

Reducing single use plastics - Proposals to ban nine single use plastic products in Wales - Consultation response form

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Sector (if applicable):	Trade association representing British renewable energy producers and clean technology and promoting the use of renewable energy in the UK. Amongst our 550 corporate members, the REA's Organics and Natural Capital forum and its Biogas forum together comprise 422 members, numerous of which operate commercial composting facilities and commercial scale anaerobic digestion (AD) facilities. The REA works with stakeholders with the aim of achieving policy and regulatory frameworks for renewables and organic waste recycling that deliver an increasing contribution to the UK's electricity, heat, recycling and transport needs. More info available at www.r-e-a.net
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Our proposals for the bans

1. Do you support our proposal to ban each of the single use plastic items listed below? If not, please give reasons and where possible evidence to support this view.

Item number	Item description	Yes	No	If no, please give reasons / evidence
Item 1	Cotton buds	✓		Yes with reservation. We interpret that the plastic stemmed 'swab sticks' referred to in paragraph 38 of Annex A of your consultation questions document are plastic stemmed products used 'in a medical or forensic context to apply and remove substances and medicines or to take microbiological culture and DNA samples'. If this interpretation is

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			<p>right, Welsh Government is not considering such products to be plastic stemmed <u>cotton buds</u>.</p> <p>We also noticed that paragraph 9.5 of the report for Welsh Government titled 'Preliminary Research to Assess the Impacts of a Ban or Restrictions in Sale in Wales of items in the EU's Single Use Plastics Directive' states 'The EU SUP Directive provides exemptions to the ban for cotton buds and straws in medical uses'. In this paragraph it is not clear whether the EU exemptions for cotton buds in medical uses are actually for swab sticks instead of cotton buds.</p> <p>The rest of paragraph 9.5 includes that the literature review taken into account when EU decisions were made found that non-plastic disposable straws 'are thought to be lacking in suitable functionality'. This paragraph does not say whether non-plastic cotton buds and/or swab sticks used in medical and forensic applications lack suitable functionality. The published summary of that report also does not clarify this.</p> <p>We encourage Welsh Government to support communications campaigns that encourage people not to flush used cotton buds <u>of any kind</u> down toilets and instead dispose of them correctly.</p>
Item 2	Plates (including trays, platters, bowls and laminated paper plates)	✓	<p>In response to question 7 we have called for compostable plastic plates, trays, platters and bowls to be exempt from the ban as well as compostable versions of these products which are based on natural fibres and laminated with compostable plastic.</p>

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Item 3	Cutlery (including forks, knives, spoons, chopsticks and sporks)	✓		In response to question 7 we have called for compostable plastic cutlery to be exempt from the ban.
Item 4	Drinks stirrers	✓		
Item 5	Straws	✓		In response to question 7 we have called for compostable plastic straws to be exempt from the ban.
Item 6	Sticks for balloons	✓		Yes with reservation, see our response to question 7.
Item 7	Beverage cups made of expanded and extruded polystyrene			We have not answered this question; short of time for responding so we have prioritised answering about product types of most relevance to our members who operate composting and anaerobic digestion facilities and others operating in or with interests in the UK organics recycling industry.
Item 8	Food containers made of expanded			We have not answered this question; short of time for responding so we have prioritised answering about product types of most relevance to our members who operate

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	and extruded polystyrene			composting and anaerobic digestion facilities and others operating in or with interests in the UK organics recycling industry.
Item 9	Products made of oxo-degradable plastic.	✓		

What our research tells us about the impacts of such a ban in Wales

2. Do you agree the potential environmental and social benefits of our proposals outweigh the potential impacts on people in Wales? Please give reasons and where possible evidence to support this view.

Y	N	Reasons / Evidence
✓		<p>We agree that the wider environmental benefits outweigh the small financial costs to the hospitality sector, to the retail sector and to consumers if retailers decide to not to absorb the small extra cost for some food and drink products consumed 'on-the-go'.</p> <p>We noticed in the summary report carried out for Welsh Government it's section on economic impact estimates included (in paragraph 2.24) that 'visual disamenity is one aspect of marine litter than can be quantified and monetised but it does not encapsulate the full impact of plastic pollution on the marine environment, wildlife and ecosystems, which is still being investigated by the scientific community'. These unquantified and not yet monetised impacts could be significant as too could be the impacts on human health (via human consumption of some species of marine animals). Researchers have begun to investigate the effects of nano-plastics on marine organisms and elsewhere in marine food chains. We believe that the bans proposed by Welsh Government would help to reduce these potential impacts that are not yet fully, scientifically investigated and the bans are sensible precautions to implement at the very least until full impacts have been researched, reported, considered and taken into account in economic modelling.</p>

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3. Do you agree with our assessment of the potential benefits and impacts our proposals will have on businesses, including manufacturing, in Wales? Please give reasons and where possible evidence to support this view.

Y	N	Reasons / Evidence
		<p>We agree with Welsh Government's summary of the benefits and impacts parts of the research it commissioned (paragraph 19 of the consultation document).</p> <p>The bans will drive innovation in alternatives to conventional and oxo-degradable plastic versions of the banned products. In addition, UK production of the ban-exempt compostable items we have suggested (see our answer to question 7) would support the parts of our bioeconomy which produce largely plant-derived products of these kinds¹. Their co-collection with food wastes on a more widespread basis would support their organic recycling in their end of life phase (see our answer to question 6), thus circling within the Biological Value Chain part of our circular economy these plant-derived and organics-recycling-industry-targeted biodegradable products.</p> <p>1 The Bio-Based and Biodegradable Industries Association should be able to provide Welsh Government with information about UK-based companies that produce relevant compostable items.</p>

4. Should oxo-degradable plastics be included on the list of items to be banned? Please provide evidence to support this view.

Y	N	Reasons / Evidence
✓		<p>We ask Welsh Government (and government for all other countries in the UK) to ban oxo-degradable plastics and all other polyolefins amended with organic, inorganic and/or enzyme additives that accelerate polymer chain cission through oxidative chemical reactions.</p> <p>Please consider carefully the definition you use; we have quoted below in this answer the EU Single Use Plastics Directive's definition (which has been included in the definitions section of the report for Welsh Government which underpins this consultation) and we believe that 'oxo-biodegradable' plastics are still oxo-degradable plastics and so should be amongst the products that Welsh Government bans.</p>

As well as by generic names, e.g. oxo-degradable, oxo-biodegradable and photo-degradable plastics, these types of plastic can be identified by any claim of having been:

1. tested according to BS 8472, Methods for the assessment of the oxo-biodegradation of plastics and the phyto-toxicity of the residues in controlled laboratory conditions;
2. tested according to ASTM D-6954, Standard Guide for Exposing and Testing Plastics that Degrade in the Environment by a Combination of Oxidation and Biodegradation;
3. tested and/or conforming to French Accord (standard) TF-808, Plastics Assessment of oxobiodegradability of polyolefinic materials in the form of films;
4. tested and/or conforming to French Standard XP_T_54-980_F for oxo-biodegradable plastics in agriculture; or
5. tested and/or conforming to UAE Standard 5009, Standard & Specification for Oxo-biodegradation of Plastic bags and other disposable Plastic objects; or
6. tested and/or conforming to the British Standards Institution's new PAS 9017, Plastics – Biodegradation of polyolefins in an open-air terrestrial environment – Specification.

Please note this is unlikely to be an exhaustive list of all test methodologies and pass/fail setting standards that include oxidative chemical degradation of unamended and/or additive-amended plastics.

We have responded to BSI's public consultation on the draft PAS 9017 (including call for its development to be ceased and for it not to be published), participated in a further questions and answer session with BSI on 23rd September, and have read much of its content since its publication on 1st October 2020. We highlight that it's laboratory-based 'weathering' test exposes test samples to heat, ultraviolet light and oxygen in the air and those conditions drive oxidative chemical reactions which shorten some of the polymer chains. In standards such as BS 8472 and ASTM D-6954 this kind of testing is described as 'oxidation'. BS 8472 recommends assessment of the oxidation tested sample's carbonyl index as confirmation of the degree of oxidation that has occurred. In PAS 9017 when a sample has completed its 'weathering' test its carbonyl index result must be determined and the note

accompanying this (clause 4.4.1) requirement explains that 'The carbonyl index (CI) is used to determine the relative level of chemical transformation that has occurred on and within the sample'.

We believe PAS 9017's definition of 'polyolefinic materials', it's clause that requires biodegradation testing (6.1.1) and parts of its Annex B wording amount to:

1. unacceptable exemptions from biodegradation testing and having to meet the biodegradation pass criterion; and
2. allowance of 'polyolefin sample' only to be biodegradation tested and assessed for compliance with the biodegradation pass criterion, which is unacceptable because there is no requirement that the 'polyolefin sample' (included in the definition of 'polyolefinic material') is taken from the end 'product in a defined form', or is taken from a material which is compositionally exactly the same as the end product will be and is not thinner than the end product (including where there are seams or the joins).

PAS 9017 defines 'polyolefinic material' as 'polyolefin sample or product in a defined form, e.g. a rigid container, a film or a fibre'.

In the event of a request from Welsh Government, we would communicate more about our on-going concerns about the content of this PAS.

Reasons why we want the plastics we have named and described above banned

Defra was amongst 150 of the world's leading businesses, industry associations, non-governmental organisations, government bodies and academics who signed the Ellen MacArthur Foundation statement which called for a ban on oxo-degradable plastics. That statement included: 'In summary, the balance of the published evidence to date suggests oxo-degradable plastic packaging goes against two core principles of the circular economy: designing out waste and pollution; and keeping products and materials in high-value use. Therefore, we support applying the precautionary principle by banning oxo-degradable plastic packaging from the market. Similarly, based on the

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evidence we have reviewed, we believe this conclusion also holds for other plastic packaging that contains similar chemical additives, both organic and inorganic, for which claims of accelerated biodegradation are made, including enzyme-mediated degradable plastics.' See <https://newplasticseconomy.org/about/publications/oxo-statement>

On behalf of the UK, government here voted in support of the EU Single Use Plastics Directive. In June 2021 'products made from oxo-degradable plastic' will be banned in EU countries. This directive's Article 3, paragraph 3, defines such plastics as 'plastic materials that include additives which, through oxidation, lead to the fragmentation of the plastic material into micro-fragments or to chemical decomposition' (<https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32019L0904&from=EN#d1e555-1-1>). The reason - stated in paragraph 15, page 4 introductory 'Whereas' text - is 'that type of plastic does not properly biodegrade and thus contributes to microplastic pollution in the environment, is not compostable, negatively affects the recycling of conventional plastic and fails to deliver a proven environmental benefit'.

Scottish Government is also currently consulting on its proposals for banning and oxo-degradable plastics (and further, specific single use plastics). Unless all countries in the UK ban oxo-degradable plastics these products will encounter barriers to trade in the UK internal market and from June 2021 cannot be exported to the EU. We have responded to government's recent UK Internal Market White Paper Consultation; it is difficult to envisage how the principle of non-discrimination which they intend to apply would be upheld in practice if at least one country in the UK bans oxo-degradable plastics while at least one other country in the UK does not.

The research report carried out for Welsh Government states in paragraph 2.25 that 'The impacts of a ban on oxo-degradable plastics were not modelled in this research as 'oxo-degradable plastics' could encompass several different types of products but no significant market was identified in Wales'. We also noticed the report's paragraph 5.5.7 acknowledged that 'stakeholders provided differing views on the use of oxo-degradable plastic in the UK' which, given the other text on this subject in this report, amounts to uncertainties about all the product types made of these plastics and sectors in which they are used. We think it is possible that the UK's exit from the EU and consequent uncertainties over whether UK countries will bring in the same or a similar ban as the EU will in

June 2021 means there has been some growth in uses of oxo-degradable, oxo-biodegradable and photo-degradable products since the UK's decision to exit. It seems very likely the uses of these products in Wales and the harms they will cause if littered into natural environments and the contamination they bring to conventionally recyclable materials and the recycling of biodegradable wastes will increase if Welsh Government does not ban them soon.

Plastics Recyclers Europe's Recyclclass Recyclability Methodology (emailed to Welsh Government with our response) makes clear that plastics with bio- or oxo-degradable additives are disqualified because they are incompatible with plastics suitable for recycling (see pages 7, 10, 17 and 25). It's paragraph 2.2.2 on page 10 says 'Oxo- and bio-degradable plastics consist of polymers that are incompatible with today's conventional plastic polymers. That hence cannot be mixed with standard polymers because they have a strong negative impact on the recycled plastic properties.' This document's Annex II also includes that 'bio-/oxo-/photodegradable additives' are also unacceptable for use in plastics used for PET bottles. We believe this is important evidence that oxo-degradable, oxo-biodegradable and photo-degradable plastics are contaminants if co-collected with dry/mechanically/conventionally recyclable plastics and that sorting technology at MRFs is not able to distinguish between these plastics and oxo-degradable, oxo-biodegradable and photo-degradable plastics.

Misdisposed 'biodegradable' items contaminate biodegradable waste streams used for making waste-derived composts and digestates

The UK composting industry's experience of receiving unsolicited oxo-biodegradable carrier bags and their lack of adequate biodegradation in those composting process shows that consumers do not understand claims on/about products and incorrectly put them into their bins for separately collected biodegradable wastes.

During our days as the Association for Organics Recycling (prior to merger with the REA in January 2013) we received enquiries from industrial composting members about carrier bags which arrived at their sites, holding food/garden waste or in amongst this waste. Some of them were printed with the word 'biodegradable' and were

resistant to composting conditions, fragmented into smaller but still readily visible pieces/fragments and were FAR from being adequately biodegraded by the end of the composting processes¹. At least some of those carrier bags seemed to be oxo-biodegradable ones, a number of companies were actively marketing oxo-biodegradable plastics at that time and we received enquiries from some organisations in packaging supply chains and packaging specifiers about oxo-biodegradable plastics. This period of enquiries largely preceded August 2011 when Tesco stopped providing oxo-biodegradable carrier bags in its stores (see <https://www.packagingnews.co.uk/news/tesco-drops-oxo-biodegradable-bags-17-08-2011>).

1 The sizes and concentrations of visible pieces of plastic, particularly those larger than 2 mm in any dimension, in composted material influence how particle size sorting/screening machinery is used; the smaller the pieces of plastic the more difficult they are to remove and the more compost particles are lost with the removed pieces of plastic, i.e. compost yield loss is another negative consequence of visible pieces/fragments of plastic in the composted material. Similar challenges apply to digested materials when operators seek to remove visible pieces/fragments of plastic from them.

Please consider the following excerpts from the key findings of Loughborough University's 2010 study supported and published by Defra²:

- 'The overall conclusion of this review is that incorporation of additives into petroleum based plastics that cause those plastics to undergo accelerated degradation does not improve their environmental impact and potentially gives rise to certain negative effects.'
- 'Oxo-degradable plastics are not compostable, according to established international standards EN13432 and ASTM 6400. Oxo-degradable plastics should not be included in waste going for composting, because the plastic fragments remaining after the composting process might adversely affect the quality and saleability of the compost.'
- 'It is thought that labelling the oxo-degradable plastics as biodegradable can lead to confusion on the part of consumers, who may assume that 'biodegradable plastics' are compostable. This may lead to contamination of the composting waste stream with oxo-degradable plastics.'

- 'The fact that the term — biodegradable can be applied to materials with extremely widely differing rates of biodegradation demonstrates that the term is virtually meaningless unless the rates of biodegradation and conditions under which it is measured are specified, preferably with reference to a widely recognised standard.'

2 EV0422, Assessing the Environmental Impacts of Oxo-degradable Plastics Across Their Life Cycle Loughborough University, A research report completed for the Department for Environment, Food and Rural Affairs, January 2010 (see <http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=More&Location=None&Completed=0&ProjectID=16263>)

Unclear claims, lack of independent assessment of conformance to relevant standards and their relevance to littering and misdisposal behaviours

We have seen claims on numerous products that they are 'biodegradable' yet they state nothing else about the controlled or natural environment in which they are designed to biodegrade, the timescales within which they should reach an acceptable state of biodegradation, the standards they have met or their certification codes (where there is claim the product is certified). Some have displayed a logo which may be mistaken for a genuine certification mark.

Please take a look at <https://www.european-bioplastics.org/oxo-degradable-plastics-increasingly-under-fire-in-europe/>, where European Bioplastics show an image of a plastic carrier bag with caption 'Misleading marketing claim: Shopping bag made from "oxo-degradable material" wrongly claims accordance to EN 13432. (Image taken in August 2015, © European Bioplastics)'. The image includes a 'd2w' symbol and information about 'd2w' is provided at <https://www.symphonyenvironmental.com/solutions/oxo-biodegradable-plastic/>

We note in paragraph 5.59 of the research report carried out for Welsh Government that 'the oxo-degradable industry also raises the distinction between 'oxo-degradable' and 'oxo-biodegradable' technology, whereby oxo-biodegradable plastics break down into biodegradable materials over a much shorter timeframe (Barret, 2019)'. When considering how to define oxo-degradable and similar plastics which may become banned in Wales, please

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consider what we have proposed above, the scopes of relevant published standards (including whether they set any pass/fail criteria and maximum allowed timescales for reaching a sufficient level of biodegradation and require ecotoxicity testing and conformance to ecotoxicity pass/fail criteria), the lack of a standard that sets pass/fail criteria for items that will disintegrate and biodegrade in ALL natural environments (this is relevant to items that tend to be littered), and the lack of regulatory or even industry-driven requirement for conformance to standards to have been assessed and certified by an independent certification body.

Paragraph 5.59 of the research report carried out for Welsh Government includes 'The UK manufacturer, Symphony Environmental, reports that if their oxo-biodegradable material is littered it "will degrade and biodegrade in a continuous, irreversible and unstoppable process until there is nothing left" leaving "no toxic residues and microplastics" (Symphony Environmental, n.d.)'. To which robust, relevant standards do their end products conform and what independent proof of conformance can they provide? The same question should be asked to the companies who use Symphony's d2w 'technology' to make their end products.

Paragraph 5.62 of the research report carried out for Welsh Government includes 'One manufacturer stated their oxo-biodegradable technology will biodegrade in an industrial composting unit...and only needs a short exposure to UV light to biodegrade in the open environment (the timescales of biodegradation are subject to environmental factors).' Again, to which robust, relevant standards for biodegradation in open environments do their end products conform and what independent proof of conformance can they provide? In the context of industrial composting, do their end products conform to BS EN 13432, BS EN 14995 and/or ASTM D6400 and can they provide valid certificates of conformance issued by an independent certification body? (See in our answer to question 6 about organics recycling industry requirements.)

Paragraph 5.63 of the research report carried out for Welsh Government states 'A common concern relating to those biodegradable plastics is that labelling a product as 'biodegradable' will increase the public's inclination to litter, but the UN found that there was limited evidence to support this assumption (United Nations, 2015)'. We believe the way this sentence has been written underplays the referenced evidence. It looks as though the

sentence sought to take account of one of the paragraphs about 'biodegradable' plastics in the UN report's executive summary (https://wedocs.unep.org/bitstream/handle/20.500.11822/7468/-Biodegradable_Plastics_and_Marine_Litter_Misconceptions%2c_concerns_and_impacts_on_marine_environments-2015BiodegradablePlasticsAndMarineLitter.pdf.pdf?sequence=3&isAllowed=y), which says 'there is some albeit limited evidence to suggest that labelling a product as 'biodegradable' will result in greater inclination to litter on the part of the public (GESAMP 2015)'.

This UN report's section on public perceptions, attitudes and behaviours provides useful, further insight so we quote the relevant paragraph here:

'Human perceptions influence personal behaviour, legislative and commercial decisions. Some, albeit limited, evidence suggests that some people are attracted by 'technological solutions' as an alternative to changing behaviour. In the present context, labelling a product as biodegradable may be seen as a technical fix that removes responsibility from the individual. A perceived lower responsibility will result in a reluctance to take action (Klockner 2013). A survey of littering behaviour in young people in Los Angeles revealed that labelling a product as 'biodegradable' was one of several factors that would be more likely to result in littering behaviour (Keep Los Angeles Beautiful, 2009). Whether similar attitudes occur in different age and cultural groups and in different regions globally is unknown, and more research is justified.'

We suspect that similar attitudes in at least some different age and cultural groups exist and that in the same and other groups at least some individuals are uncertain about the contexts in which a 'biodegradable' product is biodegradable and how to correctly dispose of it (where disposal instructions are absent or unclear). This too may add to some individuals' choices to litter or misdisposal of the product into the wrong bin.

No matter what an product's biodegradation credentials are, if the claim on the product just says 'biodegradable' how is anyone to know in which natural environments and/or human-managed biodegradation processes (aka 'managed environments') it will biodegrade and whether it will biodegrade to an acceptable degree and within an acceptable timescale?

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		<p>We call on government and devolved administrations in the UK to take steps to ensure (regulation may be necessary) that any product claimed to have a biodegradable credential is clearly and accurately labelled, this credential is independently certified and that the product includes appropriate disposal instructions and instruction not to litter it (we acknowledge that for small format products may need special consideration).</p>
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5. Do you believe the COVID-19 pandemic has resulted in changes to the market that are currently not accounted for in our research? Please give reasons and where possible evidence to support this view.

Y	N	Reasons / Evidence
✓		<p>In your consultation document you acknowledge that the research you commissioned in preparation for this consultation 'was undertaken prior to the COVID-19 pandemic, which may have resulted in a changing picture for single use plastic since our research was carried out' and that any disruption in respect of the items considered for banning in Wales will be relatively short term.</p> <p>Regarding COVID-19 driven changes to the markets for the single-use plastic items and oxodegradable products proposed to be banned, we do not have evidence of what those changes have been but estimate that consumption of most of those single-use plastic items will have gone down as many people have spent more time at home / working from home.</p> <p>If you also are also asking whether COVID-19 has significantly driven up the use of plastic, single-use items of kinds which also become littered, we have seen some evidence of this in social media content and in television coverage of charitable organisations' work to collect and properly dispose of items littered onto beaches in the UK.</p> <p>We are aware that in the UK the effects of the COVID-19 pandemic include the littering of face coverings and plastic gloves and some are misdisposed into bins for dry/mechanically recyclable materials. We have also</p>

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		<p>heard of instances of misdisposal of face coverings into clinical waste bins, in some settings where such bins are provided. We are also aware there that in some settings there are reasons why some people should use single-use face coverings while others should use clinical masks (depending on their role and/or the exact context) and that these typically include some plastic content.</p> <p>We suggest that government, including the devolved administrations, in the UK continue to work with stakeholders to communicate how to correctly dispose of clinical masks, face coverings and plastic gloves and not to litter them.</p> <p>Government and the devolved administrations could consider ways to encourage the use of re-usable, non-plastic face coverings where appropriate, including how to safely handle them after use prior to washing and how to wash them.</p>
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Exemptions to avoid disproportionate impacts

6. Do you agree with the exemptions we are proposing and how we make them as clear and practicable as possible to apply? Please give reasons and where possible evidence to support this view.

Y	N	Reasons / Evidence
✓		<p>We mostly agree with Welsh Government's consideration that 'an exemption from the proposed bans may be warranted where:</p> <ul style="list-style-type: none"> • a specified group of individuals finds the established non-plastic alternatives to certain banned items particularly impracticable; or • a specified setting or application may be particularly unsuited to the established non-plastic alternatives to certain banned items; and • there is no other reasonable mitigation that can be applied to address that disproportionate impact.'

SUP products Welsh Government has suggested excluding from the ban

We support your proposals not to ban single use plastic straws;

- which are medical devices / used for medical purposes,
- in a care setting, such as a hospital or care home, and
- used by those people with a disability.

We agree that plastic is a material difficult to replace in medical straws and where this is the best or only material available that supports positive medical treatment outcomes. We believe that plastic straws are relatively durable throughout an extended period of single use, which may occur in hospital or care home settings. We note in the report carried out for Welsh Government in preparation for this consultation it says 'straws are also used in a medical context in order to safely administer pre-dosed medicines. Flexible plastic straws are also used to assist or enable consumption of drinks and liquid food for medical purposes.'

People with some kinds of disability are likely to find plastic straws easier to use than ones made of alternative materials. We recognise that peoples' age and any disability they may have are 'protected characteristics'.

Specific compostable product types that should be excluded from the bans

We suggest the exemption criteria are modified so they allow the use of the specific compostable product types we have proposed in answer to question 7, where they are also independently certified compostable and made of;

- a) compostable plastics, or
- b) more than one compostable material type which includes compostable plastic.

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	<p>Where we say 'compostable' we mean the item is independently certified compliant with at least one of the following:</p> <ul style="list-style-type: none">a) British and European Standard EN 13432, 'Packaging. Requirements for packaging recoverable through composting and biodegradation. Test scheme and evaluation criteria for the final acceptance of packaging';b) British and European Standard EN 14995, 'Plastics. Evaluation of compostability. Test scheme and specifications';c) ASTM D6400, Standard Specification for Labeling of Plastics Designed to be Aerobically Composted in Municipal or Industrial Facilities;d) Australian Standard AS 5810, 'Biodegradable plastics — Biodegradable plastics suitable for home composting';e) French Standard NF T51- 800, 'Plastics — Specifications for plastics suitable for home composting'; orf) TÜV Austria's certification requirements for home compostable packaging under their 'OK compost HOME' scheme. <p>We have proposed that independent certification of conformance to at least one of the above is required. Independent certification means the item must be assessed and have a valid certificate of conformance to one of the above standards or to TÜV Austria's their 'OK compost HOME' scheme rules, issued by an independent (3rd party) certification body.</p> <p>Independent certification is amongst the requirements in English, Welsh and Northern Irish End of Waste criteria for compostable items that are fed into:</p> <ul style="list-style-type: none">a) composting processes that produce waste-derived compost products, andb) anaerobic digestion processes that produce waste-derived digestate products (albeit that compostable product formats currently allowed to be fed into AD are limited to those used for collecting food waste).
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	<p>N.B.: Where our answers to other questions have stated 'compostable' we mean, unless we have stated otherwise, products independently certified compliant with one or more of the standards referred to above or to TÜV Austria's their 'OK compost HOME' scheme rules.</p> <p><u>Independent</u> certification is important because requiring just 'certification' can be interpreted as self-certification (i.e. self-assessment and self-claim of conformance). We do not support the latter due to past experience with fraudulent, misleading and unsubstantiated claims of conformance to a relevant standard. We have also seen many claims that a product is 'biodegradable' without any further information about the controlled or natural environment in which it is designed to biodegrade, the timescale within which it should biodegrade, the standard it has met or its certification code (where there is claim the item is certified or it includes a symbol which is a fake certification mark).</p> <p>In support of the exemptions for compostable items we have called for, we must ensure any compostable plastic products and multi-material compostable products that include compostable plastic are not littered or put into bins via which dry/mechanically/chemically recyclable plastics are collected. Consequently, we emphasise the importance of compostable item labelling and disposal instructions, bin user education and off-bin guidance resources.</p> <p>(Beyond the context of this consultation, the importance of bin user education and resources that support correct disposal also applies to compostable items made from materials which are not compostable plastic, such as trays made from bagasse and paper bag and liner products that do not include any compostable plastic coating(s).)</p> <p>In terms of the UK organics recycling industry's potential to work together to biodegrade compostable items (including those that exclusively made from compostable plastic and multi-material compostable ones that include compostable plastic), we recognise the importance of feedback from composting and anaerobic digestion contractors to their waste supplying clients on the quality of biodegradable wastes they receive. There</p>
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are ways in which AD operators without a composting phase or other suitable treatment equipment could collaborate with composters to biodegrade compostable items. Specific to plastics unsuitable for biodegradation in composting and anaerobic digestion systems, there is need for better provisions in contracts that tie in with the Environment Agency's prospective new controls in permits and their statutory guidance that will underpin these permits.

The Italian Composting Consortium's recent study¹ found that the average 'drag effect' amongst 27 organic waste recycling facilities monitored was 2.75 times (on a w/w basis) the amount of non-compostable fraction in the biowaste. The drag effect is a term for the biowaste removed from the system with the non-compostable fraction.

1 M. Centemero, CIC (Italian Composting Consortium), Webinar "CIC-Corepla 2019 - 2020 Study - Plastics and bioplastics in the organic recycling chain", 7th July 2020, Optimization of organic waste recycling, Summary of the results of the monitoring programme, see <https://www.compost.it/news/webinar-studio-cic-corepla-2019-2020-plastiche-e-bioplastiche-nella-filiera-del-riciclo-organico/>

We highlight this evidence because if Welsh Government exempts from the ban compostable plastic plates, trays, platters, bowls, cutlery and straws (and any compostable fibre-based plus compostable plastic laminated versions of these products), they could be co-disposed with food waste in Wales then either in-vessel composted or, if the food waste is sent to wet-AD (low solids AD), front-end removed and sent to in-vessel composting (provided contamination levels are low enough) instead of to Energy from Waste facilities or landfill. Their feed in to IVC, high-solids AD or to a suitably equipped wet-AD facility would bring with them, on average, 2.75 times their weight in food waste.

AD facilities without a following composting phase could collaborate with composting facilities to compost the dewatered, fibre digestate and thus finish the biodegradation of those compostable items. We also highlight that End of Waste rules for waste-derived digestates allow AD facilities to 'aerobically mature' dewatered digestate fibre (which allows a further period for biodegradation of any compostable item residues).

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7. Are there other exemptions we should consider in relation to all of the single use plastic items in our proposal? Please provide as much detail as you can.

Item number	Item description	Yes	No	Reasons / Evidence
Item 1	Cotton buds		✓	Please see our answer about item 1 in question 1 for reasons why we have a reservation about supporting a ban on plastic stemmed cotton buds; it is not clear whether the prospective ban would include plastic swab sticks.
Item 2	Plates (including trays, platters, bowls and laminated paper plates)	✓		<p>Compostable plastic plates, trays, platters and bowls should be banned but compostable plastic ones should too should any compostable products in these forms which are laminated with compostable plastic (e.g. compostable plastic-laminated paper plates). There are compostable versions of each of these product types (some of which have even been designed for composting after more than one use, with cleaning between each use).</p> <p>The co-collection of used compostable products of these types with food waste from <u>closed loop sources</u> (e.g. restaurants, cafes, offices, canteens, and events spaces) and their subsequent composting has been trialled at at least 23 In-Vessel Composting facilities and one suitably equipped wet-AD facility, and were being composted/digested at approximately 9 facilities a regular basis in 2019.</p> <p>Compostable tableware was provided at some of the 2012 London Olympics venues, co-collected with food waste, bag-level sorted at a transfer station to remove bags containing</p>

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				significant levels of contamination, and then sent to in-vessel composting (see http://www.organics-recycling.org.uk/page.php?article=2637).
Item 3	Cutlery (including forks, knives, spoons, chopsticks and sporks)	✓		Compostable plastic cutlery should be exempt.
Item 4	Drinks stirrers		✓	Non-plastic drinks stirrers are already on the market in the UK, e.g. made of wood. Wooden stirrers for drinks are included with used compostable tableware collected with food waste from closed loop sources that go to some of the UK's in-vessel composting facilities to be biodegraded.
Item 5	Straws	✓		Compostable straws should be exempt from the ban; this product group includes compostable paper straws but also compostable straws made from polylactic acid (PLA). Their co-collection with other compostable tableware and food waste from closed loop sources and their subsequent composting is done at some composting facilities in the UK. There is also potential to collect used industrially compostable straws from households with food waste and to home compost home compostable straws.
Item 6	Sticks for balloons	✓		Paragraph 9.5 of the report for Welsh Government (Preliminary Research to Assess the Impacts of a Ban or Restrictions in Sale in Wales of items in the EU's Single Use Plastics Directive) states that 'professional and industrial use of balloon sticks is exempt in the SUP Directive where they are not distributed to consumers'.

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			<p>Paragraph 2.12 in the same report provides details the SUP Directive’s exemptions, which are for sticks for ‘balloons for industrial or other professional uses and applications that are not distributed to consumers, including the mechanisms of such sticks’. Researchers who wrote the report for Welsh Government went on to say they ‘understand the balloon sticks used in this research to be those given directly to consumers with the balloon’. We also note in paragraph 54 of the consultation document that although sticks for balloons are ‘largely sold business to business, rather than business to consumer, end users are often individuals, and mainly children’.</p> <p>As the potential impacts of banning plastic balloon sticks used in industrial and other professional uses have not been assessed, we suggest they are excluded from the ban. A low economic impact <u>alternative</u> could be to include in the ban any plastic balloon sticks for used only for industrial/professional purposes on board marine and fresh-water vessels; this would reduce risk of harm to aquatic animals.</p>
Item 7	Beverage cups made of expanded and extruded polystyrene		<p>We have not answered this question; short of time for responding so we have prioritised answering about product types of most relevance to our members who operate composting and anaerobic digestion facilities and others operating in or with interests in the UK organics recycling industry.</p>
Item 8	Food containers made of expanded and extruded polystyrene		<p>We have not answered this question; short of time for responding so we have prioritised answering about product</p>

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				types of most relevance to our members who operate composting and anaerobic digestion facilities and others operating in or with interests in the UK organics recycling industry.
Item 9	Products made of oxo-degradable plastic.		✓	Our reasons for banning all products made of oxo-degradable plastic are stated in answer to question 4.

Transitional arrangements

8. Do you agree the proposed timescale for the implementation of the bans provides sufficient time for businesses of all types to adapt? Please give reasons and where possible evidence to support this view.

Y	N	Reasons / Evidence
✓		<p>We note Welsh Government's stated 'aim to communicate the outcome of this consultation early in 2021 and to bring the bans into force, subject to any exemptions, in autumn 2021'. Welsh Government has also recognised businesses will need to transition prior to the ban to adapt their supply chains and utilise existing stocks of single use plastic items.</p> <p>We do not have sufficient knowledge to comment on time needed for packaging/non-packaging item supply chain changes for cotton buds, drinks stirrers, sticks for balloons, beverage cups made of expanded and extruded polystyrene, and food containers made of expanded and extruded polystyrene.</p> <p>In terms of switching from single-use plastic plates, trays, platters, bowls, laminated paper plates, cutlery, and straws to non-plastic and compostable ones, the Bio-based and Biodegradable Industries Association and its members should be able to provide information on how quickly supplies of those compostable products could be increased.</p>

Enforcement and sanctions

9. Do you agree with the use of Civil Sanctions?

Y	N	Reasons / Evidence
✓		We think sanctions are necessary and agree that the civil sanctions set out in Part 3 of the Regulatory Enforcement and Sanctions Act 2008 will provide for the flexible and proportionate approach to enforcement that Welsh Government has proposed.

10. Do you agree that Local Authorities should enforce the ban?

Y	N	Reasons / Evidence
✓		<p>Welsh Government has proposed Local Authorities carry out this enforcement role because they have experience enforcing broadly similar, existing requirements.</p> <p>Given our past experience (which was with Trading Standards officers, having called them in to investigate a suspected false claim about a biodegradable product) we anticipate that local authority personnel and any contractor who may investigate and enforce the bans on behalf of local authorities (if contracting is allowed), may need document-based guidance and access to specialist expertise when investigating claims that some specific products are not any of the banned plastic items. Some investigations might take many hours, in which case will the RESA 2008 allow sufficiently high fines in the event that a disputed product is proven to be a banned item?</p>

Future Developments

11. Should wet wipes be included in future proposals for further bans or are there other measures which could be introduced to address them, for example Extended Producer Responsibility? Please give reasons and where possible evidence to support this view.

Y	N	Reasons / Evidence
✓		<p>This is a partial yes as there is no 'maybe' tick box.</p> <p>We note the issues covered in paragraph 2.2 of the report carried out for Welsh Government, that there are a wide range of uses for these types of products and that due to the current COVID-19 situation wet wipes can provide a quick, convenient and an infection transmission reduced-risk option for cleaning surfaces where a number of people may be present throughout a day. We think Welsh Government is right to have recognised 'this may lead to a greater perceived reliance on the use of disposable cleaning cloths'. We note the consultation document's statement that 'it is not yet clear there is a sufficient range of alternative products on the market which are less problematic in the environment' and welcome Welsh Government's plan to soon commission evidence to examine the potential impact of including wet wipes within future interventions.</p> <p>Wet-wipes currently on the market are not recyclable via collections for dry/mechanically/conventionally recyclable materials nor should they be redesigned for this waste collection and treatment route in future due to the contaminating substances, infectious bacteria and viruses and human waste which may accompany them after use.</p> <p>The extent to which the wet-wipes product ranges and applications for specific products could become differentiated in future is currently unclear.</p> <p>To the best of our knowledge, current wet-wipes are not independently certified compliant with a standard for industrial composting. Many composting facility permits do not include the waste codes and descriptions that would allow such items to be accepted and biodegraded. We would remain concerned about contaminating</p>

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		<p>substance residues that would be on at least some of the wet-wipe products in future. If they were to be redesigned for biodegradability under composting conditions we cannot envisage their effective sorting out of the residual waste stream at 'dirty' MRFs for them to be composted at an Mechanical and Biological Treatment Facilities (which may have the waste codes and descriptions which in theory might allow them to biodegrade such items).</p> <p>Residual waste collection and treatment systems seem likely to continue to be the appropriate means for managing wet-wipe wastes in future, apart from where their context of use and how they are used means they are classified as clinical waste and must only be collected and managed via systems for clinical wastes. We find it difficult to envisage how the inclusion of wet wipes in the reformed EPR system would aid one of its key purposes which is to increase the percentages of packaging wastes that are collected and recycled.</p>
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12. Are there any other items that should be included in any future policy proposals to tackle single use plastics? Please give reasons and where possible evidence to support this view.

Y	N	Reasons / Evidence
	✓	This is a no with reservation as we are now short of time for answering this consultation.

Welsh language questions

We would like to know your views on the effects that banning the distribution and /or sale of the proposed single use plastic items would have on the Welsh language, specifically on opportunities for people to use Welsh and on treating the Welsh language no less favourably than English.

13. What effects do you think there would be? How could positive effects be increased, or negative effects be mitigated?

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We recognise this is an important question but our time available for answering this part of the consultation is insufficient.

14. Please also explain how you believe the proposed policy for banning the distribution and /or sale of the proposed single use plastic items could be formulated or changed so as to have positive effects, or increased positive effects, on opportunities for people to use the Welsh language and on treating the Welsh language no less favourably than the English language, and no adverse effects on opportunities for people to use the Welsh language and on treating the Welsh language no less favourably than the English language.

We recognise this too is an important question but our time available for answering this part of the consultation is insufficient.

Other comments

15. We have asked a number of specific questions. If you have any related issues which we have not specifically addressed, please use this space to report them:

We are working on a draft policy to encourage the use only of industrially compostable plastic or paper bags or liners in kitchen caddies, in bins used for separately collecting unpackaged food wastes and in bins for food waste streams from closed loop sources where any food/drink packaging items or food/drinks waste non-packaging items that have food/drinks residues on them are only compostable ones. If we can get sufficient organics recycling industry support for this policy and carry out/encourage other actions that would support operator collaboration, we believe it will help to reduce the amount of non-compostable plastic contaminants that are disposed with food waste, reduce the use of bags and liners that do not adequately biodegrade in organics recycling facilities, and help improve the quality and usable yields of the relevant composts and digestates.

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We believe this is relevant to Welsh Government's consideration of our reasons for wanting oxo-degradable plastic products to be banned in the UK. Their applications including lightweight and single use carrier bags (and might also include bin liners) and we have yet to see independent certification of their compliance with any standards relevant in the UK to industrially compostable packaging and non-packaging items.

Responses to consultations are likely to be made public, on the internet or in a report. If you would prefer your response to remain anonymous, please indicate here:

Y	N
✓	