EIA, stated that “if a biodegradable cup gets into the sea, it could pose just as much of a problem to marine life as a conventional plastic cup”. Green Alliance was concerned about evidence that “people are more likely to discard material described as ‘biodegradable’ in the environment, which would make pollution on land and at sea even worse”. Keep Britain Tidy was concerned that “switching to compostables for coffee cups and other packaging” were “ill thought through” moves, since “the BS EN 13432 standard for composting requires industrial composting and yet many compostables used by consumers may not make it into these schemes and will end up in home composting or contaminating normal recycling streams”.

75. ESA highlighted that “there are a number of barriers to ensuring compostables work effectively with the waste management system and actually offer an environmental benefit”. Industrially compostable packaging should be “sent to an In-Vessel Composting facility (IVC)”. However, the Government’s “preferred option for treating food waste is AD [anaerobic digestion], meaning that the infrastructure portfolio will move increasingly in that direction and away from IVC”. Compostable packaging “is not currently processed by Anaerobic Digestion (AD) plants, and so operators will seek to extract it as they do with plastic contamination, and send it to Energy from Waste [a type of incineration] or landfill”. ESA stated that compostables are therefore “likely to cause confusion to consumers” because:

Depending on local infrastructure, consumers will need to be told to dispose of their compostable packaging with food waste only if it is sent to IVC. If their food waste is sent to AD it should go in the residual bin. This may be a perceived backwards step for consumers who would otherwise recycle the plastic alternative or may lead to contamination of dry recycling.

76. Keep Britain Tidy concluded that “the drive to introduce bioplastics, biodegradable plastics and compostable plastics is being done with limited emphasis on explaining the purpose of these materials to the public or consideration of whether they are in fact better from an environmental perspective than the plastic packaging they replace”. Peter Maddox from WRAP was “disappointed with the way the biodegradable and compostable plastics have been discussed across the sector” and added that he “would encourage the industry to really think about end of life, about how it integrates with the existing system, because it could create some difficult consequences”.

77. Vegware, a compostable packaging manufacturer, stated that “where suitable composting is not possible, we advise people to put our products in general waste”. Vegware stated that “the benefits of choosing lower carbon, renewable, recycled or reclaimed materials apply no matter what happens to them after use” and stated that

196 Q64
197 Q68
198 Green Alliance (PPP0009), para 3.1.2
199 Keep Britain Tidy (PPP0022) para 1.3.4
200 Environmental Services Association (PPP0012), para 11
201 Environmental Services Association (PPP0012), para 12
202 Environmental Services Association (PPP0012), para 12
203 Environmental Services Association (PPP0012), para 12
204 Environmental Services Association (PPP0012), para 13
205 Keep Britain Tidy (PPP0022), para 3.2
206 Q72
207 Vegware (PPP0014), para 3.4.7
Plastic food and drink packaging

studies showed that incineration of their products “produces more heat than newspaper, wood or food waste”, which is beneficial when producing energy from waste, and that “it produces no volatile gases and leaves little residue”. It added that “in landfill, studies show that compostable packaging is inert and does not give off methane”.209

78. We asked Andy Sweetman, Chair of the BBIA and Marketing Manager for Futamura, how contamination of recycling by compostable packaging could be alleviated. He emphasised that “we need consistency across the country and simple labelling so the consumer simply knows, ‘That is a conventional plastic and I do this with it. That is a bio material or food waste and I do that with it’”. Then, “we need a joined-up approach in terms of the actual composting and organic recycling infrastructure”. He suggested that:

in the UK we are very strongly down the anaerobic digestion route only or composting. The model is to link the two together, to combine AD with traditional in-vessel composting, as is done in The Maltings in Selby in the UK. Both systems are put together, which means you get the energetic value from the waste and the food waste, and then you get the secondary soil remediation benefit from the composting phase.212

79. Richard Kirkman, Chief Technology & Innovation Officer at Veolia UK & Ireland, agreed that consistent labelling was required. However he considered that compostable packaging “doesn’t really fit the existing infrastructure, so we just need to be a bit cautious”.214

80. The Minister stated that Defra had also “been cautious” about biodegradable and compostable packaging and was “concerned that a lot is being sold as compostable, but it still depends on what your local council does with it”. In its consultation on consistency in recycling collections, Defra stated that:

Appropriate treatment infrastructure would […] need to be in place before we considered adding compostable plastics to the core list of materials to be collected for recycling. Until this point, it may be necessary for consumers to be advised [to] put this type of packaging in the residual waste bin.216

Closed loop systems

81. As outlined above, industrially compostable packaging must be collected and processed separately to other packaging waste. Compostable packaging is used in some closed loop systems, where it is distributed and collected on-site, for example sporting events, festivals and workplaces with catering facilities, including the Parliamentary

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208 Vegware (PPP0014), para 3.4.7
209 Vegware (PPP0014), para 3.4.7
210 Q180
211 Q183
212 Q183
213 Q269
214 Q270
215 Q311
216 Department for Environment, Food and Rural Affairs; Consultation on consistency in household and business recycling collections in England, February 2019, p 23
Plastic food and drink packaging

estate (which is supplied with compostable packaging by Vegware). Peter Maddox from WRAP stated that “there are some instances where [compostables] are particularly good […] where you have a closed system and you can control what goes in and out”, such as during the Olympics. However, a lack of consumer awareness can still cause contamination of waste streams in these systems.

82. Vegware stated that “composting facilities have a very low tolerance for contamination” and that when its clients implemented a composting scheme, keeping contamination to a minimum could “sometimes be a challenge”. Vegware explained that “many client sites achieve this correct bin choice behaviour, but it can often be a challenge requiring extra staff training, posters, and troubleshooting”. Vegware has also “put considerable time and investment since 2012 into creating a network of trade waste collections for our products, going to suitable composting facilities or anaerobic digestion plants with a composting phase”. As a result, “suitable trade waste collections are available in around 1,200 postcode districts – amounting to 38% of the UK’s 3,114 postcode districts”. Vegware has also recently launched its own composting collection service.

83. Although industrially compostable plastic packaging is appealing as an alternative to conventional plastics, the general waste management infrastructure to manage it is not yet fit for purpose. In addition, we are concerned that consumers are confused about how to dispose of compostable packaging, particularly if there is no dedicated compostable waste bin available. This could result in contamination of dry recycling as well as littering. We therefore don’t support a general increase in the use of industrially compostable packaging at this stage. It can, however, play a role in closed loop environments, such as sporting events and workplaces with catering facilities, where there is a dedicated disposal and collection service. This must be accompanied by robust communication to avoid contamination of recycling.

217 Q70; UK Parliament to dramatically reduce plastic use through new compostable products, UK Parliament, last accessed 2 September 2019; The University of Sheffield, Grantham Centre for Sustainable Futures (PPP0011), para 2.3
218 Q72
219 Footprint Investigation: Parliament burnt by compostable pledge, Footprint, 7 July 2019
220 Vegware (PPP0014), para 2.2
221 Vegware (PPP0014), para 2.2
222 Vegware (PPP0014), para 5.a.2
223 Vegware (PPP0014), para 5.a.2
224 Close the Loop: Solutions for composting Vegware and food waste, Vegware, last accessed 2 September 2019
5 Reducing plastic packaging

84. In Chapter 1, we expressed our disappointment that the Government had placed comparatively little emphasis on reducing plastic, compared to recycling. This chapter explores ways of reducing the amount of plastic packaging we use, other than by substitution with other materials.

What does reduction mean?

85. The UK Plastics Pact (see para 20) includes targets to “eliminate problematic or unnecessary single-use plastic packaging through redesign, innovation or alternative (re-use) delivery models” and for “100 per cent of plastic packaging to be reusable, recyclable or compostable” by 2025. WRAP’s 2019 progress report on the Pact highlighted examples of actions taken towards these targets, including that “Sainsbury’s, Tesco, Waitrose, M&S and Morrisons are trialling the removal of plastic packaging across a number of produce lines, to understand where plastic can be removed without impacting food waste”.

86. Keep Britain Tidy stated that “the [UK Plastics Pact] target of 100% for re-use and recycling is likely to favour recycling over re-use” and added that the aim to eliminate unnecessary packaging was not supported by a specific target. Therefore, creating and using packaging would remain the status quo, rather than the “exploration of packaging free solutions”. Unpackaged Innovations Ltd, which provides retail and consultancy services tackling packaging, stated that “everything points to reuse, yet all of the focus to date is on recycling - because that allows business (retailers, manufacturers, consumers) to carry on with business as usual - over producing, over selling and over consuming”.

87. The Wildlife and Countryside Link (WCL) coalition was concerned that manufacturers, producers and retailers had “largely focused on light-weighting rather than unit-based reductions”. In other words, because data on plastic packaging is measured by weight, it is possible to reduce the weight of packaging produced by using lighter materials rather than reducing packaging units overall. WCL was concerned that “if a company achieved its target by reducing the weight of plastic items but did not actually reduce the quantity sold, the number of items leaking into the natural environment may not actually decrease.” Barry Turner, British Plastics Federation (BPF), defended light-weighting by stating that:

The waste hierarchy obviously starts with focusing on reduction. That is one of the ways you reduce—by lightweighting. […] That is the start of the journey.

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225 UK Plastics Pact, WRAP, last accessed 2 September 2019
226 The UK Plastics Pact - Member progress report, WRAP, 21 May 2019
227 Keep Britain Tidy (PPP0022), para 2.1
228 Keep Britain Tidy (PPP0022), para 2.1
229 Unpackaged Innovation Ltd (PPP0038), para 4
230 Wildlife and Countryside Link (PPP0023), para 1.5
231 Wildlife and Countryside Link (PPP0023), para 1.5
232 Q165
Packaging free solutions

88. Reusable and refillable containers are becoming more commonplace, for example, reusable cups for hot beverages.233 The Environmental Investigation Agency (EIA) stated that there was “a new wave of plastic-free and zero waste shops – rising to approximately 200 stores in the UK” which showcased “the feasibility of […] alternative product delivery models”.234 These included “simple reusable solutions” that “have long existed”, such as “water and soft drinks dispensers in store, reusable bags for produce, loose ranges of fruit and vegetables, refillable containers and dispensers for items such as shampoos, dried goods and household cleaning products”.235

89. Unpackaged Innovation Ltd stated that “we don’t give consumers enough credit for their ability to change” and highlighted the “change in behaviour with reusable plastic bags, the drop was 85%+ within the first year showing consumers are more than happy to change their behaviour”.236 It suggested that “the barrier is the fact that no-one wants to question our consumerist culture that means we sell and buy too much, no one wants to tell consumers that they can’t have exactly the product they want, in the moment that they want it”.237 Peter Maddox, WRAP, also highlighted the issue of consumer choice in relation to plastic water bottles, stating that “not everybody wants to carry a reusable bottle around with them”.238 He posed the question: “are we going to enforce a certain way of life on [consumers/citizens] or are we going to give them the choice?” 239

90. In 2019, Waitrose & Partners experimented with an unpacked trial at one of its stores.240 Termed “Waitrose Unpacked”, the trial meant the store had “the largest number of loose fruit and vegetable lines of any national supermarket, […] removed plastic wrap from its flowers and indoor plants and […] launched refillable options for everything from wine to beer and cereals to coffees as well as cleaning products”.241 As well as bringing their own containers, consumers were able to “borrow a box” for purchases.242 Karen Graley, Packaging and Reprographics Manager at Waitrose, explained that in a four week period, “50% of our customers are already reusing packaging, so they are bringing back their own containers already”.243 She explained that “some are reusing maybe ice cream tubs or a butter carton as well, so they are being quite creative […] As long as it is anything that is resealable, the customers are at liberty to bring those in and refill them”.244 The trial ended in August 2019 and “after an overwhelmingly positive response”, Waitrose plans to extend the trial to two more stores.245

91. Karen Graley stated that in all Waitrose stores, customers “could bring in their own vessels to purchase from the counter or the delicatessen, whether that be meat, fish or cheeses” so long as “those containers were clean and had a lid to stay on”.246 However, she
stated that “we did not publicise that greatly, because we wanted to give customers the choice.”\textsuperscript{247} A 2018 report by the EIA and Greenpeace found that only four of the major supermarkets offered customers options to use refillable containers.\textsuperscript{248} In Morrisons, Tesco, Waitrose and Sainsbury’s, “customers can use their own reusable containers for certain products bought over the counter, such as meat and fish.”\textsuperscript{249} Four supermarkets, Aldi, Lidl, Asda and M&S, “reported scoping work under way.”\textsuperscript{250}

92. One concern around customers bringing their own packaging is health and safety. WCL suggested that “this could be addressed through the establishment of industry standards for refillable containers to mitigate the risk of contamination and address concerns of liability”.\textsuperscript{251} Karen Graley told us that “should a container not look clean, we would offer to rinse or wash that container for the customer”.\textsuperscript{252} On the potential for cross contamination of foods with allergens, she stated that:

we have over 200 items that we are selling loose in that one store for this [Waitrose Unpacked] trial. We have specifically selected those products so that there is no risk of contamination or allergen, so there are no peanuts or anything like that at the moment. That is a greater challenge for us as we look to scale that.\textsuperscript{253}

93. WRAP suggested that “we definitely need to move towards how we can think more about reuse and going packaging free, but in ways that are supportive of the lifestyles we’ve evolved do, such as with women working.”\textsuperscript{254} One of the schemes discussed at our producer roundtable was Loop, which would allow consumers to buy products online, which would be delivered in re-usable containers that would then be collected from consumers’ homes by Loop, cleaned and refilled.\textsuperscript{255} The system has been described as “based on the old milk delivery model”.\textsuperscript{256} Terracycle, which will operate Loop, told us that for “moving consumption from single use/disposable to reuse/refillable like our new Loop platform”, to be successful “the change needs to be simple and easily accessible for consumers and for there to be a wide variety of choice”.\textsuperscript{257} In the UK, Loop will be piloted in September 2019, in collaboration with Tesco.\textsuperscript{258}

94. The EIA called for “the adoption of long-term Government strategies and targets to incentivize a significant reduction in single-use packaging and shift to reusable and refillable alternatives”.\textsuperscript{259} We asked the Minister what the Government was doing to encourage a behavioural shift away from single-use food and drink packaging, and she responded:

\begin{itemize}
\item \textsuperscript{247} Q93
\item \textsuperscript{248} Checking out on plastics: A survey of UK supermarkets’ plastic habits, Environmental Investigation Agency and Greenpeace, p 13
\item \textsuperscript{249} Checking out on plastics: A survey of UK supermarkets’ plastic habits, Environmental Investigation Agency and Greenpeace, p 13
\item \textsuperscript{250} Checking out on plastics: A survey of UK supermarkets’ plastic habits, Environmental Investigation Agency and Greenpeace, p 13
\item \textsuperscript{251} Wildlife and Countryside Link (PPP0023), para 2.7
\item \textsuperscript{252} Q116
\item \textsuperscript{253} Q118
\item \textsuperscript{254} Zero-waste stores aren’t always better for the environment, Wired, 15 July 2019
\item \textsuperscript{255} TerraCycle unveils ‘Loop’ shopping platform, Let’s Recycle, 24 January 2019; Annex A
\item \textsuperscript{256} The University of Sheffield, Grantham Centre for Sustainable Futures (PPP0011), para 1.5
\item \textsuperscript{257} TerraCycle (PPP0034), p 1
\item \textsuperscript{258} TerraCycle unveils ‘Loop’ shopping platform, Let’s Recycle, 24 January 2019
\item \textsuperscript{259} Environmental Investigation Agency (PPP0018), p 1
\end{itemize}
We have been working closely with other European countries on the single-use plastics directive. That has now been passed, and we now have just under two years to start the transposition. Those sorts of things include polystyrene packaging [...] plastic plates and plastic cutlery. We had already signalled that we were going to do some of that stuff, and we were getting on with it. We are now going to go through the whole process of trying to, in effect, regulate them out.260

95. Previous examples of the Government regulating out plastics include a “ban on the supply of plastic straws, drinks stirrers and cotton buds” from April 2020 and a 2018 ban on the manufacture of products containing microbeads.261 The Government introduced the 5p charge on plastic carrier bags in 2015.262 ESA also highlighted that retailers had introduced incentives for reusable coffee cups.263 However, such actions can have undesired consequences. For example, the restaurant chain McDonald’s, which uses 1.8 million straws a day in the UK, has switched from recyclable plastic straws to unrecyclable paper straws.264 Research by the Environment Agency in 2006 found that a paper bag would need to be reused at least three times to make it more environmentally friendly (in terms of global warming potential) than a single use plastic bag and a cotton bag would need to be reused 131 times.265

96. Reduction is the most important way to reduce waste, and greater efforts need to be put into this. A fundamental shift away from all single use food and drink packaging, plastic or otherwise, is vital for the future protection of the environment.

97. In its response to this Report, the Government should explain how it intends to transpose the EU Single Use Plastics Directive, or to ensure an equivalent or better alternative. The Government should clarify how it intends to ensure that banning single use plastics doesn’t lead to worse overall environmental outcomes, particularly with regards to carbon emissions.

98. Government and retailer initiatives to reduce the use of plastic products, have encouraged consumers towards alternatives such as reusable carrier bags and refillable drinks containers. However, these are relatively small-scale changes compared to the consumer behavioural shift that would be required to use reusable containers for grocery food and drink purchases. We are pleased that unpacked and “zero waste” options are becoming increasingly available to consumers, including online delivery models. However, these changes are unlikely to enable a revolution in the way most consumers shop unless they are widely available.

99. The Government and WRAP should conduct a review of reusable and refillable packaging systems for food and drink to determine what works and where Government intervention might be appropriate to encourage retailers to offer refillable options, and

260 Q293
261 Gove takes action to ban plastic straws, stirrers, and cotton buds, Department for Environment, Food and Rural Affairs, 22 May 2019; World-leading microbeads ban takes effect, Department for Environment, Food and Rural Affairs, 9 January 2018
262 Plastic bag sales in ‘big seven’ supermarkets down 86% since 5p charge, Department for Environment, Food and Rural Affairs, 27 July 2018
263 Environmental Services Association (PPP0012), para 4
264 McDonald’s paper straws cannot be recycled, BBC News, 5 August 2019
consumers to use them. This should include an assessment of the environmental impact of reusable packaging, such as how many times items would need to be reused before they became more beneficial than single use packaging. It should also consider how to manage food hygiene and potential cross contamination of food containing allergens.

Parliament

100. As highlighted in the previous chapter, Parliament has introduced compostable packaging in its catering facilities. This suffered a difficult start, with a significant amount of compostable packaging initially sent to landfill due to contamination. Charges on single use cups for hot drinks have also been introduced, to encourage reusable options. A recent Freedom of Information (FoI) request found that the House of Commons had purchased more than 600,000 single use plastic bottles, cups and coffee cups in the last financial year, down from over a million in 2016. Parliament’s Restoration and Renewal Programme, which is anticipated to start in the mid-2020s, provides a significant opportunity to further improve its environmental performance.

101. Parliament has taken steps towards reducing plastic packaging on the Estate but needs to continue to lead by example in the removal of single use packaging, regardless of material. Both Houses of Parliament should consider how they can remove the remaining single use packaging from catering facilities on the Parliamentary Estate and enable customers to bring their own containers for takeaway food. We suggest that the Restoration and Renewal programme provides an opportunity to implement any infrastructure changes that may be necessary to enable this.

266 Footprint Investigation: Parliament burnt by compostable pledge, Footprint, 7 July 2019
267 Footprint Investigation: Parliament burnt by compostable pledge, Footprint, 7 July 2019; House of Commons bought 600,000 single-use plastic bottles, cups and coffee cups in last year, The Telegraph, 9 August 2019
268 Restoration and Renewal: the journey, Houses of Parliament Restoration and Renewal, last accessed 2 September 2019
Conclusions and recommendations

Introduction

1. In order to make evidence-based policies and assess their impact, the Government needs access to reliable data. It is shocking that it does not know how much plastic packaging is placed on market in the UK, nor how much is really recycled. (Paragraph 17)

2. The current de minimis threshold that determines which businesses are obligated to report on how much packaging they produce is too high. We consider that the current de minimis threshold should be lowered from 50 tonnes to one tonne, to enable more accurate data gathering on how much plastic packaging waste the UK produces and how much is recycled. This should ensure that small and microbusinesses are still exempted. (Paragraph 18)

3. The UK recycling rate for plastic packaging is estimated to be around 46 per cent. However, because of the de minimis threshold, uncertainty over how much exported plastic waste is recycled and whether waste is weighed to take contamination into account, that figure is likely to be inaccurate. The Government and WRAP should set out what the margin of error is for current and future plastic waste recycling statistics, taking these factors into account. (Paragraph 19)

Recycling

4. We support the Government’s proposals for extended producer responsibility so that producers pay the full net cost of managing packaging at end of life. (Paragraph 26)

5. We are concerned that exemption for imported, filled packaging from the plastic packaging tax could encourage off-shoring of production, to the detriment of UK manufacturing. It would also undermine the environmental ambition of the tax to increase recycling. Imported, filled packaging should be subject to the plastic packaging tax. (Paragraph 30)

6. Having a fixed 30 per cent threshold for the plastic packaging tax is too blunt an instrument. In some cases, it is too low, considering that packaging such as PET bottles are already on market with a higher percentage of recycled content. With regards to food contact packaging, it is too high, given the regulatory limitations around using recycled plastics. (Paragraph 36)

7. Rather than having a fixed 30% threshold, the tax should be modulated, so that there are lower fees for higher levels of recycled content. This would avoid the threshold acting as a cap, beyond which there is no incentive for using recycled plastic. Food contact packaging should be exempted from the tax for a period of 18 months to allow new materials that meet the necessary, strict food hygiene requirements to be approved for use. (Paragraph 37)

8. We support the introduction of consistency in recycling collections across England. The Government should allow local authorities to decide how recycling should be
collected, but all should be required to collect an agreed core set of dry materials for recycling. This would aid the development of more consistent labelling for consumers. (Paragraph 47)

9. The On-Pack Recycling Label (OPRL) scheme, while visually clear, is based on local recycling services. Inconsistencies in recycling collections make it impossible for plastic packaging to be labelled with accurate and useful information for consumers. As consistency in recycling collection is introduced, the Government should encourage the development of a binary labelling system whereby packaging is simply labelled either as recyclable or not recyclable. (Paragraph 48)

10. Some symbols on plastic packaging misleadingly indicate recyclability, confusing consumers. While the Resin Identification Codes are used by recycling reprocessors, the Green Dot symbol serves no useful purpose for either consumers or the recycling industry in the UK. In addition, the Green Dot logo could be misinterpreted to indicate that the packaging is recyclable, thus leading to contamination of recycling. We recommend that the Green Dot should be removed from plastic packaging produced and placed on market in the UK. (Paragraph 49)

11. We support the introduction of a Deposit Return Scheme (DRS) for drinks containers. It is likely to reduce littering which leads to pollution of the natural environment and would provide consumers with more choice over how to recycle. We acknowledge concerns that an all-in model for the DRS might be a threat to kerbside recycling. However, extending producer responsibility so that producers, rather than local authorities, are fully responsible for the cost of dealing with plastic waste would reduce the financial impact of a DRS on local authorities. The Government must monitor the financial impact on local authorities carefully. (Paragraph 58)

12. A DRS scheme should ideally be applied consistently across the UK. The Government should ensure that it learns from and collaborates with the Scottish Government as it introduces a DRS in Scotland. The Government should ensure that it learns from and collaborates with the Scottish Government as it introduces a DRS in Scotland. (Paragraph 59)

13. In an attempt to boost domestic recycling and the recyclability of plastic packaging, the Government has consulted on a wide range of proposed measures. Many of the Government’s proposals, particularly introducing consistency in recycling collections and extending producer responsibility, are welcome and long overdue. However, it is disappointing that comparatively little emphasis has been placed, in recent Government consultations, on reducing plastic waste. Reduction and reuse are more important in the waste hierarchy than recycling. (Paragraph 62)

**Alternative materials**

14. All food and drink packaging, whether plastic or another material, has an environmental impact. There is a lot of emphasis on plastic waste and pollution, but other impacts such as carbon emissions must also be considered when determining which materials are most suitable for particular applications. In some cases, plastic may be the most suitable material, if waste is properly managed. A lifecycle approach is necessary to ensure that when producers and retailers are considering
packaging materials, they are informed about the wider environmental impacts. The Waste and Resources Action Programme (WRAP) should conduct a study that compares the environmental impacts of common food and drink packaging materials using a lifecycle approach. The study should review existing research, including on the environmental impacts of production, transportation, and waste management. Rather than pinpointing which materials should be used, this study should present evidence that retailers and consumers can use when making choices. (Paragraph 68)

15. Although industrially compostable plastic packaging is appealing as an alternative to conventional plastics, the general waste management infrastructure to manage it is not yet fit for purpose. In addition, we are concerned that consumers are confused about how to dispose of compostable packaging, particularly if there is no dedicated compostable waste bin available. This could result in contamination of dry recycling as well as littering. We therefore don’t support a general increase in the use of industrially compostable packaging at this stage. It can, however, play a role in closed loop environments, such as sporting events and workplaces with catering facilities, where there is a dedicated disposal and collection service. This must be accompanied by robust communication to avoid contamination of recycling. (Paragraph 84)

Reducing plastic packaging

16. Reduction is the most important way to reduce waste, and greater efforts need to be put into this. A fundamental shift away from all single use food and drink packaging, plastic or otherwise, is vital for the future protection of the environment. (Paragraph 97)

17. In its response to this Report, the Government should explain how it intends to transpose the EU Single Use Plastics Directive, or to ensure an equivalent or better alternative. The Government should clarify how it intends to ensure that banning single use plastics doesn’t lead to worse overall environmental outcomes, particularly with regards to carbon emissions. (Paragraph 98)

18. Government and retailer initiatives to reduce the use of plastic products, have encouraged consumers towards alternatives such as reusable carrier bags and refillable drinks containers. However, these are relatively small-scale changes compared to the consumer behavioural shift that would be required to use reusable containers for grocery food and drink purchases. We are pleased that unpacked and “zero waste” options are becoming increasingly available to consumers, including online delivery models. However, these changes are unlikely to enable a revolution in the way most consumers shop unless they are widely available. (Paragraph 99)

19. The Government and WRAP should conduct a review of reusable and refillable packaging systems for food and drink to determine what works and where Government intervention might be appropriate to encourage retailers to offer refillable options, and consumers to use them. This should include an assessment of the environmental impact of reusable packaging, such as how many times items would need to be reused before they became more beneficial than single use packaging. It should also consider how to manage food hygiene and potential cross contamination of food containing allergens. (Paragraph 100)
20. Parliament has taken steps towards reducing plastic packaging on the Estate but needs to continue to lead by example in the removal of single use packaging, regardless of material. Both Houses of Parliament should consider how they can remove the remaining single use packaging from catering facilities on the Parliamentary Estate and enable customers to bring their own containers for takeaway food. We suggest that the Restoration and Renewal programme provides an opportunity to implement any infrastructure changes that may be necessary to enable this. (Paragraph 102)
Annex 1: SME roundtable

Roundtable meeting held on Tuesday 18 June, with the following participants:

<table>
<thead>
<tr>
<th>Company</th>
<th>Committee Member</th>
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<tr>
<td>Garçon Wines</td>
<td>Neil Parish MP (Chair)</td>
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<tr>
<td>Loop - TerraCycle</td>
<td>Sheryll Murray</td>
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<tr>
<td>Parkside Flexibles</td>
<td>David Simpson</td>
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<tr>
<td>Skipping Rocks Lab</td>
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<td>The Beeswax Wrap Company</td>
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<td>Vegware</td>
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<td>Planglow</td>
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Note of discussion

Compostable packaging

- Companies developing compostable packaging have to invest in compostability testing, which is around EUR 14,000 per product. Certification for one company was around EUR 20,000 a year with food safety certification around EUR 5000 a year. Another company had spent around £10,000 getting certification for four products. This bureaucracy was seen as a hindrance that was difficult for SMEs to manage. These costs do not apply to companies selling other plastics, such as polystyrene cups.

- It was suggested that the Government should help with some of these costs. Universities can do testing, but not certification.

- One compostable packaging company noted that it had spent around EUR 14,000 on Packaging Recovery Notes (PRNs) and expected that figure to increase. This was a frustrating mismatch as it all went towards mechanical recycling, not compostable infrastructure.

- There was little awareness of the Green Investment Bank.

- The standard BS EN 13432 on “Requirements for packaging recoverable through composting and biodegradation” could be more rigorous. Some ecotoxicity tests will approve products that break down into microplastics. There is a range of biodegradability rates and many consumers do not understand the differences. There are no checks and balances from the Government regarding what it means to biodegrade.

- There are several composting facilities in the UK (17 facilities accept Vegware products, for example). Some compost is provided to farmers. The key is trying to make composting work within our existing infrastructure.

- There are not enough anaerobic digestors in the UK to meet consumer demand. The Government’s waste strategy supports wet anaerobic digestion (AD) but not...
• in-vessel composting (IVC), which is necessary for better quality compost. This will cause IVC facilities to close down in the UK. This is already happening in Wales. The Government promotes and subsidises AD, but composting facilities can't compete. There is a compelling argument for composting to be a standard part of the AD sector.

• Home compostable packaging can go into food waste bins.

• We need to decide whether we want to export our waste to Malaysia or process it in the UK to benefit sectors such as agriculture.

**Alternative materials**

• For many alternative materials to plastic, it is expensive to wrap food at scale (for example a bag of lettuce is too expensive to wrap in beeswax). Beeswax is also not recognised as an alternative material that can contain food safely.

• Plastic is more scalable: small communities might get by without plastic packaging, but cities need plastic.

• Retailers tend to see plastics alternatives as a publicity stunt than a commercially viable alternative.

**Reuse and recycling**

• There is little focus on reusable packaging. Terracycle is developing Loop, a system whereby consumers pay a deposit for packaging (e.g. ice cream tubs), which are picked up by Loop for cleaning and refilling once the consumer has finished the product. The packaging is co-designed with the food brands using existing materials such as glass and aluminium.

• The first phase of Loop will be online, followed by online delivery in collaboration with Tesco. The final phase would be to have Loop containers in supermarkets. Supermarkets offering “unpacked” food require customers to refill their containers themselves, whereas Loop will offer prefilled packaging on the shelf for consumers to swap with their empty containers.

• Customers like to know where packaging is going and that it can be recycled.

• Inconsistency of waste collections for recycling is a big problem. DEFRA has recently consulted on this. Different councils accept different materials and consumers are confused. The Government’s assumption that compostables should not be collected as a core material is concerning. It would close down an exciting avenue for the future and would stop innovation.

• A large proportion of waste is not collected and ends up in the environment. This is not addressed in the biodegradability standard.

• Almost anything can be recycled, but it comes down to economic feasibility. Glass is easier to recycle than plastic and can be recycled more times (on top of reusability). At five uses, glass bottles can save 50% of environmental impact compared to plastics.
• There is a challenge around recycling plastics, sorting of plastics, and contaminating the recycling process.
• Why aren’t large companies running more deposit return schemes?

Takeaway and on-the-go food
• Grab and go packaging maintains freshness and extends shelf life. For restaurants, the cost of buying in sandwiches is low so most outsource it.
• Skipping Rocks Lab is trying to replace plastics where they are only needed for short-term use, for example takeaway food.
• Food trays may only be filled for 30 mins in the takeaway sector. Such packaging is over-engineered, likely to end up in landfill and littered. We should still have branding but not have plastic.

Proposed plastic packaging tax
• One suggestion was that some plastics should be taxed to provide investment for the development of alternative materials. The tax could be used to fund innovation.
• Biodegradable plastics are currently within the scope of the tax. However, it is challenging to include recycled material in biodegradable packaging. The tax is designed to encourage recycled PET (r-PET) but risks penalising the bio sector. Biodegradable materials are already at a premium, with additional costs as outlined above. Exempting them from the tax would make it more commercially viable.
• The tax isn’t clear in relation to packaging where plastic is not a significant component, for example ketchup sachets made from polylaminate films. Packaging with low plastic content might still be unrecyclable.
• There is no levy on on-the-go packaging.
• One proposal is that packaging with over 30% bio-based content should attract a lower rate of tax, but would need more money on certification, leading to more cost for business.
• Recycling for PET plastic will be a growth industry.

Consumer behaviour
• The problem is that new products need to be created to solve consumer habits. There is little/no emphasis on changing consumer habits.
• There should be better public communication about what plastic is, and the different types of plastic.
• It’s important to engage young people about recycling – they often educate their parents.
• Plastic helps to extend shelf life. Packaging does play an important part in preventing food waste. Do we need to return to having seasonal foods instead?

• There needs to be better communication of government initiatives (for example, the carrier bag tax).

• Local authorities have different rules, which makes it difficult to achieve the education piece.

• A key message for consumers should be around reduction; “don’t use plastic when you don’t need it”.

• How much responsibility should supermarkets take? Supermarkets have affected local communities and increased the use of plastic, by replacing local retailers. Consumers are forced to buy plastic packaging because of the increasing difficulty in buying locally.

• There needs to be a partnership approach between government, consumers and retailers.

**Funding and innovation**

• The problem for SMEs is access to funding. They experience problems with cashflow and not enough money being presented upfront.

• Huge support comes from the EU as part of Gloucestershire’s growth hub.

• Access to funding is too slow. Innovate UK’s timings do not support business needs.

• Should larger companies invest more? Larger companies should be responsible for the waste they produce.

**Environmental impact**

• It might be useful to frame the discussion within the wider context of the challenge of climate change vs plastic packaging.

• We need standardised lifecycle analysis.

• We need to add value to waste.
## Glossary of acronyms

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<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>25YEP</td>
<td>25 Year Environment Plan</td>
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<tr>
<td>AD</td>
<td>Anaerobic Digestion</td>
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<tr>
<td>BBIA</td>
<td>Bio-Based and Biodegradable Industries Association</td>
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<tr>
<td>BPF</td>
<td>British Plastics Federation</td>
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<tr>
<td>CH4</td>
<td>methane</td>
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<tr>
<td>CO2</td>
<td>carbon dioxide</td>
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<tr>
<td>Defra</td>
<td>Department for Environment, Food and Rural Affairs</td>
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<td>DRS</td>
<td>Deposit Return Scheme</td>
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<td>EIA</td>
<td>Environmental Investigation Agency</td>
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<tr>
<td>EPR</td>
<td>extended producer responsibility</td>
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<td>ESA</td>
<td>Environmental Services Association</td>
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<td>FDF</td>
<td>Food and Drink Federation</td>
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<td>FoI</td>
<td>Freedom of Information</td>
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<td>HDPE</td>
<td>high density polyethylene</td>
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<td>IVC</td>
<td>In-Vessel Composting</td>
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<td>LARAC</td>
<td>Local Authority Recycling Advisory Committee</td>
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<td>LCA</td>
<td>Life Cycle Assessment</td>
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<td>LDPE</td>
<td>low density polyethylene</td>
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<td>LGA</td>
<td>Local Government Association</td>
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<td>OPRL</td>
<td>On-Pack Recycling Label</td>
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<td>PERN</td>
<td>Packaging Export Recovery Note</td>
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<tr>
<td>PET</td>
<td>polyethylene terephthalate</td>
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<tr>
<td>PP</td>
<td>polypropylene</td>
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<tr>
<td>PRN</td>
<td>Packaging Recovery Note</td>
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<td>PS</td>
<td>polystyrene</td>
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<tr>
<td>PVC</td>
<td>polyvinyl chloride</td>
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<tr>
<td>RIC</td>
<td>Resin Identification Code</td>
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<tr>
<td>r-PET</td>
<td>recycled polyethylene terephthalate</td>
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</table>
SME  small and medium enterprise(s)
WRAP  Waste and Resources Action Programme
UKRI  UK Research and Innovation
UNEP  United Nations Environment Programme
WCL  Wildlife and Countryside Link
Formal minutes

Monday 9 September 2019

Members present:

Neil Parish, in the Chair

Alan Brown
John Grogan
Dr Caroline Johnson
Kerry McCarthy

Mrs Sheryll Murray
David Simpson
Angela Smith

Draft Report (Plastic food and drink packaging) proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 101 read and agreed to.

Figures 1 and 2 agreed to.

Summary agreed to.

Annex agreed to.

Glossary agreed to.

Resolved, That the Report be the Sixteenth Report of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Wednesday 16 October at 9.15 a.m.]
Witnesses

The following witnesses gave evidence. Transcripts can be viewed on the inquiry publications page of the Committee’s website.

Tuesday 14 May 2019

Sarah Greenwood, Packaging Consultant, The University of Sheffield, Grantham Centre for Sustainable Futures, Peter Maddox, Director, WRAP UK, Libby Peake, senior policy adviser on resource stewardship, Green Alliance, and Juliet Phillips, Ocean Campaigner, Environmental Investigation Agency, Wildlife and Countryside Link

Wednesday 3 July 2019

Karen Graley, Packaging and Reprographics Manager, Waitrose, Stuart Lendrum, Head of Packaging, Iceland, and Robin Clark, Director of Business Partnerships, Just Eat

Andy Sweetman, Marketing Manager, Packaging & Sustainability, Biobased and Biogradable Industries Association, Barry Turner, Plastic & Flexible Packaging Group Manager, British Plastics Federation, and Nick Brown, Head of Sustainability, Coca Cola European Partners

Wednesday 17 July 2019

Dan Roberts, Vice Chair, Local Authority Recycling Advisory Committee (LARAC), Jacob Hayler, Executive Director, Environmental Services Association, Richard Kirkman, Chief Technology & Innovation Officer, Veolia UK & Ireland, and Councillor Peter Fleming, Deputy Chairman, Local Government Association and Leader of Sevenoaks District Council

Dr Thérèse Coffey MP, Parliamentary Under Secretary of State for the Environment, and Chris Preston, Deputy Director Resources and Waste, Department for Environment, Food and Rural Affairs

Q1–71

Q72–152

Q153–204

Q205–281

Q282–356
Published written evidence

The following written evidence was received and can be viewed on the inquiry publications page of the Committee’s website.

PPP numbers are generated by the evidence processing system and so may not be complete.

1. A Plastic Planet (PPP0025)
2. Ahmad, Mr Edward (PPP0076)
3. Barkus, Chris (PPP0048)
4. Barth, Mrs Julia (PPP0075)
5. BBIA (BIO-BASED AND BIODEGRADABLE INDUSTRIES ASSOCIATION) (PPP0007)
6. Benders Paper Cups (PPP0010)
7. Biome Technologies plc (PPP0013)
8. BRITA UK (PPP0019)
9. British Beer & Pub Association (PPP0032)
10. British Plastics Federation (PPP0029)
11. British Plastics Foundation (PPP0091)
12. British Retail Consortium (PPP0042)
13. Cadman, Mr Marcus (PPP0055)
14. City of London Corporation (PPP0031)
15. Clifton, Barney (PPP0066)
16. Coca-Cola European Partners GB (PPP0005)
17. Critchley, Mr Ian (PPP0059)
18. Crossland, Mr Keith (PPP0077)
19. Da Gama, Dr Lilly (PPP0028)
20. Dairy UK (PPP0020)
21. Defra (PPP0006)
22. Dewhurst, Mr Richard (PPP0060)
23. Dora, Professor Manoj (PPP0068)
24. Elliott, Miss Eliza (PPP0071)
25. Environmental Investigation Agency (PPP0018)
26. Environmental Services Association (PPP0012)
27. Estill, Mr Ewen (PPP0080)
28. Everett, Mr Shaun (PPP0057)
29. Fisher, Miss Melanie (PPP0001)
30. Fitzgerald, Miss Karen (PPP0056)
31. Food and Drink Federation (PPP0040)
32. The Food Standards Agency (PPP0092)
33. Futamura UK Ltd (PPP0017)
34 Gordon, Mrs Christine (PPP0089)
35 Grabowska, Ms Nadja (PPP0058)
36 Green Alliance (PPP0009)
37 Hackney Council (PPP0033)
38 Hampshire County Council (PPP0026)
39 Harrogate Spring Water (PPP0047)
40 Jones, Miss Courtney (PPP0081)
41 Just Eat (PPP0024)
42 Keep Britain Tidy (PPP0022)
43 Kinneir-Chai, Stella (PPP0062)
44 Kulkarni Frary, Ms Kavita (PPP0044)
45 Langford, Deborah (PPP0085)
46 Lee, Miriam (PPP0061)
47 Lovelock, Owen (PPP0072)
48 Mahon, Holly (PPP0082)
49 Martin, Mr Daniel (PPP0067)
50 McGrath, Euan (PPP0054)
51 Morrisons (PPP0088)
52 Multivac UK Ltd (PPP0004)
53 Nakayama Kunitaka (PPP0093)
54 Paper Cup Alliance (PPP0035)
55 Parkside Flexibles (PPP0003)
56 Perry, Dennis (PPP0069)
57 Plenderleith, Bex (PPP0049)
58 Policy Connect (PPP0041)
59 Potato Processors’ Association Ltd (PPP0037)
60 Purves, Dr Ross (PPP0052)
61 Pybus, Mr David (PPP0002)
62 Reynolds, Dr Christian (PPP0030)
63 Royal Society of Chemistry (PPP0015)
64 Sainsbury’s (PPP0045)
65 Skipping Rocks Lab (PPP0090)
66 Starbucks (PPP0046)
67 Stevens, Mr John (PPP0070)
68 TerraCycle (PPP0034)
69 Tuckwood, Alan (PPP0084)
70 UK Research and Innovation (UKRI) (PPP0016)
71 University of Nottingham (PPP0021)
Plastic food and drink packaging

72 The University of Sheffield, Grantham Centre for Sustainable Futures (PPP0011)
73 Unpackaged Innovation Ltd (PPP0038)
74 Vegware (PPP0014)
75 Venton, Steve (PPP0050)
76 Veolia (PPP0039)
77 Vidal, Mr Michael (PPP0043)
78 Webster, Kirsten (PPP0063)
79 Wildlife and Countryside Link (PPP0023)
80 Worton, Mrs Filippa (PPP0051)
81 WRAP (PPP0079)
82 WRAP (the Waste & Resources Action Programme) (PPP0027)
83 Wright, Martin (PPP0064)
84 Young, Mr Alan (PPP0078)
### List of Reports from the Committee during the current Parliament

All publications from the Committee are available on the publications page of the Committee’s website.

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