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Research Briefing

By Louise Smith

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Plastic waste

Summary

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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.

In 2021 the not-for-profit resources organisation, WRAP, stated that an estimated 1.2Mt (megatonnes) of the UK's plastic packaging was recycled in 2020, a fourfold increase from levels achieved in the early 2000s. WRAP also set out that in 2018/19, UK local authorities are estimated to have collected 572kt (kilotonnes) of plastic packaging for recycling from the UK household waste stream, 4% higher than the amount collected in 2017/18.

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.

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 followed on from and was 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.

The devolved administrations in Scotland, Wales and Northern Ireland each have their own ambitions on plastic waste and plans to move towards a more circular economy.

Government proposals for change

The UK Government's December 2018 Resources and Waste Strategy contained a number of polices aimed at reducing plastic waste. A range of consultations have then followed on individual areas, some of which have been UK-wide or with specific devolved Governments:

- Introducing a deposit return scheme (DRS) (England, Wales and Northern Ireland). The Scottish Government has consulted separately on its own proposals and has made regulations to introduce a deposit return scheme, which is now expected to begin in August 2023.
- Reforming the UK packaging producer responsibility system (UK-wide).
- Plastic packaging tax (UK-wide).
- Consistency in household and business recycling (England). Wales has undertaken its own separate consultation on business recycling.

Provisions on a deposit return scheme, consistency in recycling and reform of the extended producer responsibility systems are now included in the Environment Act 2021. Most of these will require further regulations to be made before they can be introduced.

Separately the UK Government and each devolved Government have also consulted on banning certain single use plastic products.

This briefing paper explains further which proposals stem from which Government and when they are expected to come into force.

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 will ban specified items of single use plastic in EU Member States. As the UK is no longer an EU Member, it is no longer required to transpose the Directive. An exception to this is in relation to Northern Ireland where certain articles from the Directive will be transposed under the provisions agreed as part of part of the UK/EU Withdrawal Agreement Northern Ireland Protocol (as amended). As waste is a largely devolved area within the UK, it is for each devolved administration to decide if it wants to follow the Directive's provisions. The Welsh and Scottish Governments have both consulted on banning the full range of single use plastic items set out in the Directive.

In December 2019 the European Commission published a European "Green Deal" and a new Circular Economy Action Plan, which includes further proposals to reduce plastic litter and improve recycling.

Plastics in the marine environment

Successive UK Governments have signed up to many international agreements aimed at reducing plastic in the marine environment. Examples

include the Commonwealth Clean Oceans Alliance and the UN Sustainable Development Goals.

Plastics exports

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.

The UK has various obligations under international, and national law relating to the shipment of waste abroad, particularly under the UN Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal (the Basel Convention) and the relevant regulations. The Basel Convention was amended to require that, from 1 January 2021, a Prior Informed Consent procedure is used for the shipment of certain types of plastic waste. These amended rules apply across the UK.

The UK Government also had a 2019 Manifesto commitment to "ban" the export of plastic waste to non-OECD (The Organisation for Economic Co-operation and Development) countries. Provision for this has been included in the Environment Act 2021 and will be subject to further consultation. It would be applicable across the UK.

Separately, the EU has banned most plastic waste exports to non-OECD countries, from 1 January 2021. As this occurred after the UK left the EU, these rules do not apply to Great Britain. The UK Government has been criticised for not implementing its own ban, but has responded to emphasise that it is following all current rules and to say that its own proposed ban, when implemented, will go further than the EU's.

Plastics terminology

In July 2018 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 UK Government published Standards for biodegradable, compostable and bio-based plastics: call for evidence to inform better its understanding of the scientific evidence available and where there gaps. A summary of responses and Government response to this consultation was published in April 2021. In relation to oxo-biodegradable plastics, the Government said that it was minded to ban these materials, subject to further consultation.

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.

Coronavirus

There has been some concern about the environmental consequences of an increased use of plastic products during the COVID-19 pandemic and about a delay to environmental legislation. Packaging manufacturers are keen for a green recovery to include a move towards greater sustainability and a more circular economy.

1 Statistics on plastic waste

Box 1: WRAP Plastics Market Situation Report 2021

The not-for-profit-organisation, the Waste and Resources Action Programme (WRAP) produced an updated Plastics Market Situation Report in 2021. This report provides in-depth information on economic, market and regulatory trends affecting the capture and recycling of plastics in the UK.

1.1 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 was reported. This was up by 24% since 2010 and 13% since 2014. The service sector 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.[1]

The coverage of UK data on plastic waste has been questioned by some organisations. A report for WWF[2] in 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. Plastic packaging made up two-thirds of plastic waste in 2014 (3.3 million tonnes).

1.2 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.[3]

1 UK statistics on waste 2019 update, Defra (Table 5.2)
2 A Plastic Future – Plastics Consumption and Waste Management in the UK
3 UK statistics on waste 2019 update, Defra (Table 5.4)

Again the coverage of this data has been questioned. The WWF report calculated recycling rates for single use plastics. This is based on the amount of waste produced, not just the share going to treatment. They estimated recycling rates of 29% for 2018 and projected a rate of 37% for 2030based on estimates of all plastic waste. Estimated landfill rates in 2018 were 48% with 22% going to energy recovery.[4]

1.3 Plastic packaging waste

UK

Official estimates of the UK's plastic packaging waste recycling rate are given opposite. The recycling/ recovery rate increased in each year to 2017 before falling back to 43.8% in 2018.

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%
2018	2.36	1.03	43.8%

Sources: UK statistics on waste, Defra; Waste database, EUROSTAT

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. A report by 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 official 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.[5]

A 2018 report by the National Audit Office also questioned the Government's data on packaging waste. It said:[6]

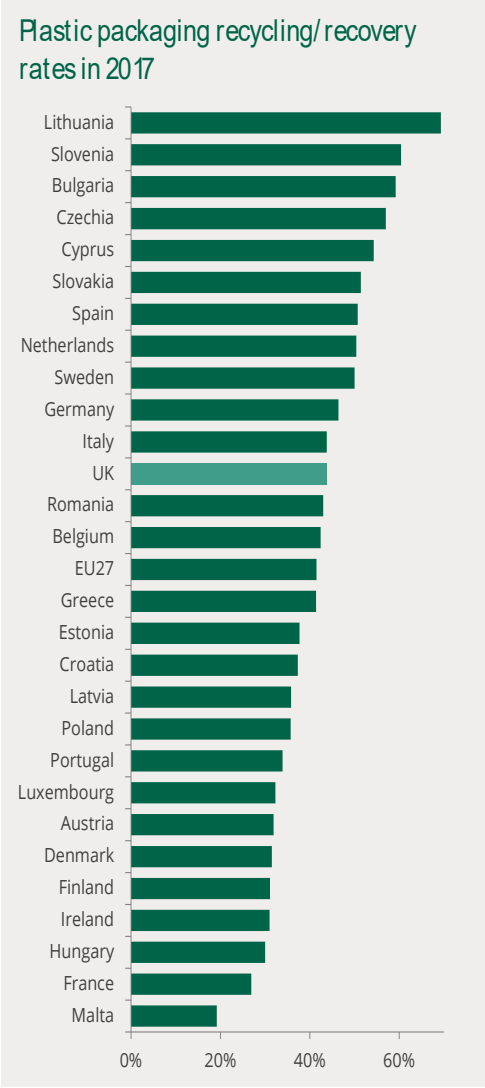
> However, the Department's estimates of packaging recycling rates are not sufficiently robust. The Department does not adjust its figures to account for undetected fraud and error. In order to determine the amount of packaging that is recycled each year, the Department uses the data that reprocessors 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

4 A Plastic Future – Plastics Consumption and Waste Management in the UK
5 Plastic Packaging – Shedding Light on the UK Data, Eunomia
6 The packaging recycling obligations, NAO

> 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.[7]

EU

The chart below shows the latest plastic recycling rates for EU members. The UK's rate in 2017 was slightly higher than the EU27 average of 41.5%, but below levels in some larger members including Spain, Sweden, the Netherlands and Germany.

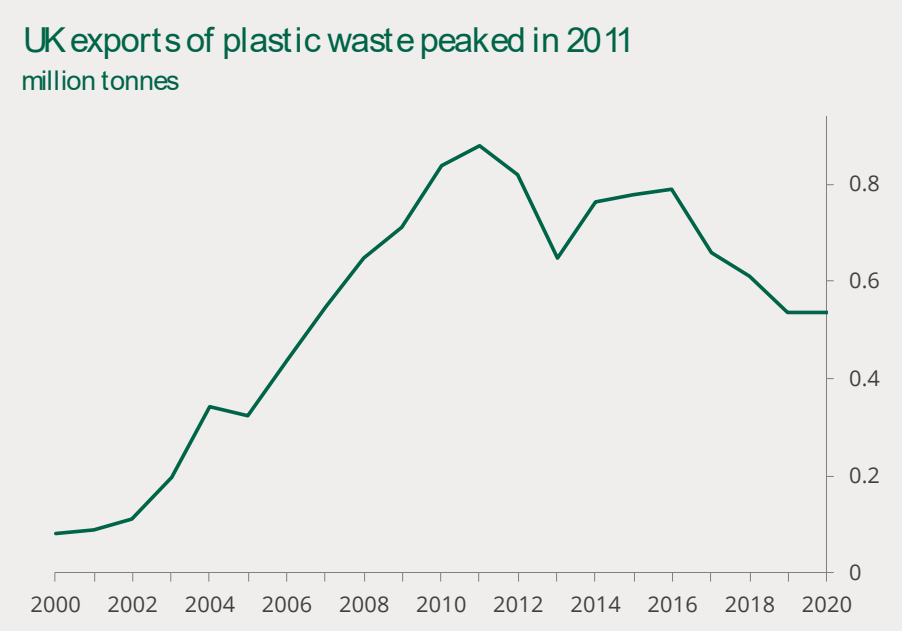


Source: Waste database, EUROSTAT

[7] NAO, The packaging recycling obligations, 23 July 2018, p6

1.4 Exports of plastic waste

In 2020 the UK exported 0.54 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 opposite shows that it has generally fallen since then. The 2019 level was the lowest for a decade.



Source: UK Trade Info

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 more than 90% in 2018. Exports to China have continued to fall in 2019 and 2020. In 2020 the most important export destinations were Turkey (39%), Malaysia (12%), Poland (7%) and the Netherlands (7%).[8]

[8] UK Trade Info

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.[9]

2.1 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.[10]

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

9 HM Government, Our Waste, Our Resources: A Strategy for England, December 2018, p22
10 HM Treasury, Plastic Packaging Tax: Consultation, 18 February 2019, p3

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% 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.[11]

2.2 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.[12]

2.3 Marine environment

The Government's 25 Year Environment Plan highlighted how plastic can have a negative impact 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

11 Ellen MacArthur Foundation, The New Plastics Economy: Rethinking the future of plastics and catalysing action, 2016, p23

12 Government Office for Science, Foresight, Future of the Seas: Final Report, March 2018, p80

> 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.[13]

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

[13] 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". [14] It contends that plastics packaging saves resources and, "it is lighter, uses less energy and produces less greenhouse gas emissions than alternatives."[15]

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
- Recyclable[16]

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

3.1 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

14 British Plastic Federation website, Plastic Packaging and the Environment [downloaded on 20 February 2018]
15 British Plastics Federation, Plastic Packaging: Frequently Asked Questions, 2018
16 British Plastics Federation, Plastic Packaging: Frequently Asked Questions, 2018, p4

kept clean enough to limit bacteria growth and about the potential for cross contamination between products.[17]

3.2 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.[18]

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.[19]

3.3 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.[20]

17 FoodManufactur.co.uk "Food safety expert criticises EU packaging proposal" 2 October 2018
18 Packaging Europe, Mixed Reception to UK Government Plan, 12 January 2018
19 BP, Energy Outlook 2019, p35
20 Trucost, Plastics and Sustainability: A Valuation of Environmental Benefits, Costs and Opportunities for Continuous Improvement, 2016, p7

3.4 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.[21]

[21] 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.

Following the UK's departure from the EU and the end of the transition period, these laws have been retained in domestic legislation in accordance with the *EU (Withdrawal) Act 2018* (as amended) and subsequent regulations.

4.1 EU Waste Framework Directive

The EU Waste Framework Directive (2008/98/EC) provided 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 were been transposed into law in each UK national authority separately.

4.2 Waste management hierarchy

Box 2: What is a circular economy?

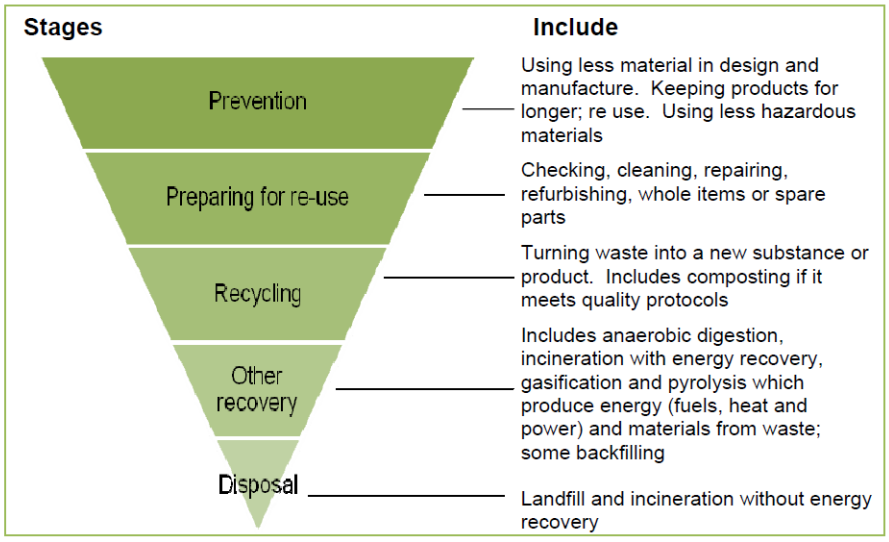
A circular economy means re-using, repairing, refurbishing and recycling existing materials and products and regarding waste as something that can be turned into a resource. It maximises the value of resources to benefit both the economy and the environment. This contrasts with a linear "take-make-consume-dispose" 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.[22]

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 was that the UK applied the waste management hierarchy. This sets out the order of priority to apply to products and waste and shows that prevention and re-use options should be considered before recycling.[23] This is in line with moving towards the aims of a circular economy. The waste hierarchy is depicted by Defra as follows:[24]



The Waste Hierarchy is implemented in the UK through:

- Regulation 12 and schedule 1 of *The Waste (England and Wales) Regulations 2011* (SI no.988);
- Paragraph 3 of Part 1 of Schedule 9 to the *Environmental Permitting (England and Wales) Regulations 2016* (SI no.1154);
- The *Waste (Scotland) Regulations 2012* (SI no.148);
- The *Waste Regulations (Northern Ireland) 2011* (SI no.127)

4.3 EU Packaging Directive

Under the EU *Packaging and Packaging Waste Directive* (94/62/EC), as amended, the UK also had a statutory producer responsibility regime for

22 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]

23 EU Waste Framework Directive, Article 4

24 Defra, Guidance on applying the Waste Hierarchy, June 2011

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 originally set 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 set material-specific recycling targets. These were 60% for glass, 60% for paper and cardboard, 50% for metals, 22.5% for plastics, and 15% for wood.[25]

The Amending Packaging Waste Directive 2018 (Directive (EU) 2018/852) amended 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 introduced a new plastic packaging recycling target of 55% to be reached by 2030.[26] EU member states were required to transpose the Amending Packaging Waste Directive 2018 into national law by 5 July 2020. Further information about the background to this revision and UK implementation is provided in section 8 of this paper.

The UK Government implemented 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.[27] 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

25 HM Government, UK Statistics on Waste, 14 February 2019, p7

26 European Commission press release, Commission reviews implementation of EU waste rules, proposes actions to help 14 Member States meet recycling targets, 24 September 2018

27 National Audit Office, The packaging recycling obligations, 23 July 2018

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.[28]

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."[29] The Committee recommended reform of the system to stimulate the use of recycled plastic and to reward design for recyclability. 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.[30]

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.[31]

28 National Audit Office (NAO), The packaging recycling obligations, 23 July 2018, p11

29 House of Commons Environmental Audit Committee, Plastic bottles: Turning Back the Plastic Tide, First Report of Session 2017–19, 22 December 2017, para 47

30 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

31 British Plastics Federation Recycling Group, Proposals for Growth of the UK Plastics Recycling Sector in a Circular Economy, March 2017

Reform of extended producer responsibly system

The Government, in its response[32] to the Environmental Audit Committee's report and in the 2018 25 year environment plan[33] both set out an aim to reform the EPR scheme for packaging.

In the December 2018 Resources and Waste Strategy for England, the Government set out its own criticisms of the current system of extended producer responsibility for packaging, saying that lacked transparency and did not sufficiently incentivise design for greater reuse or recyclability.[34] To address this, the Government set out a series of reforms for "immediate priority".[35] To address the shortcomings identified, the strategy proposed a number of actions to improve the recyclability of packaging and to ensure that producers fund the management of packaging at the end of its life.[36]

February 2019 consultation

The Government published a consultation, Reforming the packaging producer responsibility system on 18 February 2019, which sought views on reform. 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.[37]

The response to this consultation was published in July 2019, Reforming the UK packaging producer responsibility system: summary of responses and next steps. This document summarised overall responses and key concerns. Overall respondents were positive of the intent to improve the current system and for packaging EPR. A "large minority of respondents" stressed the need to ensure that the proposed policy interventions are joined up and appropriate steps were taken to protect against unintended consequences. Stakeholders called for sufficient time before any changes happen to allow for investment waste management and reprocessing infrastructure to occur.[38]

March 2021 consultation

In March 2021 the Government published a further consultation on the proposed changes to the extended producer responsibility for packaging

32 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

33 HM Government, A Green Future: Our 25 Year Plan to Improve the Environment, January 2018, p87

34 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p34

35 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p34

36 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p35

37 HM Government, Consultation on reforming the UK packaging producer responsibility system, 18 February 2019, p7

38 HM Government, Reforming the UK packaging producer responsibility system: summary of responses and next steps, July 2019, p8

system, alongside supporting documents and an impact assessment. As with the previous work, this was undertaken jointly by the UK, the Scottish and the Welsh governments and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland. It sets out more detailed proposals aimed at incentivising producers to design packaging that is easy to recycle and ensure that the producers pay the full net cost of managing this packaging once it becomes waste. The consultation closed on 4 June 2021.

In terms of timing for commencing with the new scheme, the consultation sets out the ambition to begin the first phase of the new scheme in 2023, and the second phase from 2024:

> 1.17 Our proposal is for the first phase of Extended Producer Responsibility to be established in 2023, enabling initial payments for household packaging waste to local authorities from October 2023. This will depend on the ability of the Scheme Administrator to mobilise and establish the necessary systems and processes to commence roll-out. Subject to parliamentary approval of the Environment Bill, Government will undertake an open procurement exercise starting in late 2021 and would aim to appoint the successful Scheme Administrator in early 2023. Further elements of Extended Producer Responsibility, including modulation of fees based on recyclability of packaging, payments for the management of litter and payments to businesses for the cost of managing packaging waste would be introduced in Phase 2, from 2024 (see Figure 1).
>
> 1.18 Government seeks the views of the packaging value chain on the feasibility of this timeline and practicality of the phased approach to implementing Extended Producer Responsibility commencing in 2023. If it is considered desirable and feasible for the Scheme Administrator to mobilise in 2023, Government would introduce new data reporting requirements to ensure that the Scheme Administrator had suitable data on which to make operational decisions. This would be delivered by a separate Statutory Instrument, which would place new data reporting obligations on Extended Producer Responsibility producers to compile packaging data in 2022.

The consultation asks for views on the calculation of future recycling targets for different materials, including plastic. This is summarised as follows:

> As a result of the proposals set out below, and assuming the introduction of recycling consistency proposals in England and an 'all in' deposit return scheme, our analysis indicates a total UK packaging recycling rate by 2030 of 78%, with the estimated recycling rates for each material exceeding those set in the European Union. The recycling rates for glass (96%), card (86%) and steel (93%) are ambitious and close to the maximum likely to be achievable. The recycling rates estimated for aluminium of 69% and plastics 62% are lower, but we expect these to increase once the collection and recycling of other aluminium packaging and plastic film and flexibles are included in our analysis.[39]

Among other things, the consultation also seeks views on whether plastic film and flexible packaging such as single-use carrier bags, bread bags, and

[39] HM Government, Extended Producer Responsibility for Packaging Consultation Document, 24 March 2021, p5

confectionary wrappers should be required to be collected for recycling, with the costs of achieving paid by producers. It seeks views on the assumption that this would be possible by end of financial year 2026/27.[40]

Environment Act 2021

The Environment Act 2021 contains measures to allow the Government 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 aim is to provide packaging producers with a strong incentive to consider the impacts that their products have once they have been discarded by consumers.[41]

For further information see Library briefing paper Commons Library Analysis of the Environment Bill 2019-2020, 6 March 2020.

40 HM Government, Extended Producer Responsibility for Packaging Consultation Document, 24 March 2021, p10

41 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

5 Overarching Government plans and strategies

5.1 UK Government

The Government's April 2017 Litter Strategy for England set an ambition to become "one of the most resource efficient countries in the world"[42], and contained specific proposals to reduce plastic litter.

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."[43] It also set out the "strategic ambition" to "…work towards all plastic packaging placed on the market being recyclable, reusable or compostable by 2025."[44]

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.[45]

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.[46]

42 Defra, Litter Strategy for England, April 2018, p19
43 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p7
44 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p17
45 HM Government, A Green Future: Our 25 Year Plan, January 2018, p29
46 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p7

In August 2020 the Government published two further documents to accompany the Resources and Waste Strategy, intended to monitor and evaluate its policies:

- Resources and waste strategy: monitoring progress; and
- Resources and waste strategy: evaluation plan.

A second edition of the monitoring progress report was published in November 2021.[47]

The Government's ambitions on plastic waste, as set out above, have also been more recently restated in its January 2021 Waste Management Plan for England.

On 18 March 2021 the Government published a consultation on a new Waste Prevention Programme for England: Towards a Resource Efficient Economy. This consultation also restates recent action and policies on reducing plastic waste. The consultation closed on 10 June 2021. A response has not yet been published.

5.2 Welsh Government

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".[48]

In December 2019 the Welsh Government published a consultation, Beyond Recycling: A strategy to make the circular economy in Wales a reality. A summary of responses and a stakeholder summary was published in September 2020.[49] The final version of the strategy document was published in March 2021, Beyond Recycling: A strategy to make the circular economy in Wales a reality. The strategy contains eight "ambitious headline actions", one of which relates explicitly to plastics:

> 3. We will phase out unnecessary single-use items, especially plastic. We will send zero plastic to landfill and progressively reduce the amount sent to energy recovery. We will achieve this with game-changing reforms such as an Extended Producer Responsibility Scheme for packaging, a Deposit Return

47 HM Government, Resources and waste strategy: monitoring progress (second edition, November 2021

48 Written Statement: Plastic Waste, Hannah Blythyn AM, Deputy Minister for Housing and Local Government, 16 July 2019

49 Welsh Government, Circular Economy Strategy: summary of outcome [downloaded 22 December 2020]

> Scheme for drinks containers and by applying bans or restrictions on unnecessary single-use items.[50]

5.3 Scottish Government

The Scottish Government launched Scotland's first Zero Waste Plan in June 2010, which set out its 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.

The Scottish Government's circular economy strategy, Making Things Last, published in 2016 set out priorities for moving towards a more circular economy.

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.[51]

A summary of responses to the consultation was published in May 2020.[52] As a result of the COVID-19 pandemic, the Scottish Government announced on 1 April 2020 that the proposed Circular Economy Bill would not be introduced in the (then) current Parliamentary session. The Scottish Government website states: "The Scottish Government remains committed to developing the circular economy in Scotland and is considering other means of continuing to achieve our objectives."[53]

The Scottish Government's September 2021 Programme for Government confirmed that it will bring forward a Circular Economy Bill, later in this

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50 Welsh Government, Beyond Recycling: A strategy to make the circular economy in Wales a reality, March 2021, p6

51 Scottish Government, Developing Scotland's circular economy: Proposals for Legislation, November 2019, p15

52 Scottish Government, Developing Scotland's circular economy - proposals for legislation: analysis of responses, 29 May 2020

53 Scottish Government, Circular Economy: Proposals for Legislation [accessed on 22 December 2020]

parliamentary session.[54] It also confirmed the intention to proceed with the deposit return scheme and that it will introduce a ban on the single-use plastic items most commonly found littered on European beaches. Regulations will be introduced to end the supply and manufacture in Scotland of certain single use items, with limited exceptions.[55]

5.4 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 (DAERA) 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.

In June 2021 DAERA published a Call for Evidence to help inform the development of a Plan to Eliminate Plastic Pollution in Northern Ireland. The call for evidence has now closed and a response has not yet been published.

54 Scottish Government, A Fairer, Greener Scotland: Programme for Government 2021-22, 7 September 2021, p67

55 Scottish Government, A Fairer, Greener Scotland: Programme for Government 2021-22, 7 September 2021, p67

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 what is now the Environment Act 2021.

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"

A new UK-wide Plastic Packaging Tax will take effect from 1 April 2022. It is designed to encourage the use of recycled rather than new plastic within plastic packaging. Guidance documents on the new tax are available from the GOV.UK website, Get your business ready for the Plastic Packaging Tax, 4 October 2021.

Part 2 of the Finance Act 2021 contains the measures to establish the plastic packaging tax and to make HMRC responsible for its administration. The explanatory notes to the then Bill summarised what it will and will not apply to:

> Plastic packaging tax is charged at a rate of £200 per metric tonne of chargeable plastic packaging components of a single specification, and will apply to plastic packaging manufactured in, or imported into, the UK. There will be an exemption for businesses who manufacture and/or import less than 10 tonnes of plastic packaging in a 12-month period.
>
> 6. The tax will not be chargeable on plastic packaging which;
>
> - Has 30% or more recycled plastic content;
> - Is made of multiple materials of which plastic is not proportionately the heaviest when measured by weight;
> - Is manufactured or imported for use as immediate packaging of licensed human medicines;
> - Is in use as transport packaging to import products into the UK; or

- Is exported, filled or unfilled, unless it is in use as transport packaging to export products out of the UK.[56]

Since the Act was passed further regulations, the Plastic Packaging Tax (Descriptions of Products) Regulations 2021 (SI 2021/1417), which come into force on 1 April 2022, will amend the definition of packaging component. The effect of this is to exclude three types of packaging product from the scope of the tax. These are:

- (i) packaging products that primarily provide a storage function, (e.g. glasses cases, toolboxes, power tool cases, first aid kits, manicure set cases, earphone cases, video game cases, and board game boxes and inserts);
- (ii) packaging products that are an integral part of the good (e.g. printer cartridges containing ink or toner, tea bags, mascara brushes, water filter cartridges, aerosol actuators, and inhalers); and
- (iii) packaging products that are re-used in the presentation of goods (e.g. re-usable sales display shelves and poster display stands).[57]

The explanatory memorandum to the Regulations states that these products have been removed from the scope of the tax either because they do not typically contribute to plastic pollution, and/or, are an integral part of the product (without which the product cannot reasonably be used or consumed).[58]

The Regulations will also to the scope of the tax products that are single-use and provide a packaging function only when used by the end user. Examples here include bin bags and other waste disposal bags, carrier bags, sandwich bags, gift wrap and tape, disposable plates, and party cups.[59]

A technical consultation on further Regulations, Plastic Packaging Tax (General) Regulations 2021 ran between November and December 2021. This sought views on administrative matters to do with the tax, including:

- administrative requirements relating to registration of liability for the tax
- tax returns and required content
- record keeping
- methods for weighing plastic packaging components Including units of measurement)

56 Finance (no.2) Bill 2019-21, Bill 270–EN, p117
57 HM Government, explanatory memorandum to the Plastic Packaging Tax (Descriptions of Products) Regulations 2021, undated
58 HM Government, explanatory memorandum to the Plastic Packaging Tax (Descriptions of Products) Regulations 2021, undated
59 HM Government, explanatory memorandum to the Plastic Packaging Tax (Descriptions of Products) Regulations 2021, undated

- maintaining, producing evidence of and calculating recycled material in plastic[60]

Alongside this consultation document, a draft version of the statutory instrument to enact these provisions and accompanying explanatory notes were published. A response to the consultation has not yet been published.

The plastics tax provisions follow several years of Government consultations and announcements. Some of the key documents here include:

- Tackling the plastic problem: using the tax system or charges to address single-use plastic waste March 2018 and a summary of responses to the call for evidence, August 2018.
- At Budget 2018, October 2018 and accompanying HM Treasury budget briefing on Single Use Plastics.
- Plastic packaging tax: consultation, February 2019 and Plastic packaging tax: summary of responses to the consultation, July 2019.
- Budget 2020, March 2020. A further consultation was published alongside the Budget, Plastic Packaging Tax: policy design consultation. The consultation sought views on the scope of the tax, liability for it, exclusions from it for small operators and registration, returns and enforcement. A summary of responses to the consultation was published in November 2020.[61] Alongside this document the Government published:
- Policy paper, Introduction of a new plastic packaging tax, November 2020.
- Policy paper, Introduction of Plastic Packaging Tax from April 2022, updated 20 July 2021

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. A further consultation was published in March 2021, Extended Producer Responsibility for Packaging Consultation Document. Legislative provisions which will allow the Government to take forward the reforms are now contained in the Environment Act 2021.

60 GOV.UK, Technical consultation on Plastic Packaging Tax (General) Regulations 2021, 4 November 2021

61 HM Revenue & Customs, Plastic Packaging Tax: Summary of Responses to the Policy Design Consultation, November 2020

6.3 Disposable cups

Several policy options have been put forward to by different Governments across the UK to deal with issue that single use disposal cups can be difficult to recycle. These options include a ban on such items, options to incentivise solutions for easier recycling to be developed, and a levy on these items designed to discourage their use.

UK Government: disposable cups

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, initially ruled out a levy on disposable cups, for the time being concluding that a levy at that time would not be effective in encouraging widespread reuse.[63]

In the UK Government's November 2021 Call for evidence on commonly littered and problematic plastic items, (England only), it stated, however, that the possibility of a separate charge for single-use cups, remained under consideration:

> Complementary to our Extended Producer Responsibility proposals, we are now considering the introduction of a charge on single-use cups. A charge would target consumers' behaviour, complementing obligations introduced through EPR, which will target producers. Studies indicate that a clear single-use cup charge can have a greater impact than reusable cup discounts on driving uptake of reusable cups, though this could be due to a lack of awareness of discounts.
>
> The Environment Act introduces powers in England and Wales to place charges on single-use items, which could be used to introduce a charge in the future. The aim of this charge would be to increase the use of reusable cups, in line with the waste hierarchy. We also want to see a reduction in the numbers of cups that are littered.[64]

The Call for Evidence indicates that any charge on disposable cups (which would target consumers) would be complementary to changes made to include disposable cups within extended producer responsibility reform (which would target producers). Further information about the possible inclusion of disposable cups within extended producer responsibility reform

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

64 HM Government, Call for evidence on commonly littered and problematic plastic items, 20 November 2021

is provided in the section below. More general information about extended producer responsibility reform is provided above in section 4.3.

Joint UK country consultations: disposable cups

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

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.[65]

In the Government's 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.[66]

The consultation on introducing a deposit return scheme, which would apply in England, Wales and Northern Ireland, sought views on whether disposable

65 HM Government, Consultation on reforming the UK packaging producer responsibility system, 18 February 2019, p52

66 HM Government, Reforming the UK packaging producer responsibility system: summary of responses and next steps, July 2019, p11-12

cups should be included within a deposit return scheme, stating that there was justification for doing so and that it would be possible to do so.[67]

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.[68]

In March 2021 the Government published two further consultations:

- Consultation on Introducing a Deposit Return Scheme in England, Wales and Northern Ireland: Second Consultation, March 2021; and
- Extended Producer Responsibility for Packaging Consultation Document, (UK-wide) 24 March 2021

These two consultation documents set out how proposals on disposable cups had been considered both for a deposit return scheme (see section 6.5 below) and the extended packaging producer responsibility scheme (see section 4.3 above). The March 2021 deposit return scheme Consultation set out an intention to introduce disposable cups within reforms to the extended packaging producer responsibility scheme:

> Whilst the inclusion of disposable single-use cups received support from industry, concerns were expressed about the practicality of including disposable cups, which are often contaminated and would need separate machines to other containers if included in the deposit return scheme.
>
> In the parallel consultation on reforming the packaging producer responsibility system, we asked whether disposable cups would be best included in the packaging producer responsibility system (Extended Producer Responsibility) or in a deposit return scheme. 47% of respondents preferred Extended Producer Responsibility, while 33% said both, and less than 10% said deposit return scheme.
>
> Given the widespread support for disposable cups being encompassed into Extended Producer Responsibility, and the practical barriers to including them

67 HM Government, Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland, February 2019, p23

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

> in a deposit return scheme, we propose including them in Extended Producer Responsibility.[69]

The March 2021 Consultation on extended packaging producer responsibility sets this out further:

> 6.3 The targets section sets out Government's intention to introduce a recycling target for fibre based composite packaging from 2026 which would include disposable fibre-based cups. Given current tonnage estimates suggest fibre-based cups could represent just under 50% of this fibre-based packaging, the recycling of paper cups would make a significant contribution to increasing the recycling of this packaging stream. It is estimated that approximately 0.25% of paper cups are recycled at present.[70]

This Consultation also proposes a mandatory takeback scheme. This would require businesses selling filled disposable paper cups to provide for the separate collection of used cups through both instore and front of shop collection points, and to arrange for the collection and recycling of these cups. The takeback requirement would extend to accepting all disposable paper cups at these collection points irrespective of brand or where the drink was purchased.[71]

If introduced, the Government would seek to introduce the takeback obligation on sellers of filled disposable paper cups within the Extended Producer Responsibility regulations in 2022 and for it to be met by the end of 2023. Obligated sellers would be able to decide how to deliver on their obligation either by joining an existing takeback scheme, by putting in place their own arrangements or by developing new schemes.[72] Further information about how this may work is set out in the Consultation document. The Consultation closed on 4 June 2021 and a response has not yet been published.

The March 2021 Consultation also highlights how a charge for disposable cups remains under consideration across the UK, as a separate measure to inclusion within the reformed extended packaging producer responsibility scheme:

> 6.2 The UK Government and the Devolved Administrations are considering possible approaches to reduce the consumption of single use cups through preventative measures such as the introduction of a cups charge. Whilst complementary to Extended Producer Responsibility, these measures do not form part of the packaging Extended Producer Responsibility proposals. The Environment Bill will introduce powers to place charges on single use items,

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69 HM Government, Consultation on Introducing a Deposit Return Scheme in England, Wales and Northern Ireland: Second Consultation, March 2021, p31

70 HM Government, Extended Producer Responsibility for Packaging Consultation Document, 24 March 2021, p64

71 HM Government, Extended Producer Responsibility for Packaging Consultation Document, 24 March 2021, p64-69

72 HM Government, Extended Producer Responsibility for Packaging Consultation Document, 24 March 2021, p64-69

> which could be applied to single use cups in the future, if deemed appropriate.[73]

Welsh Government: disposable cups

In addition to its participation in the above 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."[74]

The Welsh Government's March 2021 strategy, Beyond Recycling, states that it will:

- Develop options for a tax or charge on disposable plastic cups and food containers in Wales.
- Take action to remove unnecessary single-use items from events and other showcase activities in Wales. In the first instance, we will do so by engaging on banning single-use disposable cups from many stadia in Wales.[75]

A further Welsh Government consultation, Reducing single use plastic in Wales, July 2020 sought views on banning single use cups made from expanded and extruded polystyrene. For further information see section 6.4 below. This consultation has now closed.

Scottish Government: disposable cups

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 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.[76]

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73 HM Government, Extended Producer Responsibility for Packaging Consultation Document, 24 March 2021, p64

74 Welsh Government website, Developing new Welsh taxes, 28 June 2018 update version

75 Welsh Government, Beyond Recycling: a strategy to make the circular economy in Wales a reality, March 2021, p33

76 Scottish Government, Developing Scotland's circular economy: consultation on proposals for legislation, 7 November 2019, p16-17

As a result of the COVID-19 pandemic, work on the proposed Circular Economy Bill was initially paused.[77] In its October 2020 Single-use plastic items - market restrictions: consultation, the Scottish Government stated that its ambition on single-use disposable beverage cups was to "have a sustainable model of consumption by 2025, which includes the majority of beverages in Scotland being sold in reusable cups."[78] The Scottish Government's September 2021 Programme for Government confirmed that it will bring forward a Circular Economy Bill, later in this parliamentary session.[79]

Northern Ireland: disposable cups

In October 2021 the Department for Agriculture, Environment and Rural Affairs (DAERA) published a Consultation on proposals for the reduction of the usage of Single-use Plastic (SUP) beverage cups and food containers in Northern Ireland. The consultation seeks views on three different options relating to both SUP beverage cups and food containers:

- A ban on their use;
- A levy of 25p on each cup and 50p on each food container; and
- A voluntary scheme or schemes implemented by businesses that make use of SUP cups or food containers, which may comprise a range of charges for cups/food containers, discounts for MU cups/food containers and communication efforts. This is modelled as having the same effect as a 10p levy for a beverage cup and 25p for a food container.[80]

6.4 Ban on single-use plastic items

A number of the UK nations have banned, or propose to ban the supply and/or manufacture of certain single use plastic items. The sections below set out further which items are/will be banned in each UK country. For an overview of what is being banned, how, when and where, see Commons Library Insight, Single use plastic: How do bans differ across the UK and EU? 22 February 2022.

The Internal Market Act 2020, passed by the UK Parliament, established a principle of mutual recognition for goods. This means goods that have been

77 Scottish Government, Circular Economy: Proposals for Legislation [accessed on 15 September 2020]

78 Scottish Government, Single-use plastic items - market restrictions: consultation, October 2020, p17

79 Scottish Government, A Fairer, Greener Scotland: Programme for Government 2021-22, 7 September 2021, p67

80 Department for Agriculture, Environment and Rural Affairs Consultation on proposals for the reduction of the usage of Single-use Plastic (SUP) beverage cups and food containers in Northern Ireland, October 2021, p8

produced or imported into one part of the UK, and which can be sold or supplied there without contravening any restrictions, can be sold in any other part of the UK, free from any restrictions which would otherwise apply. Any regulations banning the supply of single use plastic items would be subject to this principle.

The 2020 UK Government policy paper, Goods market access: approach to restrictions and bans set out how any single use plastic ban would operate across the UK:

> Devolved administrations could introduce a ban on the sale of a particular good, but the ban would only cover local products produced in that part of the UK (or those imported into that territory from outside the UK). Devolved administrations could not enforce that ban against sellers of goods produced in, or imported into, other parts of the UK.[81]

UK Government: ban on single use items

Plastic drink stirrers, plastic straws and plastic stemmed cotton buds

From October 2020 the sale of plastic straws, drink stirrers and plastic-stemmed cotton buds in England have been prohibited, subject to certain exemptions, through The Environmental Protection (Plastic Straws, Cotton Buds and Stirrers) (England) Regulations 2020 (no.971). The rules are enforced by local authorities (and their trading standards officers). [82] There is accompanying Government guidance on the rules, Straws, cotton buds and drink stirrers ban: rules for businesses in England, 21 September 2020.

The exemptions are to ensure access to plastic straws and cotton buds for certain groups, as follows:

> 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

81 UK Government policy paper, Goods market access: approach to restrictions and bans, 20 November 2020

82 HM Government, Explanatory Memorandum to the *Environmental Protection (Plastic Straws, Cotton Buds and Stirrers) (England) Regulations 2020*, para 11.1

> purposes to support criminal investigations. The ban with exemptions for the supply of plastic-stemmed 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.[83]

The Government has said that it would carry out a "stocktake" after one year to "assess the impact of these measures and whether the balance is correct."[84] This does not appear to have yet been published.

The ban on these products followed a consultation process which began in October 2018, 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.

Further single use plastic items

On 20 November 2021 the UK Government published two new consultation documents, which relate to England only:

- A consultation on a ban on specific single use plastic products: Consultation on proposals to ban commonly littered single-use plastic items in England. This covers items including disposable plastic plates and cutlery, polystyrene containers, and balloon sticks; and
- A consultation seeking views about what to do with other plastic items: Call for evidence on commonly littered and problematic plastic items. This covers items including wet wipes, tobacco filters, sachets, and other single-use plastic cups.

These consultations closed on 12 February 2022.

Welsh Government: ban on single use items

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

83 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

84 HM Government press release, Gove takes action to ban plastic straws, stirrers, and cotton buds, 22 May 2019

> 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.[85]

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."[86] In the final version of the strategy published in March 2021, the Welsh Government said that it would, "Restrict the sale of the most commonly littered single-use plastic items on our way to phasing out unnecessary items completely."[87]

A consultation, Reducing single use plastic in Wales was published in July 2020 and closed in October 2020. It provided more information on the detail of the proposals. It set out plans to restrict the following items, in line with the list of items to be restricted in the EU's Single Use Plastic Directive (for more on this Directive see section 8 of this paper):

> Item 1 - plastic stemmed cotton buds
>
> Item 2 - cutlery (including knives, forks, spoons, sporks and chopsticks)
>
> Item 3 - plates (including trays, platters, bowls and laminated paper plates)
>
> Item 4 - beverage stirrers
>
> Item 5 – straws
>
> Item 6 - sticks for balloons
>
> Item 7 - food containers made of expanded polystyrene
>
> Item 8 - cups for beverages made of expanded polystyrene
>
> Item 9 - oxo-degradable products (plastic products which break down by oxidation into micro-fragments) Examples include carrier bags, agricultural mulch films and, most recently, certain plastic bottles.[88]

Proposals for enforcing the ban were set out as follows, with a role given to local authorities:

> 31.In order to enforce bans, we propose a civil sanctions regime which will allow the regulator to use enforcement notices and variable monetary penalties. These sanctions are set out in Part 3 of the Regulatory Enforcement and Sanctions Act 2008. This regulatory approach has been adopted in other similar environmental interventions in Wales. For example, the ban on plastic

85 Written Statement: Plastic Waste, Hannah Blythyn AM, Deputy Minister for Housing and Local Government, 16 July 2019

86 Welsh Government, Beyond Recycling: A strategy to make the circular economy in Wales a reality, 19 December 2019

87 Welsh Government, Beyond Recycling: A strategy to make the circular economy in Wales a reality, March 2021, p18

88 Welsh Government, Reducing single use plastic in Wales July 2020, para 16

> microbeads in personal care products. We believe these civil sanctions will provide for a flexible and proportionate approach to enforcement.
>
> 32.We propose for Local Authorities to carry out this enforcement role, given their experience enforcing broadly similar, existing requirements. [89]

The consultation also set out that the impact of including wet wipes and disposable cleaning cloths in future interventions would be considered in forthcoming evidence gathering work.[90]

On a timeline for introducing the restrictions, the consultation had initially stated the aim to introduce it from autumn 2021, but this appears to have been delayed.[91] Responses to the consultation are being reviewed and a Welsh Government response has not yet been published. In the December 2021 update of the Welsh Government Programme for government, it stated that the Government will "legislate to abolish the use of more commonly littered, single use plastics".[92]

Scottish Government: ban on single use items

Cotton buds

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."[93]

The Environmental Protection (Cotton Buds) (Scotland) Regulations 2019 introduced the ban and came into force on 12 October 2019. 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.[94]

Further single use plastic items

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 single-use

89 Welsh Government, Reducing single use plastic in Wales July 2020, para 31-32
90 Welsh Government, Reducing single use plastic in Wales July 2020, para 35-36
91 Welsh Government, Reducing single use plastic in Wales July 2020, para 29
92 Welsh Government, Welsh Government Programme for government: update, 7 December 2021
93 Scottish Government, Plastic Cotton Bud Submission: Consultation Response Report, July 2018, p3
94 Environmental Protection (Cotton Buds) (Scotland) Regulations 2019, Explanatory Note

plastic items, to follow items that will be restricted in EU Member States under the EU Single Use Plastic Directive (for more on this Directive see section 8 of this paper).[95]

This approach was also set out in more detail in a later consultation, Consultation: Introducing market restrictions on single-use plastic items in Scotland, which was published in October 2020 and closed in January 2021. It proposed restrictions of the following items:

1. Single-use plastic cutlery (forks, knives, spoons, chopsticks);

2. Single-use plastic plates (plates, trays/platters, bowls);

3. Single-use plastic straws;

4. Single-use plastic beverage stirrers;

5. Single-use plastic balloon sticks;

6. Single-use food containers made of expanded polystyrene;

7. Single-use cups and other beverage containers made of expanded polystyrene, including their covers and lids;

8. All oxo-degradable products.[96]

The consultation document also identified that Marine Scotland had identified plastic wet wipes and plastic tampon applicators as being "particularly problematic", and said that it was the Scottish Government's intention to explore further market restrictions on this wider range of items "in due course."[97]

An analysis of consultation responses, Market restrictions on single-use plastic items: consultation analysis, was published on 17 March 2021. It noted that there had been "strong support" for market restrictions.[98]

Following this consultation process, the Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021, were made on 9 November 2021, and which will come into force on 1 June 2022. These regulations will:

make it an offence to supply, in the course of business, and to manufacture:

95 Scottish Government, Developing Scotland's circular economy: consultation on proposals for legislation, 7 November 2019, p14

96 Scottish Government, Consultation: Introducing market restrictions on single-use plastic items in Scotland, October 2020, p7-8

97 Scottish Government, Consultation: Introducing market restrictions on single-use plastic items in Scotland, October 2020, p8

98 Scottish Government, Market restrictions on single-use plastic items: consultation analysis, 17 March 2021, para 5

- single-use expanded polystyrene beverage cups
- single-use expanded polystyrene beverage containers
- single-use expanded polystyrene food containers
- single-use plastic cutlery
- single-use plastic plates
- single-use plastic beverage stirrers.

The Regulations make it an offence to supply, in the course of a business and subject to specified exemptions of:

- single-use plastic straws
- single-use plastic balloon sticks.[99]

The initial consultation had proposed the ban of single-use plastic bowls, trays and platters. These have not been included in the Regulations and will, instead, be included in considerations for other work under the implementation of the EU Single-Use Plastics Directive.[100] Furthermore, the Regulations will not ban the supply and manufacture of oxo-degradable plastic products, as originally consulted on. Further research into this area is ongoing. An accompanying policy note to the regulations explains that this is an area of "significant complexity and rapid change", and that a ban will be considered once the research findings are provided.[101]

The Scottish Government's policy note contains a section on how the restrictions on these single-use items fit in with divergent restrictions on these items in the rest of the UK. In particular, it sets out the Scottish Government's view of how the restrictions align with the requirements of the Internal Market Act 2020:

> The Regulations will require to be read in light of the application of the Internal Market Act.
>
> Therefore the prohibition of supply of the listed single-use plastic products in the Regulations will not apply to any products which are produced or first imported into another part of the UK, and which can be lawfully supplied in that part of the UK. The Environmental Protection (Plastic Straws, Cotton Buds and Stirrers) (England) Regulations 2020 prohibit the supply in the course of a business of single-use plastic straws (with exemptions) and plastic drink stirrers in England, which would need to be taken into account in determining which products may be supplied in England.

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99 Scottish Government policy note on the Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021, November 2021, p1

100 Scottish Government, Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021: strategic environmental assessment - post adoption statement, 11 Nov 2021

101 Scottish Government policy note on the Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021, November 2021, p2

> The Scottish Government is in discussion with the UK Government and other devolved administrations through the Resources & Waste Common Framework to explore how best to manage policy divergence in this area, including how the Internal Market Act impacts on this.[102]

Further information about the new regulations is available from the Zero Waste Scotland website, FAQs - Single-use plastics – regulations.

Northern Ireland: ban on single use items

In October 2021 the Department for Agriculture, Environment and Rural Affairs (DAERA) published a Consultation on proposals for the reduction of the usage of Single-use Plastic beverage cups and food containers in Northern Ireland.[103] The document consults on three policy options for what could happen for both single use beverage cups and food containers:

- A ban on their use;
- A levy of 25p on each cup and 50p on each food container; and
- A voluntary scheme or schemes implemented by businesses that make use of SUP cups or food containers, which may comprise a range of charges for cups/food containers, discounts for MU [multi-use] cups/food containers and communication efforts. This is modelled as having the same effect as a 10p levy for a beverage cup and 25p for a food container.[104]

DAERA has not yet responded to the consultation.

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 a 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.[105]

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102 Scottish Government policy note on the Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021, November 2021

103 Northern Ireland Department for Agriculture, Environment and Rural Affairs, Consultation for the Reduction of Single-Use Plastic Beverage Cups and Food Containers, October 2021

104 Northern Ireland Department for Agriculture, Environment and Rural Affairs, Consultation for the Reduction of Single-Use Plastic Beverage Cups and Food Containers, October 2021, p8

105 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p61

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.[106] 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).[107] 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.[108] Scotland has designed its own scheme, with regulations in place to implement. Initially it was to be implemented from July 2022, but this is now expected to be from 16 August 2023.[109]

England, Wales and Northern Ireland: DRS consultation

Following a consultation process, the Governments in England, Wales and Northern Ireland have stated their intention to introduce a deposit return scheme in these countries, which would commence in late 2024, "at the earliest." [110]

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. The consultation proposed a broad range of drinks containers for inclusion within the scope of the DRS:

> 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.[111]

106 HM Government, Litter Strategy for England, April 2017, p34
107 HM Government press release, Deposit return scheme in fight against plastic, 28 March 2018
108 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p61
109 Scottish Government, Scotland's deposit return scheme, 14 December 2021
110 HM Government, Consultation on Introducing a Deposit Return Scheme in England, Wales and Northern Ireland Second Consultation, March 2021, p1-2
111 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.[112] 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').[113]

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.[114]

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.[115]

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.[116]

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

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112 Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland, 18 February 2019, p54

113 Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland, 18 February 2019, p7

114 Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland, 18 February 2019, p54

115 Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland, 18 February 2019, p7

116 Consultation on introducing a Deposit Return Scheme in England, Wales and Northern Ireland, 18 February 2019, p47

- Introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland: Executive summary and next steps

The executive summary document stated that respondents to the consultation "overwhelmingly agreed (84%) with the proposed principles of a DRS"[117] and that "The majority of respondents wanted all materials included in a DRS."[118] 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."[119]

A further consultation document was published in March 2021, Introducing a Deposit Return Scheme in England, Wales and Northern Ireland: second consultation. This consultation set out that the expected implementation date of the scheme had been delayed from 2023 to late 2024 at the earliest:

> On this basis, our second consultation will build on the first consultation, offering a chance to explore further what the continued appetite is for a deposit return scheme in a 'post-Covid' context. The second consultation will also inform how a future scheme can be designed in the best and most coherent way possible to deliver on the objectives set out for introducing such a policy.
>
> With this in mind, we have had to reassess what a realistic timeline for implementation of a deposit return scheme looks like, ensuring that sufficient time is given for a successful roll-out of the scheme. We therefore anticipate that the introduction of a deposit return scheme in England, Wales and Northern Ireland would be in late 2024 at the earliest. We believe this revision presents a realistic yet equally ambitious timeline to implement a complex but incredibly important policy in the most effective way possible.[120]

The Consultation closed on 4 June 2021 and a response to it has not yet been published.

Environment Act 2021

Provisions to establish a DRS are contained in section 54 and schedule 8 of the Environment Act 2021. These provisions will allow the relevant national authority – the Secretary of State, Welsh Ministers and the Department of Agriculture, Environment and Rural Affairs in Northern Ireland, – to make regulations establishing deposit schemes.[121]

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

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

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

120 HM Government, Consultation on Introducing a Deposit Return Scheme in England, Wales and Northern Ireland Second Consultation, March 2021, p1-2

121 HM Government, Environment Bill: Explanatory notes, p61

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

Scottish Government: establishment of a DRS

In Scotland a DRS is expected to begin from 16 August 2023.[122]

The Scottish Government asked Zero Waste Scotland[123] 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."[124] The consultation asked:

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

In February 2019 the Scottish Government published an independent analysis of the consultation responses.[125] 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.[126] Drinks containers above 50 ml and up to 3 litres in size in the materials covered would be included.[127]

Draft legislation to implement the scheme and a further consultation on it was published by the Scottish Government in September 2019.[128]

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122 Scottish Government, Scotland's deposit return scheme, 14 December 2021

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

124 Scottish Government website, A Deposit Return Scheme for Scotland [downloaded on 10 October 2018]

125 Scottish Government website, Deposit return scheme consultation: analysis of responses, 21 February 2019

126 SP, 8 May 2019, Deposit Return Scheme

127 Zero Waste Scotland, Thousands of littered bottles and cans set to vanish thanks to deposit return scheme, 28 July 2019

128 Scottish Government, The Deposit and Return Scheme for Scotland Regulations 2020: accompanying statement and proposed regulations, September 2019

The Deposit and Return Scheme for Scotland Regulations 2020 (No.154), were made on 19 May 2020 and create the legal framework for the scheme. The regulations were made exercising powers conferred by the Climate Change (Scotland) Act 2009. The scheme was initially expected to begin in July 2022, but this has been delayed to 16 August 2023, due to, "challenges that the pandemic and Brexit" have placed upon businesses.[129]

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

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.

There have been some concerns raised about whether, under provisions of the United Kingdom Internal Market Act 2020 a separate Scottish DRS could face legal challenge. The UK Government's July 2020 paper on the UK Internal Market, gave the example of different recycling regimes for single-use drinks containers as an area of where future divergence across the UK could cause complexities.[130] For further information and commentary on this area see Scottish Parliament Information Centre (SPICe) spotlight briefing, The UK Internal Market Bill – a threat to the circular economy in Scotland?, 7 October 2020.

6.6 Consistency in household recycling

In February 2019 the UK 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

[129] Scottish Government, Scotland's deposit return scheme, 14 December 2021
[130] HM Government, UK Internal Market, July 2020, p77

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 cans[131]

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.[132]

Section 57 of the Environment Act 2021 contains provision to allow the Government to amend household waste requirements designed to "ensure a consistent approach to recycling."[133] For further information see Library briefing paper Commons Library Analysis of the Environment Bill 2019-2020, 6 March 2020.

The Government published a further consultation, Consistency in Household and Business Recycling in England on 7 May 2021. This document confirmed further the exact types of materials that would be included in household recycling collections. For plastics, it confirmed that plastic bottles, pots, tubs and trays would be included, as follows:

> **Plastic bottles**
>
> In the previous consultation the majority of organisations agreed that plastic bottles should be included in the core materials to be collected for recycling, including clear drinks containers, HDPE (milk containers), detergent, shampoo and cleaning products. These materials will be included within the plastic recyclable waste stream in regulations.
>
> We propose to specify, in regulation, the type of plastic bottles that should be collected for recycling, with a view to update and amend the regulations over time, as required, when other types of plastic become widely recyclable and can be collected.
>
> **Plastic pots, tubs and trays**

131 HM Government, Consistency in recycling collections in England: executive summary and government response, 23 July 2019, para 3.1.1

132 HM Government, Consistency in recycling collections in England: executive summary and government response, 23 July 2019, para 3.1.1

133 HM Government, Queen's Speech December 2019: background briefing notes, 19 December 2019, p112

> There was strong support for inclusion of plastic pots, tubs and trays in the core materials to be collected for recycling. These materials will be included within the plastics recyclable waste stream in regulations.
>
> We propose to specify the type of plastic (i.e. by polymer type) to be collected for recycling in regulations, with a view to amending the regulations over time, as required, as a greater range of plastics become more widely recyclable.[134]

The consultation also confirmed that the Government intended to include plastic food and drinks cartons (such as TetraPak packaging) within the consistent recycling collections, subject to further views received on its proposed approach to these materials.[135]

In relation to plastic films (for example, items such as bread bags, carrier bags and bubble wrap), the consultation highlighted that these items can be difficult to recycle due to the range of polymers involved and that they can snag more easily on machinery. The Government recognised that further investment was needed in recycling infrastructure for these materials. It proposed a transition towards consistent collection of these materials, as follows:

> We propose that plastic films should be phased in for collection from households in England by the date that Extended Producer Responsibility commences,[136] with a defined 'end date' of the financial year 2026/27. Where local authorities have plastic film collections already in place, they would be required to comply by the date Extended Producer Responsibility commences, but where this is not the case, local authorities would be required to adopt collections of film by no later than the end of 2026/27. We are seeking views on any specific circumstances that might make these timescales difficult to achieve.[137]

With the exception of the different commencement date for plastic film collection, the consultation seeks views on a preferred timeline of all local authorities being able to collect a consistent set of dry recyclable materials from October 2023, to align with the date that the Government anticipates the Extended Producer Responsibility for packaging will commence (see section 4.3 above). The consultation closed on 4 July 2021 and a response has not yet been published.

Wales: consistency in business recycling

On 23 September 2019 the Welsh Government published a consultation, Increasing Business Recycling in Wales. It proposed to require the occupiers of non-domestic premises (such as businesses, charities and public sector

134 HM Government, Consistency in Household and Business Recycling in England, 7 May 2021, p21-22

135 HM Government, Consistency in Household and Business Recycling in England, 7 May 2021, p24-5

136 Current timelines for Extended Producer Responsibility delivery from October 2023, subject to further consultation

137 HM Government, Consistency in Household and Business Recycling in England, 7 May 2021, p23

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).[138]

A summary of responses was published in March 2021. It confirmed that the Welsh Government would go ahead with legislation, as follows:

> The regulations will be developed in order to be ready to bring before the Senedd later in 2021. We will also prepare guidance for, and continue to engage with those who will be affected by these changes before the regulations come into effect.
>
> As previously outlined, it is proposed that the regulations will come into place and the duties will take effect from October 2021, apart from those elements that have already come into force through the transposition of the EU Circular Economy Package 2018 as referred to in section 2.1.
>
> The regulations are also a key part of the action set out in our consultation on a new circular economy strategy, Beyond Recycling, which will be published in early 2021.[139]

In the Welsh Government's March 2021 document, Beyond Recycling: A strategy to make the circular economy in Wales a reality, it confirmed that it would:

> Bring forward regulations to require all non-domestic premises to separate key recyclable materials as households already do. This will include working with the waste industry in Wales to further improve consistency in the range of waste materials collected for recycling.[140]

Regulations do not yet appear to have been made at the time of writing.

Northern Ireland: household recycling

In June 2020 the Northern Ireland Department of Agriculture, Environment and Rural Affairs published a discussion document, Future Recycling and Separate Collection of Waste of a Household Nature in Northern Ireland. It proposes that all Councils in Northern Ireland should be required to collect a core set of dry recyclable materials at kerbside from houses and flats:

> …we want every Council in Northern Ireland to collect from households the same range of dry recyclable materials. We think this should include: plastic bottles and plastic pots tubs and trays, glass packaging (bottles and jars), paper and card, and metal packaging. It could also include food and drink cartons. We are seeking views on how best to achieve these changes and what materials to include views on whether statutory guidance to Councils on

138 Welsh Government, Increasing Business Recycling in Wales, 23 September 2019, p8

139 Welsh Government, Consultation – summary of responses: Increasing Business recycling in Wales, March 2021, p19

140 Welsh Government, Beyond Recycling: A strategy to make the circular economy in Wales a reality, March 2021, p24

> minimum service standards for waste management would help to support Councils to deliver these changes. These services should be supported by regular and frequent residual waste collections and we seek views on whether the guidance should include advice on minimum frequency for this service.[141]

Views were invited on it until 4 October 2020. A response has not been published.

6.7 Single use carrier bags charge

A charge (set at originally five pence), on single use carrier bags in England came into effect on 5 October 2015. From 21 May 2021 the charge was increased to its current level of 10 pence.[142]

The charge in England, which is paid by customers to retailers, followed 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. In Scotland the charge was raised to 10 pence from 1 April 2021.[143]

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

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

UK Government: forthcoming changes on carrier bags

Section 56 of the Environment Act 2021 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 costs of administering (record keeping, the database system and compliance checks) a carrier bag charge are borne

141 Northern Ireland Department of Agriculture, Environment and Rural Affairs, Future Recycling and Separate Collection of Waste of a Household Nature in Northern Ireland, June 2020, p19

142 By the Single Use Carrier Bags Charges (England) (Amendment) Order 2021 (SI 2021/598)

143 The Single Use Carrier Bags Charge (Scotland) Amendment Regulations 2021 (SI no.134)

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. [144]

Welsh Government: carrier bags

In its March 2021 Strategy, Beyond Recycling, the Welsh Government said that it would, "Review our ground-breaking charge on carrier bags in Wales and evaluate whether further action can be taken on these items."[145]

Northern Ireland: forthcoming changes on carrier bags

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.[146] In November 2021 Environment Minister Edwin Poots MLA announced that the carrier bag levy charge in Northern Ireland will increase from 5 pence to 25 pence from 1 April 2022.[147] In addition to the rise in the levy, Minister Poots also announced an extension to the existing pricing threshold, which will see all bags priced at £5 or less subject to the levy, irrespective of the material they are made from.[148] This announcement followed a June 2021 Consultation on proposed changes to the Carrier Bag Levy. The Single Use Carrier Bags Charge (Amendment) Regulations (Northern Ireland) 2021 (SI 2021/338) will bring the changes into force.

6.8 A charge for other single use plastic items

In its March 2021 consultation on a new Waste Prevention Programme for England: Towards a Resource Efficient Economy, the UK Government said that it would consider building on the success of its single use carrier charge,

144 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
145 Welsh Government, Beyond Recycling: A strategy to make the circular economy in Wales a reality, March 2021, p33
146 Northern Ireland Department of Agriculture, Environment and Rural Affairs website, Northern Ireland carrier bag levy statistics [downloaded on 12 February 2019]
147 DAERA, Poots announces increase to NI Carrier Bag Levy, 9 November 2021
148 DAERA, Poots announces increase to NI Carrier Bag Levy, 9 November 2021

by "seeking a new power in the Environment Bill to place charges on other single-use plastic items to encourage businesses and citizens to shift toward more reusable products.[149] The consultation did not say which items would be covered. The consultation closed on 10 June 2021. This power, which applies to single use items (not just plastic) in England and Wales and to single use plastic items in Northern Ireland, is now provided in section 55 and Schedule 9 of the Environment Act 2021.

The possibility of a charge for single use cups is discussed above in this paper, in section 6.3.

In October 2021 the Northern Ireland Department for Agriculture, Environment and Rural Affairs (DAERA) published a Consultation on proposals for the reduction of the usage of Single-use Plastic beverage cups and food containers in Northern Ireland.[150] The document consults on three policy options for what could happen for both single use beverage cups and food containers:

- A ban on their use;
- A levy of 25p on each cup and 50p on each food container; and
- A voluntary scheme or schemes implemented by businesses that make use of SUP cups or food containers, which may comprise a range of charges for cups/food containers, discounts for MU [multi-use] cups/food containers and communication efforts. This is modelled as having the same effect as a 10p levy for a beverage cup and 25p for a food container.[151]

DAERA has not yet responded to the consultation.

6.9 Funding to reduce plastic waste

This section sets out some of the main funding pledged recently and in the future from the Government in respect of plastics research and innovation.

Plastics Innovation: towards zero waste fund

In June 2018 the UK Government's innovation agency, Innovate UK, launched a competition, Plastics innovation: towards zero waste. This scheme has now closed. UK businesses could apply for a share of up to £4 million to develop new solutions to reduce persistent plastics entering the

149 HM Government, consultation on Waste Prevention Programme for England: Towards a Resource Efficient Economy, March 2021, p54

150 Northern Ireland Department for Agriculture, Environment and Rural Affairs, Consultation for the Reduction of Single-Use Plastic Beverage Cups and Food Containers, October 2021

151 Northern Ireland Department for Agriculture, Environment and Rural Affairs, Consultation for the Reduction of Single-Use Plastic Beverage Cups and Food Containers, October 2021, p8

environment. This could be achieved by developing new polymers, processes, designs, recycling regimes, value added recyclate or bio-alternatives.[152] A project's total costs could be between £50,000 and £1 million. Projects must have started by 1 December 2018 and ended by 31 December 2020. The results of the competition and the projects it funded are available online: Innovate UK, Results of competition: Plastics innovation: towards zero waste.

Plastics Research and Innovation Fund (PRIF)

In the Spring Statement 2018, the Chancellor announced a £20 million "plastics research and innovation fund."[153] 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 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.[154]

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.[155] 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."[156] For further information about this funding see the Innovate UK blog, The Plastics Age, 12 February 2019.

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

152 Innovate UK, Plastics innovation: towards zero waste [downloaded 22 March 2021]
153 Spring Statement 2018: Philip Hammond's speech, 13 March 2018
154 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p127
155 HM Government, New investment for businesses to tackle ocean plastics crisis, 11 January 2019
156 Ibid

as smart bins."[157] The Government's December 2018 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.[158]

PRIF is managed by UK Research and Innovation (UKRI)[159] and delivered via the Engineering and Physical Sciences Research Council (EPSRC), Innovate UK, and the Natural Environment Research Council (NERC).[160]

For further information and the PRIF and projects it has funded, see UK Circular Plastics Network, Projects Funded Under the Plastics Research & Innovation Fund, 6 January 2020.

Industrial Strategy Challenge Fund's Smart Sustainable Plastic Packaging Challenge (SSPP)

The Industrial Strategy Challenge Fund was established by the Department for Business, Energy and Industrial Strategy (BEIS) to supports the aim set out in the government's 2017 Industrial Strategy to raise long-term productivity and living standards.[161] As part of this, UKRI is leading a coalition that aims to make the UK a leader in sustainable plastic packaging. The government is investing up to £60 million in this initiative, which is expected to be matched by up to £149 million from industry.[162]

The funding forms part of UKRI's Smart Sustainable Plastic Packaging (SSPP) challenge. The challenge aims to:

- tackle the environmental impact of plastic packaging through the development of a more sustainable plastic packaging supply chain in the UK
- drive research and innovation to develop more sustainable plastic packaging materials and designs, and enable new recycling processes and infrastructure

157 HM Government, Budget 2018, October 2018, p65
158 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p128
159 UKRI is a non-departmental public body sponsored by BEIS
160 UK Circular Plastics Network, Projects Funded Under the Plastics Research & Innovation Fund, 6 January 2020
161 HM Government, Industrial Strategy, November 2017
162 UKRI, The plastics paradox, updated 4 March 2021

- encourage collaboration and innovation in integrated circular supply chains using insights into consumer behaviour to reduce the environmental impacts of plastic packaging.[163]

Projects funded so far include:

- £20 million for four cutting-edge recycling plants
- £8 million for research projects to reduce plastic packaging and increase reusable packaging
- £235,000 for projects developing solutions to deliver a more circular economy for plastic packaging
- £175,000 for feasibility studies that are intended to lead to larger scale projects for future plastic packaging solutions.[164]

Two further funding opportunities were announced as follows:

- SSPP demonstrator round 2 (open from February 2021) can provide funding of up to £12 million per project for large-scale commercial demonstrator projects, including first of a kind infrastructure or large-scale commercial trials of new packaging technology or systems.
- SSPP business-led research and development competition (open from March 2021) will provide funding of up to £4 million per project.[165]

For further information see UKRI, Smart sustainable plastic packaging challenge, updated 7 December 2020 and UKRI, UKRI funding puts UK at the forefront of plastic recycling, 16 October 2020.

In March 2022 URI announced the results of this funding. It has granted £30 million in funding for 18 projects (five large-scale demonstrator projects and 13 business-led research and development projects). For further information see UKRI, Plastic packaging innovations receive £30 million boost from UKRI, 2 March 2022.

Resource Action Fund

On 12 June 2019 the Government announced an £18 million "Resource Action Fund" provided by Defra 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".[166] A press release set out that it would support projects in England and could include

163 UKRI, Smart sustainable plastic packaging challenge, updated 7 December 2020
164 UKRI, Smart sustainable plastic packaging challenge, updated 7 December 2020
165 UKRI, Smart sustainable plastic packaging challenge, updated 7 December 2020
166 HM Government press release, Fund opens to reduce waste from plastic packaging and textiles, 12 June 2019

innovative sorting or segregation equipment, and smarter systems to enable sorting of different polymers.[167]

Part of this fund has been used for a plastic packaging grant to support projects that provide new infrastructure and technologies which significantly increase recycling capacity for difficult to recycle plastic packaging or textile materials. 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. WRAP Cymru administers the fund on behalf of the Welsh Government.[168]

Scotland: Circular Economy Investment Fund and Zero Plastic Waste Towns

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.[169]

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.[170]

167 HM Government press release, Fund opens to reduce waste from plastic packaging and textiles, 12 June 2019

168 Welsh Government, £6.5 million Circular Economy Fund launches to increase the use of recycled materials, 29 April 2019

169 Scottish Government, Developing Scotland's circular economy: Proposals for Legislation, November 2019, p9

170 Scottish Government press release, Support to reduce single-use items, 18 June 2018

7 Select Committee scrutiny

Environmental Audit Committee: Deposit return schemes

In February 2021 the House of Commons Environmental Audit Committee launched an inquiry looking at the introduction of deposit return schemes in England and across the UK. The terms of reference for the inquiry are as follows:

> In respect of the scheme to be proposed for England:
>
> - The types of waste to be collected under the scheme
> - The materials to be included in the scheme's scope
> - Scheme design ('all-in', 'on-the-go' or other models) and the level and scale of deposit charges
> - The obligations on retailers at all levels (including online-only retailers) to participate in the scheme
> - The effect on scheme design of recent changes in patterns of retail activity
> - The impact of any scheme on existing reuse and recycling and reuse systems
> - The impact of any scheme on local authority kerbside collections and on local authority revenue streams dependent on the value chain of recyclables
>
> And:
>
> The potential relationship between deposit return schemes and other packaging waste initiatives promoted under the Resource and Waste Strategy, such as the packaging producer responsibility system and consistency in kerbside collections of dry recyclables.
>
> How the use of deposit return schemes is likely to affect the UK's progress towards meeting the targets set in the Resource and Waste Strategy.
>
> The scope for interoperability between any schemes in England, Wales and Northern Ireland to be established under Schedule 8 to the Environment Bill and the scheme to be established in Scotland under the Deposit and Return Scheme for Scotland Regulations 2020.

The factors which have contributed to the successful implementation of deposit return schemes in other jurisdictions.[171]

The inquiry is in progress and a report has not yet been published. Further information is available from the Environmental Audit Committee website.

Environment, Food and Rural Affairs Committee: Plastic food and drink packaging

In March 2019 the House of Commons Environment, Food and Rural Affairs (Efra) Select Committee launched an inquiry into Plastic food and drink packaging. [172] 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.[173]

A Government response to this report was published on 16 March 2020.[174] The Government set out its policies in respect of all the above areas. On policies in relation to plastic packaging, the Government confirmed that it will publish an evaluation plan for the Resources and Waste Strategy later in

171 Environmental Audit Committee, MPs examine how deposit return schemes can improve plastics recycling, 12 February 2021

172 Environment, Food and Rural Affairs Committee, Plastic food and drink packaging inquiry launched, 28 March 2019

173 Environment, Food and Rural Affairs Committee, Plastic food and drink packaging, sixteenth report session 2017-19, HC2080, 12 September 2019

174 Environment, Food and Rural Affairs Committee, Response to the Committee's Sixteenth Report of Session 2017–19: First Special Report of Session 2019–21, 16 March 2020

2020, "which will set out our approach to evaluating the impact of policies in the Strategy."[175] This evaluation plan and a document on monitoring progress were both published by the Government in August 2020.[176]

[175] Environment, Food and Rural Affairs Committee, Response to the Committee's Sixteenth Report of Session 2017–19: First Special Report of Session 2019–21, 16 March 2020, p11

[176] HM Government, Resources and waste strategy for England: monitoring and evaluation, August 2020

8 EU initiatives

In the past few years, the EU has focussed on moves towards a more circular economy. Action to reduce plastic consumption and waste has been part of this. This section sets out recent and forthcoming EU initiatives and legislation in this area.

8.1 EU Circular Economy Package

On 2 December 2015, the European Commission adopted a new Circular Economy Package (CEP) 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.[177]

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.[178] This is an increase from the previous 2008 target of 22.5%.[179]

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.

177 EU Commission press release, "Circular Economy: New rules will make EU the global front-runner in waste management and recycling" 22 May 2018

178 By the Amending Packaging Waste Directive 2018 (Directive (EU) 2018/852)

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

On 4 March 2019 the European Commission adopted a report on the implementation of the Circular Economy Action Plan.[180] 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.
>
> (…)
>
> 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.[181]

On 30 July 2020, a statement was issued jointly by the Department for Environment, Food and Rural Affairs (Defra), the Northern Ireland Department of Agriculture, Environment and Rural Affairs (DAERA), the Welsh Government and the Scottish Government, Circular Economy Package policy statement, accompanied by annexes. The Statement set out the approach to transposition of the CEP measures in the UK:

> The UK, Welsh, Scottish and Northern Ireland governments have decided that the 2020 CEP measures will be transposed as described in this public statement, without a formal consultation, given the changes are relatively minor and technical. In addition, different parts of the UK, in some cases, have already introduced policies which are considered sufficient to meet the revised EU legislation, and consultations are taking place on other policy areas linked to the transition to a more circular economy.
>
> In terms of CEP measures to be transposed by 2020, a combination of non-legislative changes and legislative changes with a minor impact (mainly 'copy out' i.e. the implementing legislation adopts the same wording as that of the Directive), will transpose most of the requirements of the CEP.[182]

The accompanying annexes provide more specific detail about the transposition of specific parts of the CEP measures.

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180 European Commission, Closing the loop: Commission delivers on Circular Economy Action Plan, 4 March 2019

181 HM Government, Waste and Resources Strategy for England, December 2018, p113

182 HM Government, Circular Economy Package policy statement, 30 July 2020

Many of these measures have now been transposed in England and Wales through The Waste (Circular Economy) (Amendment) Regulations 2020 (SI no.904); in Scotland through the Waste (Miscellaneous Amendments) (Scotland) Regulations 2020 (SI no.314); and in Northern Ireland by the Waste (Circular Economy) (Amendment) Regulations (Northern Ireland) 2020 (SI no.285).

8.2 An EU Single Use Plastics Directive

Action on plastics was identified as a priority by the EU 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."[183]

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 . 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.[184]

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* (Known as the "EU Single Use Plastics Directive", or "SUP"). 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 [*as set out in Article 5 of the Directive*]: 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.

183 EU Commission, Plastic Waste: a European strategy to protect the planet, defend our citizens and empower our industries, 16 January 2018

184 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

- Measures to reduce consumption of food containers and beverage cups made of plastic and specific marking and labelling of certain products.

- 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.[185]

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.[186]

On 31 May 2021 the EU Commission adopted Commission guidelines on single-use plastic products in accordance with 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. It provides further guidance on the interpretation and implementation of the SUP Directive, including definition of terms and it provides examples of products to be considered as falling within or outside its scope.

UK approach to the Single Use Plastics Directive

Member states had until 3 July 2021 to transpose the Directive into national law. As the UK was no longer an EU Member at that time, it was no longer required to transpose the Directive. An exception to this is in relation to Northern Ireland (see further below). As waste is a devolved policy area, each UK nation has taken its own approach in respect of the Directive.

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185 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

186 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

UK Government

In the UK Government's December 2018 Resources and Waste Strategy for England, it supported the EU's initiatives in relation to addressing plastic pollution:

> 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.[187]

The UK Government has already restricted the sale of plastic cotton bud sticks, straws and stirrers (see section 6.4 above). In response to a PQ on 7 September 2020, the Government stated its position in relation to the Directive and in the context of having now left the EU:

> The measures taken in EU Directive 2019/904 Article 5 place restrictions on items which can be placed on the market within the EU. Any item listed in Article 5 which is produced in the UK will therefore not be able to be sold in the EU from July 2021.
>
> Waste is a devolved matter. Having left the EU, the UK Government now has the opportunity to reprioritise and refresh our environmental policy. We will be focusing on tackling single-use plastic items in ways that work best for us, including considering alternative approaches to the Directive to deliver the same or better overall outcome.[188]

As set out in section 6 above, in November 2021 the Government published a consultation document seeking views on banning the supply of single-use plastic plates, cutlery, balloon sticks, and expanded and extruded polystyrene cups and food and beverage containers in England.[189]

Northern Ireland

On 31 January 2020 the United Kingdom left the EU and the Withdrawal Agreement entered into force.[190] Following the end of the transition period at 11.00pm on 31 December, the arrangements set out in the Northern Ireland Protocol to the Withdrawal Agreement took effect. The Protocol sets out the relationship Northern Ireland has with both the EU and Great Britain (the rest of the UK) at the end of transition period on 31 December 2020. The principal purpose of the Protocol is to maintain an open border between Ireland and Northern Ireland. Annex 2 to the Protocol lists the areas in which

187 HM Government, Our waste, our resources: a strategy for England, Dec 2018, p22

188 PQ Plastics: Biodegradability, UIN 84165, answered 7 September 2020

189 HM Government, Consultation on proposals to ban commonly littered single-use plastic items in England, November 2021

190 HM Government, Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community, 19 October 2019

Northern Ireland will be required to remain aligned with EU product/technical standards.[191]

Since the Withdrawal Agreement was agreed on 19 October 2019, Annex 2 of the Northern Ireland Protocol has been amended by the Withdrawal Agreement Joint Committee. One such amendment has been to add the Single-Use Plastics Directive 2019 to Annex 2 of the Protocol. A UK Government Cabinet Office Explanatory Memorandum, 15 December 2020, set out the scope of this and it states that the transposition date would be extended to 1 January 2022:

> Directive (EU) 2019/904 on the reduction of the impact of certain plastic products on the environment (Scrutinised as EU proposal 9465/18)
>
> (…)
>
> 9. Only those parts of the Directive that are required to allow a proper functioning of goods movements between Northern Ireland and Ireland/the European Union have been included. These are Articles 2 to 7, 14 and 17 and Parts A, B, C, D and F of the Annex. The main requirements are therefore limited to consumption reduction measures for cups for beverages and food containers (Article 4), the requirement to restrict the placing on the market of certain single use plastic goods, such as plastic cutlery (Article 5), product specific requirements largely related to plastic beverage bottles, and new labelling requirements on a subset of plastic products. The transposition date for the Directive has been extended to an earliest date of 1 January 2022 compared to the earlier 1 July 2021 date applied to EU Member States.
>
> 10.The key objectives of the Single-Use Plastics Directive are to prevent and reduce the impact of certain single-use plastic products and fishing gear containing plastic on the environment, and to progress towards a circular lifecycle for plastics. It includes measures to restrict placing certain items on the market, introducing new product design and labelling requirements, and extended producer responsibility schemes.
>
> 11.This approach provides a pragmatic way forward overall. It ensures there would not be market access barriers for products with plastics sent from Northern Ireland to the EU, whilst ensuring Northern Ireland is not constrained by any EU rules on issues not directly connected to the movement of goods. The Government and Northern Ireland Executive are both strongly committed to reducing single use plastics as a matter of policy.[192]

Under the provisions of Article 5(4) of the Protocol the above articles of the EU Single Use Plastic Directive will therefore apply to and in the United Kingdom in respect of Northern Ireland.

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191 By reference to Article 5(4) of the Northern Ireland Protocol

192 Cabinet Office, Explanatory Memorandum, 13914/20, UK 114: COUNCIL DECISION on the position to be taken on behalf of the European Union within the Joint Committee established by the Agreement on the withdrawal of the United Kingdom of Great Britain and Northern Ireland from the European Union and the European Atomic Energy Community as regards the adoption of a decision to amend the Protocol on Ireland/Northern Ireland, submitted 8 December 2020

In October 2021 the Department for Agriculture, Environment and Rural Affairs (DAERA) published a Consultation on proposals for the reduction of the usage of Single-use Plastic beverage cups and food containers in Northern Ireland.[193] The document consults on three policy options for what could happen for both single use beverage cups and food containers:

- A ban on their use;
- A levy of 25p on each cup and 50p on each food container; and
- A voluntary scheme or schemes implemented by businesses that make use of SUP cups or food containers, which may comprise a range of charges for cups/food containers, discounts for MU [multi-use] cups/food containers and communication efforts. This is modelled as having the same effect as a 10p levy for a beverage cup and 25p for a food container[194]

The consultation document does not directly link its proposals to those requirements from the EU Single Use Plastic Directive.

The Northern Ireland Minister of Agriculture, Environment and Rural Affairs has argued that implementing the requirements from the EU Single Use Plastic Directive is an obligation for the UK Government to deliver:

> The overuse of single-use plastics concerns me greatly but the Northern Ireland Protocol is an agreement between the UK Government and the European Union and the protocol obligations in relation to transposing the EU Single-use Plastic Directive are obligations for the UK Government to deliver.
>
> Unfortunately, the 1st January transposition deadline has now passed but I have written twice to the Defra Secretary of State, George Eustice, to remind him of this obligation and most recently in December 2021 to ask the UK Government for confirmation of their plans and to provide an update for NI businesses.
>
> I also informed Secretary of State Eustice that my officials were ready to offer advice and views to assist his officials with this task as the Defra work will complement the other actions I am already taking to address plastic pollution. I await the Secretary of State's response.[195]

Scotland

The Scottish Government has set out its approach to the Single Use Plastics Directive in its October 2020 Single-use plastic items - market restrictions: consultation and subsequent Environmental Protection (Single-use Plastic Products) (Scotland) Regulations 2021, which will make it an offence to supply and manufacture a number of single use plastic items. The Regulations come into force in June 2022. Annex A of the October 2020

193 Northern Ireland Department for Agriculture, Environment and Rural Affairs, Consultation for the Reduction of Single-Use Plastic Beverage Cups and Food Containers, October 2021

194 Northern Ireland Department for Agriculture, Environment and Rural Affairs, Consultation for the Reduction of Single-Use Plastic Beverage Cups and Food Containers, October 2021, p8

195 Northern Ireland Assembly, AQW 28142/17-22, answered 31 January 2022

consultation document also contains proposals for implementing the remaining articles of the Directive. It sets out the Scottish Government's commitment to implementing the Directive and states, "We fully support these ambitions and intend to build upon them, not only tackling single-use plastics but reducing single-use consumption as a whole."[196]

Wales

In May 2020 the Welsh Government published preliminary research to assesses the impact in Wales of a ban or restriction in sale of items in the EU's single-use plastics directive. The report was intended to be used as an evidence base to inform stakeholders and support responses to any future public consultation. A Welsh Government consultation then followed in July 2020, Reducing single use plastics: Proposals to ban nine single use plastic products in Wales. It sets out proposals to introduce secondary legislation to ban businesses from providing certain single use plastic items to consumers in Wales. The list of single-use plastic items corresponds to that from Article 5 of the Single Use Plastics Directive. The consultation does not consider implementation of other Articles from the Directive. A Government response to the consultation has not yet been published.

8.3 The European Green Deal

In December 2019 the European Commission published a communication called The European Green Deal.[197] It is described as resetting "the Commission's commitment to tackling climate and environmental-related challenges that is this generation's defining task."[198] It presents an initial roadmap of the key policies and measures needed to achieve a number of different policies and goals. Among other things, a new circular economy action plan would be produced which will include further action on plastics.[199]

The European Commission's Circular Economy Action Plan (CEAP) was published in March 2020. The CEAP proposes the following policies in relation to plastic waste:

> To increase uptake of recycled plastics and contribute to the more sustainable use of plastics, the Commission will propose mandatory requirements for recycled content and waste reduction measures for key products such as

196 Scottish Government, Single-use plastic items - market restrictions: consultation, October 2020, p17

197 European Commission website, A European Green Deal [downloaded on 23 December 2019]

198 European Commission, Communication from the Commission, The European Green Deal, COM(2019) 640 final, 11 December 2019

199 European Commission, Communication from the Commission, The European Green Deal, COM(2019) 640 final, 11 December 2019

packaging, construction materials and vehicles, also taking into account the activities of the Circular Plastics Alliance.

In addition to measures to reduce plastic litter, the Commission will address the presence of microplastics in the environment by:

- restricting intentionally added microplastics and tackling pellets taking into account the opinion of the European Chemicals Agency;
- developing labelling, standardisation, certification and regulatory measures on unintentional release of microplastics, including measures to increase the capture of microplastics at all relevant stages of products' lifecycle;
- further developing and harmonising methods for measuring unintentionally released microplastics, especially from tyres and textiles, and delivering harmonised data on microplastics concentrations in seawater;
- closing the gaps on scientific knowledge related to the risk and occurrence of microplastics in the environment, drinking water and foods.

Furthermore, the Commission will address emerging sustainability challenges by developing a policy framework on:

- sourcing, labelling and use of bio-based plastics, based on assessing where the use of bio-based feedstock results in genuine environmental benefits, going beyond reduction in using fossil resources;
- use of biodegradable or compostable plastics, based on an assessment of the applications where such use can be beneficial to the environment, and of the criteria for such applications. It will aim to ensure that labelling a product as 'biodegradable' or 'compostable' does not mislead consumers to dispose of it in a way that causes plastic littering or pollution due to unsuitable environmental conditions or insufficient time for degradation.[200]

European Commission Work Programme 2022

In the European Commission's work programme for 2022 it states that the Commission will work towards the following policy objectives:

- Policy framework for bio-based, biodegradable and compostable plastics (non-legislative, Q2 2022). [The European Commission had published a roadmap on the use of biobased plastics (BBP) and biodegradable and compostable plastics (BDCP) for consultation, on 20 September 2021.]
- Restriction on microplastics (non-legislative, Q4 2022)

[200] European Commission Circular Economy Action Plan, 11 March 2020, p12-13

- Measures to reduce the release of microplastics in the environment (legislative, incl. impact assessment, Article 114 TFEU, Q4 2022)[201]

The EU Commission's website on microplastics contains further information about this work. To address the unintentional release of microplastics in the environment the Commission aims to:

- develop labelling, standardisation, certification and regulatory measures on unintentional release of microplastics, including measures to increase the capture of microplastics at all relevant stages of products' lifecycle
- further develop and harmonise methods for measuring unintentionally released microplastics, especially from tyres and textiles, and delivering harmonised data on microplastics concentrations in seawater
- close the gaps in scientific knowledge related to the risk and presence of microplastics in the environment, drinking water and food[202]

[201] European Commission, annexes to the Commission work programme 2022, COM(2021) 645 final, 19 October 2021, p1

[202] European Commission website, Microplastics [accessed 11 January 2022]

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. The Pact sets the following targets:

- to eliminate unnecessary single-use plastic packaging;
- for all plastic packaging to be re-usable, recyclable or compostable;
- for 70% to be recycled or composted by 2025; and
- for 30% average recycled content across all plastic packaging.

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.

In 2020 a UK Plastics Pact Annual Report 2019-20 was published by WRAP. On progress against its targets it showed:

- 400 million items classed as problematic or unnecessary were sold by Pact members in 2019 (a 40% reduction from 2018).
- 64% of plastic packaging placed on the market by Pact members continues to be recyclable.
- The amount of plastic packaging recycled in the UK has increased from 44% in 2018 to 50% in 2019.

- Average recycled content has increased from 9% in 2018 to 13% in 2019.[203]

A Plastics Pact Roadmap to 2025 was also published by WRAP in December 2020. This Roadmap outlines key activities that could be taken by all parts of the supply chain to deliver the four Plastic Pact targets and it sets key outcomes to be achieved by the end of 2021, 2023 and 2025.

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, which was subsequently 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.[204]

203 WRAP, UK Plastics Pact Annual Report 2019-20, 2020, p4

204 UK Circular Plastics Network website [downloaded on 19 February 2019]

9.4 Personal food containers and reusable cups

An increasing number of businesses had 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 had started offering 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?;[205]
- Costa website, Our cups;[206]
- Starbucks website, Get Recycling! And Get Rewarded.[207]

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, in 2018 the supermarket Waitrose 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.[208]

The supermarket Iceland has also announced that it will remove plastic packaging from its own label products by 2023.[209]

The consumer group Which? produced an article in July 2021 which summarises some of the more recent initiatives on plastics made by a number of UK supermarkets, What are supermarkets doing about plastic?

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205 How can Pret encourage more customers to bring a reusable cup?, Blog by Clive Schlee, CEO of Pret, 6 December 2017

206 Costa website, Our cups [accessed 12 February 2019]

207 Starbucks website, Get Recycling! And Get Rewarded [accessed 12 February 2019]

208 Waitrose website, Innovating in packaging [accessed 11 September 2018]

209 Iceland website "It's time to put a freeze on plastics", 16 January 2018

July 2021. See also the specialist publication, The Grocer, Plastic packaging: what are the latest moves by UK supermarkets? 4 August 2020.

10 Plastic in the marine environment

10.1 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.[210]

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.[211] 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.[212]

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

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

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

[212] HM Government press release, UK Government rallies Commonwealth to unite on marine waste, 18 April 2018

> 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 clear that in the absence of any actions both the quantity and the associated impacts will increase.[213]

A study reported in the journal Nature examined how deep sea organisms were ingesting microfibres in a natural setting. It also set out further work that is needed to examine the impact on ecosystems.[214]

For further background information see POST Note Marine Microplastic Pollution 05 June 2016.

10.2 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.[215] In 2021 a UN Environment Programme report, Drowning in Plastics – Marine Litter and Plastic Waste Vital Graphics, stated that, "without meaningful action, flows of plastic waste into aquatic ecosystems are expected to nearly triple from around 11 million tonnes in 2016 to around 29 million tonnes in 2040."

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 China, Indonesia and the Philippines are some of the biggest contributors.[216]

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.[217] The 2017 Foresight report estimated that around 70 per cent of all the litter in the oceans is made of plastic.[218]

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213 Foresight, Government Office for Science, Future of the sea: plastic pollution, 3 August 2017, p4

214 "Plastic microfibre ingestion by deep-sea organisms" M. L. Taylor, C. Gwinnett, L. F. Robinson & L. C. Woodall, Nature.com, 30 September 2016

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

216 BBC News, Seven charts that explain the plastic pollution problem, 10 Dec 2017

217 UN Environment Programme, Marine Litter Legislation: A Toolkit for Policymakers, 2016, p2

218 Foresight, Government Office for Science, Future of the sea: plastic pollution, 3 August 2017, p4

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.[219]

10.3 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.[220] It lists the following as land based sources of ocean plastic pollution:

- Illegal dumping and inadequate waste management;
- Industrial activity;
- Insufficiently filtered wastewater;
- Coastal littering;
- Discharge of storm water;
- Combined Sewer Overflows (CSOs); and
- Natural disasters.[221]

Further information about each of these bullet headings is provided in the Institute's briefing. Marine based sources of plastic pollution are listed as fishing, shipping and offshore oil and gas platforms, undersea exploration.[222]

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.[223]

An "Evaluation of microplastic release caused by textile washing processes of synthetic fabrics" was published in 2017 in the journal *Environmental Pollution*.[224] 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

219 Foresight, Government Office for Science, Future of the Seas: Final Report, March 2018, p11
220 Van Sebille, et al. (July 2016), *The ocean plastic pollution challenge: towards solutions in the UK*. Grantham Inst., Briefing paper No 19.
221 Van Sebille, et al. (July 2016), *The ocean plastic pollution challenge: towards solutions in the UK*. Grantham Inst., Briefing paper No 19.
222 Van Sebille, et al. (July 2016). *The ocean plastic pollution challenge: towards solutions in the UK*. Grantham Inst., Briefing paper No 19.
223 Environmental Audit Committee, Fixing fashion: clothing consumption and sustainability, 19 February 2019, p31
224 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

estimated to be over 6,000,000 depending on the type of detergent used.[225] 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.[226]

10.4 Domestic policies to tackle marine plastic waste: microfibres and plastics

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 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.[227]

On 9 January 2018 the UK Government introduced a ban on the manufacture of products containing microbeads.[228] A ban on the sale of products containing microbeads followed later in 2018 in England, Scotland and Wales as follows:[229]

- 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).

225 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
226 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
227 House of Commons Environmental Audit Committee, MPs urge Government to ban microbeads in cosmetics, 24 August 2016
228 HM Government, World-leading microbeads ban takes effect, 9 January 2018
229 HM Government, World-leading microbeads ban takes effect, 9 January 2018

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.[230]

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".[231] Scotland's National Marine Plan underpins this 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.

Further work and initiatives are also set out in the Scottish Government's policy paper on the Marine Environment.

Welsh Government

In October 2018 the Welsh Government announced its support for a new research project into marine litter led by Keep Wales Tidy.[232] 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. A Marine Litter Action Plan 2020-23 has also been published. It states that the organisations and communities who form part of the Wales Clean Seas Partnership are working with Welsh Government to

230 HM Government, Litter Strategy for England, April 2017
231 Scottish Government, A Marine Litter Strategy for Scotland in August 2014, p2
232 Welsh Government, New marine litter project launched, 19 October 2018

develop and implement the Beyond Recycling strategy and specifically the Wales Litter Prevention Plan.

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."[233]

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 ongoing 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 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.[234]

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 to reduce textile waste, with a one penny charge per garment on producers.[235] The Government responded to this recommendation in a Defra in the Media

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233 HM Government, Waste and Resources Strategy for England, December 2018, p42

234 Parliament petition, Install microplastic filters on new washing machines as standard, March 2019

235 Environmental Audit Committee, Fixing fashion: clothing consumption and sustainability 19 February 2019, para 131

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."[236]

10.5 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.[237] The UK Government's press release set out funding it was contributing towards helping to reduce ocean plastic stemming from developing countries.[238]

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:

> 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.[239]

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236 Defra in the Media blog "Coverage of the Environmental Audit Committee report into 'fast fashion'"19 February 2019

237 HM Government, UK Government rallies Commonwealth to unite on marine waste, 18 April 2018

238 HM Government, Commonwealth unites to end scourge of plastic, 15 April 2018

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

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.[240]

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."[241] The UK Government has signed up to this campaign.[242]

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:

> 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.

240 HM Government, Voluntary National Review of progress towards the Sustainable Development Goals, June 2019

241 Clean Seas website, About [downloaded on 6 March 2019]

242 Written question HL670: Lord Hylton 11-07-2017v

> 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.[243]

UN Environment Programme resolutions

A resolution for a new international agreement: 2022

In March 2022, at the United Nations Environment Assembly, Heads of State, Ministers of environment and other representatives from 175 nations committed to developing an international legally binding agreement (PDF), by 2024, that addresses the full lifecycle of plastic pollution. The next steps are set out in a UN Environment Programme press release:

> The resolution, based on three initial draft resolutions from various nations, establishes an Intergovernmental Negotiating Committee (INC), which will begin its work in 2022, with the ambition of completing a draft global legally binding agreement by the end of 2024. It is expected to present a legally binding instrument, which would reflect diverse alternatives to address the full lifecycle of plastics, the design of reusable and recyclable products and materials, and the need for enhanced international collaboration to facilitate access to technology, capacity building and scientific and technical cooperation.
>
> The UN Environment Programme (UNEP) will convene a forum by the end of 2022 that is open to all stakeholders in conjunction with the first session of the INC, to share knowledge and best practices in different parts of the world. It will facilitate open discussions and ensure they are informed by science, reporting on progress throughout the next two years. Finally, upon completion of the INC's work, UNEP will convene a diplomatic conference to adopt its outcome and open it for signatures.[244]

Following the agreement, the UK Government published a press release, UK backs ambitious global action to tackle plastic pollution, 2 March 2022, setting out its support for this work towards an international agreement.

Marine litter and microplastics resolution: 2017

In December 2017 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.[245] Under the agreement, an international taskforce will advise how to combat marine litter. Among other things, the Resolution:

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243 GPA website, Why does addressing land-based pollution matter? [downloaded on 20 February 2019]

244 UN Environment Programme, Historic day in the campaign to beat plastic pollution: Nations commit to develop a legally binding agreement, 2 March 2022

245 HM Government news story, Global commitment at United Nations Assembly to reduce pollution, 7 December 2017

- *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;[246]

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 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.[247]

Following the session, the UK Government issued a press release to welcome the resolution.[248]

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

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

247 The Independent "UN resolution calling for targets to tackle ocean plastic waste rejected by US, China and India", 7 December 2017

248 Gov.uk press release, Global commitment at United Nations Assembly to reduce pollution, 7 December 2017

wastes on a "reverse list". The Protocol entered into force on 24 March 2006 and there are currently 51 Parties to the Protocol.[249]

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.

10.6 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 imitative 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.

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

- Sky Ocean Rescue, a campaign to find innovative solutions to the problem of ocean plastics.

11 Other plastics issues

The sections below set out some key plastic waste issues that have featured recently in the news, by Government and/or in Parliament. These include changes in rules on the procedure for exports of plastic waste and concerns raised in relation to the COVID-19 pandemic.

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.[250] 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.[251]

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 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

250 WTO notification G/TBT/N/CHN/1211 18 July 2017

251 Waste: Written statement - HCWS391 8 January 2018

> 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.[252]

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.[253]

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 a 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.[254]

11.2 Export of plastic waste requirements

The UK has various obligations under international, and national law relating to the shipment of waste abroad, particularly under the UN *Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their*

252 HM Government, Consultation on consistency in household and business recycling collections in England, February 2019, p42-3

253 HM Government, Consultation on consistency in household and business recycling collections in England, February 2019, p43

254 Recoup, Local Authority Plastics End Market Analysis, May 2019, p4

Disposal (the Basel Convention) and the relevant regulations.[255] The Basel Convention has been amended to require that, from 1 January 2021, a Prior Informed Consent procedure is used for the shipment of certain types of plastic waste.[256] These amended rules apply across the UK.[257]

The UK Government also has a Manifesto commitment to "ban" the export of plastic waste to non-OECD (The Organisation for Economic Co-operation and Development) countries.[258] Provision for which has been included in section 62 of the Environment Act 2021 and will be subject to further consultation. It would be applicable across the UK.[259]

Separately, the EU has recently banned most plastic waste exports to non-OECD countries, from 1 January 2021.[260] As this occurred after the UK left the EU, these rules do not apply to Great Britain. The UK Government has been criticised for not following it, but has responded to emphasise that it is following all current rules and to say that its own proposed ban, when implemented, will go further than the EU's.[261] The sections below set this out in more detail.

Basel Convention and amendment

The UK is a Party to the *Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal*, which 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.[262]

The requirements of the Basel Convention have been implemented in UK law by the *Transfrontier Shipment of Waste Regulations 2007* (SI no.1711). 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

255 Basel Convention website, Overview [downloaded on 20 May 2019]
256 UN Basel Convention, Questions and answers related to the Basel Convention Plastic Waste Amendments [downloaded on 9 February 2021]
257 Defra in the Media, Defra responds to coverage on plastic waste exports, 22 January 2021
258 Conservative Party Election Manifesto, November 2019, p43
259 Environment Bill 2019-21 Explanatory notes, Annex A on clause 59
260 European Commission, Plastic waste shipments: new EU rules on importing and exporting plastic waste, 22 December 2020
261 Defra in the Media, Defra responds to coverage on plastic waste exports, 22 January 2021
262 Basel Convention website, Overview [downloaded on 20 May 2019]

make legally binding amendments to the Basel Convention with the aim of making the global trade in plastic waste more transparent and better regulated.[263] It followed concern that large quantities of contaminated and mixed plastic wastes were being "dumped" in developing countries.[264]

The amendments mean that certain categories of plastic waste will be subject to the Convention's Prior informed Consent (PIC) procedure.[265] The PIC procedure means that both the exporter country and the destination country must both permit the shipment of these categories of waste, by pre-notification approval, in order for them to be exported.

The ENDSReport set out further that until now all non-hazardous plastic waste could generally be exported without prior notification. These amendments mean, "that the UK will no longer be able to export mixed plastics to some countries without first receiving written consent."[266]

The amendments came into effect from 1 January 2021. An FAQs page on the amendments on the Basel Convention website states that, "The amendments as such do not imply a ban on the import, transit or export of plastic waste but rather a clarification of when and how the Convention applies to such waste."[267]

An Environment Agency letter to stakeholders, dated 31 December 2020, set out in more detail what the amendments mean for plastic waste export rules in the UK:

> On 1 January 2021 amendments to the international Basel Convention governing the movement of certain wastes come into force. The amendments apply stricter controls to the international trade in waste plastics in light of the global focus on their environmental impact. The UK is applying the amendments in full via the International Waste Shipments (Amendment of Regulation (EC) No 1013/2006) Regulations 2020. The International Waste Shipments (Amendment of Regulation (EC) No 1013/2006) Regulations 2020 (legislation.gov.uk)
>
> One of the amendments covers clean, separated single stream plastics or clean mixtures of Polyethylene Terephthalate (PET), Polypropylene (PP) and Polyethylene (PE), known as B3011 Plastics. The Basel Convention states that these exports do not need prior informed consent and can move under lighter touch 'Green List' controls. However, UK Green List legislation means that this approach must be agreed with all non-OECD countries directly. These agreements have not yet been made and therefore from 1 January 2021

263 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

264 "Plastic dumping law adds to exporter uncertainty" ENDSReport, 13 May 2019 [subscription required]

265 UN Basel Convention, Questions and answers related to the Basel Convention Plastic Waste Amendments [downloaded on 9 February 2021]

266 "Plastic dumping law adds to exporter uncertainty" ENDSReport, 13 May 2019 [subscription required]

267 UN Basel Convention, Questions and answers related to the Basel Convention Plastic Waste Amendments [downloaded on 9 February 2021]

> B3011 wastes from the UK to non-OECD countries must only move where prior informed consent is in place. These rules apply across the EU and the UK.
>
> B3011 wastes may still be moved to OECD destinations under the lighter Green List waste controls.[268]

The letter also highlighted how Defra would hold a consultation process in early 2021 with non-OECD countries about export of plastic waste from the UK:

> Defra will undertake a consultation process in early 2021 with competent authorities of non-OECD countries to identify what controls each wishes to apply to B3011 from the UK. This will then need to be reflected in new legislation and may result in B3011 plastics remaining as requiring prior informed consent, being prohibited or falling into the lighter Green List waste controls. We are working with Defra to ensure countries that receive most UK waste are prioritised.
>
> We will keep industry updated as things progress.
>
> In the interim, businesses exporting B3011 classified plastics from England to non-OECD countries must apply for a notification from the Environment Agency.[269]

For further information about plastic waste export rules see:

- GOV.UK guidance, Waste: import and export: The controls that apply if you ship waste into or out of Great Britain (GB), updated 12 March 2021;
- GOV.UK guidance, Importing and exporting waste plastic, updated 31 December 2020
- NI Department of Agriculture, Environment and Rural Affairs, Brexit - environment waste questions & answers;
- Scottish Environment Protection Agency, International waste shipments guidance on the Basel Convention Amendments on plastic waste, December 2020
- Natural Resources Wales, Guidance on importing and exporting waste.

UK Government proposed "ban" of export of plastic waste to non-OECD countries

The Environment Act 2021 inserted new provision in section 141 of the *Environmental Protection Act 1990* to allow the Secretary of State to make regulations, which can include provisions prohibiting or restricting:

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[268] Letter from the Environment Agency, 31 December 2020, as reproduced in Letsrecycle.com, Halt likely for plastics exports to non-OECD countries, 1 January 2021

[269] Letter from the Environment Agency, 31 December 2020, as reproduced in Letsrecycle.com, Halt likely for plastics exports to non-OECD countries, 1 January 2021

> (a) the importation of waste;
>
> (b) the landing and unloading of waste in the United Kingdom;
>
> (c) the exportation of waste;
>
> (d) the loading of waste for exportation;
>
> (e) the transit of waste for export.[270]

This section extends to and applies across the UK. In a January 2020 written ministerial statement accompanying publication of the then Bill, the Government said that it also intended to use this regulation-making power to "ban" the export of plastic waste to non-OECD countries and would consult with industry, NGOs, and local councils on the date by which this should be achieved.[271]:

The proposed ban was a direct commitment from the Conservative Party Manifesto for the 2019 general election.[272]

In a PQ response on 5 February 2021, the Environment Minister, Rebecca Pow, set out plans to consult on options to deliver the proposed ban on exports of plastic waste to non-OECD countries, later in 2022:

> The UK Government stated its ambition to ban exports of plastic waste to non-OECD countries in its manifesto, published in November 2019. The Government has committed to consult on this measure and work is underway to make this happen. Defra has commissioned research to better understand plastic waste recycling capacity in the UK and OECD member countries and this research will be key to the development of policy options to implement the manifesto commitment. We currently plan to consult before the end of 2022 on options to deliver the proposed ban.[273]

Reaction from the waste industry on the proposed ban has been mixed. An article from LetsRecycle.com set out the range of views:

> The Recycling Association – which represents independent paper and plastic processors – warned that such a measure could harm legitimate operators.
>
> Chief executive Simon Ellin said: "I am concerned about the introduction of a power to ban the export of plastic to developing countries. There are already strict rules in place on recycled plastic exports via the Basel Convention and the rules that the countries importing the plastics have introduced.
>
> "What we need is better enforcement of those regulations by funding the UK environment agencies sufficiently to catch those who are breaking the rules."
>
> Impact

[270] Clause 59(3) Environment Bill 2019-20

[271] The Environment Bill: Written statement - HCWS80, 30 January 2020

[272] Conservative Party Election Manifesto, November 2019, p43

[273] Written Question, Plastic Waste, UIN 144990, tabled on 28 January 2021

> However, Phil Conran, chair of the government's Advisory Committee on Packaging (ACP), suggested that the ban would not have that big an impact as he said around 80% of plastic packaging waste exports already go to OECD countries and that the Bill only provided the enabling legislation, whereas the "devil would be in the detail".
>
> Mr Hayler [chief executive of the Environmental Services Association (ESA) trade body] meanwhile welcomed the ban but said it must be accompanied by measures to "unlock" investment in UK plastics recycling infrastructure and demand for recycled products.
>
> He said: "This is a complex issue that ESA members have been working on for some time, to ensure that good markets can continue to be found for UK recycled material".[274]

New EU rules on export of plastic waste to non-OECD countries

Under amendments to legislation on waste shipments (and separate to the Basel Convention), the EU has banned the export of plastic waste from the EU to non-OECD countries, except for clean plastic waste sent for recycling. Exporting plastic waste from the EU to OECD countries and imports in the EU will also be more strictly controlled. For further information see European Commission announcement, Plastic waste shipments: new EU rules on importing and exporting plastic waste, 22 December 2020. It summarises the new rules on exports as follows:

- Exporting hazardous plastic waste and plastic waste that is hard to recycle from the EU to non-OECD countries will be banned.
- Exporting clean, non-hazardous waste (which is destined for recycling) from the EU to non-OECD countries will only be authorised under specific conditions. The importing country must indicate which rules apply to such imports to the European Commission. The export from the EU will then only be allowed under the conditions laid down by the importing country. For countries which do not provide information on their legal regime, the "prior notification and consent procedure" will apply.
- Exporting hazardous plastic waste and plastic waste that is hard to recycle from the EU to OECD countries will be subject to the "prior notification and consent procedure". Under this procedure, both the importing and exporting country must authorise the shipment.[275]

The new rules are contained in Commission Delegated Regulation (EU) 2020/2174 of 19 October 2020 amending Annexes IC, III, IIIA, IV, V, VII and VIII to Regulation (EC) No 1013/2006 of the European Parliament and of the

[274] "Industry welcomes 'most of Environment Bill'" *LetsRecycle.com*, 30 January 2020

[275] European Commission, Plastic waste shipments: new EU rules on importing and exporting plastic waste, 22 December 2020

Council on shipments of waste (Text with EEA relevance) C/2020/7091 and came into force on 1 January 2021.

These rules have come into force after the UK's EU exit and after the end of the transition period and as such are not applicable in Great Britain.[276]

Concerns about the UK Government position

The UK Government has not followed the EU position, (set out above), to ban most plastic waste exports to non-OECD countries. As such, it has received criticism from the global waste trade watchdog Basel Action Network (BAN), which has accused the Government of implementing weaker controls than the European Union.[277] A press release from the BAN stated:

> Post-Brexit Britain will continue to use the Global South as its dumping ground for unsorted plastic waste, despite the EU banning the practice.
>
> On 1 January 2021, an EU law preventing unsorted and contaminated plastic waste being shipped to non-OECD countries came into force. But the UK, now separated from the EU and its laws, has fallen short of expectations by failing to adopt equally rigorous policies.
>
> Environmental campaigners have accused the UK government of going back on promises made in the 2019 Conservative Party manifesto. The political party, which is currently in power in the UK, said it would push the country to "lead the world in tackling plastics pollution" and "ban the export of plastic waste to non-OECD countries."
>
> The UK is the world's second largest exporter of plastic waste, sending around two thirds of it to developing countries. In 2020, the month of September alone saw 6,896 metric tonnes exported from the UK to countries such as Malaysia, Pakistan, Vietnam, and Indonesia, according to the Basel Action Network (BAN).
>
> These countries don't have the capacity or facilities to properly manage the waste, which means most of it is burned or buried. This has knock-on effects for local communities.[278]

Government response to concerns

A Defra in the Media Blog piece from 22 January 2021 responded to the concerns raised about its position by highlighting how it follows the rules regarding notification and informed consent:

> The UK Government takes the regulation of waste exports very seriously and is a Party to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes, which ensures that non-OECD countries are protected from receiving hazardous waste.

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276 Defra in the Media, Defra responds to coverage on plastic waste exports, 22 January 2021

277 Let's Recycle, Defra clarifies non-OECD plastics export rules, 21 January 2021

278 Basel Action Network, BREXIT 'Loophole' Allows UK to Ignore EU Ban on Plastic Waste Exports, 19 January 2021

> Under the Convention, shipments of waste known as "Y48" – comprised of dirty and mixed plastic waste – can only be exported to a non-OECD country if regulators in Great Britain and the destination country have permitted it, known as 'prior informed consent'. In addition, the GB regulators can prohibit an export of waste if it has reason to believe that the waste will not be managed in an environmentally sound manner.
>
> The UK has been a strong and vocal supporter of these tougher requirements, which means Y48 waste can only be sent from Great Britain if regulators at both ends permit it.
>
> The EU has decided to ban the shipment of Y48 waste to non-OECD countries outright. These amended regulations are not applicable in Great Britain, but the safeguard of 'prior informed consent' is still in place, and we have already made a firm commitment to banning the export of plastic waste to non-OECD countries. This goes further than the EU's ban on just one category of waste.[279]

The piece also stated that Defra has commissioned research to better understand existing plastic waste recycling capacity in the UK and OECD countries, and will consult "in due course on policy options to deliver the manifesto commitment."[280]

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.

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

279 Defra in the Media, Defra responds to coverage on plastic waste exports, 22 January 2021
280 Defra in the Media, Defra responds to coverage on plastic waste exports, 22 January 2021

plastic trays by the end of 2019 and other retailers have made similar commitments.[281]

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.[282] Under the UK Plastics Pact, any members using black plastic were requested to use detectable black pigments by the end of 2019.[283]

A page on the WRAP website summarises some of the progress made by Plastics Pact Members:

> Major brands and supermarkets are taking action on black plastic
>
> - **Major supermarkets remove non-recyclable black plastic** - Aldi, ASDA, Lidl, M&S, Sainsbury's, Tesco, and Waitrose have made significant steps to remove non-recyclable black plastic. Morrisons and Co-op have removed black plastic from all its own brand food and drink packaging.
>
> - **Moving from black to clear** - Leading brands, Mr Kipling & Cadbury have moved their cake trays from black to clear plastic. Removing 500 tonnes of black plastic annually.
>
> - **Detectable black plastic** – In collaboration with the recycling sector, Unilever (owner of the TRESemmé and Lynx brands), have changed their bottles to contain a detectable black pigment making them recyclable.[284]

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.

281 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.

282 "Industry sets deadline for recycling of black plastic packaging" Packaging News, 27 September 2017

283 WRAP website, Recyclability of black plastic packaging [downloaded on 3 Dec 2019]

284 WRAP website, Black plastic packaging hub [downloaded 4 January 2022]

> 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.
>
> 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. [285]

11.4 Terminology and standards: bioplastics, biodegradable and compostable plastic

The problem with standards and terminology

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 "bio-plastic" does not automatically mean than 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

[285] LGA, Two-thirds of plastic in packaging pots and trays is unrecyclable, 4 Aug 2018

from nonbiodegradable plastic streams and dealt with separately. If not, it causes problems during the recycling process.[286]

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.[287]

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 (see below).[288]

In June 2020 a group of trade associations and Greenpeace called on the government to implement a total ban on oxo-degradable plastics. In an open letter to the Environment Secretary, signatories including the Environmental Services Association (ESA) and Recoup called on George Eustice to ban the use, sale and distribution of oxo-degradable plastics in the UK. The letter stated:

> Why should this ban be implemented now?
>
> As the UK is now in the process of revising legislation on the use of plastic packaging, now is the time to act. Overwhelming scientific evidence, including research commissioned by DEFRA and the EU, has demonstrated beyond doubt that the claims these additives transform polyolefin plastics into biodegradable plastics are unfounded. It is scientifically well-known that all polyolefin plastics are naturally prone to oxidation under environmental conditions (aging). Such oxidation ultimately leads to fragmentation and formation of microplastics, which build up in oceans and in soil.[289]

Government consultation on standards for biodegradable, compostable and bio-based plastics

On 22 July 2019 the Government published a Standards for biodegradable, compostable and bio-based plastics: call for evidence. It sought "robust evidence backed by scientific theory, direct practical experience, or analysis, rather than opinion"[290], on the following areas:

286 WRAP, Understanding plastic packaging and the language we use to describe it, July 2018, p5
287 WRAP, Understanding plastic packaging and the language we use to describe it, July 2018, p7
288 HM Government, Waste and Resources Strategy for England, December 2018, p125
289 Joint letter to Rt Hon George Eustice, Re: oxo degradable/oxo biodegradable/oxo fragmentable plastics, 1 June 2020
290 HM Government, Standards for biodegradable, compostable and bio-based plastics: call for evidence, 22 July 2019, p3

> 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 environments[291]

Alongside it the Government also published a Review of standards for biodegradable plastics: by the Industrial Biotechnology Innovation Centre. This review aimed 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.
- The method of determining biodegradability is largely reliant of 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

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

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.[292]

In an annex to the Government's March 2021 consultation on Extended Producer Responsibility for Packaging, it stated that there was still not enough certainty about whether biodegradable and compostable plastics fully degrade in real world conditions without leaving behind microplastics, and that further research was required:

> Further research is required to establish the full environmental impacts of the materials, including to establish whether biodegradable and compostable plastics fully degrade in real world conditions without leaving behind microplastics. An emerging body of evidence suggests that microplastics pose risks to animal health and the natural environment, and more work is required to establish if they have an impact on human health. Furthermore, concerns have been raised over the potential for biodegradable and compostable plastics to encourage littering if citizens consider them to be in some way environmentally friendly.
>
> Based on the current state of evidence, there cannot be reasonable certainty over whether benefits for the final digestate and compost products result from the use of biodegradable/compostable plastic packaging feedstock. Should the majority of the material break down into only water and gases with no or little biomass contributed to compost or digestate, this would not accord with circular economy principles as it would be more akin to a form of disposal. As outlined, there also cannot be reasonable certainty that all biodegradable and compostable plastic packaging placed on the UK market can break down fully in the current UK infrastructure or in the wider marine and terrestrial environments.[293]

Government response to consultation on standards for bio-based, biodegradable, and compostable plastics

In April 2021 the Government published a response and summary of responses to the July 2019 consultation, Standards for bio-based, biodegradable, and compostable plastics: Government response. In relation to oxo-biodegradable plastics, the Government said that it was minded to ban these materials, subject to further consultation:

> On the subject of oxo-degradable and oxo-biodegradable plastics, on the basis of current evidence, including the review on oxo-degradable plastics conducted by our Hazardous Substances Advisory Committee, there is insufficient evidence demonstrating that oxo-degradable/oxo-biodegradable plastics perform as claimed and biodegrade in a reasonable timeframe in the open environment. In the absence of further evidence, we are minded to introduce a ban on these materials, subject to a public consultation. We

[292] Industrial Biotechnology Innovation Centre, Review of standards for biodegradable plastics, July 2019, p26-27

[293] HM Government, Extended Producer Responsibility for Packaging, March 2021, p211

> welcome the leadership on this issue shown by the UK Plastics Pact who have already committed to eliminate the use of oxo-degradable plastic.[294]

The Government's response noted that there currently appears to be "widespread confusion among the general public and industry" regarding bio-based, biodegradable and compostable plastics and the impacts their development and use have on the natural environment. It set out a number of next steps. These include:

- Commissioning a research project to further consider the evidence that has been supplied to this call for evidence, within the context of wider literature and new research.
- Where this topic cuts across our current policy agenda the government will, as necessary, continue to explore further issues in our consultations such as on an extended producer responsibility scheme for packaging and introducing greater consistency in household and business recycling collections in England.
- BEIS will be able to make use of the evidence provided to this call for evidence through its delivery of Growing the Bioeconomy: A National Bioeconomy Strategy to 2030 where it was included as an action in the Business Environment chapter.

11.5 Coronavirus

The Covid-19 pandemic has led to concerns over an increase in the use of plastic products, such as disposable cups, plastic packaging, disposable face masks, plastic screens and testing kits.[295] In particular, concern has focussed on where these products have not been disposed of correctly and they have ended up causing harm to the environment and wildlife.[296] [297]

The UK Government has produced guidance on the correct disposal of face masks and personal protective equipment, Coronavirus (COVID-19): disposing of waste, 13 July 2020.

The British Plastics Federation, has encouraged consumers to dispose of plastic products properly and points to decreased demand for other types of plastic products. In September 2020 it stated:

294 HM Government, Standards for bio-based, biodegradable, and compostable plastics: Government response, April 2021, p17-18

295 "The coronavirus pandemic has totally derailed the war on plastic" Wired, 30 June 2020 and "COVID-19 home testing kits: should we be worried about their environmental impact?" The Conversation, 22 December 2021

296 "Coronavirus: Disposable masks 'causing enormous plastic waste'" BBC News, 13 September 2020

297 UCL Plastic Waste Innovation Hub, The environmental dangers of employing single-use face masks as part of a COVID-19 exit strategy, April 2020

> A forecast done by the industry, key stakeholders and compliance companies expects per person use for all plastic packaging to fall further in 2020, possibly falling as much as 9% in comparison to 2019.[298]

The waste and resources charity WRAP's 2021 Plastics Market Situation Report summarises findings from its recent work examining the impact of Covid-19 on plastic packaging, which also suggested a decline in packaging placed on the market:

> Impact of COVID-19: Overall plastic packaging POM [placed on the market] for 2020 is likely to have declined by 9% from 2019 to 2.1Mt. The decline was driven by a drop in plastic packaging use from the non-grocery retail and hospitality sectors as they were closed during COVID-19 lockdowns throughout the year. The longer-term impact may be more important than the immediate impact on overall plastic packaging POM. As in other sectors of the economy, the COVID-19 lockdowns may serve to hasten consumption patterns already in place, accelerating demand for specific polymer/formats.[299]

In an article in the Grocer, packaging manufacturers described the pandemic as a "blip" towards greater sustainability:

> Packaging manufacturers hammer home that Covid-19 is simply a blip in the industry's steady progress towards sustainability. Amcor says its "commitment to more responsible packaging remains at the heart of our strategy". Smurfitt Kappa has even observed growing demand for its sustainable lines, as focus on the environment begins "intensifying". For DS Smith, sustainability "will always remain at the core of what we do, even during challenging times", says the company's UK sales director James Lomax. "We're hopeful the global conversation around a green recovery will mean even more brands and companies will see the importance of sustainable packaging," he adds.[300]

Environmental groups, such as Greenpeace and Greener UK have also been concerned about the delay to environmental legislation. In particular, to the Parliamentary stages of the (now) Environment Act 2021 which were delayed due to the pandemic restrictions. Environmental organisations and campaigners have expressed disappointment and frustration about the delay to the (then) Bill.[301] The concern also includes the delayed implementation of other legislative measures, such as the ban on cotton buds, straws and stirrers (originally due in April 2020, but which came into effect in October 2020).[302]

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298 British Plastics Federation, British Plastics Federation Responds to the Latest Instalment of the BBC's War on Plastic, 2 September 2020

299 WRAP, Plastics Market Situation Report 2021, p1

300 "Can the sustainable packaging effort survive Covid-19?" The Grocer, 6 July 2020

301 See for example: "Climate: Government postpones Environment Bill again" BBC News, 26 January 2021; and "Fury as long-awaited UK environment bill is delayed for third time" The Guardian, 26 January 2021

302 "Coronavirus: DEFRA delays single-use plastics ban" ENDS Report, 16 April 2020 [subscription required] and "Where is the Environment Bill?" Inside Track, 8 June 2020

In June 2020 the Ellen MacArthur Foundation released a statement about building back after the pandemic supported by signatories from a number of organisations such as Nestle, WWF International, Coca Cola, Veolia, and Renault arguing that by designing out waste, keeping products and materials in use, and regenerating natural systems, it "creates vital opportunities for economic growth that also restore the environment, create jobs, and benefit society." The statement calls for Governments and businesses to "raise the ambition level of circular economy targets, while delivering faster against existing ones.[303]

The waste and resources charity WRAP, published a June 2020 report, How moving to a Circular Economy can help the UK to Build Back Better. It puts forward an evidence base for its thinking and a six step plan which includes accelerating moves towards a circular economy.[304]

The European Commission's May 2020 communication, Europe's moment: Repair and Prepare for the Next Generation, also references the importance of the circular economy in recovery from the pandemic. It supports full implementation of the EU Circular Economy Action Plan and states, "Investing in a more circular economy has the potential to create at least 700,000 new jobs by 2030 and help the EU to reduce its dependency on external suppliers and increase its resilience to global supply issues."[305]

303 Ellen MacArthur Foundation, A solution to build back better: the circular economy, June 2020

304 WRAP, How moving to a Circular Economy can help the UK to Build Back Better, June 2020, p10

305 European Commission, Europe's moment: Repair and Prepare for the Next Generation, COM/2020/456 final, 27 May 2020

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
- European Parliament, Policy Department for Citizens' Rights and Constitutional Affairs Directorate-General for Internal Policies PE 658.279, The environmental impacts of plastics and micro-plastics use, waste and pollution: EU and national measures, October 2020

- 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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