



BRIEFING PAPER

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Plastic waste

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Contents:

1. Statistics on plastic waste
2. The environmental problems of plastic waste
3. The benefits of plastic packaging
4. Legal framework for dealing with waste
5. Overarching Government strategies on waste and resources
6. Next steps: Government proposals on plastic waste
7. Environment, Food and Rural Affairs Committee scrutiny
8. EU initiatives
9. Other plastics initiatives
10. Plastic in the marine environment
11. Other plastics issues
12. What are other countries doing to tackle plastic waste?



Contents

Summary	3
1. Statistics on plastic waste	5
2. The environmental problems of plastic waste	9
3. The benefits of plastic packaging	11
4. Legal framework for dealing with waste	13
4.1 EU Waste Framework Directive	13
4.2 Waste management hierarchy	13
4.3 EU Packaging Directive	14
5. Overarching Government strategies on waste and resources	20
6. Next steps: Government proposals on plastic waste	22
6.1 A “plastic packaging tax”	22
6.2 Packaging producer responsibility reform	24
6.3 Disposable cups levy	24
6.4 Proposed ban on single-use plastic	27
6.5 Deposit return scheme for drinks containers	30
6.6 Consistency in household recycling	34
6.7 Single use carrier bags charge	35
6.8 Funding to reduce plastic waste	37
7. Environment, Food and Rural Affairs Committee scrutiny	40
8. EU initiatives	41
8.1 EU Circular Economy Package	41
8.2 The European Green Deal	43
9. Other plastics initiatives	45
9.1 The Plastics Pact	45
9.2 Plastics Industry Recycling Action Plan	45
9.3 The UK Circular Plastics Network (UKCPN)	45
9.4 Personal food containers	46
9.5 Changing plastic packaging	46
10. Plastic in the marine environment	47
10.1 Domestic policies to tackle marine plastic waste	49
Microfibres/plastics	51
10.2 International cooperation	52
10.3 Other marine plastic initiatives	56
11. Other plastics issues	57
11.1 Overseas export bans on plastic waste	57
11.2 Export of plastic waste requirements: Basel Convention amendment	59
11.3 Unrecyclable plastics	59
11.4 Terminology and standards: bioplastics, biodegradable and compostable plastic	61
12. What are other countries doing to tackle plastic waste?	64

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Summary

The scale of plastic in the UK

In the UK it is [estimated](#) that five million tonnes of plastic is used every year, nearly half of which is packaging. The UK Government publishes regular statistics on the amount of plastic packaging produced and on its final treatment, although some of these statistics have been questioned for their accuracy both by the National Audit Office and WWF-UK.

Environmental problems and benefits

[Plastic waste](#) often does not decompose and can last centuries in landfill, or else end up as litter in the natural environment, which in turn can pollute soils, rivers and oceans, and harm the creatures that inhabit them.

Single use plastic does have a [number of benefits](#). These include contributing to food safety and hygiene and reducing packaging weight in transit and thereby reducing energy and emissions that would be generated by using alternative materials.

Other plastics issues

Local authorities have been affected by a number of issues related to plastic waste. This includes a ban by China on accepting certain types of plastic waste. Local authorities have had to find alternative end destinations for plastic waste, which has in turn increased their costs. It is often difficult for local authorities to find recycling solutions for certain types of black plastic and low-grade plastic.

In July 2018 the not-for-profit resources organisation, WRAP, published a guide, [Understanding plastic packaging and the language we use to describe it](#), setting out some of the terminology problems of describing plastic. In particular, the guide explains how names given to plastics do not necessarily dictate the way the plastic will behave at the end of its life, for example that the term “bioplastic” does not automatically mean it will biodegrade. On 22 July 2019 the Government published [Standards for biodegradable, compostable and bio-based plastics: call for evidence](#) to inform better its understanding in this area.

EU strategy for plastics

At EU level there is a European Strategy for Plastics in a Circular Economy. This includes a recently agreed Single Use Plastic Directive which, when transposed in 2021, will ban specified items of single use plastic. In December 2019 the European Commission published a European “[Green Deal](#)”. A [new circular economy action plan](#) will be produced, to include further action on plastics.

UK Government ambitions and targets

The [UK Government](#) under Prime Minister May had a strategic ambition to “...work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025.” This follows on from and is intended to support [commitments](#) to leave the environment in a better condition for the next generation and, in particular:

- an “ambition” of zero avoidable waste by 2050
- a “target” of eliminating avoidable plastic waste by end of 2042.

Government proposals for change

The UK Government's December 2018 [Resources and Waste Strategy](#) contained a number of policies aimed at reducing plastic waste. A suite of consultations then followed in February 2019 which provided more detailed information on a number of proposals:

- [Consultation on reforming the UK packaging producer responsibility system](#);
- [Plastic packaging tax: consultation](#);
- [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland](#); and
- [Consultation on Consistency in Household and Business Recycling Collections in England](#).

Some of these policies and proposals are UK-wide (such as the packaging producer responsibility system and plastic packaging tax), whereas for others separate consultation has been undertaken by the devolved Governments – for example for the deposit return scheme in Scotland. This briefing paper explains further which proposals stem from which Government. Government responses to these consultations were published in July 2019.

Proposals on a deposit return scheme, consistency in recycling and reform of the extended producer responsibility systems are now included in the [Environment Bill 2019-20](#).

Following a [consultation exercise](#) in October 2018, the Government has laid [draft regulations](#) before Parliament, to ban the sale of plastic straws, cotton buds and stirrers, subject to certain exemptions.

Previous UK Governments have also signed-up-to many international agreements aimed at reducing plastic in the marine environment. An example of this is the [Commonwealth Clean Oceans Alliance](#).

Voluntary initiatives

There are a number of initiatives aimed at changing the way that plastics are designed, produced, used, re-used, disposed of and reprocessed by all stakeholders in the plastics chain. Examples of these include:

- the "Plastics Pact", a collaboration of businesses, which has set a target to eliminate unnecessary single-use plastic packaging, for all plastic packaging to be re-usable, recyclable or compostable and for 70% to be recycled or composted by 2025.
- The "Plastics Industry Recycling Action Plan" (PIRAP), an industry action plan which includes: increased collection of recyclable plastics; improved sorting; and developing end markets for recycled plastics.
- The "UK Circular Plastics Network" (UKCPN), which aims to bring together plastic product users through a programme of networking and knowledge-sharing events.

Supermarkets and retailers also have many initiatives aimed at reducing plastic packaging, having plastic-free aisles and allowing customers to use their own packaging containers.

1. Statistics on plastic waste

Box 1: WRAP Plastics Market Situation Report 2019

The not-for-profit-organisation, the Waste and Resources Action Programme (WRAP) produced an updated [Plastics Market Situation Report](#) in October 2019. This report provides in-depth information on economic, market and regulatory trends affecting the capture and recycling of plastics in the UK.

How much plastic does the UK produce?

The latest estimates for the UK are for 2016 and cover all producing sectors, not just household waste. In that year an estimated 1.53 million tonnes of plastic waste were reported. This was up by 24% since 2010 and 13% since 2014. The service sector¹ was the largest single contributor with 53%. Households contributed just over 8%. These data are based on waste streams that are categorised as 'plastics wastes'(only) and exclude the plastic content of other mixed waste streams such as the general 'Households and similar wastes' stream.²

The coverage of UK data on plastic waste has been questioned by some organisations. A report for WWF calculated that total plastic waste generation in the UK in 2014 was around 4.9 million tonnes and could increase to around 6.3 million tonnes by 2030.³ Plastic packaging made up two-thirds of plastic waste in 2014 (3.3 million tonnes).

What happens to plastic waste?

In 2016, 91% of plastic waste (in this stream only) which was sent to treatment went to 'recycling and other recovery' and 9% to landfill. The amount of plastic waste going to landfill fell from 122,400 tonnes in 2012 to 53,400 tonnes in 2016.⁴

Again, the coverage of this data has been questioned. The WWF-UK report calculated recycling rates for single use plastics, based on the amount of waste produced, not just the share going to 'treatment' of any kind (landfill, recycling, incineration etc.). They estimated recycling rates of 29% for 2018 and projected a rate of 37% for 2030 based on estimates of all plastic waste. Estimated landfill rates in 2018 were 48% with 22% going to energy recovery.⁵

¹ Includes all retail, transport, public administration, arts, education and health services

² [UK statistics on waste 2019 update, Defra](#) (Table 5.2)

³ WWF, [A Plastic Future – Plastics Consumption and Waste Management in the UK March 2018](#)

⁴ [UK statistics on waste 2019 update, Defra](#) (Table 5.4)

⁵ Eunomia (commissioned by WWF), [A Plastic Future – Plastics Consumption and Waste Management in the UK](#), March 2018

Plastic packaging waste

UK

Official estimates of the UK's plastic packaging waste recycling rate are given opposite. The recycling/ recovery rate has increased in each year and are now more than double the minimum target of 22.5%.⁶

The data on the amount of packaging waste produced are industry estimates. Alternative estimates of plastic waste recycling use higher figures for the amount produced.

PLASTIC PACKAGING WASTE IN THE UK				
million tonnes				
	Produced	Recovered or recycled	% recycled/ recovered	
2012	2.55	0.64	25.2%	
2013	2.26	0.71	31.6%	
2014	2.22	0.84	37.9%	
2015	2.26	0.89	39.4%	
2016	2.26	1.02	44.9%	
2017	2.26	1.04	46.2%	

Source: [UK statistics on waste - February 2019 update](#)

A report by environmental consultants, Eunomia, estimated that the actual volume produced was around 3.5 million tonnes in 2015 with a possible range of 3.1-3.9 million tonnes. Their central estimate is more than 50% above the figure used in the Government statistics for 2015-2017. Around two-thirds of this waste is collected by local authorities, mainly from households. Their calculation includes an estimate of plastics in the general household waste stream. With this highest estimate of waste produced the resulting recycling rate falls to 23-29% in 2015.⁷

A 2018 report by the National Audit Office also questioned the Government's data on packaging waste. It said:

However, the Department's estimates of packaging recycling rates are not sufficiently robust. The Department does not adjust its figures to account for undetected fraud and error. In order to determine the amount of packaging that is recycled each year, the Department uses the data that reprocessors and exporters report when claiming recovery notes. While the Agency does correct this data when it finds problems, we do not consider it is realistic to assume that undetected fraud and error is negligible: there is a financial incentive for companies to over-claim, and a particular risk that some of the material exported overseas is not fully recycled...

We are concerned that the reported recycling rate for plastic packaging could be overstated, although not by enough to undermine achievement of the overall target.⁸

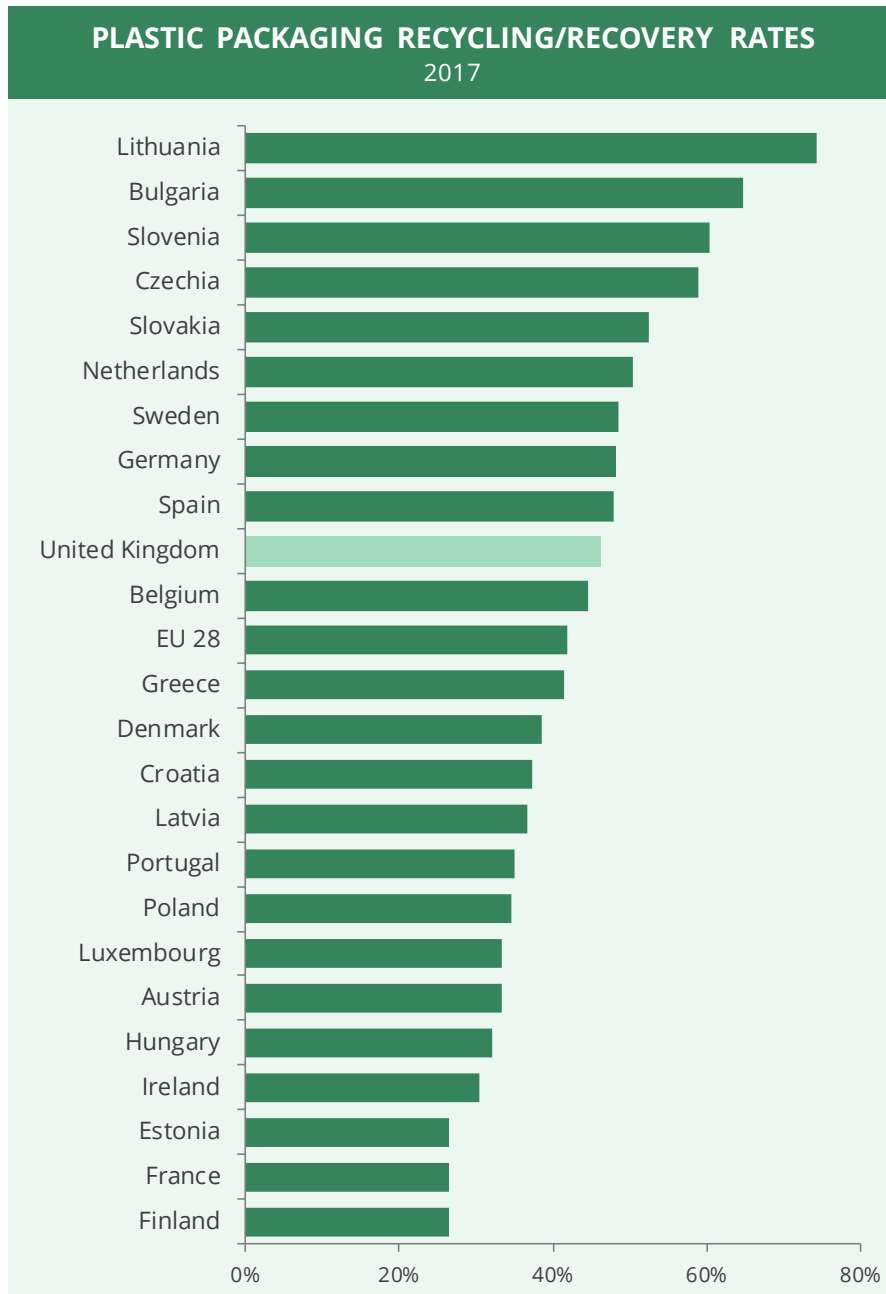
⁶ This minimum target stems from the European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste

⁷ Eunomia, [Plastic Packaging – Shedding Light on the UK Data](#), March 2018

⁸ NAO, [The packaging recycling obligations](#), 23 July 2018, p6

EU

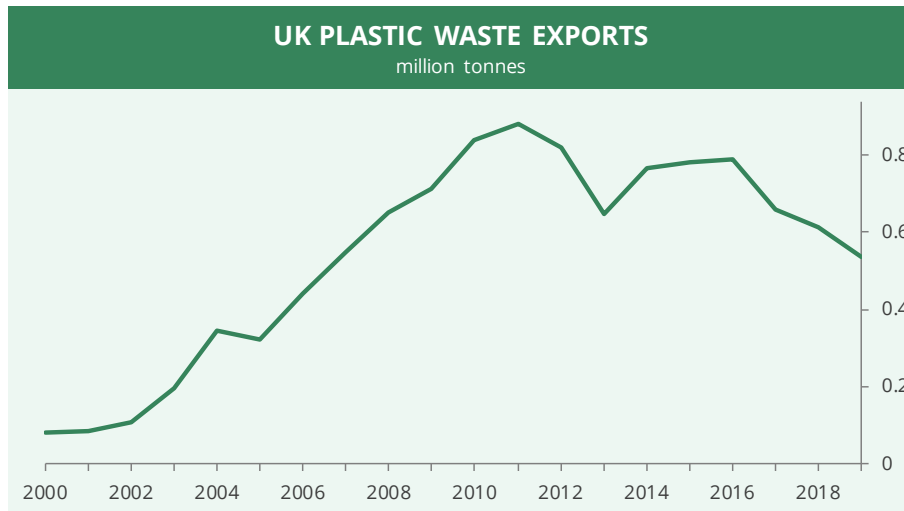
The chart below shows the latest plastic recycling rates for EU members. The UK's rate in 2017 was higher than the EU average of 41.9%, but below levels in some larger Member States including Germany, Sweden and the Netherlands.⁹



⁹ EUROSTAT [Waste database](#) [downloaded on 16 March 2020]

Exports of plastic waste

In 2019 the UK exported 0.5 million tonnes of plastic waste. The amount exported increased rapidly in the decade to its 2011 peak of almost 0.9 million tonnes. The chart below shows that it has generally fallen since then. The 2019 level was the lowest for over a decade.



Source: www.uktradeinfo.com

Until recently the most important destination for this was China/Hong Kong. Much of the expansion of waste exports went to China/Hong Kong and these exports accounted for more than 80% of the total in 2005 to 2012. They fell in importance after 2013 but were still the largest single destination in 2017 with 37% of the total. The decision by China to ban imports of certain types of waste for recycling from 2018 saw UK exports to China fall by 97% between 2016 and 2019. In 2019 the most important export destinations were Turkey (19%), Hong Kong (12%), the Netherlands (9%), Malaysia and Poland (both 7%).¹⁰

¹⁰ HMRC [Build your own table webpage](#), commodity code 3915 [downloaded on 16 March 2020]

2. The environmental problems of plastic waste

The environmental implications of plastic pollution are wide-ranging. Plastic waste often does not decompose and so can last for centuries in landfill. Habitats are degraded when chemicals leach from plastic and animals suffer when getting caught in or having eaten plastic.¹¹

Energy use and emissions

A February 2019 Government consultation frames the environmental impact of plastic packaging in terms of the energy and emissions used to create new plastic:

Over 2 million tonnes of plastic packaging is used in the UK each year. The vast majority of this is made from new, rather than recycled plastic. Using new plastic typically has greater environmental impact: it requires unnecessary resource extraction and processing, with higher energy use and emissions than using recycled material. It also results in significant amounts of additional plastic waste on the market, which is generally sent to landfill or incinerated.¹²

A report from the circular economy charity, the Ellen MacArthur Foundation, provides more detailed estimates about the greenhouse gas emissions associated with plastic production and after-use treatment:

Greenhouse gas emissions. As pointed out above, plastic packaging can in many cases reduce the emission of greenhouse gases during its use phase. Yet, with 6% of global oil production devoted to the production of plastics (of which packaging represents a good quarter), considerable greenhouse gas emissions are associated with the production and sometimes the after-use pathway of plastics. In 2012, these emissions amounted to approximately 390 million tonnes of CO₂ [carbon dioxide] for all plastics (not just packaging). According to *Valuing Plastic*, the manufacturing of plastic feedstock, including the extraction of the raw materials, gives rise to greenhouse gas emissions with natural capital costs of USD 23 billion. The production phase, which consumes around half of the fossil feedstocks flowing into the plastics sector, leads to most of these emissions. The remaining carbon is captured in the plastic products themselves, and its release in the form of greenhouse gas emissions strongly depends on the products' after-use pathway. Incineration and energy recovery result in a direct release of the carbon (not taking into account potential carbon savings by replacing another energy source). If the plastics are landfilled, this feedstock carbon could be considered sequestered. If it is leaked, carbon might be released into the atmosphere over many (potentially, hundreds of) years.

This greenhouse gas footprint will become even more significant with the projected surge in consumption. If the current strong growth of plastics usage continues as expected, the emission of greenhouse gases by the global plastics sector will account for 15% of the global annual carbon budget by 2050, up from 1%

¹¹ HM Government, [Our Waste, Our Resources: A Strategy for England](#), December 2018, p22

¹² HM Treasury, [Plastic Packaging Tax: Consultation](#), 18 February 2019, p3

today. The carbon budget for the global economy is based on restricting global warming to a maximum increase of 2°C by 2100. Even though plastics can bring real resource efficiency gains and help reduce carbon emissions during use, these figures show that it is crucial to address the greenhouse gas impact of plastics production and after-use treatment.¹³

Human health and wellbeing

The Government Office for Science's Foresight [Future of the Seas: Final Report](#), March 2018, set out the environmental impact of coastal plastic pollution framed in terms of human health and wellbeing:

High levels of plastic pollution can affect health and wellbeing in several ways. Litter left or washed up on the coast can impact upon residents' quality of life by reducing recreational opportunities, and can deter coastal visitors. This reduces their access to the health benefits associated with outdoor activity, as well as potentially affecting the tourism industry. A recent EU-wide survey demonstrated that over 70 per cent of visitors noticed litter on either most or every visit to the coast. In the UK during 2010 around 40 per cent of local authorities undertook beach cleaning with annual costs in the region of £15.5 million. The uninhabited Henderson Island, one of the Pitcairn Islands, was recently found to have the highest density of man-made debris of anywhere in the world, with 99.8 per cent of it plastic. Coastal plastic litter can also increase the risk of bacterial pathogens such as *E. coli*. However there is currently no evidence that microplastics in seafood pose a threat to human health.¹⁴

Marine environment

The Government's 25 Year Environment Plan set out some of the environmental impacts of plastics in the marine environment:

Turtles choke on plastic bags because they mistake them for a jellyfish. Dolphins drown, tangled up in discarded plastic packaging. Albatrosses somehow find floating rice bags in the furthest reaches of the South Atlantic, far from human populations, and unwittingly feed them to their hungry chicks on the island of South Georgia. Millions of single-use bottles jostle their way around the oceans, carried on the currents even to the remotest and most fragile Pacific atolls. Latest estimates suggest that around 12 million tonnes of plastics enter the oceans each year. The annual cost of marine plastic pollution is estimated to be at least \$4.7 billion to the consumer goods industry alone.¹⁵

Further information about marine plastics is provided in later in this paper.

¹³ Ellen MacArthur Foundation, [The New Plastics Economy: Rethinking the future of plastics and catalysing action](#), 2016, p23

¹⁴ Government Office for Science, [Foresight, Future of the Seas: Final Report](#), March 2018, p80

¹⁵ HM Government, [A Green Future: Our 25 Year Plan to Improve the Environment](#), December 2018, p92

3. The benefits of plastic packaging

The British Plastics Federation's (BPF) position is that single use plastics have an important role to play in "modern life".¹⁶ It contends that plastics packaging saves resources and, "it is lighter, uses less energy and produces less greenhouse gas emissions than alternatives."¹⁷

A paper published by the BPF in 2018, [Plastic Packaging: Frequently Asked Questions](#) summarises some of the main benefits of plastic packaging as they identify them, as follows:

- Resource efficient
- Safe
- Hygienic
- Light weight
- Secure
- Durable
- Versatile
- Recyclable¹⁸

The BPF paper provides further information under each of the above headings.

Food hygiene

An article on the Foodmanufacture.co.uk website cited comments from David McDowell, professor of food studies at Ulster University and Chairman of the UK advisory committee on the microbiological safety of food, expressing concern that proposals by the EU to restrict packaging and other items for serving food would lead to the spread of a number of foodborne viruses and bacteria, such as salmonella and campylobacter. In particular, concern was highlighted about whether consumers' own packaging would be kept clean enough to limit bacteria growth and about the potential for cross contamination between products.¹⁹

Established recycling infrastructure

An article from [PackagingEurope](#) highlighted concern from waste recovery company, Veolia, that banning plastic packaging would lead to alternative types of packing being used which may also be a "challenge" to recycle.²⁰

¹⁶ British Plastic Federation website, [Plastic Packaging and the Environment](#) [downloaded on 20 February 2018]

¹⁷ British Plastics Federation, [Plastic Packaging: Frequently Asked Questions](#), 2018

¹⁸ British Plastics Federation, [Plastic Packaging: Frequently Asked Questions](#), 2018, p4

¹⁹ FoodManufactur.co.uk "Food safety expert criticises EU packaging proposal" 2 October 2018

²⁰ Packaging Europe, [Mixed Reception to UK Government Plan](#), 12 January 2018

Similarly, the oil company BP has argued that plastics may do less harm than alternative forms of packaging. In the BP Energy Outlook 2019, the company said that in the case of a single use plastics ban overall energy consumption and emissions could increase, unless there was “widespread deployment of efficient collection and reuse systems” of alternative materials.²¹

Environmental cost of replacement material

In a 2016 report, environmental consultants Trucost highlighted that it is often the case that more of an alternative material is needed to perform the same function as any plastic that it is replacing:

The environmental cost of plastic in consumer goods is 3.8 times less than the alternatives materials that would be needed to replace plastic. Although alternative materials such as glass, tin, aluminium and paper are viable alternatives to plastic in many consumer goods applications, they have higher environmental costs in the quantities needed to replace plastic.

(...)

For example, a typical plastic soft drink bottle contains 30 grams of plastic. But if replaced by a weighted average mix of alternative materials currently used in the market, an equivalent capacity bottle would require 141 grams of alternative materials such as glass, tin or aluminium in the USA. Extrapolating to the entire consumer goods sector, over 342 Mt of alternative material would be needed to replace the 84 Mt of plastic used in consumer products and packaging in 2015.²²

Reduced weight and increased lifespan of products

The 2016 Trucost report also highlighted how plastics can bring environmental benefits by being lightweight and minimising food waste:

Some key examples include the lightweighting of automobiles and in the use of specialized packaging designs to minimize food waste. Trucost estimates that substitution of plastic components with alternative materials in passenger vehicles sold in the North America in 2015 would lead to an increase in lifetime fuel demand for those vehicles of over 336 million liters of gasoline and diesel, and at an environmental cost of \$2.3 billion. This equates to an environmental cost increase of \$169 per gasoline or diesel passenger car sold in North America in 2015.

Similarly, improved skin-type plastic packaging for sirloin steak can cut food waste by almost half compared to conventional plastic packaging (34% waste to 18% waste) with environmental savings of \$606 per metric ton of beef sirloin sold. This equates to environmental savings of over \$2.2 million for every additional 1% of sirloin steak sold in improved packaging in the USA. This case study illustrates the significant environmental net benefits that plastic food packaging can deliver where it helps to avoid the waste of resource intensive food products.²³

²¹ BP, [Energy Outlook 2019](#), p35

²² Trucost, [Plastics and Sustainability: A Valuation of Environmental Benefits, Costs and Opportunities for Continuous Improvement](#), 2016, p7

²³ Trucost, [Plastics and Sustainability: A Valuation of Environmental Benefits, Costs and Opportunities for Continuous Improvement](#), 2016, p10

4. Legal framework for dealing with waste

Much of the UK's current waste legislation originates from EU legislation.

Existing environmental law derived from EU law will continue to have the same effect following exit day on 31 January 2020 and during the implementation period by virtue of the Withdrawal Agreement's transition period.²⁴ On the implementation period completion day (currently expected to be 31 December 2020) these laws will be retained in domestic legislation in accordance with the *EU (Withdrawal) Act 2018* (as amended).

During the transition period, the UK will need to continue applying and implementing EU law that falls within the scope of the withdrawal agreement.

4.1 EU Waste Framework Directive

The EU Waste Framework Directive ([2008/98/EC](#)) provides the framework under which waste management policy is implemented throughout the EU. It also provides for 'daughter Directives' which deal with particular types of waste.

Although the Waste Framework Directive applied to the UK as a whole, waste is a devolved matter, so the requirements have been transposed into law in each UK national authority separately.

4.2 Waste management hierarchy

Box 2: What is a circular economy?

A circular economy means re-using, repairing, refurbishing and recycling existing materials and products and regarding waste as something that can be turned into a resource. It maximises the value of resources to benefit both the economy and the environment. This contrasts with a linear "take-make-consume-dispose" model which assumes that resources are abundant, available and cheap to dispose.

The not-for-profit-organisation, the Waste and Resources Action Programme (WRAP) estimated that in 2010, the UK economy was 22% 'circular'. This figure has not been updated more recently. It estimated that by 2030, the UK economy's circularity could increase to 27% whilst also benefitting from a reduction in materials consumption of 30 million tonnes a year.²⁵

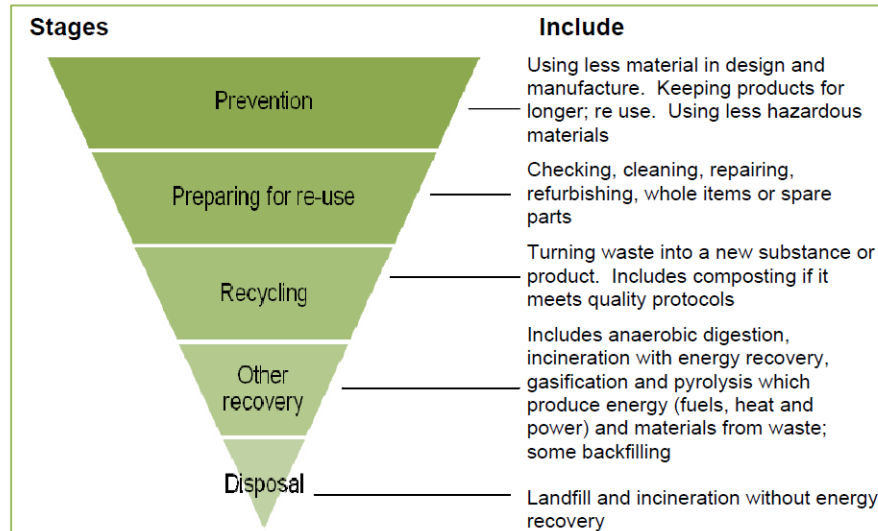
For further information about the circular economy concept see POSTnote, [Designing a Circular Economy](#), number 536, September 2016.

An overarching requirement of the EU Waste Framework Directive is that the UK applies the waste management hierarchy. This sets out the

²⁴ HM Government, [New Withdrawal Agreement and Political Declaration](#), 19 October 2019

²⁵ House of Commons Environmental Audit Committee, [Growing a circular economy: Ending the throwaway society](#). Third Report of Session 2014-15, HC 214, 24 July 2014, para 8 [accessed 18 August 2015]

order of priority to apply to products and waste and shows that prevention and re-use options should be considered before recycling.²⁶ This is in line with moving towards the aims of a circular economy. The waste hierarchy is depicted by Defra as follows:²⁷



4.3 EU Packaging Directive

Under the EU *Packaging and Packaging Waste Directive* (94/62/EC), as amended, the UK also has a statutory producer responsibility regime for packaging, covering the whole of the supply chain from the raw material to the finished packaging. This is a way of incentivising packaging producers to take financial responsibility for the end recycling of their products. Packaging is any material used to hold, protect, handle, deliver or present goods. It covers a wide range of material beyond just plastic, encompassing paper, glass, aluminium, steel and wood.

This EU Directive sets packaging waste targets of 60% for minimum recovery (concerned with the collection of materials) and 55% for recycling, to be met by 31 December 2008. It also sets material-specific recycling targets. These are 60% for glass, 60% for paper and cardboard, 50% for metals, 22.5% for plastics, and 15% for wood. Since 2008, Member States must continue to meet these minimum targets, but they have the freedom to set higher domestic targets if they so choose.²⁸

The [Amending Packaging Waste Directive 2018](#) (Directive (EU) 2018/852) amends the Packaging Waste Directive 1994 by increasing the recycling target to 70% by weight for packaging waste by 2030 with an interim target of 65% by 2025. It introduces a new plastic packaging recycling target of 55% to be reached by 2030.²⁹ EU member states are required to transpose the Amending Packaging

²⁶ EU Waste Framework Directive, Article 4

²⁷ Defra, [Guidance on applying the Waste Hierarchy](#), June 2011

²⁸ HM Government, [UK Statistics on Waste](#), 14 February 2019, p7

²⁹ European Commission press release, [Commission reviews implementation of EU waste rules, proposes actions to help 14 Member States meet recycling targets](#), 24 September 2018

Waste Directive 2018 into national law by 5 July 2020. Further information about the background to this revision is provided in section 8 of this paper.

The UK Government implements the requirements of the Directive by placing a legal obligation on businesses over a certain size which make or use packaging, to ensure that a proportion of the packaging they place on the market is recovered and recycled. This known as an extended producer responsibility scheme (EPR) for packaging. The primary legislation establishing it is the *Environment Act 1995* for England, Wales and Scotland and in Northern Ireland, the *Producer Responsibility (Northern Ireland) Order 1998*. It has been in place since 1997 and operates UK-wide under GB and parallel Northern Ireland regulations:

- The [*Producer Responsibility Obligations \(Packaging Waste\) Regulations 2007*](#) (no.871) (as amended) and the [*Producer Responsibility Obligations \(Packaging Waste\) Regulations \(Northern Ireland\) 2007*](#) (no. 198) (and amendments) cover the recycling and recovery of packaging waste (the Packaging Waste Regulations).
- The [*Packaging \(Essential Requirements\) \(Amendment\) Regulations 2015*](#) (no.1640), cover single market and design and manufacturing aspects of packaging.

In 2017, 7,002 companies registered as having packaging obligations across the UK.³⁰ Relevant businesses discharge their responsibilities by collecting evidence of waste packaging recycling and recovery equivalent to the weight of their obligations from accredited reprocessors and exporters. Packaging Recovery Notes (PRNs) or Packaging Export Recovery Notes (PERNs) are issued by accredited businesses and provide the evidence for compliance.

More detailed information on the current rules on packaging producer responsibilities is provided on the GOV.UK website [Packaging waste: producer responsibilities](#).

Criticisms of the packing producer responsibility scheme in relation to plastic

The National Audit Office (NAO) examined the packaging recycling obligations, in response to a request from the Environmental Audit Committee, and published a report on 23 July 2018, [The packaging recycling obligations](#). It expressed concern that there were no checks to ensure exported material actually was recycled and that there were risks of fraud and error within the current system:

While there are questions about the exact scale of packaging recycling, it is clear that rates have increased over the lifetime of the packaging obligation system, and the system itself is likely to have made a contribution to this change. However, the system appears to have evolved into a comfortable way for government to meet targets without facing up to the underlying recycling issues. The government has no evidence that the system has

³⁰ National Audit Office, [The packaging recycling obligations](#), 23 July 2018

encouraged companies to minimise packaging or make it easy to recycle. And it relies on exporting materials to other parts of the world without adequate checks to ensure this material is actually recycled, and without consideration of whether other countries will continue to accept it in the long-term. Despite it now being 20 years since the system was established, the Department does not know what value the system has added nor whether the Agency's approach to tackling the risks of fraud and error is proportionate. Our overall sense is that over a long period government has allowed the obligations to keep rolling forward without asking the important questions.³¹

The Environmental Audit Committee examined the packaging producer responsibility scheme as part of its inquiry and December 2017 report on *Plastic bottles: Turning Back the Plastic Tide*. It noted that taxpayers, rather than producers, cover around 90% of the costs of packaging waste disposal, "indicating that the producer responsibility scheme is not working as it should."³² The Committee recommended that:

...the Government adapts a producer responsibility compliance fee structure that stimulates the use of recycled plastic, rewards design for recyclability, and increases costs for packaging that is difficult to recycle or reuse. This would incentivise producers to use more sustainable packaging, whilst reducing the costs on taxpayers. Additionally we recommend that the Government lower the de minimis packaging handling threshold from 50 tonnes to 1 tonne. This would ensure that all businesses who handle a significant amount of packaging are obligated to recycle.

The Committee also called for the Environment Agency (EA) to be given greater regulatory control and for waste processors to be held accountable to the EA for how they spend packaging revenue.³³

The packaging industry has also been critical of the existing scheme. For example, The [British Plastics Federation](#) (BPF) stated that the way the market for PRNs works has stagnated the UK plastics recycling industry and created a greater incentive for companies to seek PERNs, where plastic is exported overseas for recycling. This is because plastic waste is increasingly collected as comingled with other forms of waste. The costs faced by the overseas exporter/reprocessors for disposing of non-target contamination are apparently negligible compared to those experienced in the UK.³⁴

UK Government's response and proposed reform

The then [Government's response](#)³⁵ to the Environmental Audit Committee's report and the [25 year environment plan](#)³⁶ both set out an

³¹ National Audit Office (NAO), [The packaging recycling obligations](#), 23 July 2018, p11

³² House of Commons Environmental Audit Committee, [Plastic bottles: Turning Back the Plastic Tide](#), First Report of Session 2017–19, 22 December 2017, para 47

³³ House of Commons Environmental Audit Committee, [Plastic bottles: Turning Back the Plastic Tide](#), First Report of Session 2017–19, 22 December 2017, para 47-48

³⁴ British Plastics Federation Recycling Group, [Proposals for Growth of the UK Plastics Recycling Sector in a Circular Economy](#), March 2017

³⁵ House of Commons Environmental Audit Committee, [Plastic bottles: Turning Back the Plastic Tide: Government Response to the Committee's First Report, Fourth Special Report of Session 2017–19](#), 26 February 2018, p6

³⁶ HM Government, [A Green Future: Our 25 Year Plan to Improve the Environment](#), January 2018, p87

aim to reform the EPR scheme for packaging. In the December 2018 [Resources and Waste Strategy for England](#), the then Government set out its own criticisms of the current system of extended producer responsibility for packaging:

The current system, however, does not sufficiently incentivise design for greater reuse or recyclability and less than a tenth of the costs of managing household packaging waste is covered by producers. Our reforms will change this, and the full net costs will be covered.

(...)

Demand from reprocessors for recyclable materials is not being stimulated sufficiently and there are concerns that the current system favours the export of packaging waste for recycling. It is also not comprehensive enough, lacks transparency, and falls short of our new objectives.³⁷

To address this, the Government set out a series of reforms for “immediate priority”.³⁸ To address the shortcomings identified, the strategy proposed:

- Measures incentivise the reduction of unnecessary and difficult to recycle packaging, the production of packaging that can be recycled, and the recycling of packaging back into the same or similar products provided there is no conflict with other policies such as food hygiene requirements.
- Producers fund the management of packaging at the end of its life. Subject to consultation, this may include: collection, recycling, disposal, reduction of littering and fly-tipping, communications, data collection and reporting, compliance monitoring and enforcement.
- Collection of a nationally agreed set of packaging materials for recycling, adoption of minimum service standards and delivery of good quality recycle.
- It is easier for consumers to know what packaging they can recycle through the adoption of mandatory labelling on packaging and improved communications (funded by producers).
- Export of packaging waste is done in an environmentally responsible way and that there is a level playing field between accredited domestic reprocessors and exporters. We will consult on actions to better manage and control waste exports, including through tighter monitoring and enforcement of existing export regulations. We want to ensure that our exports do not have adverse impacts on human health and the environment when shipped overseas, and that domestic reprocessors are not unfairly disadvantaged by waste exports which do not meet our environmental and accreditation standards.

We will also review the effectiveness of the Packaging (Essential Requirements) Regulations 2015 by the end of 2020 and will reform them to make them more effective.³⁹

³⁷ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p34

³⁸ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p34

³⁹ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p35

February 2019 consultation

The Government published a consultation, [Reforming the packaging producer responsibility system](#) on 18 February 2019, which sought views on the above proposals. As the packaging waste producer responsibility scheme is operated on a UK-wide basis to date, the consultation was undertaken jointly by the UK, the Scottish and the Welsh governments and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland.⁴⁰

In terms of timing of the reforms, the consultation stated the aim of having a new system in place from 2023:

The EU Circular Economy Package (Article 8a) establishes minimum operating requirements applicable to any EPR scheme. For existing producer responsibility schemes, it requires EU Member States to transpose these requirements into national law by the end of 2022. Government's intention is to make the necessary legislative changes for a reformed packaging producer responsibility system by 2021, with a new system to be operational from 2023. This will allow businesses two years to transition and adapt their activities to comply with the reformed regulations.⁴¹

On 23 July 2019 the Government published [Reforming the UK packaging producer responsibility system: summary of responses and next steps](#). This document summarised overall responses and key concerns as follows:

Overall respondents were positive of the intent to improve the current system and for packaging EPR to form part of a coherent system that is understandable and fair to businesses and consumers. A large minority of respondents stressed the need to ensure that the proposed policy interventions are joined up and appropriate steps are taken to protect against unintended consequences. Stakeholders also commented on the proposed timeline with some expressing, both in their written responses and at stakeholder events, the strong view that packaging EPR and proposals for consistent collections (in England) are introduced ahead of other measures and that sufficient time is allowed for investment in necessary waste management and reprocessing infrastructure to occur.⁴²

The document stated that an extended producer responsibility system for packaging will be introduced in 2023, using primary powers in an Environment Bill,⁴³ to provide the legal basis.⁴⁴ It also set out that the Government would undertake work on detailed proposals on the specific nature of an extended producer responsibility scheme for packaging and related secondary legislation. "This work will be taken

⁴⁰ HM Government, [Consultation on reforming the UK packaging producer responsibility system](#), 18 February 2019, p7

⁴¹ HM Government, [Consultation on reforming the UK packaging producer responsibility system](#), 18 February 2019, p19

⁴² HM Government, [Reforming the UK packaging producer responsibility system: summary of responses and next steps](#), July 2019, p8

⁴³ This is now published, [Environment Bill 2019-20](#)

⁴⁴ HM Government, [Reforming the UK packaging producer responsibility system: summary of responses and next steps](#), July 2019, p15

forward over the remainder of 2019 and we anticipate bringing our final proposals forward for consultation in 2020.”⁴⁵

Environment Bill 2019-20

The [Environment Bill 2019-20](#) contains proposals to amend producer responsibility scheme rules. It contains provision for those involved in the “manufacture, processing, distribution or supply of products or materials” to be required, by regulations, to pay for or contribute to the costs of disposing of those items. The reasoning behind this was summarised in the Bill’s delegated powers memorandum as follows:

Through this measure producers could be required to pay for the net costs of managing products at end of life. To date, the financial obligations placed on producers cover just the recycling/recovery costs associated with their products, and not the full costs of managing these products at end of life. By taking on these costs, producers will have a strong incentive to consider the impacts that their products have once they have been discarded by consumers.⁴⁶

Provision was also made in respect of enforcement of the scheme:

The powers will enable the relevant national authority to make provision about the enforcement authority, requiring producers to maintain records and provide information to an enforcement authority, an administrator (where the person is not an administrator), or the relevant national authority, powers of entry, inspection, seizure and detention of property on an enforcement authority, criminal offences (but only in the limited circumstances of failure to comply with a civil sanction or for obstruction or a failure to assist) and civil sanctions for failure to comply with regulations.

The powers are designed to enable enforcement regulations to make similar provisions to that which can be made under Part 2 of Schedule 4 to the Bill. Part 2 of Schedule 4 makes provision for the enforcement of regulations made under clause 47 and Part 1 of Schedule 4 imposing producer responsibility obligations on producers. In most cases (but not all) those who will be required to pay sums towards disposal costs will also be subject to such obligations.⁴⁷

For further information see Library briefing paper [Commons Library Analysis of the Environment Bill 2019-20](#), 6 March 2020.

⁴⁵ HM Government, [Reforming the UK packaging producer responsibility system: summary of responses and next steps](#), July 2019, p15

⁴⁶ Environment Bill: Memorandum from the Department for the Environment, Food and Rural Affairs to the Delegated Powers and Regulatory Reform Committee, 30 January 2020, para 57

⁴⁷ Environment Bill: Memorandum from the Department for the Environment, Food and Rural Affairs to the Delegated Powers and Regulatory Reform Committee, 30 January 2020, paras 63-64

5. Overarching Government strategies on waste and resources

UK Government

The most recent strategy on waste and resources is the December 2018 publication, [Our waste, our resources: a strategy for England](#) (“the Resources and Waste Strategy”), published under the Prime Minister May Conservative Government. This Strategy sets out the Government’s ambition to move towards a more circular economy, to “become a world leader in using resources efficiently and reducing the amount of waste we create as a society.”⁴⁸ It also set out the “strategic ambition” to “...work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025.”⁴⁹

This follows on from and is intended to support commitments made in other documents, such as the January 2018, 25 Year Environment Plan, [A Green Future: Our 25 Year Plan](#), to leave the environment in a better condition for the next generation and, in particular:

- Working towards our ambition of zero avoidable waste by 2050
- Working to a target of eliminating avoidable plastic waste by end of 2042.⁵⁰

The term “avoidable” is defined in the Resources and Waste Strategy as:

... when the plastic could have been reused or recycled; when a reusable or recyclable alternative could have been used instead; or when it could have been composted or biodegraded in the open environment.⁵¹

The then Government’s April 2017 [Litter Strategy for England](#) also set an ambition to become “one of the most resource efficient countries in the world”⁵², and contained specific proposals to reduce plastic litter.

Wales

The Welsh Government’s 2010 document [Towards Zero Waste](#) (TZW) is the overarching waste strategy document for Wales. It is supported by a suite of sector plans and other documents, which together with TZW, comprise the statutory waste management plan for Wales.

Accompanying documents can be found on the [Welsh Government website](#). The Welsh Government has an ambition to become a “zero waste nation by 2050”.⁵³

⁴⁸ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p7

⁴⁹ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p17

⁵⁰ HM Government, [A Green Future: Our 25 Year Plan](#), January 2018, p29

⁵¹ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p7

⁵² Defra, [Litter Strategy for England](#), April 2018, p19

⁵³ [Written Statement: Plastic Waste, Hannah Blythyn](#) AM, Deputy Minister for Housing and Local Government, 16 July 2019

In December 2019 the Welsh Government published a consultation, [Beyond Recycling: A strategy to make the circular economy in Wales a reality](#). The consultation sets out steps towards a circular economy, with actions on plastic included:

Phase out single use plastic: We will make Wales the first country to send zero plastic to landfill. We will press ahead with game-changing reforms including introducing Extended Producer Responsibility for packaging, a Deposit Return Scheme for drinks containers, and applying bans or restrictions to phase out the use of unnecessary, highly littered, single use plastic.⁵⁴

Scotland

The Scottish Government launched Scotland's first [Zero Waste Plan](#) in June 2010, which sets out the Scottish Government's vision for a zero waste society. The plan set out a number of new measures including introducing a 70% recycling target for *all* waste (regardless of its source) by 2025.

In November 2019 the Scottish Government consulted on [Developing Scotland's circular economy: Proposals for Legislation](#). It set out ambition to move to a more circular economy:

We believe that building an economic system that moves away from being based on items that are designed to be disposable will yield the biggest environmental impacts. We have been taking forward initiatives to create more choices for consumers and businesses to operate in a way that does not rely on a "take-make dispose" model.

This approach includes the intention to ban or restrict the sale of the priority plastic items set out in the EU's Single-use Plastics Directive, as described in the 'current and future activity' section in the introduction above.

In addition to banning certain items, we also want to attach a value to goods previously seen as disposable, as a means of engaging the public and helping them to understand their responsibility as citizens.⁵⁵

Northern Ireland

The [Delivering Resource Efficiency - Northern Ireland Waste Management Strategy](#), 2013, includes sections on resource re-use and recycling. The Department of Agriculture, Environment and Rural Affairs published [The Waste Prevention Programme for Northern Ireland – The Road to Zero Waste](#), in September 2014, which set out a renewed focus on waste prevention (including re-use), preparing for re-use and recycling in accordance with the waste hierarchy.

A consultation on a new waste management plan for Northern Ireland was published in October 2019, [Waste Management Plan for Northern Ireland](#). It sets out Northern Ireland's intentions to work towards a sustainable and circular economy.

⁵⁴ Welsh Government, [Beyond Recycling: A strategy to make the circular economy in Wales a reality](#), December 2019, p5

⁵⁵ Scottish Government, [Developing Scotland's circular economy: Proposals for Legislation](#), November 2019, p15

6. Next steps: Government proposals on plastic waste

The sections below set out specific commitments, proposals and policies in relation to dealing with plastic waste. The majority of the proposals originate from the Conservative Government led by Prime Minister May. Many of them were continued by the Johnson Government and have been included in the [Environment Bill 2019-20](#).

Where there are similar policies from the devolved administration Governments, these are also highlighted. Policies relating specifically to marine plastic waste are set out separately in section 9.

6.1 A “plastic packaging tax”

UK Government

In March 2018 the UK Government published a call for evidence, [Tackling the plastic problem: using the tax system or charges to address single-use plastic waste](#). The purpose of this was to “explore how changes to the tax system or charges could be used to reduce the amount of single-use plastics we waste in order to deliver better environmental outcomes”.⁵⁶ A [summary of responses to the call for evidence](#) was published in August 2018.

At Budget 2018, the Government announced that it would introduce a tax, in England, on the production and import of plastic packaging, from April 2022. This is intended to address the situation that it is often cheaper to use new, non-recycled plastic material, despite its greater environmental impact.⁵⁷ Further context and information was provided in an accompanying HM Treasury budget briefing on [Single Use Plastics](#).

HM Treasury published a [Plastic packaging tax: consultation](#) on 18 February 2019. The proposals for a plastic packaging tax were summarised as follows:

1.9 The government proposes that the tax would apply to all plastic packaging manufactured in the UK and unfilled plastic packaging imported into the UK. It would only apply to plastic packaging (as defined by the tax) with less than 30% recycled content. This consultation seeks views on whether this is the most appropriate scope of the tax in comparison to other options.

1.10 The definition of plastic packaging for the specific purposes of applying the tax would be set out in legislation.

1.11 Where there is one manufacturer involved in the manufacturing process the tax would be applied when the packaging product or component, such as a tub, tray or bottle, is made available for use or onward sale. This consultation seeks views on the most appropriate tax point where there are multiple manufacturers involved in a process.

⁵⁶ HM Treasury, [Tackling the plastic problem: using the tax system or charges to address single-use plastic waste](#), March 2018, p6

⁵⁷ HM Treasury, [Budget 2018](#), 29 October 2018, paras 3.56-3.57

1.12 For imported, unfilled plastic packaging, the tax would be charged when liable products are imported into the UK and released onto the UK market as plastic packaging or plastic packaging material which will be used to make plastic packaging. Unfilled plastic packaging that is exported would not be subject to the tax.

1.13 The tax would be charged on the full weight of the packaging product, at a flat rate set per tonne of packaging material.

1.14 Currently within 'The Producer Responsibility Obligations (Packaging Waste) Regulations 2007' (as amended), converters are businesses which convert 'packaging materials' into 'packaging' and are the types of businesses likely to be liable for the tax.

1.15 Not all converters will be liable for the tax; throughout this consultation those obligated to pay the tax will be referred to as 'liable manufacturers'.⁵⁸

The consultation also sets out the UK Government's intention for this tax to be UK-wide.⁵⁹

On 23 July 2019 the Government published a [Plastic packaging tax: summary of responses to the consultation](#). It set out that respondents had disagreed with a number of its initial proposals:

For example, the majority of respondents disagreed with the government's proposal to not include filled packaging imports, and just under half of respondents disagreed with a single 30% recycled content threshold. In these areas amongst others, respondents provided alternative suggestions and further information for consideration.⁶⁰

At the Budget 2020 the Government confirmed that a plastic packaging tax would go ahead as follows:

...the government will introduce a new Plastic Packaging Tax from April 2022 to incentivise the use of recycled plastic in packaging. The Budget sets the rate at £200 per tonne of plastic packaging that contains less than 30% recycled plastic. This will apply to the production and importation of plastic packaging. The government will keep the level of the rate and threshold under review to ensure that the tax remains effective in increasing the use of recycled plastic. The government will also extend the scope of the tax to the importation of filled plastic packaging and apply a minimum threshold of 10 tonnes of plastic packaging to ensure the smallest businesses are not disproportionately impacted. The Budget also announces the launch of a further consultation on the detailed design and implementation of the tax, which includes consideration of an exemption for certain types of medical packaging.⁶¹

A further consultation was published alongside the Budget on 11 March 2020, [Plastic Packaging Tax: policy design consultation](#). The consultation seeks views on:

⁵⁸ HM Government, [Plastic packaging tax: consultation](#), February 2019, p4-5

⁵⁹ HM Government, [Plastic packaging tax: consultation](#), February 2019, p5

⁶⁰ HM Government, [Plastic packaging tax: summary of responses to the consultation](#), July 2019, p27

⁶¹ HM Government, [Budget 2020](#), 11 March 2020, para 2.214

- The scope of the tax
- Liability for the tax
- Excluding small operators
- Evidence requirements
- Exports
- Registration, returns and enforcement

The consultation closes on 20 May 2020.

6.2 Packaging producer responsibility reform

As set out in section 4.3 (above), the Government has committed to reforming the extended producer responsibility system for packaging. The intention is for there to be a UK-wide reform of the system. In February 2019 it published a joint-Government consultation, [Consultation on reforming the UK packaging producer responsibility system](#). Proposals for reform are now contained in the [Environment Bill 2019-20](#).

6.3 Disposable cups levy

UK Government

In a January 2018 report, the Environmental Audit Committee highlighted the difficulties in recycling disposable cups; they are made from paper and lined with plastic, which makes them waterproof and this plastic lining cannot be removed by most recycling facilities. The Committee recommended that the Government introduced a minimum 25 pence levy on disposable cups, with the rationale that the levy would change customer habits.⁶²

The Government, in its Budget 2018 document, ruled out a levy on disposable cups, for the time being:

3.59 Disposable cups – The government recognises the problems caused by disposable cups, which are difficult to recycle and often littered. The government has concluded that a levy on all cups would not at this time be effective in encouraging widespread reuse. Businesses are already taking steps to limit their environmental impact, but the government expects industry to go further and will return to the issue if sufficient progress is not made. In the meantime, the government will look in the Resources and Waste Strategy at the best way to tackle the environmental impact of cups.⁶³

Joint UK country consultations

In February 2019 consultations were published on reforming the packaging producer responsibility system and on introducing a deposit return system, both of which contained proposals relating to disposable cups.

⁶² House of Commons Environmental Audit Committee, [Disposable Packaging: Coffee Cups, Second Report of Session 2017–19](#), 5 January 2018, para 68

⁶³ HM Treasury, [Budget 2018](#), 29 October 2018, para 3.59

The **UK-wide** [Consultation on reforming the UK packaging producer responsibility system](#) proposed that disposable cups could be encompassed within the extended producer responsibility system for packaging as a way of incentivising producers of these cups to fund systems for their collection:

Disposable cups are in scope for the measures set out in this consultation document. They could be accommodated within either a deposit approach or a modulated fee structure. Producers could have the flexibility to establish their own collection systems and determine how best to maximise the collection and recycling of disposable cups. Alternatively producers could be set a recycling target and invited by government or the producer management organisation to put forward their plans for meeting this target. Producers would fund the collection system directly and be responsible for achieving the target. Under such an arrangement the modulated fee structure for disposable cups would need to take this into account but it would be reasonable to expect producers to contribute to other EPR costs such as data/reporting and communications.⁶⁴

In the Government's July 2019 [Reforming the UK packaging producer responsibility system: summary of responses and next steps](#), views on disposable cups were summarised as follows:

On disposable cups, the majority of respondents were in favour of maintaining voluntary measures in the short-term. A large minority of those responding (47%) were in favour of continuing to include cups within the packaging producer responsibility system, with a further 33% responding that this should be in conjunction with a possible DRS for drinks containers. A majority (62%) were in favour of setting recycling targets for disposable cups. We are minded to explore such targets, whether material or product-based, and how monitoring compliance could work. In doing so we will consider the views expressed in the parallel consultation on introducing a DRS [deposit return scheme] for drinks containers.⁶⁵

The consultation on introducing a deposit return scheme, which would apply in **England, Wales, Scotland and Northern Ireland**, sought views on whether disposable cups should be included within a deposit return scheme. It stated:

There are a number of reprocessing facilities that can recycle disposable cups in the UK, with enough capacity and facilities to recycle all plastic lined paper cups for coffee currently used in the UK. It is unclear if this capacity could cover paper cups used for other beverage types. Disposable cups, however, are not routinely collected for recycling, though some businesses are beginning to take steps to increase facilities for collection. There is therefore justification for including disposable cups in a DRS and it would be possible to do so, which could see recycling rates of these containers increase.⁶⁶

⁶⁴ HM Government, [Consultation on reforming the UK packaging producer responsibility system](#), 18 February 2019, p52

⁶⁵ HM Government, [Reforming the UK packaging producer responsibility system: summary of responses and next steps](#), July 2019, p11-12

⁶⁶ HM Government, [Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland](#), February 2019, p23

In the Government's July 2019 publication, [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Summary of responses](#), it summarised views on including disposable cups within a deposit return scheme as follows:

Respondents to this consultation were asked whether plastic disposable cups, and those made from paper with a plastic lining, should be included in the scope of a DRS. While the majority (two thirds) of respondents consider that both types of disposable cup should be included in a DRS, a large minority (almost a quarter) stated that their inclusion could be a 'logistical challenge' for the scheme (figure 3). This latter figure increased to more than 70% of manufacturers (totalling 25 responses) and almost half of trade and representative bodies. There were no variations by local authority or individual respondents.⁶⁷

The Government has not said whether or not it will include disposable cups within a deposit return scheme. In its accompanying publication to the above, [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Executive summary and next steps](#), it said the final decision on what drinks containers to include would be subject to the outcome of additional evidence and further stakeholder engagement. It confirmed that "the specific details of a DRS, including the material and drinks to be included in scope, will be developed further and will be presented in a second consultation in 2020."⁶⁸

Welsh Government

In addition to its participation in the above two consultations, the Welsh Government website states that "We are exploring a Welsh tax on disposable single use cups to reduce their use, encourage re-use, and reduce the litter they can create."⁶⁹

The Welsh Government's December 2019 [Beyond Recycling consultation](#) said:

We will work across Government on proposals for a tax or charge on disposable plastic cups and food containers in Wales.

We will consider banning single use disposable cups from stadia in Wales.⁷⁰

Scottish Government

In its November 2019 consultation document, [Developing Scotland's circular economy: consultation on proposals for legislation](#), the Scottish Government said it would use forthcoming regulation-making powers to implement a charge on single-use disposable beverage cups:

We recognise that single-use disposable beverage cups, which create 4,000 tonnes of waste in Scotland each year, are of particular concern and are the focus of the recent EPECOM

⁶⁷ HM Government, [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Summary of responses](#), July 2019, p12

⁶⁸ HM Government, [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Executive summary and next steps](#), July 2019, para 12

⁶⁹ Welsh Government website, [Developing new Welsh taxes](#), 28 June 2018 update version

⁷⁰ Welsh Government, [Beyond Recycling: a strategy to make the circular economy in Wales a reality](#), December 2019

report. The Panel noted evidence which forecasts that consumption of single-use disposable beverage cups in Scotland will rise over the coming years.

It is therefore our intention to introduce the secondary legislation to implement the charge on the provision of these type of cups as soon as possible after the circular economy bill has received Royal Assent.⁷¹

6.4 Proposed ban on single-use plastic

UK Government

At the Commonwealth Heads of Government Summit in April 2018, the UK Government announced its intention to ban the sale of plastic straws, drink stirrers and plastic-stemmed cotton buds in England.⁷² It stated that to eliminate these items from use, it would work with industry to develop alternatives and to ensure there was sufficient time to adapt.⁷³

In October 2018, the Government published a [Consultation on proposals to ban the distribution and/or sale of plastic straws, plastic - stemmed cotton buds and plastic drink stirrers in England](#). It was accompanied by an impact assessment for each product.

On 22 May 2019 the Government confirmed that the ban would go ahead, starting from April 2020.⁷⁴ The ban will include exemptions to it, to ensure access to plastic straws and cotton buds for certain groups:

1.7 Plastic drinking straws: The government will introduce a ban with exemptions on the supply of plastic drinking straws to the end user in England. There will be exemptions designed to cater for medical / accessibility needs: the supply of single use plastic straws to the end user will be permitted in registered pharmacies (in store and online) and in catering establishments (including health, educational and care settings). In commercial catering establishments, it will be a requirement for plastic straws to be kept behind the counter and be available to customers on demand only. This means that catering establishments will be prohibited from actively offering plastic straws to customers. The ban with exemptions is planned to come into force in April 2020. A ban on beverage carton straws will come into force in line with the Single Use Plastics Directive implementation timetable; this is to allow industry time to develop alternatives and full scale industrialisation.

1.8 Plastic stemmed cotton buds: The government will ban the supply of plastic stemmed cotton buds to the end user in England. There will be exemptions for use in medical practice, scientific research and forensic purposes to support criminal investigations. The ban with exemptions for the supply of plastic-stemmed

⁷¹ Scottish Government, [Developing Scotland's circular economy: consultation on proposals for legislation](#), 7 November 2019, p16-17

⁷² HM Government press release, [UK Government rallies Commonwealth to unite on marine waste](#), 18 April 2018

⁷³ HM Government press release, [UK Government rallies Commonwealth to unite on marine waste](#), 18 April 2018

⁷⁴ HM Government press release, [Gove takes action to ban plastic straws, stirrers, and cotton buds](#), 22 May 2019

cotton buds is planned to come into force in England in April 2020.

1.9 Plastic stirrers: The government will ban the supply of plastic drink stirrers to the end user in England. The ban for the supply of plastic drink stirrers is planned to come into force in England in April 2020.⁷⁵

The Government has said that it will carry out a “stocktake” after one year to “assess the impact of these measures and whether the balance is correct.”⁷⁶

Draft legislation, [The draft Environmental Protection \(Plastic Straws, Cotton Buds and Stirrers\) \(England\) Regulations 2020](#), has been laid before Parliament.

Welsh Government

A July 2019 written statement from Hannah Blythyn AM, Deputy Minister for Housing and Local Government set out the Welsh Government’s commitment to restrict certain single use plastic items:

I also recognise that in order to tackle the issue of plastic waste, we must go beyond recycling. This is why we have already committed to bringing forward a ban or restriction on the sale of commonly littered single use plastic items; including straws, stirrers and cotton buds, single use plastic cutlery and expanded polystyrene food packaging and drinks containers. We are also considering measures to help either reduce the consumption of single use plastic items or, if they are used, to ensure they are correctly disposed of.⁷⁷

In the Welsh Government’s December 2019 consultation, [Beyond Recycling: A strategy to make the circular economy in Wales a reality](#), it stated “We will introduce bans and restrict the sale of commonly littered single use plastic items.”⁷⁸

Scottish Government

On 27 April 2018, the Scottish Government published a consultation on [a proposal to ban the manufacture and sale of plastic-stemmed cotton buds in Scotland](#). The [Consultation Response](#) was published on 30 July 2018. The Response confirmed that, “We want to deliver on the commitment to develop policy to address marine plastics with new legislation to take action on one of Scotland’s most common pieces of beach litter, plastic-stemmed cotton buds.”⁷⁹

The [Environmental Protection \(Cotton Buds\) \(Scotland\) Regulations 2019](#) introduced the ban and came into force on 12 October 2019.

⁷⁵ HM Government, [Consultation on proposals to ban the distribution and/or sale of plastic straws, plastic-stemmed cotton buds and plastic drink stirrers in England: Summary of consultation responses and government’s response](#), May 2019, p4

⁷⁶ HM Government press release, [Gove takes action to ban plastic straws, stirrers, and cotton buds](#), 22 May 2019

⁷⁷ [Written Statement: Plastic Waste](#), Hannah Blythyn AM, Deputy Minister for Housing and Local Government, 16 July 2019

⁷⁸ Welsh Government, [Beyond Recycling: A strategy to make the circular economy in Wales a reality](#), 19 December 2019

⁷⁹ Scottish Government, [Plastic Cotton Bud Submission: Consultation Response Report](#), July 2018, p3

Regulation 3 provides that it is an offence for a person to manufacture, supply, offer to supply, or have in their possession for supply, any plastic stemmed cotton bud. A person found guilty of such an offence will be liable on summary conviction to a fine not exceeding £5,000 or on conviction on indictment to a term of imprisonment not exceeding two years or a fine not exceeding £5,000 or both.⁸⁰

The Scottish Government's [Programme for Scotland 2018-2019](#), highlighted an appointment of an expert panel to consider other measures on other types of single-use plastic items.⁸¹

In the Scottish Government's November 2019 consultation document, [Developing Scotland's circular economy: consultation on proposals for legislation](#), it proposed a legislative approach towards a ban on particular single-use plastic items:

The Single-use Plastics Directive (SUP) was published in June 2019 and was created in response to the evidence of harmful plastic litter in oceans and seas growing ever greater. The Directive includes proposals to target the 10 single-use plastic products most often found on Europe's beaches and seas, as well as lost and abandoned fishing gear. The plastic products include:

- cutlery;
- plates;
- straws;
- stirrers for beverages;
- balloon sticks;
- food and beverage containers and cups made of expanded polystyrene;
- products made from oxo degradable plastic; and
- cotton bud sticks (which we have already banned).

We fully support the EU vision of phasing-out single-use plastics wherever possible and have committed to keeping pace with the deadline set out in the Directive. In 2020, we will consult on a proposed legislative approach to ban or restrict the sale of the SUP's priority plastic items by 2021. We will take into account equality interests and apply exemptions where appropriate.⁸²

In June 2018 the Scottish Government announced that communities would be able to bid for a share of up to £500,000 to reduce single-use plastics, through an initiative called Action on Zero Plastic Waste Towns.⁸³

⁸⁰ [Environmental Protection \(Cotton Buds\) \(Scotland\) Regulations 2019](#), Explanatory Note

⁸¹ Scottish Government, [Delivering for today, investing for tomorrow: the Government's programme for Scotland 2018-2019](#), 4 September 2018, p59

⁸² Scottish Government, [Developing Scotland's circular economy: consultation on proposals for legislation](#), 7 November 2019, p14

⁸³ Scottish Government press release, [Support to reduce single-use items](#), 18 June 2018

6.5 Deposit return scheme for drinks containers

Box 3: What is a deposit return scheme?

In a deposit return scheme, consumers are charged a sum of money as deposit up-front when they buy a single-use container (normally for drinks products). This can be redeemed when the empty container is returned. In existing schemes in other countries consumers can either return containers through a reverse vending machine or manually to a retailer to redeem the deposit value.⁸⁴

UK Government

In April 2017, the UK Government published a [Litter Strategy for England](#), which included a commitment to establish a working group to consider the advantages and disadvantages of different types of deposit and reward and return schemes for drinks containers.⁸⁵ On 2 October 2017 the government [invited views](#) on how reward and return schemes for drinks containers could work in England by issuing a call for evidence.

On 28 March 2018 the Government confirmed it would introduce a deposit return scheme in England for single use drinks containers (including plastic, glass and metal).⁸⁶ Alongside this announcement the Government published the report of the Voluntary & Economics Incentives Working Group: [Voluntary and economic incentives to reduce littering of drinks containers and promote recycling](#). The December 2018 Resources and Waste Strategy for England then set out the Government's preference for a UK-wide DRS scheme.⁸⁷

England, Wales and Northern Ireland consultation

In February 2019 the UK and Welsh Governments, alongside the Department of Agriculture, Environment and Rural Affairs in Northern Ireland published a [Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland](#). In terms of what could be included within a deposit return system (DRS) the consultation proposed a broad range of drinks containers could be included within its scope:

This consultation proposes that the materials included in a DRS could be PET and HDPE plastic bottles, steel and aluminium cans, and glass bottles. We are proposing that a broad range of drinks, including water, soft drinks, juices, alcohol, and milk-containing drinks, where they are sold in containers made of these materials, could be included in a DRS. We would not propose including milk (or plant-based drinks such as soya) within scope of a DRS as it is considered by many as an essential product which is only widely available in containers.⁸⁸

⁸⁴ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p61

⁸⁵ HM Government, [Litter Strategy for England](#), April 2017, p34

⁸⁶ HM Government press release, [Deposit return scheme in fight against plastic](#), 28 March 2018

⁸⁷ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p61

⁸⁸ [Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland](#), 18 February 2019, p6

The Government proposed a deposit level of 15 pence per container.⁸⁹ The consultation also sought views on two possible options for how a DRS could work, based on the size of the drinks containers:

We are considering two options for a DRS, both of which would cover the same materials and drinks outlined above, but would differ in terms of the size of the drinks containers in scope. We are also seeking opinions on whether there are alternative approaches we could consider.

The first option, known as the **'all-in' model**, would not place any restrictions on the size of drinks containers in-scope of a DRS. This would target a large amount of drinks beverages placed on the market. The second option, known as the **'on-the-go' model**, would restrict the drinks containers in-scope to those less than 750ml in size and sold in single format containers. This model would target drinks beverages most often sold for consumption outside of the home (while 'on-the-go').⁹⁰

While the all-in model would encompass a wider range of plastic products on the market, the argument in favour of the on-the-go model was that it would focus the scheme on the most commonly littered items, excluding larger items that are more commonly recycled anyway.⁹¹

The consultation proposed that all producers of beverage products that fall within the scope of a DRS would be mandated to join it. Drinks containers within a DRS could be returned either via an automated return point using a reverse vending machine (RVM), or via a manual return point that could be hosted by small retailers and involve containers being returned over-the-counter.⁹²

The scheme's operation would be managed by a central body, the Deposit Management Organisation (DMO), which would be funded by fees paid by producers and revenue obtained from collected DRS material sent on for recycling. There would also be an enforcement body, separate to the DMO, which the consultation proposed could be the Environment Agencies in England, Wales and Northern Ireland.⁹³

The Government responded to the consultation on 23 July 2019 with the publication of two documents:

- [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Summary of responses](#); and
- [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Executive summary and next steps](#)

⁸⁹ [Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland](#), 18 February 2019, p54

⁹⁰ [Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland](#), 18 February 2019, p7

⁹¹ [Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland](#), 18 February 2019, p54

⁹² [Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland](#), 18 February 2019, p7

⁹³ [Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland](#), 18 February 2019, p47

The executive summary document stated that respondents to the consultation “overwhelmingly agreed (84%) with the proposed principles of a DRS”⁹⁴ and that “The majority of respondents wanted all materials included in a DRS.”⁹⁵ It also highlighted that “The majority (59%) of the 672 respondents to this question preferred the ‘all-in’ option, compared with 13% who preferred an ‘on-the-go’ scheme.”⁹⁶ The Government’s next steps were set out as follows:

65) 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 in scope, will be developed using further evidence and ongoing engagement with stakeholders.

66) Following the publication of this Executive summary and next steps, we will seek general primary powers in the Environment Bill to introduce deposit return schemes.

67) We will consider the above analysis, and evidence from commissioned research projects in determining the exact scope and model of a DRS. Further evidence Defra will receive includes: the value of reductions in litter (in turn the value of reducing the negative effects of litter on peoples’ wellbeing), consumer views on a DRS, and model preferences and assessment of the impact of a DRS on secondary material markets.

68) Were a DRS to be introduced, we would then hold a second consultation on the proposed regulatory framework for introducing a DRS through secondary legislation, including more detailed proposals for the nature of any such scheme. The development of the second consultation will be carried out during the remainder of 2019, with the expectation that we will consult on the specific details of a DRS in early 2020, building on further analysis. Following the second consultation, we would introduce a DRS from 2023.⁹⁷

Environment Bill and Queen’s Speech December 2019

Proposals to establish a DRS have been put forward in the [Environment Bill 2019-20](#). The Bill will enable the relevant national authority – namely, the Secretary of State, in relation to England, Welsh Ministers, in relation to Wales, and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland, in relation to Northern Ireland – to make regulations establishing deposit schemes.⁹⁸

The Bill itself does not say what materials will be included within a deposit scheme, nor at what price the deposit would be set.

⁹⁴ HM Government, [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Executive summary and next steps](#), July 2019, para 18

⁹⁵ HM Government, [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Executive summary and next steps](#), July 2019, para 27

⁹⁶ HM Government, [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Executive summary and next steps](#), July 2019, para 36

⁹⁷ HM Government, [Introducing a Deposit Return Scheme \(DRS\) in England, Wales and Northern Ireland: Executive summary and next steps](#), July 2019, paras 65-68

⁹⁸ HM Government, Environment Bill: Explanatory notes, p61

Scottish Government

The Scottish Government asked Zero Waste Scotland⁹⁹ to explore the feasibility of a deposit return scheme. In May 2015, it published a feasibility study (carried out by environmental consultancy, Eunomia), looking at the benefits and challenges of a deposit return system in Scotland, and in the same year carried out a call for evidence on the issue from stakeholders. The relevant documents are available from the [Zero Waste Scotland website](#).

On 27 June 2018 the Scottish Government published a consultation on a [Deposit Return Scheme for Scotland](#). The consultation sought views on the options for distinct elements of a deposit return scheme on beverage containers, seeking views on “which options will deliver the best results for Scotland.”¹⁰⁰ The consultation asked:

1. how much the deposit should be;
2. where people could return items; and
3. what sort of materials and products should be included.

In February 2019 the Scottish Government published an independent analysis of the consultation responses.¹⁰¹ On 8 May 2019 the Cabinet Secretary for Environment, Climate Change and Land Reform (Roseanna Cunningham) updated the [Scottish Parliament](#) on its plans for a DRS. Ms Cunningham confirmed that it would cover metal cans, polyethylene terephthalate (PET) and glass, but that it would not cover high-density polyethylene (HDPE) due to concerns about contamination. She also proposed a deposit level of 20 pence.¹⁰² Drinks containers above 50 ml and up to 3 litres in size in the materials covered would be included.¹⁰³

Draft legislation to implement the scheme and a further consultation on it was published by the Scottish Government in September 2019.¹⁰⁴ The draft regulations were made exercising powers conferred by the *Climate Change (Scotland) Act 2009*.

The [Deposit and Return Scheme for Scotland Regulations 2020](#), were laid in the Scottish Parliament in March 2020 and will create the legal framework for the scheme. If approved, the scheme will begin in July 2022.

The [Environmental Regulation \(Enforcement Measures\) \(Scotland\) Amendment Order 2020](#) has also been laid, giving additional powers to the Scottish Environmental Protection Agency (SEPA) to enforce the scheme.

⁹⁹ A resources organisation funded by the Scottish Government and the European Regional Development Fund

¹⁰⁰ Scottish Government website, [A Deposit Return Scheme for Scotland](#) [downloaded on 10 October 2018]

¹⁰¹ Scottish Government website, [Deposit return scheme consultation: analysis of responses](#), 21 February 2019

¹⁰² SP, [8 May 2019](#), Deposit Return Scheme

¹⁰³ Zero Waste Scotland, [Thousands of littered bottles and cans set to vanish thanks to deposit return scheme](#), 28 July 2019

¹⁰⁴ Scottish Government, [The Deposit and Return Scheme for Scotland Regulations 2020: accompanying statement and proposed regulations](#), September 2019

Alongside the Regulations, the Scottish Government has also published:

- [Deposit Return Scheme \(Scotland\) Regulations 2020: accompanying statement](#);
- [Deposit return scheme for Scotland: full business case addendum](#);
- [Deposit return scheme for Scotland: strategic environmental assessment addendum](#);
- [Deposit return scheme for Scotland: equality impact assessment](#);
- [Deposit return scheme for Scotland: business and regulatory: impact assessment](#); and
- [Deposit return scheme for Scotland: islands communities impact assessment](#).

6.6 Consistency in household recycling

In February 2019 the Government published a [Consultation on Consistency in Household and Business Recycling Collections in England](#). Among a wider range of measures aimed at increasing recycling rates it proposed that local authorities should have to collect the same set of core materials for recycling, including a number of plastic items. The [Executive summary and government response](#) was published in July 2019 which confirmed that the government will seek to amend legislation to require all English local authorities to collect at least the following dry materials from 2023:

- glass bottles and containers – including drinks bottles, condiment bottles, jars
- paper and card – including newspaper, cardboard packaging, writing paper
- plastic bottles – including clear drinks containers, HDPE (milk containers), detergent, shampoo and cleaning products
- plastic pots tubs and trays
- steel and aluminium tins and cans¹⁰⁵

The Government's response also set out that other types of plastic materials, including bags and films, would be given further consideration for inclusion in the core set of materials to be collected:

Whilst there was strong support from individuals that food and drink cartons, as well as plastics bags and film should be included in the core set immediately, there was significantly less support for this from stakeholders, particularly local authorities. A majority of stakeholders, including local authorities, supported including food and drink cartons and we will give further consideration to including this in the core set of materials from 2023 taking into account considerations on packaging responsibility for these packaging items. Most stakeholders supported the inclusion of plastic film as one of the core materials from the beginning or

¹⁰⁵ HM Government, [Consistency in recycling collections in England: executive summary and government response](#), 23 July 2019, para 3.1.1

phased in a later stage. Some waste management companies stated that plastic film should not be included until after a review of materials recycling facilities (MRF) infrastructure to ensure it could be processed without causing damage to machinery but there was support for phasing these in and we will give further consideration to this taking into account evidence on costs of collection, recycling and also producer responsibility. The final makeup of the core set of dry materials for collection will also depend on final decisions regarding a reformed packaging producer responsibility scheme.

We will work with local government and waste managers to develop these proposals. We will also take account of comments made regarding challenges to collections in different circumstances as we take forward these changes.¹⁰⁶

The [Environment Bill 2019-20](#) contains provision to amend household waste requirements designed to “ensure a consistent approach to recycling.”¹⁰⁷ For further information see Library briefing paper [Commons Library Analysis of the Environment Bill 2019-20](#), 18 February 2020.

Wales

On 23 September 2019 the Welsh Government published a consultation, [Increasing Business Recycling in Wales](#). It proposes to require the occupiers of non-domestic premises (such as businesses, charities and public sector bodies) to present specified recyclable materials for collection separately from each other and from residual waste. The recyclable materials to be specified for separate collection are paper, card, plastic, metal, glass, food, textiles and small waste electrical and electronic equipment (WEEE).¹⁰⁸ The consultation closed on 13 December 2019.

In the Welsh Government’s December 2019 consultation, [Beyond Recycling: A strategy to make the circular economy in Wales a reality](#), it stated that it would review its “collections Blueprint to seek to ensure that a consistent set of high quality recyclable materials are collected and continue to encourage the kerbside sort of materials.”¹⁰⁹

6.7 Single use carrier bags charge

A five pence charge came into effect on single use carrier bags in England on 5 October 2015. The charge in England, which is paid by customers to retailers, follows the introduction of similar levies in other parts of the UK. Wales, Northern Ireland and Scotland introduced a 5 pence levy on single use carrier bags in 2011, 2013 and 2014 respectively. The purpose of each single use carrier bag charge is to reduce the number of bags given out, increase their re-use and reduce litter. The *Climate Change Act 2008* and the *Climate Change (Scotland)*

¹⁰⁶ HM Government, [Consistency in recycling collections in England: executive summary and government response](#), 23 July 2019, para 3.1.1

¹⁰⁷ HM Government, [Queen’s Speech December 2019: background briefing notes](#), 19 December 2019, p112

¹⁰⁸ Welsh Government, [Increasing Business Recycling in Wales](#), 23 September 2019, p8

¹⁰⁹ Welsh Government, [Beyond Recycling: A strategy to make the circular economy in Wales a reality](#), 19 December 2019

Act 2009 provide the legislative framework for the single use carrier bag charge.

In Northern Ireland, from 19 January 2015, the levy was extended to all carrier bags with a retail price of less than 20 pence, whether they are considered single use or reusable.¹¹⁰

For further information about the charges across the UK see Library briefing paper, [Plastic bags – the single use carrier bag charge](#).

UK Government

The current carrier bag charge legislation in England applies the charge only to retailers with over 250 employees. There is no such restriction in the other UK countries. In the January 2018 25 Year Environment Plan the Government said that it would consider extending uptake of the 5 pence plastic bag charge in England to small retailers, initially through voluntary agreement.¹¹¹

On 27 December 2018, the Government published a [Consultation on extending the Single-use Carrier Bag Charge in England to all retailers and on increasing the minimum charge to 10p](#).¹¹² It proposes to amend regulations to extend the single use carrier bags charge to all retailers and to increase the charge to 10 pence with effect from January 2020. In respect of the raising the charge to 10 pence, the Government forecasts the following reduction in supply of carrier bags:

39. However, by increasing the charge to 10p we forecast a 90% reduction in supply of single use carrier bags by large retailers in the first year. Small retailers are expected to see an initial reduction of 23%, gradually falling to 90% in the third year. Total consumption of 521 million single use carrier bags is estimated in year three and for this to then remain constant. This compares with current consumption estimated at 4.5 billion (see Table 9 of Impact Assessment).¹¹³

The Consultation closed on 22 February 2019. The Government has not yet published a response.

The [Environment Bill 2019-20](#) contains provision to allow the Secretary of State in England and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland, to make regulations to require sellers of single use carrier bags to register with an administrator. This would be done by inserting new provisions into to the *Climate Change Act 2008*.

The rationale for this was set out by the Government as follows:

The purpose of registration is to enable an accurate record to be kept of those who are required to charge for single-use carrier bags. Requiring payment of a registration fee will ensure that the

¹¹⁰ Northern Ireland Department of Agriculture, Environment and Rural Affairs website, [Northern Ireland carrier bag levy statistics](#) [downloaded on 12 February 2019]

¹¹¹ HM Government, [A Green Future: Our 25 Year Plan to Improve the Environment](#), January 2018, page 29

¹¹² HM Government, [Consultation on the proposal to extend the Single-use Plastic bag charge to all retailers and to increase the minimum charge to 10p](#), December 2018

¹¹³ HM Government, [Consultation on the proposal to extend the single-use carrier bag charge to all retailers and to increase the minimum charge to 10p](#), December 2018, p6

costs of administering (record keeping, the database system and compliance checks) a carrier bag charge are borne by sellers of single-use plastic carrier bags rather than by government. The registration fee may be set at an amount sufficient to cover the costs of the administrator in performing its functions under the regulations, which accords with the polluter pays principle (those who produce pollution should bear the costs of managing it).

Some sellers may respond to the new duty to register (and pay a registration fee) by ceasing to provide single-use plastic carrier bags. Such action would be consistent with the reduction in single-use plastic bag use since regulations made under the single-use carrier bag power were introduced and which has seen some supermarket sellers removing single-use plastic bags from their stores. It would also be consistent with government policy set out in its 25 Year Plan to eliminate avoidable plastic waste.¹¹⁴

Welsh Government

The Welsh Government has said that it will review its charge on carrier bags in Wales and “consider whether we need to take further action on these items.”¹¹⁵

Scottish Government

In the Scottish Government’s November 2019 consultation on [Developing Scotland’s circular economy: Proposals for Legislation](#) it set out proposals to raise the carrier bag charge in Scotland from five pence to 10 pence through secondary legislation.¹¹⁶

6.8 Funding to reduce plastic waste

Plastics Research and Innovation Fund (PRIF)

In the Spring Statement 2018, the Chancellor announced a £20 million “plastics research and innovation fund.”¹¹⁷ Further information about its operation was set out in the Resources and Waste Strategy:

We pledged £20 million to the Plastics Research and Innovation Fund (PRIF – co-ordinated by Innovate UK and EPSRC) which aims to reduce the environmental costs of plastic and litter. Our sights are set on problematic plastics such as cigarette filters and chewing gum, which contain single-plastic polymers, and blight our streets and seas.

The fund will seek to deliver strategic networking and research that will coordinate existing knowledge across the UK, catalysing new ideas and rapid solutions. It will support the polymer, packaging, retail and waste sectors as well as local government responsible for waste collection.

UKRI will work with WRAP to network and connect this fund with initiatives across business, government and the research and innovation community, to encourage knowledge exchange, and

¹¹⁴ [Environment Bill: Memorandum from the Department for the Environment, Food and Rural Affairs to the Delegated Powers and Regulatory Reform Committee](#), 15 February 2020, paras 132-133

¹¹⁵ Welsh Government, [Beyond Recycling: A strategy to make the circular economy in Wales a reality](#), 19 December 2019, p19

¹¹⁶ Scottish Government, [Developing Scotland’s circular economy: Proposals for Legislation](#), November 2019, p35

¹¹⁷ [Spring Statement 2018: Philip Hammond’s speech](#), 13 March 2018

to identify future research and innovation priorities. Funded activities will be focused around developing solutions to reduce plastics entering our environment, funding for smart waste tracking data collection, storage and reporting services, for smart local energy systems, and for technology which advances the UK's low carbon automotive capability.¹¹⁸

In January 2019, the Government announced a new competition to offer UK businesses simultaneous public and private funding to tackle plastic waste, part of which comes from the PRIF.¹¹⁹ The first part of the funding competition invites applications from projects that “reduce plastic waste and pollution of wider environment and promote a circular economy.”¹²⁰ For further information about this funding see the Innovate UK blog, [The Plastics Age](#), 12 February 2019.

Plastics and Waste Investment Fund

At Budget 2018, a further £20 million of funding was announced, to complement the PRIF: “£10 million more for plastics R&D, and £10 million to pioneer innovative approaches to boosting recycling and reducing litter, such as smart bins.”¹²¹ The Resources and Waste Strategy set out further how it would work:

£10 million will complement the PRIF, focusing on research and development to help business transition away from polluting plastics. This will include exploration of new packaging materials, new recycling processes and packaging waste management. The other £10 million will pioneer innovative approaches to boosting recycling and reducing litter. This funding will be made available during the 2019/20 financial year.¹²²

Resource Action Fund

On 12 June 2019 the Government announced an £18 million “Resource Action Fund” for, (among other things), “innovative solutions to drive up the recycling of hard-to-recycle plastic packaging such as plastic trays, pots and tubs, plastic films and pouches”.¹²³ A press release set out that it would support projects in England and could include innovative sorting or segregation equipment, and smarter systems to enable sorting of different polymers.¹²⁴ Further information about the fund, what is available and how to access it, is available from the [WRAP website](#).

Wales: circular economy fund

In April 2019 the Welsh Government launched a £6.5 million circular economy fund which offers grants to businesses of any size seeking capital investment funding to increase their use of recycled materials (not just plastic) in manufactured products, components or packaging.

¹¹⁸ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p127

¹¹⁹ HM Government, [New investment for businesses to tackle ocean plastics crisis](#), 11 January 2019

¹²⁰ Ibid

¹²¹ HM Government, [Budget 2018](#), October 2018, p65

¹²² HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p128

¹²³ HM Government press release, [Fund opens to reduce waste from plastic packaging and textiles](#), 12 June 2019

¹²⁴ HM Government press release, [Fund opens to reduce waste from plastic packaging and textiles](#), 12 June 2019

WRAP Cymru administers the fund on behalf of the Welsh Government.¹²⁵

Scotland Circular Economy Investment Fund

In Scotland, Zero Waste Scotland's Circular Economy Investment Fund and business support services, has made investments of £5.8 million in domestic projects and given support to 164 businesses to develop circular economy products or services.¹²⁶

¹²⁵ Welsh Government, [£6.5 million Circular Economy Fund launches to increase the use of recycled materials](#), 29 April 2019

¹²⁶ Scottish Government, [Developing Scotland's circular economy: Proposals for Legislation](#), November 2019, p9

7. Environment, Food and Rural Affairs Committee scrutiny

In March 2019 the House of Commons Environment, Food and Rural Affairs (Efra) Select Committee launched an inquiry into [Plastic food and drink packaging](#).¹²⁷ The Committee's report was published on 12 September 2019. Its "key conclusions" were as follows:

- The Government does not know how much plastic packaging is placed on 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.¹²⁸

A Government response to this report has not been published.

¹²⁷ Environment, Food and Rural Affairs Committee, [Plastic food and drink packaging inquiry launched](#), 28 March 2019

¹²⁸ Environment, Food and Rural Affairs Committee, [Plastic food and drink packaging](#), sixteenth report session 2017-19, HC2080, 12 September 2019

8. EU initiatives

8.1 EU Circular Economy Package

On 2 December 2015, the European Commission adopted a new [Circular Economy Package](#) to stimulate Europe's transition towards a circular economy (see box 2 above, "What is a circular economy?")

The Circular Economy Package consisted of:

- an EU Action Plan for the Circular Economy
- a timetable setting out when the actions will be completed (set out in an Annex to the Action Plan); and
- adoption of a number of interconnected legislative proposals which relate to waste legislation, including a:
 - Proposed Directive on Waste
 - Proposed Directive on Packaging Waste
 - Proposed Directive on Landfill
 - Proposed Directive on Electrical and Electronic Waste

The EU Circular Economy Package was formally agreed by the European Council on 22 May 2018, the final stage that it needed to pass.¹²⁹

The package included new recycling targets for various different types of packaging waste. For plastic packaging this is 50% by 2025 and 55% by 2030.¹³⁰ This is an increase from the previous 2008 target of 22.5%.¹³¹

For further information and links to the new Directives see EU Commission press release, "[Circular Economy: New rules will make EU the global front-runner in waste management and recycling](#)" 22 May 2018.

On 4 March 2019 the European Commission adopted a report on the implementation of the Circular Economy Action Plan.¹³² This set out how actions under the plan have/ will be delivered.

The then UK Government's December 2018 Resources and Waste Strategy for England set out an intention to explore "more stretching targets" following Brexit:

The EU (Withdrawal) Act 2018 will ensure existing EU environmental law continues to have effect in UK law after we leave the EU, providing businesses and stakeholders with maximum certainty. This includes any commitments from the Circular Economy Package (CEP) in relation to waste and recycling that are part of UK legislation when we leave.

(...)

¹²⁹ EU Commission press release, "[Circular Economy: New rules will make EU the global front-runner in waste management and recycling](#)" 22 May 2018

¹³⁰ By the [Amending Packaging Waste Directive 2018](#) (Directive (EU) 2018/852)

¹³¹ Article 11(3) EU Waste Framework Directive 2008/98/EC

¹³² European Commission, [Closing the loop: Commission delivers on Circular Economy Action Plan](#), 4 March 2019

As we implement and deliver this Strategy we will explore whether more stretching targets, over and above those proposed by the EU, can be developed that will deliver the most effective approach to recycling. These won't just target weight but will also consider the environmental impacts of waste, though in doing so will ensure that the frequency and scope of household waste collections is not undermined. Should they be preferable, we will present proposals to the UK Parliament following the UK's departure from the EU.¹³³

An EU Single Use Plastics Directive

Action on plastics was identified as a priority in the 2015 Circular Economy Action Plan. A [European Strategy for Plastics in a Circular Economy](#) was adopted by the European Commission on 16 January 2018. A press release to accompany its adoption set out the ambition that "all plastic packaging on the EU market will be recyclable by 2030, the consumption of single-use plastics will be reduced and the intentional use of microplastics will be restricted."¹³⁴

The EU Strategy examined ways to stimulate secondary markets for recycled plastic, alongside possible legislative and fiscal measures to make all plastic packaging recyclable by 2030. A full list of measures proposed in the Strategy and their proposed timelines are provided in [Annexes](#) to the Plastics Strategy. These are also summarised in the Commission's brochure, [A European Strategy for plastics in a circular economy](#).

As part of the Strategy, the Commission published a [Proposal for a Directive on the reduction of the impact of certain plastic products on the environment & Annex](#). The aim is to tackle marine litter coming from the 10 single-use plastic products most often found on European beaches, as well as abandoned fishing gear and oxo-degradable plastics.¹³⁵

The proposal has now been agreed and published as [Directive \(EU\) 2019/904 of the European Parliament and of the Council of 5 June 2019 on the reduction of the impact of certain plastic products on the environment](#). An EU Commission press release summarises the scope of the Directive:

- A ban on selected single-use products made of plastic for which alternatives exist on the market: cotton bud sticks, cutlery, plates, straws, stirrers, sticks for balloons, as well as cups, food and beverage containers made of expanded polystyrene and on all products made of oxo-degradable plastic.
- Measures to reduce consumption of food containers and beverage cups made of plastic and specific marking and labelling of certain products.

¹³³ HM Government, [Waste and Resources Strategy for England](#), December 2018, p113

¹³⁴ EU Commission, [Plastic Waste: a European strategy to protect the planet, defend our citizens and empower our industries](#), 16 January 2018

¹³⁵ European Commission - [Press release Circular Economy: Commission welcomes Council final adoption of new rules on single-use plastics to reduce marine plastic litter](#), 21 May 2019

- Extended Producer Responsibility schemes covering the cost to clean-up litter, applied to products such as tobacco filters and fishing gear.
- A 90% separate collection target for plastic bottles by 2029 (77% by 2025) and the introduction of design requirements to connect caps to bottles, as well as target to incorporate 25% of recycled plastic in PET bottles as from 2025 and 30% in all plastic bottles as from 2030.¹³⁶

A European Commission press release from 21 May 2019 set out the next steps for the Directive and its transposition:

Today's decision by the Council of the EU will be followed by the publication of the texts in the Official Journal of the European Union. The Directive will enter into force 20 days after the publication. The Member States will then have two years to transpose the legislation into their national law.

The Directive has differentiated dates for transposition concerning certain measures:

- The bans and the marking obligations will have to be implemented two years after the entering into force.
- Tethered caps and lids are to remain attached for all beverage containers up to 3 litres, 5 years after the entry into force of the Directive.
- The additional obligations for extended responsibility of producers will have to be implemented between January 2023 and 31 December 2024, depending on the product.¹³⁷

In the then UK Government's December 2018 Resources and Waste Strategy it supported the EU's proposals:

The actions listed in the EU's plastics strategy and its proposed Directive on reducing the impact of certain plastic products on the environment are broadly consistent with Government policy in this area. The UK supports this initiative and welcomes the EU in following our lead and recognising the importance of addressing plastic pollution. We will match or where economically practicable exceed the Directive's ambition.¹³⁸

8.2 The European Green Deal

In December 2019 the European Commission published a communication called The European Green Deal.¹³⁹ It is described as resetting "the Commission's commitment to tackling climate and environmental-related challenges that is this generation's defining task."¹⁴⁰ It presents an initial roadmap of the key policies and measures

¹³⁶ European Commission - [Press release Circular Economy: Commission welcomes Council final adoption of new rules on single-use plastics to reduce marine plastic litter](#), 21 May 2019

¹³⁷ European Commission - [Press release Circular Economy: Commission welcomes Council final adoption of new rules on single-use plastics to reduce marine plastic litter](#), 21 May 2019

¹³⁸ HM Government, [Our waste, our resources: a strategy for England](#), Dec 2018, p22

¹³⁹ European Commission website, [A European Green Deal](#) [downloaded on 23 December 2019]

¹⁴⁰ European Commission, Communication from the Commission, [The European Green Deal](#), COM(2019) 640 final, 11 December 2019

needed to achieve a number of different policies and goals. Among other things, a new circular economy action plan will be produced which will include further action on plastics:

The circular economy action plan will include a 'sustainable products' policy to support the circular design of all products based on a common methodology and principles. It will prioritise reducing and reusing materials before recycling them. It will foster new business models and set minimum requirements to prevent environmentally harmful products from being placed on the EU market. Extended producer responsibility will also be strengthened.

While the circular economy action plan will guide the transition of all sectors, action will focus in particular on resource-intensive sectors such as textiles, construction, electronics and plastics. The Commission will follow up on the 2018 plastics strategy focusing, among other things, on measures to tackle intentionally added micro plastics and unintentional releases of plastics, for example from textiles and tyre abrasion. The Commission will develop requirements to ensure that all packaging in the EU market is reusable or recyclable in an economically viable manner by 2030, will develop a regulatory framework for biodegradable and bio-based plastics, and will implement measures on single use plastics.¹⁴¹

The question of whether the UK Government will follow any new legislation resulting from the European Green Deal may depend on any commitments made as part of its future relationship with the EU, which is currently under negotiation. For further information on this see the environment section in Library briefing paper, [The UK-EU future relationship negotiations: Level playing field](#), 17 March 2020.

¹⁴¹ European Commission, Communication from the Commission, [The European Green Deal](#), COM(2019) 640 final, 11 December 2019

9. Other plastics initiatives

There are a number of initiatives aimed at changing the way that plastics are designed, produced, used, re-used, disposed of and reprocessed in the UK, examples of which are set out below.

9.1 The Plastics Pact

The Waste and Resources Action Programme (WRAP) coordinates a the "Plastics Pact" which is a collaboration which brings together businesses from across the plastics value chain, including a number of supermarkets, retailers and manufacturers. This has set a target to eliminate unnecessary single-use plastic packaging, for all plastic packaging to be re-usable, recyclable or compostable and for 70% to be recycled or composted by 2025. Further information about the pact and pledges taken by different companies are available from the [WRAP website](#).

WRAP published a [Progress Report](#) on the Pact on its first anniversary, 21 May 2019. The report outlines actions that some of its members have taken over the past year to help deliver the targets of the Pact. A further WRAP progress report, the [2018-19 Plastics Pact](#), was published in December 2019. A report on [Member progress and future commitments towards the four Pact targets](#) was also published in December 2019.

9.2 Plastics Industry Recycling Action Plan

The [Plastics Industry Recycling Action Plan](#) (PIRAP), established in June 2015, is an industry action plan which aimed initially to increase the recycling of plastics to meet a 57% plastic packaging recycling target by 2017. This target has now been extended to 2020. Initiatives in the plan include: increased collection of recyclable plastics; improved sorting; and developing end markets for recycled plastics. PIRAP is implemented by the British Plastics Federation, PlasticsEurope and recycling charity Recoup, with the support of WRAP.

9.3 The UK Circular Plastics Network (UKCPN)

The UK Circular Plastics Network (UKCPN) aims to bring together plastic product users through a programme of networking and knowledge-sharing events and related support activities. The idea is that this will create a community of stakeholders, to examine the best means for reducing plastic waste entering the environment. UKCPN is an activity supported by UK Research and Innovation, and forms part of the Plastics Research Innovation Fund (PRIF). Specifically, UKCPN aims to facilitate the following:

- Eliminating the volume of plastic waste arising from within the UK.
- Raising awareness and sharing best practice to improve the rate of UK plastic recycling.

- Sharing best practice to reduce levels of confusion amongst citizens and highlighting user-centred design.
- Showcasing innovation that is focused on reducing the amount of plastic ending up in the environment.¹⁴²

9.4 Personal food containers

An increasing number of businesses have started to provide for customers to bring their own containers for food products. For examples, see the zero waste blog “[Shop Zero Waste: UK-Wide Stores](#)”. The supermarket Morrisons also has a blog about how customers can bring their own containers to use at meat and fish counters: “[Bring your own container to Market Street](#)”.

Many coffee chains now actively offer a discount on takeaway hot drinks when people bring in their own reusable cups. See for example:

- [How can Pret encourage more customers to bring a reusable cup?](#),¹⁴³
- Costa website, [Our cups](#);¹⁴⁴
- Starbucks website, [Get Recycling! And Get Rewarded](#).¹⁴⁵

9.5 Changing plastic packaging

Rather than allowing customers to bring in their own containers, some supermarkets are focussing their efforts on reducing packaging and ensuring that packaging that cannot be reduced is more easily and widely recyclable. For example, supermarket Waitrose has stated:

In July we announced a commitment that will make a major impact on the use of plastic in our packaging. By 2025 all our own-label packaging will be widely recyclable (using the widely recycled logo), reusable, or home compostable.

We believe there is a role that recyclable plastic can play with some products - to protect during transportation and to prevent food waste, which is why we are not planning to remove it entirely from our ranges.

Our commitment is a stretching target, but we are determined to achieve it through a mix of innovation and working with suppliers to change how we package the products we sell.¹⁴⁶

The supermarket Iceland has also announced that it will remove plastic packaging from its own label products by 2023.¹⁴⁷

An [article from consumer group Which?](#) lists some of the initiatives for changing and reducing plastic packaging announced by a number of different supermarkets.¹⁴⁸

¹⁴² [UK Circular Plastics Network website](#) [downloaded on 19 February 2019]

¹⁴³ [How can Pret encourage more customers to bring a reusable cup?](#), Blog by Clive Schlee, CEO of Pret, 6 December 2017

¹⁴⁴ Costa website, [Our cups](#) [accessed 12 February 2019]

¹⁴⁵ Starbucks website, [Get Recycling! And Get Rewarded](#) [accessed 12 February 2019]

¹⁴⁶ Waitrose website, [Innovating in packaging](#) [accessed 11 September 2018]

¹⁴⁷ [Iceland](#) website “It’s time to put a freeze on plastics”, 16 January 2018

¹⁴⁸ Which? [What are supermarkets doing about plastic?](#) [downloaded on 2 December 2019]

10. Plastic in the marine environment

Effect of plastic in the marine environment

Plastic and other forms of litter can be harmful to marine life. The main threats come from marine creatures becoming entangled in litter or ingesting it. A 2015 [review of the literature](#) from Plymouth University found that:

- Plastic accounted for 92% of encounters between litter and marine life reported in the literature.
- At least 17% of species threatened by entanglement or ingestion of marine litter were listed as threatened or near-threatened species.¹⁴⁹

The durability of plastic poses a particular problem. When littered, it can last centuries in the natural environment, where wildlife can become entangled in plastic or ingest small pieces of it.¹⁵⁰ Plastics can eventually degrade into micro-plastics, which can then enter the food chain. A 2018 Government press release stated that there are over 150 million tonnes of plastic in the world's oceans and that every year one million birds and over 100,000 sea mammals die from eating and getting tangled in plastic waste.¹⁵¹

In 2017 the Government published a report it commissioned as part of the Government Office for Science "Foresight" Future of the Sea project, [Future of the sea: plastic pollution](#). This report summarised some of the harmful effects of plastic in the marine environment as follows:

Plastic pollution can be harmful to wildlife, human well-being and to the economy in the UK, its Overseas Territories (OTs) and internationally. There is extensive evidence that entanglement in, or ingestion of, plastics can cause injury and death to a wide range of marine organisms, including commercially important fish and shellfish. Plastic pollution is also hazardous for mariners and reduces the amenity value of coastlines necessitating costly ongoing clean-up operations. In addition, there are emerging concerns of potential negative consequences for human well-being, but currently there is a lack of evidence on which to base firm conclusions here. The effects of small particles of micro and nano-sized plastic debris are not fully understood, but these particles could present different types of impact to those described for larger items.

Plastics are persistent contaminants and while there is uncertainty about the absolute quantity currently in the environment, it is

¹⁴⁹ Gall, S. C. & Thompson, R. C. (2015), [The impact of debris on marine life](#). Marine Pollution Bulletin 92, 170-179

¹⁵⁰ HM Government, [Tackling the plastic problem: using the tax system or charges to address single-use plastic waste](#), March 2013, p8-9

¹⁵¹ HM Government press release, [UK Government rallies Commonwealth to unite on marine waste](#), 18 April 2018

clear that in the absence of any actions both the quantity and the associated impacts will increase.¹⁵²

A study reported in the journal [Nature](#) examined how deep sea organisms were ingesting microfibrils in a natural setting. It also set out further work that is needed to examine the impact on ecosystems.¹⁵³

For further background information see POST Note [Marine Microplastic Pollution](#) 05 June 2016.

Extent of plastic in the marine environment

A [study published in Science in 2015](#) estimated that around 8 million tonnes of plastic is released into the ocean each year. There is some uncertainty around this estimate: authors report that the figure is likely to be between 4.8 and 12.7 million tonnes.¹⁵⁴

The BBC [reported on this study in 2017](#) and published a map, available online, showing which nations contribute the most plastic waste. The map also shows the location of gyres: areas of the ocean with circular currents that trap floating debris. The study estimated that Asian countries including China, Indonesia and the Philippines are some of the biggest contributors.¹⁵⁵

There are also discrepancies around the percentage of total marine litter that is made up from plastics. In 2016 the [UN Environment Programme](#) estimated that plastics make up as much as 95 per cent of the marine litter found on coastlines, sea surface, and the ocean floor.¹⁵⁶ The 2017 Foresight report estimated that around 70 per cent of all the litter in the oceans is made of plastic.¹⁵⁷

Another Foresight publication, [Future of the Seas: Final Report](#), from March 2018 estimated that plastic in the ocean is projected to treble between 2015 and 2025, without further intervention.¹⁵⁸

Sources of plastic in the marine environment

A 2016 briefing paper by the Imperial College London's Grantham Institute, [The ocean plastic pollution challenge: towards solutions in the UK](#), set out that 80% of plastic pollution originates from land-based sources with the remainder coming from ocean-based sources.¹⁵⁹ It lists the following as land based sources of ocean plastic pollution:

¹⁵² Foresight, Government Office for Science, [Future of the sea: plastic pollution](#), 3 August 2017, p4

¹⁵³ "Plastic microfibre ingestion by deep-sea organisms" M. L. Taylor, C. Gwinnett, L. F. Robinson & L. C. Woodall, [Nature.com](#), 30 September 2016

¹⁵⁴ Jambeck et al (2015), *Plastic waste inputs from land into the ocean*. *Science* 347 (6223), 768-771

¹⁵⁵ BBC News, [Seven charts that explain the plastic pollution problem](#), 10 Dec 2017

¹⁵⁶ UN Environment Programme, [Marine Litter Legislation: A Toolkit for Policymakers](#), 2016, p2

¹⁵⁷ Foresight, Government Office for Science, [Future of the sea: plastic pollution](#), 3 August 2017, p4

¹⁵⁸ Foresight, Government Office for Science, [Future of the Seas: Final Report](#), March 2018, p11

¹⁵⁹ Van Sebille, et al. (July 2016), [The ocean plastic pollution challenge: towards solutions in the UK](#). Grantham Inst., Briefing paper No 19.

- Illegal dumping and inadequate waste management;
- Industrial activity;
- Insufficiently filtered wastewater;
- Coastal littering;
- Discharge of storm water;
- Combined Sewer Overflows (CSOs); and
- Natural disasters.¹⁶⁰

Further information about each of these bullet headings is provided in the briefing. Marine based sources of plastic pollution are listed as fishing, shipping and offshore oil and gas platforms, undersea exploration.¹⁶¹

Microfibres

The shedding of microfibres from clothes and textiles is also thought to be a source of marine plastic pollution. Synthetic textiles, such as polyester, polyamide and acrylic can contain plastic. The plastic most commonly used in textiles is polyethylene terephthalate (PET) or polyester.¹⁶²

An “Evaluation of microplastic release caused by textile washing processes of synthetic fabrics” was published in 2017 in the journal *Environmental Pollution*.¹⁶³ The researchers used an electron microscope to count how many fibres had been released after a wash. They found the number of microfibres released from a typical 5kg wash load of polyester fabrics was estimated to be over 6,000,000 depending on the type of detergent used.¹⁶⁴ The article concluded that

...the amount and size of the released microfibres confirm that they could not be totally retained by wastewater treatment plants, and potentially affect the aquatic environment.¹⁶⁵

10.1 Domestic policies to tackle marine plastic waste

While the policies set out in section 6 may have a bearing on reducing the amount of waste entering the seas and oceans, Governments in UK

¹⁶⁰ Van Sebille, et al. (July 2016), [The ocean plastic pollution challenge: towards solutions in the UK](#). Grantham Inst., Briefing paper No 19.

¹⁶¹ Van Sebille, et al. (July 2016). [The ocean plastic pollution challenge: towards solutions in the UK](#). Grantham Inst., Briefing paper No 19.

¹⁶² Environmental Audit Committee, [Fixing fashion: clothing consumption and sustainability](#), 19 February 2019, p31

¹⁶³ De Falco, F., et al., [Evaluation of microplastic release caused by textile washing processes of synthetic fabrics](#), *Environmental Pollution* (2017), <https://doi.org/10.1016/j.envpol.2017.10.057>

¹⁶⁴ De Falco, F., et al., [Evaluation of microplastic release caused by textile washing processes of synthetic fabrics](#), *Environmental Pollution* (2017), <https://doi.org/10.1016/j.envpol.2017.10.057>

¹⁶⁵ De Falco, F., et al., [Evaluation of microplastic release caused by textile washing processes of synthetic fabrics](#), *Environmental Pollution* (2017), <https://doi.org/10.1016/j.envpol.2017.10.057>

countries also have specific policies aimed at marine plastics, as well as specific funding commitments.

Microbeads ban

A [joint-UK consultation](#) was completed in February 2017 to investigate a ban on the use of plastic microbeads in cosmetics and personal care products in the UK, and called for evidence on other sources of microplastics entering the marine environment. This was also the subject of a 2016 Environmental Audit Committee inquiry and report, [Environmental impact of microplastics](#) which had recommended a ban on microbeads from bathroom products.¹⁶⁶

On 9 January 2018 the UK Government introduced a ban on the manufacture of products containing microbeads.¹⁶⁷ A ban on the sale of products containing microbeads followed later in 2018 in England, Scotland and Wales as follows:¹⁶⁸

- In England by the [Environmental Protection \(Microbeads\) \(England\) Regulations 2017](#) (No.1312).
- In Scotland by the [Environmental Protection \(Microbeads\) \(Scotland\) Regulations 2018](#) (No.162).
- In Wales by the [Environmental Protection \(Microbeads\) \(Wales\) Regulations 2018](#) (No151).

Litter Strategies

UK Government

In April 2017, the UK Government published a [Litter Strategy for England](#), which contained a section called Litter in Context – Aquatic and Marine Litter, which set out a number of Government, business and community initiatives to tackle issues to do with marine litter. In particular, it highlighted Defra's role in microplastic research:

Defra plays an active role in advising and influencing marine litter and microplastics research, and is a member of the Marine Litter Action Network, which works with stakeholders from various sectors to raise awareness of the sources and problems associated with marine litter. We endorse and support a range of initiatives such as the MARLISCO project, the Seafish Responsible Fishing Scheme and Operation Clean Sweep to improve education around marine litter.¹⁶⁹

Scottish Government

The Scottish Government published [A Marine Litter Strategy for Scotland](#) in August 2014. The aim of the strategy is to help realise the vision of "clean, healthy, safe, productive and biologically diverse marine and coastal environment that meets the long term needs of people and nature".¹⁷⁰ [Scotland's National Marine Plan](#) underpins this

¹⁶⁶ House of Commons Environmental Audit Committee, [MPs urge Government to ban microbeads in cosmetics](#), 24 August 2016

¹⁶⁷ HM Government, [World-leading microbeads ban takes effect](#), 9 January 2018

¹⁶⁸ HM Government, [World-leading microbeads ban takes effect](#), 9 January 2018

¹⁶⁹ HM Government, [Litter Strategy for England](#), April 2017

¹⁷⁰ Scottish Government, [A Marine Litter Strategy for Scotland](#) in August 2014, p2

Strategy and includes marine planning policy to ensure measures are taken to address marine litter.

The Scottish Government also supports the Keep Scotland Beautiful [Upstream Battle campaign](#), which is also supported by a number of plastics industry organisations. This campaign aims to prevent litter from entering the seas by working with communities by conducting litter surveys and clean ups along rivers and tributaries.

Welsh Government

In October 2018 the Welsh Government announced its support for a new research project into marine litter led by Keep Wales Tidy.¹⁷¹ The project will deliver actions from the [Marine Litter Action Plan for Wales \(2018-2020\)](#), which aims to help tackle marine litter and maintain or achieve Good Environmental Status in sea waters by 2020 under the EU Marine Strategy Framework Directive. The Welsh Government is also working on a new Litter Programme which will culminate in a new pan-Wales Litter Plan.¹⁷²

Microfibres/plastics

In the 2018 Resources and Waste Strategy, the Government said that it had commissioned research to better understand “how plastic particles from a range of sources including synthetic materials enter waterways and the marine environment, and to analyse their impact.”¹⁷³

In March 2019, in response to a Parliament petition calling for greater action in relation microplastics from washing machines, the Government set out further information about its work on microplastics:

...However, there is much more to do. The Government recognises that there is a broad range of knowledge gaps around the risks of the impacts of microplastics on the environment or on human health. There is therefore a need to steer the scientific community to focus research on the key knowledge gaps. DEFRA are currently supporting a research project led by scientists at the University of Plymouth to explore how microplastics enter waterways and oceans and the impact they have on marine life. Fibres released into waste water during a washing cycle is a specific consideration of 11-month project tasked with improving our understanding of microplastics and how they enter oceans.

The Drinking Water Inspectorate has commissioned research on removal of microplastics by drinking water treatment processes. Defra is also working with the Environment Agency and the UK’s water industry to establish methods to detect, characterise and quantify microplastics and fibres entering wastewater treatment works to evaluate the efficiency of treatment processes for their removal from domestic wastewaters and to assess their fate and biological effects in receiving rivers.

DEFRA are also working with the water industry to reduce the amount of litter entering the environment from sewage and waste water systems, in line with European directives. Over £9 billion has been invested in England and Wales between 1990 and

¹⁷¹ Welsh Government, [New marine litter project launched](#), 19 October 2018

¹⁷² [Written Statement: Plastic Waste, Hannah Blythyn AM](#), Deputy Minister for Housing and Local Government, 16 July 2019

¹⁷³ HM Government, [Waste and Resources Strategy for England](#), December 2018, p42

2010 to improve sewage treatment works and collecting systems to limit polluting events, and some £2 billion is planned between now and 2020. Water infrastructure is an important pathway of contaminants, including microfibres, to the wider aquatic environment.

Department for Business, Energy and Industrial Strategy.¹⁷⁴

The Environmental Audit Committee 19 February 2019 report, [Fixing fashion: clothing consumption and sustainability](#) recommended the establishment of a new Extended Producer Responsibility (EPR) scheme (a policy approach where producers are given responsibility—be it financial and/or physical—for the treatment or disposal of products they put on the market), to reduce textile waste, with a one penny charge per garment on producers.¹⁷⁵ The Government responded to this recommendation in a [Defra in the Media blog](#) piece, also on 19 February 2019, to say that "We are developing proposals for extended producer responsibility (EPR) for textiles and other priority waste streams, so that producers are responsible for the full net costs of managing their products at the end of their useful life, and to encourage greater reuse and recycling."¹⁷⁶

10.2 International cooperation

The UK Government is also involved at an international level with a number of initiatives to tackle ocean plastics. The sections below highlight examples of some of these international agreements and policies. The aim of many of these is to raise awareness and commit other countries to taking action to reduce plastic waste. Many of the UK's actions to meet these international agreements are through the policies outlined in section 6 of this paper.

Commonwealth Clean Oceans Alliance

The issue of ocean plastic was raised at the Commonwealth Heads of Government meeting in April 2018. The Government reported Commonwealth countries had been urged to sign-up to the newly formed Commonwealth Clean Oceans Alliance and take action to eliminate avoidable plastic waste.¹⁷⁷ The UK Government's press release set out funding it was contributing towards helping to reduce ocean plastic stemming from developing countries.¹⁷⁸

Further information about the Commonwealth Clean Oceans Alliance is available from the International Institute for Sustainable Development (IISD) website which sets out how the initiative supports other international agreements:

¹⁷⁴ Parliament petition, [Install microplastic filters on new washing machines as standard](#), March 2019

¹⁷⁵ Environmental Audit Committee, [Fixing fashion: clothing consumption and sustainability](#) 19 February 2019, para 131

¹⁷⁶ [Defra in the Media blog](#) "Coverage of the Environmental Audit Committee report into 'fast fashion'" 19 February 2019

¹⁷⁷ HM Government, [UK Government rallies Commonwealth to unite on marine waste](#), 18 April 2018

¹⁷⁸ HM Government, [Commonwealth unites to end scourge of plastic](#), 15 April 2018

The Commonwealth Clean Oceans Alliance represents an agreement among the UK, Ghana, Sri Lanka, New Zealand and Vanuatu to jointly tackle marine plastic. The countries have pledged to ban microbeads in personal care products and rinse-off cosmetics and to cut plastic bag use by 2021. The Alliance aims to drive action on SDG 14 (life below water) and to encourage other Commonwealth countries to sign up to and implement international agreements to protect the ocean, including the UN Clean Seas campaign, the Global Ghost Gear Initiative and the London Protocol.¹⁷⁹

UN Sustainable Development Goal 14

The [United Nations 2030 Agenda for Sustainable Development](#) is a “plan of action for people, planet and prosperity” consisting of 17 Sustainable Development Goals. [UN Sustainable Development Goal \(SDG\) 14](#) aims to “Conserve and sustainably use the oceans, seas and marine resources for sustainable development”. In September 2015, 193 Member States, including the UK, adopted this Agenda and committed themselves to working “tirelessly for the full implementation of this Agenda by 2030”.

SDG14 includes the target of:

By 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution

Further information about SDG 14 and progress on it can be found on the [UN Sustainable Development Knowledge Platform](#). In December 2017 the UK Government published a report, [Implementing the Sustainable Development Goals](#), which provides further information about the ways that the Government is supporting the delivery of the SDGs (including SDG 14). A [Voluntary National Review](#) of the SDGs in the UK was published by the Government in June 2019, providing an update on work so far.¹⁸⁰

UN Clean Seas Campaign and the Global Partnership on Marine Litter

The United Nations Environment Programme (UNEP) [#CleanSeas Campaign](#) was launched in February 2017 with the aim of “engaging governments, the general public, civil society and the private sector in the fight against marine plastic litter.”¹⁸¹ The UK Government has signed up to this campaign.¹⁸²

The campaign contributes to the goals of the [Global Partnership on Marine Litter](#) (GPA) a voluntary open-ended partnership for international agencies, governments, businesses, academia, local authorities and non-governmental organisations hosted by the UN Environment Programme:

¹⁷⁹ International Institute for Sustainable Development (IISD) website, [Commonwealth Clean Oceans Alliance Supports SDG 14 Achievement](#), 17 April 2018

¹⁸⁰ HM Government, [Voluntary National Review of progress towards the Sustainable Development Goals](#), June 2019

¹⁸¹ Clean Seas website, [About](#) [downloaded on 6 March 2019]

¹⁸² [Written question HL670: Lord Hylton 11-07-2017v](#)

The GPA is the only global intergovernmental mechanism directly addressing the connectivity between terrestrial, freshwater, coastal and marine ecosystems.

It aims to be a source of conceptual and practical guidance to be drawn upon by national and/or regional authorities for devising and implementing sustained action to prevent, reduce, control and/or eliminate marine degradation from land-based activities.

UNEP hosts the GPA Coordinating Unit and coordinates some activities in support of the programme. Intergovernmental Review Meetings are organized every 5 years to review the progress made by countries in the implementation of the GPA through their respective National Action Plans.¹⁸³

UN resolution on marine litter and microplastics

In December 2017, the UK Government reported that the UK was one of the 193 UN Member States to sign a resolution, [Marine Litter and Microplastics](#) (UNEP/EA.3/Res.7), to help reduce the amount of plastic in the world's seas.¹⁸⁴ Under the agreement, an international taskforce will advise how to combat marine litter. Among other things, the Resolution:

- *Stresses* the importance of long-term elimination of discharge of litter and microplastics to the oceans and of avoiding detriment to marine ecosystems and the human activities dependent on them from marine litter and microplastics;
- *Urges* all actors to step up actions to “by 2025, prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution”;
- *Encourages* all member States, based on best available knowledge of sources and levels of marine litter and microplastics in the environment, to prioritize policies and measures at the appropriate scale to avoid marine litter and microplastics from entering the marine environment;¹⁸⁵

The resolution also decides to establish an “ad hoc expert group to further examine the barriers to and options for combating marine plastic litter and microplastics from all sources, especially land-based sources”.

An article from the Independent reported that there had been dissent from some countries to putting specific reduction targets into the resolution:

A United Nations agreement that would have called for specific, internationally-agreed goals to tackle plastic waste in our oceans has been rejected by the US.

Several countries, including China and India, also refused to include in the resolution a call on nations to adopt any reduction targets, but US officials “were clearly leading the discussion on

¹⁸³ GPA website, [Why does addressing land-based pollution matter?](#) [downloaded on 20 February 2019]

¹⁸⁴ HM Government news story, [Global commitment at United Nations Assembly to reduce pollution](#), 7 December 2017

¹⁸⁵ United Nations Environment Assembly, [Marine Litter and Microplastics](#) (UNEP/EA.3/Res.7), 30 January 2018

this", a source at the UN Environment Assembly in Nairobi told The Independent.

Countries did agree that the world needs to stop plastics from entering the sea, but the final resolution published on Wednesday has no timetable and is not legally binding.¹⁸⁶

Following the session, the UK Government issued a press release to welcome the resolution.¹⁸⁷

The IMO "London Protocol"

The "Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972", (the "London Convention"), was one of the first global conventions to protect the marine environment from human activities and has been in force since 1975. In 1996, the "London Protocol" was agreed to further modernise the Convention and, eventually, replace it. Under the Protocol all dumping is prohibited, except for possibly acceptable wastes on a "reverse list". The Protocol entered into force on 24 March 2006 and there are currently 51 Parties to the Protocol.¹⁸⁸

The objective of the London Convention and Protocol is to promote the effective control of all sources of marine pollution. Contracting Parties "shall take effective measures to prevent pollution of the marine environment caused by dumping at sea" (see articles I and II of the Convention and article 2 of the Protocol).

Further information about the London Protocol is available on the [IMO website](#).

OSPAR Regional Action Plan on marine litter

The UK is an active participant in OSPAR (the Oslo and Paris Convention for the protection of the marine environment of the North-East Atlantic). This is a collaborative effort with neighbouring countries to address marine litter.

The OSPAR objective with regard to marine litter is "to substantially reduce marine litter in the OSPAR maritime area to levels where properties and quantities do not cause harm to the marine environment", by 2020. To fulfil this objective OSPAR 2014 agreed a [Regional Action Plan \(RAP\) for Marine Litter](#) for the period 2014-2021. The RAP contains 55 collective and national actions which aim to address both land based and sea based sources.

Further information is available on the OSPAR Commission website on [Marine Litter](#).

¹⁸⁶ The Independent "[UN resolution calling for targets to tackle ocean plastic waste rejected by US, China and India](#)", 7 December 2017

¹⁸⁷ Gov.uk press release, [Global commitment at United Nations Assembly to reduce pollution](#), 7 December 2017

¹⁸⁸ IMO website, [Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter](#) [downloaded on 6 March 2019]

10.3 Other marine plastic initiatives

There are many other initiatives outside Government, from environmental groups, NGOs, the plastics industry and other bodies that aim to deal with the problem of plastic in the marine environment.

Examples of some of these include:

- The [Marine Litter Action Network](#) (MLAN), which brings together 60 organisations across different sectors to tackle the issue of marine litter.
- [Operation clean sweep](#): a plastics industry initiative which aims to help plastic resin handling operations implement good housekeeping and pellet, flake, and powder containment practices.
- [Surfers Against Sewage](#), a campaign group with an aim to stop plastic pollution at source and clean up beaches.
- [Plastic Oceans](#), an organisation which organises awareness initiatives on plastic pollution.
- [Sky Ocean Rescue](#), a campaign to find innovative solutions to the problem of ocean plastics.

11. Other plastics issues

11.1 Overseas export bans on plastic waste

On 18 July 2017, China notified the World Trade Organisation (WTO) that it intended to ban four classes and 24 kinds of solid waste by the end of 2017.¹⁸⁹ The ban includes all plastics scrap as well as other types of waste.

In a January 2018 written statement, the Government provided information about the levels of plastic waste sent to China and about the implications of this ban for the UK:

On 1 January 2018 China imposed a ban on the import of certain types of waste including mixed paper and post-consumer plastics (plastics thrown away by consumers). In addition, some other types of waste, including all other paper and plastics exports, will have to meet a reduced acceptable contamination level of 0.5% from March 2018.

China's decision has a global impact, including in the UK. 3.7 million tonnes of plastic waste are created in the UK in a single year. Of that total, the UK exports 0.8 million tonnes to countries around the world, of which 0.4 million tonnes is sent to China (incl. Hong Kong). In comparison, other countries including Germany (0.6 million tonnes), Japan and the US (both 1.5 million tonnes) export more plastic to China for reprocessing than the UK.¹⁹⁰

The written statement also set out the Government's steps taken in relation to the ban:

Since China announced its intentions on 18 July 2017, ministers have worked with industry, the Environment Agency, WRAP, the devolved administrations and representatives from local government to understand the potential impact of the ban and the action that needs to be taken. We have engaged internationally to understand the scale and scope of China's waste restrictions. The UK Government raised the issue with the EU in September. Alongside four other members, the EU subsequently questioned the proposals at the WTO in October.

Domestically, the government and the Environment Agency took steps last year to ensure that operators were clear on their duties to handle waste in light of China's proposals. The Environment Agency issued fresh guidance to exporters, stating that any waste which does not meet China's new criteria will be stopped, in the same way as banned waste going to any other country. There is evidence that some operators have already been finding alternative export markets in response to the Chinese restrictions. Data for the third quarter of last year showed increases in exports of plastics to Turkey, Taiwan, Vietnam and Malaysia and increases in exports of paper to Turkey, Taiwan and Vietnam.¹⁹¹

The Government's February 2019 consultation on *Consistency in household and business recycling collections in England* set out how other countries in South East Asia had also banned recovered plastics

¹⁸⁹ WTO [notification G/TBT/N/CHN/1211](#) 18 July 2017

¹⁹⁰ [Waste: Written statement - HCWS391 8 January 2018](#)

¹⁹¹ [Waste: Written statement - HCWS391 8 January 2018](#)

from overseas, with indications that other countries may also follow suit:

During the first 5 months of 2018, the most notable increases in UK plastics exports in absolute terms went to Malaysia, Vietnam and Turkey. Trade data available for this period showed a doubling in UK exports of plastic to Indonesia (up to 10kt in May).

The export market for recyclables continues to be characterised by instability and price volatility. Apart from restrictions on waste imports announced by China, concern is growing that other economies in South East Asia will also introduce waste import restrictions in the near future. In late June 2018, the government of Thailand banned all recovered plastics from entering its ports. It joined Vietnam and Malaysia who announced temporary bans on the import of plastics, after being overwhelmed by the volume of recovered recyclables being diverted their way following the restrictions on Chinese waste imports.¹⁹²

The consultation document also set out how this “instability” had created a “challenge” for local authorities in finding end destinations for recycled materials, which in turn has increased recycling costs:

The ongoing instability in recycling export markets is proving to be a challenge for English local authorities and the difficulties in finding end destinations is putting a strain on the financial viability of recyclables collections from households. In a recent survey of English local authorities undertaken by the LGA, some of the councils that have been most impacted by the recent China waste import bans warned that their recycling costs have increased by £500,000 on average over the last year as a result of the restrictions.¹⁹³

A May 2019 report by the waste charity Recoup examined how the changing position of end markets for plastics collected for recycling is affecting local authorities. It found that:

52% of respondents said they were experiencing issues with plastic markets.

It was reported there is still good demand for traditional good quality material – clear PET and natural HDPE bottles, and prices for these materials are holding. MRF’s [materials recovery facility] are recovering as much of this material as possible.

Increasingly end markets are becoming more limited, and ‘mixed plastics’ potentially becoming a non-tradeable fraction unless there is enough clear PET bottles, natural HDPE or PP in the stream.

New markets are continually being investigated to seek best prices. It is reported there is not enough value in Local Authorities and Waste Management Providers collecting the lower grade material, even with changing operations to produce higher quality material or refine fractions to increase potential to sell the material and benefit from the value of it.¹⁹⁴

¹⁹² HM Government, [Consultation on consistency in household and business recycling collections in England](#), February 2019, p42-3

¹⁹³ HM Government, [Consultation on consistency in household and business recycling collections in England](#), February 2019, p43

¹⁹⁴ Recoup, [Local Authority Plastics End Market Analysis](#), May 2019, p4

11.2 Export of plastic waste requirements: Basel Convention amendment

In May 2019 at the [fourteenth meeting of the Conference of the Parties to the Basel Convention](#) (BC COP-14), 186 countries, (including the UK), agreed to make legally binding amendments to the Basel Convention to with the aim of making the global trade in plastic waste more transparent and better regulated.¹⁹⁵ It followed concern that large quantities of contaminated and mixed plastic wastes were being “dumped” in developing countries.¹⁹⁶

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was adopted on 22 March 1989 by the Conference of Plenipotentiaries in Basel, Switzerland. The provisions of the Convention centre around the following principal aims:

- the reduction of hazardous waste generation and the promotion of environmentally sound management of hazardous wastes, wherever the place of disposal;
- the restriction of transboundary movements of hazardous wastes except where it is perceived to be in accordance with the principles of environmentally sound management; and
- a regulatory system applying to cases where transboundary movements are permissible.¹⁹⁷

Reporting on BC COP-14, the Independent stated the amendments mean that signatories will have to monitor and track movements of plastic waste outside their borders.¹⁹⁸ The ENDSReport set out further that until now all non-hazardous plastic waste could generally be exported without prior notification. These amendments mean that “that the UK will no longer be able to export mixed plastics to some countries without first receiving written consent.”¹⁹⁹

11.3 Unrecyclable plastics

Black plastic

As a briefing from the Waste and Resources Action Programme (WRAP) sets out, black plastic packaging has carbon black pigments which absorb infra-red light and cannot be optically sorted by equipment using near infra-red detection technology. As a result, black plastic packaging commonly ends up as residue and is disposed of in landfill or recycled into lower value materials where polymer sorting is not required. See WRAP website, [Recyclability of black plastic packaging](#).

¹⁹⁵ United Nations Environment press release, [Governments agree landmark decisions to protect people and planet from hazardous chemicals and waste, including plastic waste](#), 12 May 2019

¹⁹⁶ “Plastic dumping law adds to exporter uncertainty” [ENDSReport](#), 13 May 2019 [subscription required]

¹⁹⁷ Basel Convention website, [Overview](#) [downloaded on 20 May 2019]

¹⁹⁸ “Almost every country in the world agrees deal to cut plastic pollution – except US” [The Independent](#), 11 May 2019

¹⁹⁹ “Plastic dumping law adds to exporter uncertainty” [ENDSReport](#), 13 May 2019 [subscription required]

The WRAP website sets out the work being done to improve the recyclability of black plastics and prevent these materials from going to landfill. Technical solutions have been found to solve the problem with black plastic, but these require further investment and support to prove operational and economic viability in full scale commercial conditions.

Black plastic is commonly used because the colour is often considered the most visually appealing for the presentation of many food items. Some retailers however have recognised black plastic as a problem and have made pledges to reduce it. Waitrose for example, pledged to stop using black plastic trays by the end of 2019 and other retailers have made similar commitments.²⁰⁰

In September 2017, it was reported in the specialist packaging press that a voluntary commitment had been made by packaging manufacturers, packers, retailers and brands, material reprocessors and trade associations to enable the sustainable recycling of all black plastic packaging bottles, pots, tubs and trays.²⁰¹ Under the UK Plastics Pact, any members using black plastic are requested to use detectable black pigments by the end of 2019.²⁰²

No specific information appears to have been published on progress with this commitment, but the May 2019 [WRAP Progress Report on the Plastics Pact](#) does highlight that “Unrecyclable plastics such as non-detectable black plastics [...] are disappearing from UK supermarket shelves”.²⁰³ It also sets out a number of specific initiatives by the manufacturing and retail sectors to reduce black packaging.

Low grade/ mixed plastics

Packaging for food can be made from a variety of polymers – molecules which make up plastic – which need to be separated out to remove “low grade” and non-recyclable polymers such as polystyrene. This can either make it very difficult and expensive to recycle or can render an item technically unrecyclable. Local Government Association (LGA) analysis published on 4 August 2018 highlighted that:

LGA analysis suggests that only a third of plastic used by households is able to be recycled. It found 525,000 tonnes of plastic pots, tubs and trays are used by households a year but just 169,145 tonnes of this waste is able to be recycled.

The LGA is calling for manufacturers to work with councils and develop a plan to stop unrecyclable packaging from entering the environment in the first place. (...)

In addition to developing a plan that ensures recyclable packaging is used where possible, councils are calling on the Government to consider a ban on low-grade plastics, and for producers and manufacturers to contribute to the cost of collection or disposal.

²⁰⁰ For further information see “Why black plastic is hard to recycle and why Waitrose has pledged to stop using it” [I News](#), 19 January 2018.

²⁰¹ “Industry sets deadline for recycling of black plastic packaging” [Packaging News](#), 27 September 2017

²⁰² WRAP website, [Recyclability of black plastic packaging](#) [downloaded on 3 Dec 2019]

²⁰³ WRAP, “[WRAP marks first anniversary of The UK Plastics Pact with new progress report](#)” 21 May 2019

Councils have done all they can to tackle this issue, with 99 per cent of councils collecting plastic bottles for recycling and 77 per cent collecting pots, tubs and trays, but the inclusion of these challenging polymers in so much packaging is making it extremely difficult for councils.

In order to increase recycling rates, it's essential that manufacturers prevent materials entering the environment which hamper recycling efforts. Alternatives to the packaging saturated in polymers which are challenging to recycle could include cardboard, paper or a recyclable version of pots. For instance, if margarine tubs were made out of the same material as plastic water bottles, they would be recyclable.²⁰⁴

11.4 Terminology and standards: bioplastics, biodegradable and compostable plastic

In July 2018 WRAP published a guide, [Understanding plastic packaging and the language we use to describe it](#). The guide sets out how the way a plastic is designed as well as what material it is made from affects what it can be used for as well as how it can be recycled and disposed of at the end of its life. It stated, for example, that use of the term "bioplastic" does not automatically mean that a product will biodegrade:

Plastic can be made from fossil-based or bio-based materials. Both can be used to make highly durable, nonbiodegradable plastics, or plastics which either biodegrade or compost. The nature of the material used to make a plastic or the term used to describe it does not necessarily dictate the way it will behave at the end of its life e.g. a bio-based plastic or bioplastic does not automatically mean it will biodegrade.

It also made clear that the fact that a plastic is described as "biodegradable" does not mean that it should be freely released into the environment in an uncontrolled manner. The speed, method and nature of biodegradation differs between materials. Currently biodegradable plastic cannot be recycled in the same way as non-biodegradable plastic. It must be separated from nonbiodegradable plastic streams and dealt with separately. If not, it causes problems during the recycling process.²⁰⁵

In terms of environmental impact of biodegradable and compostable packaging, the WRAP guide stated:

There is a lack of clarity concerning standards that define the biodegradability of biodegradable or compostable plastics in any environment. There is a particular lack of evidence on the behaviour of these materials in water, and there is a need to understand biodegradation at lower temperatures. Therefore, it is very difficult to accurately assess environmental impact of biodegradable and compostable plastic packaging.²⁰⁶

²⁰⁴ LGA, [Two-thirds of plastic in packaging pots and trays is unrecyclable](#), 4 Aug 2018

²⁰⁵ WRAP, [Understanding plastic packaging and the language we use to describe it](#), July 2018, p5

²⁰⁶ WRAP, [Understanding plastic packaging and the language we use to describe it](#), July 2018, p7

In its December 2018 Resources and Waste Strategy, the UK Government said that it would launch a call for evidence on the development of standards for bio-based and biodegradable plastics:

Innovative new packaging types could help reduce the environmental impact of plastic, if disposed of in the right way. We want to make this easy for people. One potential solution could be to introduce new standards for them. We will work with UK Research and Innovation, and industry, to examine the demand, benefits and implications, starting in 2019 with the launch of a call for evidence.²⁰⁷

On 22 July 2019 the Government published a [Standards for biodegradable, compostable and bio-based plastics: call for evidence](#). It seeks “robust evidence backed by scientific theory, direct practical experience, or analysis, rather than opinion”²⁰⁸, on the following areas:

We want to identify gaps and provide expert advice on:

- a) the overall sustainability of bio-based and biodegradable plastic products in comparison with those made from other materials. This could include all aspects of a product’s life-cycle and will help in assessing whether technical standards or other related options are suitable mechanisms to add value for such products
- b) existing relevant plastic degradation standards and how, or if, they might be promoted without any adverse effects to the environment and disposal routes
- c) the design and implementation of standards for biodegradable plastics to ensure that they fully biodegrade in a reasonable time-frame in specified environments²⁰⁹

Alongside it the Government also published a [Review of standards for biodegradable plastics: by the Industrial Biotechnology Innovation Centre](#). This review aims to provide information on the mechanisms of biodegradation, and why not all plastic is biodegradable. The paper stated that “there is a need for further clarification as to what plastics are truly biodegradable, under what conditions.” Its conclusions section sets out why this is a complicated matter and some of the critical issues:

- Laboratory testing cannot recreate the natural environment. Several factors influence the rate of biodegradability and will generally be artificially imitated in a laboratory testing scenario.
- Some factors such as mechanical deterioration and temperature can be mimicked to a high degree of similarity with the natural environment. However, the types and concentrations of microorganism are much more complicated.
- Variation in rates of deterioration and assimilation stages of biodegradation can make it difficult for some plastics to obtain biodegradable status. It may be worth considering allowing a different category for slower, but still fully biodegradable plastics.

²⁰⁷ HM Government, [Waste and Resources Strategy for England](#), December 2018, p125

²⁰⁸ HM Government, [Standards for biodegradable, compostable and bio-based plastics: call for evidence](#), 22 July 2019, p3

²⁰⁹ HM Government, [Standards for biodegradable, compostable and bio-based plastics: call for evidence landing page](#), 22 July 2019

- The method of determining biodegradability is largely reliant on the development of gas from the material over time. This method may not take into account the environmental fate of any other components of the plastic, such as additives, or final polymeric components that cannot be further biodegraded.
- While simply exposing plastic to the environment may be the best method for demonstrating true biodegradability, this also greatly complicates the methods for clearly determining the rates and the full assimilation of all material.
- The public need to understand that biodegradable and compostable are related but different, especially for consumers to be aware of the best method of disposal as industrial composting facilities are not the same as natural degradation.
- Testing of material needs to be done on the product in its final form including additives.²¹⁰

²¹⁰ Industrial Biotechnology Innovation Centre, [Review of standards for biodegradable plastics](#), July 2019, p26-27

12. What are other countries doing to tackle plastic waste?

A number of reports also set out what other countries outside the UK are doing to reduce the volume of avoidable plastic waste. For example, see:

- European Environment Agency, [Preventing Plastic Waste in Europe](#), EEA Report No 2/2019, 3 June 2019. This report reviews waste prevention policies in Europe with a focus on how these policies approach the issue of plastics and plastic waste.
- UN Environment Programme, [Single-Use Plastics: A Roadmap for Sustainability](#), 2018. This provides an overview of different policy instruments used around the world to either ban or discourage use of certain single use plastics;
- Annex D of the February 2018 Voluntary & Economics Incentives Working Group Report, [Voluntary and economic incentives to reduce littering of drinks containers and promote recycling](#), contains a table summarising details of other countries with a deposit return scheme and their reported rates of packaging recycling;
- The September 2017 Valpak [Packflow 2025 report](#) on extended packaging producer responsibility schemes contains an appendix providing country comparison profiles between France, Italy, Spain, Germany, Belgium and the Netherlands and the UK;
- The 2016 Chartered Institute of Wastes Management (CIWM) report, [Packaging Waste Recovery – A European comparison](#), contains policy comparison tables covering all types of packaging (not just plastics);
- The recycling company, Plastic Expert, has a series of articles on its website comparing plastics recycling in the UK with other countries:
 - [How Does The UK Compare At Plastic Recycling With Holland?](#) 19 August 2016
 - [How Does The UK Compare At Plastic Recycling With Germany?](#), 26 August 2016
 - [How Does the UK Compare at Plastic Recycling with France?](#) 20 September 2016
 - [How Does the UK Compare at Plastic Recycling with Sweden?](#), 18 October 2016
- The European Commission (DG Environment), published a report [Plastic waste in the environment – Final Report](#) from the Bio Intelligence Service in April 2011. Although many of the statistics in it are now out-dated, it highlights some of the different policy responses to different types of plastics waste from different sectors.

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