

FAQs on Tackling the Plastic Problem

A Focus on Single-Use Plastics



Governments, industry, the media and NGOs all over the world are focussing on single-use plastics and how to reduce their environmental impacts. The UK government is taking a stance on this and exploring how the amount of single-use plastics can be reduced. This includes potential taxes and charges, reducing unnecessary production, increasing reuse and improving recycling.

The scope of reducing plastic waste is across the whole supply chain, from production and retail to consumption and disposal, to make sure any action and future legislation is thoroughly effective.

The UK Government's consultation document asks a range of questions on single-use plastics. We have developed some possible answers based on our in-depth knowledge of the issues and opportunities available.

Please [contact us](#) if you would like to discuss your unique business issues and how we can support you.

Question	Anthesis view
<i>What is single-use plastic?</i>	<p>A robust definition is difficult to state. Policy makers in many regions are looking at this and working on legal definitions to fit into their local policy frameworks.</p> <p>Generally, most primary packaging is single-use, as are many consumable items. At Anthesis, we consider single-use plastic to be:</p> <ul style="list-style-type: none">• All food and drink packaging (including bottles, pouches and crisp packets)• Other packaging (e.g. plastic bags, bubble wrap and flow wrap)• Laminated board (e.g. lined paper cups)• Other single-use or short-term use plastic based consumables including straws, disposable cutlery and wet wipes <p>Returnable, refillable and reusable items are, in our view, excluded from the definition. Although many secondary and tertiary packaging items are returnable, any that are plastic and destined for single applications will be included in the definition.</p>

What are the most important problems associated with single-use plastics, and why?

- ***Which polymer types are particularly problematic?***
- ***Which items are particularly problematic?***

The problems associated with single-use plastic are complex and can occur at different stages of the supply chain. Each organisation's plastic situation is unique and therefore so are the challenges they face. Please contact our plastic and supply chain experts at Anthesis if you would like to discuss your specific circumstances and the challenges.

Examples of common problems and challenges that organisations may face, include:

- **Manufacturing and production** – the manufacturing and production of plastic has a negative carbon and environmental impact. Companies who want to reduce their carbon footprint and other negative environmental impacts of their operations may wish to consider reducing their plastic impact. However, it is important to balance this impact at production with the potential carbon savings made in other parts of the supply chain when plastic packaging is used.
- **Recyclability of plastic** - the majority of plastic polymers can theoretically be recycled, however in reality a number of factors, including product format/space, sorting technologies and economics means that some polymers are less likely to be recycled than others. For example:
 - **Plastic containing carbon black pigment** - this cannot be sorted by material recycling facilities, which separate different plastic polymer material streams, meaning these items can often end up being sent for disposal. This usually applies to black plastic packaging, however some white plastic also contains this pigment.
 - **Plastic packaging made of multiple polymers** - these are difficult to recycle e.g. plastic tub with a plastic film, which are usually made from different polymers.
 - **Plastic film** - this is problematic for recycling within a mixed recycling system. There are recycling solutions available but due to the lightweight nature of the product it can be uneconomically viable to collect as a separate stream, especially through household collections. Plastic film is also one of the most difficult packaging types to eliminate as it protects food from spoilage (therefore reducing food waste) and ensures hygiene.
 - **Laminated board** - drinks cups made from laminated board now have a suitable recycling system and end market for the items once collected, but there are still issues around contamination of cups with other items. Visit the Paper Cup Recovery and Recycling Group website for more information. Other

	<p>laminated board (e.g. containing food) has not really been considered but are more problematic as they are usually more heavily contaminated with food waste.</p> <ul style="list-style-type: none"> ○ Crisp packets and other confectionary packaging - currently recycling systems don't exist in many countries for this type of post-consumer packaging. ○ Other single-use plastic based products - many are not compatible with recycling collection/sorting systems e.g. plastic based cutlery, straws, condiment packets and wet wipes.
<p><i>How do we prioritise the plastics in our own supply chain to focus on when looking for opportunities to drive change?</i></p>	<p>The best place to start is to undertake a review of products and packaging across your portfolio. This will help you to identify where you have scope and opportunity to change.</p> <p>As current plastic packaging has been developed for specific purposes and has many positive qualities (e.g. lightweight and good barrier properties for food hygiene/product protection), you will need to consider broader environmental issues when looking at alternatives.</p> <p>Sometimes moving away from a product can have unintended consequences, for example, by removing plastic packaging from food, the shelf life and product protection functions can be reduced creating increased waste and carbon footprint.</p> <p>Plastics incorporating recycled material are more environmentally friendly as they replace virgin material, and use less resources.</p>
<p><i>What about the role of bio-based products and biodegradable products to replace plastics?</i></p>	<p>Bio-based plastics fall into two broad categories: biodegradable/compostable and non-biodegradable (i.e. which have the same properties as conventional plastics e.g. bio-PET).</p> <p>'Biodegradable' can be a misleading term as it simply means that a plastic will break down naturally, but it doesn't specify the conditions in which this will occur or to what extent the plastic will break down. This means that biodegradability cannot be recommended for all circumstances.</p> <p>'Compostable' is less ambiguous as it means that the plastic will break down under the conditions of an industrial composter. For compostable packaging to be handled sustainably at end-of-use it needs to be collected and taken to a composting facility that can reprocesses it.</p>

	<p>Further research and life cycle analysis is needed into the impact of bio-based conventional plastics and compostable packaging across the supply chain. It is likely that the sustainability credentials of bio-based plastics will depend on the specific circumstances in which it is produced, used and then handled at end-of-life.</p> <p>The following are factors to consider:</p> <ul style="list-style-type: none"> • Sources of the biomass and its potential displacement of land availability for food production • Availability of separate collection and compost treatment facilities for compostable packaging • Impact of biodegradable/compostable plastics, as well as bio-based conventional plastics, on recycling supply chains in the region that the bio-based plastic is to be used.
<p><i>I have heard that Governments across the globe are looking at different policies to tackle plastics, how can I calculate the impacts of this on my business?</i></p>	<p>Tackling the rise in plastic use and the negative impact of plastics in the marine and land based environments has moved quickly up the political agenda in many jurisdictions globally. Taxes on specific items, Extended Producer Responsibility systems and Deposit Return Systems are already prevalent in EU, USA, Canada and Australia and the Nordics.</p> <p>In the European Union this will be driven through the existing EPR schemes, linked to the EU Circular Economy Package, specifically the EU Plastic Strategy. The potential use of taxes or other financial incentives on single-use plastics will be discussed as part of the plastic strategy implementation.</p> <p>The UK is looking to take an approach that goes beyond the commitments of the EU CE Package and is looking at options for single-use plastic tax, coffee cup tax and DRS for beverage sector.</p> <p>The plastic political landscape, particularly in relation to single-use plastics, is fast evolving. This means it is important for organisations to stay up to date with the debate in the geographies they operate in. Anthesis is a global organisation that can support you to stay up to date or even better, ahead of the debate. Anthesis also has a team of EPR, plastic and financial/economic modellers that are able to support your organisation.</p> <p>Steps you can take internally to keep abreast of the changing political landscape:</p> <ul style="list-style-type: none"> • Talk to your trade bodies • Get involved in the consultation process as they happen • Attend industry specific/sector events where this topic is being discussed

	<ul style="list-style-type: none"> • Undertake options assessments and financial or economic modelling of different fiscal incentives being considering in the regions you operate in • Join local initiatives e.g. the UK Plastic PACT or align internal plastic reduction objectives with internationally recognised commitments e.g. Sustainable Development Goals and or the UN Marine Plastic Resolution.
<p><i>How can we help consumers to understand how to manage plastics responsibly?</i></p>	<p>Consumers are generally confused about plastic packaging. Firstly, consumers don't always appreciate the benefits it can bring and secondly, they don't always understand how to responsibly handle the plastic packaging post use i.e. they don't know if it can be recycled in their local recycling collection system or if they are supposed to do anything with the packaging before putting it out for recycling.</p> <p>To support consumers in doing the right thing with the plastic packaging you are putting on the market, you can:</p> <ul style="list-style-type: none"> • Clearly label (using recognised materials such as OPRL) packaging items to show that they are recyclable • Don't use labels that confuse consumers e.g. the number and triangle • Create packaging that is easy to recycle and that is designed for end of life disassembly • Help customers to understand that plastic is sometimes the appropriate packaging material and is fit for purpose by reporting annually • Support anti littering campaigns.



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