

# THINKING ABOUT PLASTIC



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# THINKING ABOUT PLASTIC AND THE CIRCULAR ECONOMY

Exploring the balance of responsibilities the government and business now face with plastic and how this affects our present, our future, our planet and our wallets.

## THE CHALLENGE

Plastic waste is a significant environmental, climate and public health challenge. The Minderoo Foundation estimates that single-use plastics account for over a third of plastics produced every year, with 98% manufactured from fossil fuels. Single-use plastics also account for most of the plastic thrown away with more than 130 million metric tonnes disposed of in 2019 alone – almost all of which is burned, buried in landfill, or discarded directly into the environment.<sup>1</sup>

What's more, the problem is only set to get worse. In the next five years, global capacity to produce virgin polymers for single-use plastics could grow by over 30% – and by as much as 400% for individual companies.

## WHAT IS THE PICTURE LIKE IN THE UK?

In this context, the UK government has started to act on plastic waste. According to the British Plastic Federation, the UK produces nearly 5 megatonnes (Mt) of plastic waste per year. Nearly half of this or up to 2.3Mt is plastic packaging.<sup>2</sup>

*The UK produces nearly 5 megatonnes (Mt) of plastic waste per year.*

UK government estimates that 91% of plastic is recycled.<sup>3</sup> However, it is likely that these figures overstate recycling rates. According to a report from the WWF the latest available data (2019), just 29% of UK plastic waste was recycled. A small fraction (< 1% was littered) and the remaining waste was sent to residual disposal. However, plastic packaging is recycled at a higher rate, with WRAP suggesting that an average of 50% of plastic packaging was recycled in 2020.<sup>4</sup> The UK government estimates 47%.<sup>5</sup>

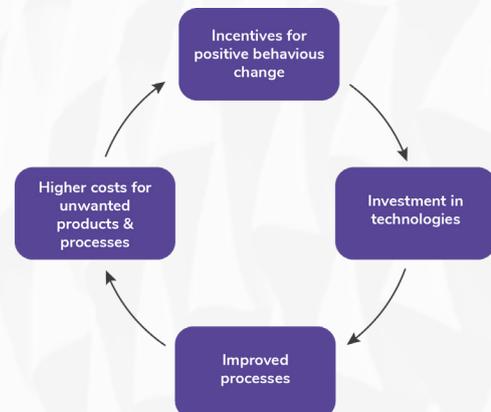
The UK's current plastic consumption and recycling figures represent a profound challenge when compared to the UK's ambitious targets for reducing and increasing recycling of plastic waste. These include:

- ◆ Recycling 50% of waste from households by 2020<sup>6</sup>
- ◆ Eliminating avoidable plastic waste by end of 2042<sup>7</sup>
- ◆ Significantly reducing and where possible preventing all kinds of marine plastic pollution – material that came originally from land
- ◆ Reduce residual waste (excluding major mineral wastes) kg per capita by 50% by 2042 from 2019 levels

## THE POLICY APPROACH

So how will the UK government meet its targets?

To drive effective change, government will need to support the cycle set out below.



It has a four-pronged policy approach consisting of the following interventions:

- ◆ The plastic packaging tax
- ◆ The extended packaging producer responsibility scheme
- ◆ Consistent kerbside collections
- ◆ The drinks container deposit return scheme

1. The Minderoo Foundation, Plastic Waste Maker's Index, <https://www.minderoo.org/plastic-waste-makers-index/findings/executive-summary/>  
2. British Plastics Federation, 2016, [http://www.bpf.co.uk/sustainability/plastics\\_recycling.aspx](http://www.bpf.co.uk/sustainability/plastics_recycling.aspx)  
3. House of Commons Library, Plastic Waste, 2022, <https://commonslibrary.parliament.uk/research-briefings/cbp-8515/>  
4. Wrap, Plastic Market Situation Report 2021, 2022, <https://wrap.org.uk/resources/report/plastics-market-situation-report-2021>  
5. Defra, UK Statistics on Waste, <https://www.gov.uk/government/statistics/uk-waste-data/uk-statistics-on-waste>  
6. <https://www.gov.uk/government/publications/progress-report-on-recycling-and-recovery-targets-for-england-2020/progress-report-on-recycling-and-recovery-targets-for-england-2020>  
7. Defra, At a glance: summary of targets in our 25 year environment plan, 2021, <https://www.gov.uk/government/publications/25-year-environment-plan/25-year-environment-plan-our-targets-at-a-glance>

## PLASTIC PACKAGING TAX

The Plastic Packaging Tax (PPT) introduced in April 2022 will apply to plastic packaging manufactured in, or imported into the UK, that does not contain at least 30% recycled plastic. In practice, this equates to an additional cost of £200 per tonne on plastic packaging with less than 30% recycled content.

The aim is to provide a clear economic incentive for businesses to use recycled plastic in the manufacture of plastic packaging. The intent is that this will stimulate increased levels of recycling and collection of plastic waste, diverting it away from landfill or incineration.

## CONSISTENT KERBSIDE COLLECTION

Through powers in the Environment Act 2021, all councils will have to collect glass, metal, plastic, paper and card, food waste and garden waste separately. Consistent kerbside collections will simplify the process for the public and improve efficiency of the system, by improving the quantity and quality of recycled materials.

## EXTENDED PRODUCER RESPONSIBILITY

Extended Producer Responsibility (EPR) is a policy approach under which producers including brands, importers, and manufacturers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products or waste.<sup>8</sup>

EPR seeks to achieve a reduction in the environmental impact of products, throughout their lifespan, from production through end-of-life. This is achieved by integrating the cost not only for production but also for disposal, into the product price through charging higher fees for packaging types that are more difficult to recycle and reuse. Ideally, this leads to financial benefits for producers who reduce packaging or make it more recyclable.<sup>9</sup>

## DEPOSIT RETURN SCHEME FOR DRINKS CONTAINS

A Deposit Return Scheme (DRS) applies an additional cost to a product when it is purchased. A refund of that cost is given to the consumer if that product is returned to the producer. In this instance, a refund will be given when a reusable drinks container is returned for recycling. It is hoped that the introduction of a DRS incentive will help to reduce littering and increase recycling.

Defra estimates the costs of EPR at £1.2bn for household collections.

## POLICY IMPACT

Defra estimates the costs of EPR at £1.2bn<sup>10</sup> for household collections and that the plastic tax will add £200 per tonne to the cost of virgin plastic. Increased costs for unsustainable and excessive packaging through taxes and EPR levies provides producers a clear disincentive to use higher polluting products by increasing their cost relative to recycled or reusable alternatives. It also provides cost incentives to reduce packaging and use recyclable or reusable packaging.

UK Government research found that the plastic packaging tax would incentivise over half of packaging manufacturers to increase the recycled content in their packaging.<sup>11</sup>

The evidence for consistent kerbside collections is also strong. For example, WRAP estimate that up to £478 million of materials will be returned to the economy from the sale of dry recyclables and that up to 11.6mt of materials and food waste will be collected for recycling, adding approximately 7 percentage points to the household waste recycling rate for England.

It is hoped deposit return systems can help raise the recycling of single-use drinks containers in the UK to rates of more than 90%, as seen in European nations where they are well established.<sup>12</sup>

## CHALLENGES AND IMPLEMENTATION

Reforms of this size and scale present significant implementation challenges. Perhaps the most complex is the potential for unintended consequences of applying multiple policies concurrently to the same categories of product. Without careful consideration, some products could be priced out, wrong products could be incentivised, incentives could for example support the proliferation of easily recyclable, but high carbon packaging, or badly designed packaging that can be recycled at the expense of reusability or durability.

The UK government has announced that the EPR system will be split in two, with a traditional EPR scheme for household waste, but the continuation of the PRN system for business waste. This creates further complexity, given that the distinction between household and business packaging is often unclear, raising further

8. <https://www.oecd.org/env/tools-evaluation/extendedproducerresponsibility.htm>

9. [https://www.compliancegate.com/eu-extended-producer-responsibility/#How\\_much\\_does\\_it\\_cost](https://www.compliancegate.com/eu-extended-producer-responsibility/#How_much_does_it_cost)

10. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/1063588/epr-final-impact-assessment.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1063588/epr-final-impact-assessment.pdf)

11. Research on the Introduction of a Plastic Packaging Tax, Ipsos Mori, <https://www.gov.uk/government/publications/research-on-the-introduction-of-a-plastic-packaging-tax> p11

12. <https://www.valpak.co.uk/epr-drs/deposit-return-scheme>

concerns around how the schemes will ensure accurate reporting, avoid double counting and fraud.

The risk of unintended consequences is heightened because policy responsibility for these interventions will be dispersed between different actors (the EPR scheme administrator, the DRS scheme administrator, local government, and central government). This creates a challenge of coordinating across and between schemes.

**Significant challenges remain - the scale and complexity of these schemes presents a profound challenge.**

## CONCLUSION

The UK government is embarking on a bold and ambitious programme of reforms to the way that the UK, designs, manages and processes its waste with profound implications for plastics. These reforms are designed to introduce profound new costs into the system to incentivise behaviour change in producers, consumers and processors of waste, improving design, increasing recycled and reusable content while reducing overall waste and improving the re-use of products.

However, significant challenges remain - the scale and complexity of these schemes presents a profound challenge to implement for all areas of the waste management industry from policy makers, local councils, waste management companies and packaging producers in a comparatively short period of time.

But perhaps the most profound issue in for these reforms in the current economic context of the cost-of-living crisis is the additional costs that packaging taxes and EPR schemes will confer onto ordinary consumers. In the case of the EPR scheme this could amount to a little over £1.2bn. Similarly, the food packaging industry has criticised the plastic packaging tax for being “too strict”, arguing that taxed packaging will increase costs for end consumers and adding to inflationary pressures.<sup>13</sup>

This is not a technocratic issue of scheme implementation or unintended consequences but a political judgement about the balance of responsibilities to our present and our future, to our planet and to our wallets. The success of these reforms will depend on Government demonstrating the ambition, and vision to get that balance right.

13. UK plastic packaging tax for being too strict, Financial Times, <https://www.ft.com/content/34de1931-3467-469c-bb69-5ba0e7d23308>



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