

**Response submitted on
behalf of EAUC to:**
ETTanswers@hmtreasury.gsi.gov.uk



Single-use plastics call for evidence
Energy and Transport Tax team
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Dear HM Treasury,

Please find below our consultation response on the single-use plastics call for evidence.

CONSULTATION: Tackling the plastic problem: using the tax system or charges to address single-use plastic waste - May 2018.

ENVIRONMENTAL ASSOCIATION FOR UNIVERSITIES AND COLLEGES (EAUC):
Response on behalf of our Members (United Kingdom and Ireland)

About the EAUC

Our passion is to create a world with sustainability at its heart. That's our vision. We exist to lead and empower the post-16 education sector to make sustainability 'just good business'. The membership of the EAUC comprises higher and further educational institutions, with a combined budget of some £25 billion, responsible for educating over 2 million students supported by half a billion staff. We have regional and country chapters, with member institutions connected deeply with business, industry, health and civic bodies at local levels, with reach internationally via their research, innovation and student mobility.

We believe

- That UK and Irish education should be a global leader in sustainability
- That educational institutions have a responsibility as anchors in their communities to be agents of change
- That education has a unique opportunity to transform lives and communities
- That education is at the heart of global sustainability
- That every student should have access to sustainability education
- That education should reflect best practice in operational sustainability
- In being flexible and adaptable to find solutions for a resilient future
- In the value of international collaboration

Our values

- Pioneering - driving sustainability through innovation
- Independence - our own unique voice

- Collaboration - together we go further
- Role Model - leading by example
- Empowering - supporting and inspiring our members

EAUC's approach to the consultation

Post-16 education plays a crucial role in driving environmental changes – due to its privileged position in influencing the next generation, the geographical land mass that its institutions stretch across and the economic and social power that it wields. We very much welcome this focus on tackling the issue of single-use plastic. It is a scourge on our cities, countryside and sea and must be tackled head on. Rightly, in the Spring Statement, the Chancellor has recognised the role both universities, colleges and businesses must play if we are to make progress on this agenda. Single-use plastic is tethered within society due to its availability and pricing, and this is further embedded by a throwaway culture that has been fostered in recent decades and a lack of education for sustainable development. Looking at the tax system and charges to address the issue of single-use plastic is a necessary step in the right direction, but we would urge the Government not to underestimate the need for change on a cultural level. This can only be achieved by education and we hope to work with you to bring this about.

Responses to the consultation questions

The definition of single-use plastics

1. How should the government define single-use plastics, and what items should be included and excluded, and why?

Plastics that are not viably recyclable or reusable, and are for single use and are disposed of after use. This includes, but is not exclusively: straws, cotton buds, disposable cutlery, packaging including food and drink packaging, pens, medical equipment, specialist items such as fishing wire, and “hidden” single-use plastics (SUPs) in everyday objects such as mobile phones.

As a suggestion, SUPs could be tiered according to their current reuse or recyclability. For example: tier 1 for ‘easily replaced’, tier 2 ‘replacement possible’, and tier 3 ‘replacement problematic’.

Assessing single-use plastics

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

Half of all plastics made are Single-Use Plastics (SUP). Few SUPs are recyclable through local councils, and less than 10% of all plastic is recycled. On average plastic is recycled a maximum of two times before being landfilled, incinerated or thrown into our oceans.

Further and Higher Education Institutions (FHEIs) are all too aware of the problems associated with single-use plastics as they operate campuses that are in effect mini communities. They experience all the same issues as towns and cities.

Some of the issues they have are:

- There is no way of tracing the end destination of plastics (using Waste Transfer Notes).

- Many of the more prevalent plastics, like food coverings, are thin plastic which are difficult to recycle, and few are locally recycled. Similarly, even with compostable products, the infrastructure is lacking to deal with these new methods of recycling in many locations.

- SUP is cheap, useful and widely touted by a fossil fuel industry keen to have more fossil fuel products designed and used. As a majority of students are on a low income while studying, this makes them easy targets for cheaper products.

- There is a lack of education when it comes to plastic and its impact more widely on climate change. This education needs to start at an earlier age and should be embedded within the curriculum throughout the education process. The Government has a role to play in ensuring this happens.

-More should be done to tackle litter as a whole. Preventing littering is far more cost efficient than removing litter after the fact. Improving bin designs is one quick fix. Open top bins allow items to fly away or be scavenged by animals and enter the environment. Similarly, poor signage increases the likelihood of littering or incorrect usage of bins.

- Manufacturers should be required to be clearer about how to correctly recycle.

- Local authorities should review their recycling practices to ensure they are up-to-date with any innovations in plastics. Without the infrastructure behind recycling changing, any investment in plastic solutions will be wasted.

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

Any particularly small polymers are problematic, i.e. microbeads.

On the whole, types 1 and 2 plastic are more widely accepted so are less problematic for recycling, but are often contaminated with each other and with other SUP types. Clear rigid plastic is more likely to be recycled, as clear plastic can become any colour, whereas coloured plastic is more limited. Co-op recently announced a move towards recycled plastic which meant their water bottles would be slightly grey tinged, see http://www.sustainablebrands.com/news_and_views/waste_not/tom_szaky/many_challenges_plastic_recycling

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

Problematic materials are those that take the longest to breakdown, those that are more readily contaminated by food and those that disposal methods are less clear on.

In education institutions, one of the most problematic items is facial wipes. They are often disposed of down toilets and take an incredibly long time to bio-degrade.

Other problematic items include plastic carrier bags (including reusable ones) plastic beads, cotton bud sticks, toys, stationery, giveaway items, plastic film and polystyrene, which is largely unrecyclable.

3. Are there more environmentally friendly alternatives, currently available or possible in the future, to these types of single-use plastic items or their manufacturing processes, and can they still offer similar benefits?

The widespread use of SUPs is relatively new. We can live without them, but doing so requires regulating and encouraging businesses to look at alternatives. Where businesses are making good returns using SUPs this causes research entropy, with no incentive to innovate new sustainable materials use.

More sustainable options exist and others are being developed i.e.

- [Tomorrow Machine](#)
- [Ellen MacArthur's – New Plastics Economy Work and full cycle biodegradable plastics.](#)

Note: many disposable packaging alternatives are being touted as compostable – but the current waste management technologies in use, mean these can only be converted to energy (so not exactly recovery of the resource or circular, but better than landfill or ocean waste).

Alternatives include: -

- Agave Fibre
- Bamboo
- Cotton
- Hemp
- Natural Rubber
- Straw
- Glass
- Ceramic
- Metals

- ***Should the government encourage biodegradability in plastics, and if so, how?***

This is a positive step, but should not be a priority. Biodegradability doesn't address the poor management practices and littering that lead to plastic being in the environment in the first place, nor the disposable culture that are the root causes of the problem.

Not all plastics biodegrade sufficiently, and plastics are often left in very small pieces, that then enter the food chain, and ultimately humans, with as yet unclear results on our health.

The rate of biodegradability (based on present technology) isn't fast enough to protect the environment from plastic pollution. The Ellen MacArthur Foundation, representing 150 organisations, [has stated that](#) oxo-plastics are still plastic pollution that is harder to control. It is better to recycle plastic than replace with options that have no waste management options.

As part of an economic system that is endangering human life on Earth we need to remove plastics from the supply chain. Therefore avoidance of the use of plastics would be preferable.

4. Are there single-use plastic items that are deemed essential by their nature or application, which cannot be substituted or avoided?

Most SUPs are used for the seller's convenience and could be substituted. Regulation and subsidisation may be required where substitution is more expensive, particularly for SME retailers.

Some items may have to be retained until research can offer replacements, for example in medical uses, preserving some types of food, and some specialist uses in other key sectors for hygiene and safety reasons, e.g. police and military.

This is an opportunity to innovate – FHEIs are ideally placed to provide research and training into the decoupling of our economy from plastic, and to produce alternatives. The investment opportunities offered by the Chancellor in the latest Spring Statement could go some way to help. However, more investment must be made into education itself.

Production

5. What factors influence the choice of polymer, or combination of polymers, in the production of single-use items?

N/a

- **Can you provide data on the production and use of single-use plastic items you produce?**
- **What proportion of the polymers you use or sell do you import and export, respectively?**
- **What proportion of the single-use plastics you produce do you export?**

6. What proportion of the plastic that you produce is made of recycled plastic, and what are the barriers to increasing this?

N/a

7. What proportion of the plastic that you produce is commercially recyclable and what are the barriers to increasing this and improving the grade it can be recycled to?

N/a

8. In your opinion, how can the tax system or charges play a role in delivering better environmental outcomes at this stage?

- **What interventions should be implemented, and why?**

Food and drink is a key issue to tackle. The food lasts days on the shelf and minutes on the plate, and should not be wrapped in plastic, which lasts for centuries. There are many opportunities here but some kind of taxation based on tiering plastics(mentioned at the beginning) at a manufacturing stage would be a good place to start.

- **What behavioural effect would these interventions have, both on this stage in the supply chain, and more broadly?**

Reduce the amount of plastic being created and therefore limit the amount that can end up in the environment.

- **What would be the impact on your business?**

For an institution it would lessen the amount of plastic that they need to dispose of and therefore reduce costs which can be better invested within education.

Retail

9. What factors influence the design and specifications you make for the single-use plastic items you sell, and what are the barriers to using alternatives?

N/a

- **In what way, and to what extent, do the decisions of producers and consumers influence the choice of single-use plastics you use in the items you sell?**

N/a

10. Can you provide data on the volumes and costs of different types of single-use plastic used?

N/a

11. Have you taken any steps to address the environmental impact of the single-use plastic items you sell, including their end-of-life?

N/a

- **Can you provide evidence of the effect these actions have had?**

N/a

Consumption

12. In your opinion, how can the tax system or charges play a role in delivering better environmental outcomes at this stage?

- **What interventions should be implemented, and why?**

By taxation, making the supply of plastics full-cost recovery – ensuring suppliers of SUP bear all the cost of its making (including external environmental costs) and recycling and re-use. A bottle return scheme should also be brought in, making glass returnable bottles more cost-effective than SUP bottles. Regulation would also help, as many see sustainable measures as ‘nice to have’ rather than a necessity.

The carrier bag charge shows that charging small amounts for commonly used items can make people stop and think. There is some evidence to show that buying and using plastic bags has become less socially acceptable. This should be extended to common SUP supply, such as a levy on food and drink SUP. We have found incentives and extra costs on SUP items across our campuses has had mixed response, and still relies on consumers to make good choices. It is better to tackle supply-side production in the first instance, but it could be beneficial to implement charges on consumers as well to truly start to cut down on its use.

- **What behavioural effect would these interventions have, both on this stage in the supply chain, and more broadly?**

More use of sustainable material such as glass bottles.

- **What would be the impact on your business?**

The impact on institutions is hard to quantify, but it would definitely help reduce costs of waste disposal and provide a strong platform for sustainability professionals to push for more sustainable development measures.

13. What factors influence consumers’ choices related to single-use plastic items?

- **How can the government encourage the re-use of these items?**

- Incentivise consumers to use their own containers in stores to buy food and drink and remove free SUP products. On campuses, many SUPs are free, and this discourages reuse - i.e. plastic cutlery.
- Incentivise smaller businesses to ditch SUP and go packaging free.
- For bigger businesses, encourage the circular economy, but extend this to the wider economic model where innovation and research is shared, businesses have to cooperate within their sector, and seek to recycle or reuse not only their own material output, but anyone’s.

- Marketing by food and drink manufacturers far outweighs any government or scientific messages on SUP food and plastic containers. Make it clearer on packaging how to recycle materials.

Other initiatives that might encourage re-use are:

- Businesses offering replacement parts. A good practice example is [gripandgo](#) who offer replacements parts as standard; most providers do not, which leads to disposal and repurchase (an example is the munchkin 360 drink cups where the top seal cannot be bought alone and is likely to require replacement before the end of life of the item). Another good practice example is Orchard Toys that recently [advertised free replacement parts service](#).

- Encourage product design to be based on robustness and recyclability. Pringles' tube is, as part of its brand identity, made of recyclable materials, however not in the configuration presented; better design would allow all elements to be recycled.

- Foster reuse networks. End users need easy access to reuse networks or ways of returning items. This requires a cultural shift in accepting reuse items more widely.

The most influential means to encourage re-use is, as ever, awareness and education. People need to understand what happens to products that take centuries to biodegrade i.e. most plastics. They need to see the damage they cause. Then they need to be taught ways to lessen this impact, i.e. reduce, reuse, recycle.

14. What are the barriers to consumers choosing alternatives to single-use plastic items, and how responsive would consumers be to price changes?

The biggest barriers are education, cost and convenience.

Convenience plays a key role in decisions. People are busy, and if offered a cheap, fast option, will take it. The alternative has to at least match this for it to be viable. Education would help people make informed choices.

To consumers, price rises are seen as a negative, even if the price we pay is too low to begin with (e.g. buying ethical clothing over mass-produced unethical clothing).

15. In what way, and to what extent, do the decisions of producers and retailers influence consumer choice?

The decisions of producers and retailers influence consumer choice considerably, particularly on young people. Marketing tells us we want what we don't need, and single-use products offer us convenience that we can well do without and short term cost-saving at the expense of our long term futures. The market must offer choices that are sustainable to planet, humans, our environment and health. Students care about the environment but, due to social media, retailers have a bigger influence on them than ever before. We should be making the most of a unique opportunity to influence the next generation's attitude towards non-sustainable materials by ensuring the influence of producers and retailers is based on ethical practices and products.

16. In your opinion, how can the tax system or charges play a role in delivering better environmental outcomes at this stage?

- **What interventions should be implemented, and why?**

Tax SUP to make it less profitable to producers and a more expensive option for consumers which will lessen its creation and thus reduce the amount of SUP being disposed of incorrectly. Also there should be increased regulation on the recycling of products and disposal points should be more readily available, clearer and incentivised. There needs to be more accountability on an individual level.

- ***What behavioural effect would these interventions have, both on this stage in the supply chain, and more broadly?***

N/a

- ***What would be the impact on consumers?***

They would be presented with choices that are by default more sustainable. Supply would produce less SUPs that are harmful to the environment and our health, and demand for other sustainable alternatives would drive research and supply in alternative materials.

- ***Are there specific items the government should be focussing on?***

Food and drink SUP is the most prevalent issue. A focus here initially is a good place to start.

17. What are the barriers to the collection of single-use plastics and more environmentally friendly methods of waste treatment, including barriers to any existing technologies?

Some plastics are not recyclable and this is huge problematic. Other types of plastics may have relatively low usage, meaning that collection and recycling of them is difficult to arrange - but ultimately it adds up. Liquid and food contamination can make SUPs non-recyclable - another issue prevalent on campuses.

The recycling sector is market-driven, so if a SUP is not viable to be recycled it will be otherwise disposed of in landfill, or burned. It is not cost-effective for waste companies to collect all types of plastic and segregate them due to space requirements needed to bulk up separate types. Mixed recycling technology focuses on type 1 and 2 with other plastic sorting happening in Europe (though there are some UK exceptions with some companies looking at other types, but little investment due to market considerations). Energy from waste remains the most effective option, with some interesting variations appearing.

More research and infrastructure should be put into composting vegware and other compostable packaging that can be processed with food waste. Many institutions have cut out plastic disposables in their catering areas but if their food waste collections go to an Anaerobic Digestion (AD) plant they do not want vegware/compostable packaging placed with the food waste collections because according to AD plant managers it has no nutrients and does not help the AD process. Many do not have a vessel plant to collect the vegware and get it composted (without the food waste) and so it currently ends up being sent to an Energy from Waste plant. So whilst they have reduced their plastic disposables they cannot actually compost the biodegradable packaging. If this could be processed more easily then it would be easier to justify switching to biodegradables for many institutions. It is deceiving to say packaging is compostable if there are not many plants that can actually do this.

18. In your opinion, how can the tax system or charges play a role in delivering better environmental outcomes at this stage?

- ***What interventions should be implemented, and why?***

Some suggestions are:

- Disposal of SUP should be linked back to the supplier so they pay for the full cost recovery of SUP disposal.
- Bigger regulatory and taxation incentives to use reusable packaging and products at point of sale.
- Research into what plastics are not viable for recycling.
- Working with the packaging industry to better identify the materials used, and how they can be recycled or reused.

- ***What behavioural effect would these interventions have, both on this stage in the supply chain, and more broadly?***

Recyclable materials would have less stigma attached to them if they were mainstream and this would encourage more people to opt for them over other less sustainable products/packaging. Often recycled products/packaging are associated with a lower quality and less aesthetic product - this is an opportunity for manufacturers to show this is not the case. Reusing materials could actually make long term savings as well.

Clearer identification of materials coupled with easier methods of waste disposal would increase recycling rates.

- ***What would be the impact on Local Authorities and business?***

There's no doubt that tackling single-use plastics will in the short-term increase the administrative burden on local authorities and business, particularly SMEs. However, in the long term there will be cost-saving and increased efficiency. Many universities and colleges have already recognised this issue and started to tackle it on their campuses - they offer an excellent example of best practice and knowledge and there should be better relationships within communities with Higher and Further Education institutions to exchange knowledge. There is also an opportunity for tertiary education and business to work together on innovations and solutions to the plastic issue.

We hope you find this information useful and we would be keen to discuss the role of Further and Higher Education in tackling single-use plastic moving forward.

Yours sincerely,



Iain Patton, CEO, EAUC