

## IOM3 PLASTIC PACKAGING TAX CONSULTATION RESPONSE

The Institute of Materials, Minerals and Mining (IOM3) is a major UK science and engineering institution whose activities promote and develop all aspects of the materials cycle. From exploration and extraction, through characterisation, processing and application, to reuse and recycling, IOM3 represents and supports around 15,000 individual members. IOM3 has drawn on the expertise and experience of its members and Technical Communities, including its Packaging Society, Polymer Society and Resources Strategy Group, to prepare this response.

### THE SCOPE OF THE TAX – CHAPTER 3

**Question 1. Do you agree with the revised definition of plastic, which removes the ‘main structural component’ test and limits the exclusion to ‘cellulose-based’ polymers? Please outline your reasoning.**

Yes

No

Don't know

Given the multinational nature of packaging supply chains and the rapid development of packaging-related policies, IOM3 supports alignment as far as possible with our key international trading partners and other policy frameworks in the UK.

Using the definition of ‘plastic’ in Article 3 of Directive (EU) 2019/904 as a foundation seems appropriate, as does the proposal to remove the ‘main structural component’ test as this will simplify the application of the tax.

IOM3 welcomes the extended scope of the revised definition to include natural polymers. Whilst necessary further work is carried out by government, with industry and the research community to better understand the impact of these materials, and until the required regulatory controls have been established, an exemption is not appropriate. IOM3 believes a future exemption for bio-based plastics, used in suitable circumstances and capable of being fully composted/digested within a specific time frame and conditions, will be appropriate and called for this during the previous consultation. However, the regulatory framework and relevant constraints required to support this are not yet established.

IOM3 does not agree with the exclusion of ‘cellulose-based’ polymers as there is no cause or evidence to justify this specific exception. Cellulose based polymers are varied, do not necessarily have low carbon production methods, or degrade quickly compared to other polymers. Other impacts such as loss of biodiversity, land use competition, water abstraction and application of chemicals in crop production should also be considered.

IOM3 would therefore support a revised definition of plastic for the purposes of the tax to:

‘plastic’ means a material consisting of a polymer within the meaning of Article 3(5) of Regulation (EC) No 1907/2006, to which additives or other substances may have been added.

As government intends to keep the treatment of bio-based, biodegradable and compostable plastics under review, IOM3 recommends that the language and terminology used to describe such plastics is clear and consistent. This is important to ensure that the right materials are used for the right applications, to enable optimum recycling, limit unintended consequences and prevent pollution of the

environment. For example, 'biodegradable' plastic implies degradation over time, however this can be fossil-based or bio-based and the speed, method and nature of biodegradation differs between materials.

IOM3 broadly supports the proposal to maintain alignment with the existing Packaging Producer Responsibility regulations in that multi material packaging which is 'predominately plastic by weight' would be classified as plastic packaging. However, there is a risk that this could encourage polymer, material or format substitution that could potentially compromise functionality, cause a shift towards difficult to recycle multi material packaging and lead to greater overall environmental impacts. Alternative materials such as paper/board, glass or metal may result in greater emissions and substitution without proper life cycle thinking may undermine the environmental aspirations of the tax.

Reducing the weight of plastic used to minimise the recycled content required or costs of the tax could lead to less rigid, more flexible formats that are less durable and could potentially result in increased waste in the supply chain. Alternatively, additives may be included to improve durability of lighter packaging such as stiffening agents or UV absorbers and materials could become more difficult to reprocess and result in lower quality recycle.

It is worth noting that for some plastic types and packaging products it could be challenging, or not possible, to use or increase recycled content due to technical, supply or regulatory limitations. For food contact packaging, the European Commission Regulation No. 282/2008 currently requires assessment by the European Food Safety Authority (EFSA) before mechanically recycled plastic can be incorporated. In addition, EU Regulation No. 10/2011 applies rules for all plastic materials and articles intended to come into contact with food. Regulatory approval is currently given for a restricted number of plastics, such as polyethylene terephthalate (PET) and high-density polyethylene (HDPE). The restricted ability to use recycled content in food contact packaging could cause undesirable impacts such as material substitution, for example a shift towards PET trays which are harder to recycle. As the Food Standards Agency (FSA) establishes a new UK authorisation system, IOM3 recommends that consideration is given to reviewing the licensing approach for the use of recycled content in food contact applications.

IOM3 supports the government's position to include types of plastic packaging even where it may be challenging to increase the level of recycled plastic and welcomes the ambition that this will encourage further investment in recycling infrastructure and innovation. However, IOM3 recognises the regulatory restrictions for some applications and temporary exemptions may require consideration to avoid wider negative environmental impacts. IOM3 recommends government takes the necessary steps to ensure alignment of the tax with a safe and robust licensing framework for the use of recycled content in regulated applications.

IOM3 also notes that the majority of recycled material that is suitable for use in packaging that is controlled for safety and quality such as food/beverage and cosmetics, is currently imported as there is insufficient supply of appropriate quality recycled content available in the UK. IOM3 would welcome a clear investment plan for the UK infrastructure necessary to enable the recycled content required by the tax to be sourced domestically. Skills, technical advancements, and improved collection infrastructure will all have a role to play and require support to ensure the desired outcomes of the tax are achieved.

**Question 2. Do you agree that packaging-type products that do not fulfil a packaging function until they are used by the end consumer should be included in the tax unless they are for longer term storage? Please outline your reasoning.**

- Yes
- No
- Don't know

No, not at this stage.

IOM3 believes that the definition of packaging should align with the proposed extended producer responsibility system and be as straightforward as possible. At this stage, IOM3 considers that the definition within the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 and the underlying Packaging Waste Directive (94/62/EC) is appropriate for use and would prevent added complexity.

IOM3 suggests that further evidence is required to understand the potential impacts and overall environmental implications of including items that are sold primarily as a product for use in the home within the scope of the tax.

Tight controls to ensure the safe use of recycled content in food contact packaging (as highlighted in response to Question 1) could make it difficult to achieve the required level of recycled content in food storage products used in the home, such as cling film and food bags, at this time. The increased cost associated with incorporating the necessary quality of recycled content, or paying the tax, could be passed onto the consumer. As these items are used to store and protect food, IOM3 would welcome information on how government plans to avoid undue impacts on vulnerable people and food waste if these items are included within the scope of the tax.

IOM3 welcomes the focus on single/short use phase plastic packaging at this stage. Targeting items that are part of the linear 'take make and dispose' economy will help to encourage the desired behaviour change and promote wider circular economy principles of reuse and durability.

**Question 3. Do you have any observations on the government's proposed approach to excluding plastic packaging used to facilitate the transport of imported goods?**

IOM3 can see why government has proposed to exclude imported transport packaging at this stage given the complexity of the arrangements and lack of transparency of technical specifications for these plastic items.

However, IOM3 strongly believes that fairness should be a key principle of this tax and both imports and exports should be subject to similar tax treatment to ensure competitiveness of UK manufacturing. Excluding plastic packaging used to facilitate the transport of imported goods and not allowing relief for transport packaging used on exports could disadvantage UK manufactures.

To achieve the government's environmental objectives and ensure a level playing field for UK and overseas manufactures, IOM3 recommends that both imported and exported transport packaging is included within the scope of the tax.

**Question 4. Do you think it is feasible to provide evidence that packaging has been commissioned for use as immediate packaging for licensed human medicines at the time the tax is chargeable? If not, please explain why.**

Yes

No

Don't know

IOM3 believes that in general, it is likely to be feasible to provide evidence that packaging has been commissioned for use as immediate packaging for licensed human medicines at the time the tax is chargeable.

Medicine packaging is usually chosen from specialist suppliers who provide full provenance for the materials provided.

Medicine bottles are often bought in from outside the UK and then filled. It is likely it will be feasible to provide the evidence required for this format of packaging. Blister packaging is typically Polyvinyl Chloride (PVC) based and supplied in bulk which is formed, filled with tablets and then sealed using a lidding material. This packaging material can be held in inventory and it may therefore be less straightforward to provide evidence at the time the tax is chargeable.

**Question 5. Would the proposed exemption cause any market distortion or other unintended consequences? If yes, please provide more details.**

- Yes
- No
- Don't know

IOM3 has insufficient evidence to determine if the proposed exemption would cause any unintended consequences but based on proportional usage, it is likely that any market distortion would be minimal.

IOM3 recommends that government gives further consideration to packaging formats where regulatory barriers currently prevent the inclusion of recycled content such as some food and beverage, cosmetics and medical packaging applications to avoid unintended consequences. Such potential negative impacts could include the cost of the tax being passed on to the consumer/end user which, for some of these applications, could potentially impact vulnerable people.

#### **LIABILITY FOR THE TAX – CHAPTER 4**

**Question 6. Do you agree the proposed charging conditions will ensure that the UK manufacturer of plastic packaging is liable for the tax? If not, please explain why.**

- Yes
- No
- Don't know

Under the current proposals, UK based manufacturers would be required to pay the tax on process waste. Good manufacturing processes, however, dictate that this material should be either directly fed back into the manufacturing line or reground for later inclusion.

IOM3 welcomes the government's aim that 'the treatment of all taxable plastic packaging, irrespective of whether it has been manufactured in or imported into the UK, should be as closely aligned as possible'. However, IOM3 believes that the current proposals do not achieve this. Importers would not be required to pay the tax on process waste, placing UK manufacturers at a competitive disadvantage.

IOM3 therefore believes that process waste that is reused in the manufacturing process should be relieved from the tax.

**Question 7. Do you foresee any issues for specific packaging components due to the proposed approach of disregarding further ancillary processes for the purposes of the tax? Please explain what these issues are.**

- Yes
- No

Don't know

Packaging supply chains are very complex, due in part to the sophisticated and diverse portfolio of packaging formats available. IOM3 supports a clear and consistent approach to defining the point at which the tax will be charged, that is well communicated. At this time, IOM3 has no information regarding issues for specific packaging components due to the proposed approach, however, please note the wider comment outlined in response to Question 6 regarding process waste.

**Question 8. Do you have any observations on the proposed treatment of imports of plastic packaging, particularly linking the tax point to “first commercial exploitation” i.e. when it is controlled, moved, stored, is subject to an agreement to sell, or otherwise used in the UK in the course or furtherance of business?**

IOM3 welcomes the extended scope of the tax to include imported filled plastic packaging and the resulting closer alignment with the proposed extended producer responsibility framework. This will help to prevent negative impacts on the competitiveness of UK manufacturing and ensure the environmental rationale of the tax is not undermined by excluding a sizeable proportion of plastic packaging placed on the UK market from the scope of this tax.

IOM3 supports the government's proposal that the taxable person will be the person on whose behalf the plastic packaging is first commercially exploited in the UK.

IOM3 would like to emphasise that the UK has an opportunity to influence the misuse of materials, not just within its own borders, but also to use its policy to influence international manufacturing. IOM3 believes that packaging that is imported into the UK should be able to be recycled domestically and this should be a point of focus for future import requirements.

**Question 9. Do you agree the “consignee” on import documentation is likely to be the taxable person for imports of plastic packaging? In what scenarios might someone else be the person on whose behalf the plastic packaging is commercially exploited?**

Yes

No

Don't know

IOM3 welcomes a system that makes it as clear as possible to determine who the taxable person is for imports of plastic packaging and agrees with this approach.

**Question 10. Do you agree that packaging that is damaged after the tax has become due should not be relieved? If not, please explain why you think this packaging should be relieved.**

Yes

No

Don't know

IOM3 agrees that packaging that is damaged after the tax has become due should not be relieved. The damaged packaging must still be disposed of and the associated end of life impacts will mirror those of packaging that is used for its intended purpose. In addition, not relieving this packaging could incentivise supply chains to prevent damage, maintain the value of the packaging and therefore reduce waste.

**Question 11. Do you foresee any difficulty or added costs with the proposal for the taxable person to incorporate the amount of Plastic Packaging Tax onto the sales invoice, and if so, could this information be provided to customers in any other way?**

- Yes
- No
- Don't know

At this time, IOM3 can foresee no substantial difficulties or added cost to add the amount of Plastic Packaging Tax onto the sales invoice.

IOM3 supports transparency across the supply chain and welcomes the government's proposal for the taxable person to incorporate the amount of tax on the sales invoice. In addition, IOM3 would welcome best practice guidance from government advising businesses on transparency and promoting the incorporation of the tax on sales invoices throughout the entire supply chain.

**Question 12. Are the proposals for joint and several liability reasonable? If not, please say why?**

- Yes
- No
- Don't know

IOM3 supports measures that are designed to tackle avoidance and evasion. Whilst the proposals for joint and several liability seem reasonable with the evidence available, IOM3 believes further consideration is required as to how recycled content is evidenced, not only for the purposes of non-compliance liability, but also to demonstrate the environmental objectives of the tax are being delivered.

**Question 13. Do you envisage any problems with extending joint and several liability to online marketplaces and fulfilment house operators who knew, or had reasonable grounds to suspect that the tax had not been accounted for on sales made through their platform?**

- Yes
- No
- Don't know

IOM3 supports the proposal to extend joint and several liability and bring online marketplaces and fulfilment houses into the regulatory framework. Alignment as far as possible with the proposed reformed packaging producer responsibility scheme and the government's commitment in the resources and waste strategy to 'making sure that online sellers with an internet only presence are fully meeting their obligations' is welcomed by IOM3.

**Question 14. Will extending joint and several liability to third-party fulfilment house operators and online marketplaces be sufficient to deter overseas sellers from non-compliance with the tax? If not, what other steps should HMRC consider?**

- Yes
- No
- Don't know

IOM3 believes extending the joint and several liability to third-party fulfilment house operators and online marketplaces will go some way to deterring overseas sellers from non-compliance with the tax but with the information available, it is not possible to conclude whether this will be sufficient. IOM3 supports the proposal to revisit introducing a requirement for increased due diligence from fulfilment house operators in the future.

Some IOM3 members have suggested that the potential administrative burden could result in a shift away from trading in plastic packaging to other materials to avoid non-compliance with the tax. IOM3 would welcome resources from government to support third-party fulfilment house operators and online marketplaces to encourage and facilitate checking if the tax has been accounted for by businesses selling through their platform or facility.

IOM3 believes that implementation of an independent verification system for recycled content would increase transparency, robustness and help to deter non-compliance with the tax.

**EXCLUDING SMALL OPERATORS ('DE MINIMIS') – CHAPTER 5**

**Question 15. Do you agree with the proposed guidance and tools to help business determine if they are above or below the de minimis? What other help could the government provide?**

- Yes
- No
- Don't know

IOM3 welcomes the proposed guidance and online calculator to help businesses determine if they are above or below the de minimis.

The exclusion of operators that manufacture and/or import very small amounts of plastic packaging will help to protect these businesses from a disproportionate administrative burden. However, IOM3 believes the government could be more ambitious in this area – small operators often become larger operators and habits can be difficult to change. IOM3 believes that good practice should be encouraged and supported across businesses of all sizes and would welcome measures to enable compliance by smaller businesses, even if they are exempt.

Businesses that lie above the 10 tonnes tax exemption but below the current PRN threshold of 50 tonnes will potentially be of a size where the administrative burden of a new system and the added cost of the tax on their products would be a significant proportion of their turnover. IOM3 would welcome support and guidance for businesses within this bracket that have not had to work with this type of burden before. IOM3 members have suggested resources and assistance that would be beneficial could include a web portal, software, standard letters, worked examples and a glossary of terms.

Alignment as far as possible with the proposed extender producer responsibility scheme would reduce the complexity and burden for small businesses and ensure an effective suite of measures that achieves the overall desired outcomes and environmental objectives.

**Question 16. Do you agree with the approach to record keeping for businesses below de minimis? If you disagree, please suggest what alternative approaches would be more appropriate and why.**

Yes

No

Don't know

IOM3 believes that best practice, including keeping a record of materials used and promoting circular economy principles, should be encouraged across all businesses. IOM3 would welcome systems to support smaller operators to record plastic packaging tonnage and recycled plastic content while minimising the administrative burden. Recording this information would also allow for businesses to plan accordingly if they are approaching the de minimis threshold.

**Question 17. Do you agree with the proposed forward and backward look test to apply the 10 tonne threshold? If you disagree, please suggest what would be more suitable and provide evidence to support your view.**

Yes

No

Don't know

IOM3 would welcome further clarity and guidance for businesses on using the forward and backward look tests.

## **EVIDENCE REQUIREMENTS – CHAPTER 6**

**Question 18. Do you agree with the government's proposal to restrict calculations of recycled plastic content to approved methods? If not, please explain why. What methods other than the proposed mass balance approach should be considered?**

Yes

No

Don't know

IOM3 supports the proposal to restrict calculations of recycled plastic content to approved methods.

IOM3 would welcome additional clarity on evidencing and auditing of recycled content to ensure the risks of avoidance and evasion are minimised. IOM3 believes that an independent verification system would substantially support the success of this tax. A system that consistently and accurately records and verifies the claims made by manufacturers regarding recycled content, using agreed standards and protocols would build transparency, traceability and robustness, and significantly contribute to deterring non-compliance.

IOM3 would welcome the inclusion in best practice guidance of recording the source of recycled plastic. This would improve transparency and contribute to recording the quality and compliance of plastic recyclers and the recycled plastic they supply. This is particularly important for applications such as the food and beverage industry, where plastic is often in direct contact with the food or beverage and high levels of safety must be ensured. An audit trail for plastic and an independent verification system, or some form of material stewardship that could be implemented for recycled plastic, for example similar to the FSC for wood and paper products, would encourage both suppliers



and users alike to adhere to a higher standard, with recognisable credentials, and give assurance to both customers and consumers. Alignment and shared learning could be considered between this type of system and the systems that will be required to verify the origin of possible conflict minerals as the challenge is conceptually very similar in both cases.

**Question 19. Where businesses are importing plastic packaging with at least 30% recycled content, will it be feasible for them to obtain the mass balance evidence from overseas manufacturers? What other ways could importers demonstrate the proportion of recycled plastic?**

- Yes
- No
- Don't know

IOM3 believes that some overseas manufacturers will be able to provide the mass balance evidence required, however there is uncertainty as to whether all manufacturers would be able to produce robust and reliable evidence of this kind.

IOM3 notes that recycled content can be interpreted differently in different countries and given the numerous points of origin for plastic packaging that is imported into the UK, the information available may vary.

To address this, enforcement mechanisms will be required that strongly incentivise operators to provide robust, reliable evidence that can be effectively audited.

**Question 20. Do you agree with the government's proposed method for calculating the weight of the packaging? If not, please explain why and how you would calculate it.**

- Yes
- No
- Don't know

IOM3 supports the government's proposed method for calculating the weight of the packaging. However, IOM3 notes that whilst averaging weight is practical for a consistent and repeatable format, the operating models for many smaller businesses are based around flexibility of format, material and run length. This makes the calculations much more complex and increases the administrative burden. A system where a specification, including target weight, material, and amount of recycled content for the product over a production run could be used, open to audit and enforcement by HMRC and internally checked with an average weight calculation as described.

IOM3 promotes transparency and good data recording and use throughout the supply chain and would welcome guidance and best practice for businesses on this.

**Question 21. Are the types of evidence within the government's list appropriate for proving recycled plastic content and the other information required by HMRC? Are there any additional sources of evidence which could be used? If so, please provide details.**

- Yes
- No
- Don't know

IOM3 believes that the range of evidence routes proposed highlight the need for a consistent, UK wide agreed verification framework to ensure consistency, fairness, and the appropriate rigour.

**Question 22. What further due diligence could businesses reasonably conduct to ensure their products meet the relevant specifications for tonnage and recycled plastic?**

IOM3 welcomes the government's commitment to work with industry to identify whether there are any further due diligence checks which would help ensure packaging matches the product specification. IOM3 supports the development of guidance for businesses and measures to make it more difficult for rogue traders to undercut legitimate businesses.

IOM3 believes that due diligence for the volumes (tonnage) of material use should be practical to effect as systems for purchasing and stock control are, in general, close to the sophistication needed to accurately track material usage and segregation. Due diligence for recycled content, however, could impose a burden on smaller businesses to ensure that reporting and evidence is effective. Smaller businesses may therefore look to an organisation that can manage this level of due diligence across a number of similar businesses, such that the burden becomes financial only. IOM3 would welcome guidelines for small businesses to ensure organisations such as these operate in a fair manner and to assure good service and accurate data.

## **EXPORTS – CHAPTER 7**

**Question 23. Are there any observations or issues you can see with the government's proposals to provide relief for exported plastic packaging through direct exports, REPs and tax credits? Please provide details of any alternative methods of relieving exports you would recommend.**

IOM3 welcomes the Registered Export Premises scheme and proposal to allow plastic packaging, which at the point the tax is due is known to be destined for export by someone other than the manufacturer or importer, to move through the supply chain with the tax suspended, alleviating the requirement for a credit.

**Question 24. Do you agree with the proposed information requirements to evidence the proposed export reliefs? If not, please explain how you could evidence the export.**

- Yes
- No
- Don't know

**Question 25. Do you agree with the proposal not to relieve transport packaging used on exports? If not, do you have any suggestions on how transport packaging could be offered relief?**

- Yes
- No
- Don't know

IOM3 supports a system that is fair for both importers and UK manufacturers. The current proposal to exempt transport packaging used on imports but not to allow relief for transport packaging used on

exports could put UK manufacturers at a disadvantage and impact price competitiveness of UK exports overseas.

Government may wish to reconsider the proposals to ensure a level playing field for UK and overseas operators.

## **REGISTRATIONS, RETURNS AND ENFORCEMENT – CHAPTER 8**

**Question 26. Do you consider these registration requirements to be appropriate? If not, please specify why.**

- Yes
- No
- Don't know

At this stage, IOM3 considers these registration requirements to be appropriate.

**Question 27. Do you agree that the group eligibility criteria are appropriate? If not, please specify why.**

- Yes
- No
- Don't know

**Question 28. In your view, are businesses eligible to form a group likely to make use of this facility? If so, please estimate the value of savings that may be offered by registering and reporting as a group.**

- Yes
- No
- Don't know

IOM3 members have indicated that businesses eligible to form a group are likely to make use of this facility.

**Question 29. Do you agree that these deregistration requirements are appropriate? If not, please specify why.**

- Yes
- No
- Don't know

IOM3 would welcome clear guidance for businesses explaining the deregistration process.

**Question 30. In your view, will the reporting requirements be straightforward to comply with? If not, please provide details of any issues you expect.**

- Yes
- No
- Don't know

IOM3 believes that although the reporting requirements outlined seem straightforward in principle, given the complexity of the packaging supply chains, the range of packaging categories that manufactures may produce, and the import/export flows, the administrative and reporting burden for some businesses could be significant. There is a risk that the requirements could place a disproportionate burden on smaller packaging producers who may also have new reporting obligations under the forthcoming packaging extended producer responsibility regime. As highlighted throughout this response and in many of the submissions to the 2019 packaging extended producer responsibility consultation, attention must be paid to the effective alignment of these two regimes.

IOM3 can foresee particular difficulties for companies that operate on or around the threshold for the de minimis and believe further guidance from government on quarterly reporting obligations would be helpful, including a number of scenario models as worked examples.

Given the proposed policy frameworks (including the extended producer responsibility system and deposit return scheme) that will follow the implementation of the tax, government should ensure that there is scope for timely review to identify any disproportionate administrative and reporting burdens and areas where improved alignment can be achieved.

**Question 31. Do you intend to use a third-party agent to help meet your obligations for the tax or are you an agent expecting to provide this service? Would you expect their responsibilities to include filing your returns?**

- Yes
- No
- Don't know

N/A

**Question 32. Please provide details of the expected costs to your business of registering for the tax, and any expected one-off and on-going costs of completing, filing and paying the return, excluding any expected tax liability.**

N/A

**Question 33. Do you consider that HMRC's approach to powers and penalties is appropriate? If not, please specify why.**

- Yes
- No
- Don't know

Some IOM3 members have expressed concern about the effectiveness of the current policing of packaging laws. Government should not underestimate the complexity of monitoring and enforcing

this policy across complex multi-national supply chains and HMRC will require proper funding and resources to ensure the success of this tax.

IOM3 would welcome the approach to powers and penalties to be kept under review to ensure they remain effective as the system evolves and lessons are learned from the initial implementation of the tax.

## **UNDERSTANDING COMMERCIAL PRACTICES – CHAPTER 9**

**Question 34. Unless already covered in your responses to other questions within this document or the previous consultation, please tell us about the plastic packaging manufactured or imported by your business and how you think your business would be impacted by the tax, including additional administrative burdens?**

N/A

## **ASSESSMENT OF IMPACTS – CHAPTER 10**

**Question 35. Do you have any comments on the assessment of equality and other impacts in the Tax Impact Assessment?**

IOM3 believes that the current proposals and implementation plan for the tax could result in unintended consequences which have not been considered in the impact assessment.

Where it is 'difficult' or not presently possible to include recycled content, or simply to avoid being liable for the tax, material and format substitutions are likely and could result in packaging choices that have greater overall environmental impacts, undermining the ambitions of the tax. These issues could include reduced functionality and robustness resulting in increased supply chain waste, multi materials that are difficult to recycle and heavier packaging that results in greater emissions during transport.

It is possible that light-weighting will be viewed as a viable alternative for some businesses that find it difficult to incorporate 30% recycled plastic in their products. In line with circular economy principles 'right-weighting' where durability and functionality are not compromised for the format is preferable. Knee-jerk light-weighting can cause increased waste in the supply chain due to reduced durability, be difficult to separate for recycling and the proportion of contaminants and inhibitors increases disproportionately as the proportion of plastic decreases, making the recycled content material lower quality and harder to reprocess commercially.

IOM3 believes that the misalignment of timing with the proposed extended producer responsibility scheme for packaging, consistency in recycling collections and deposit return scheme will cause a fragmented approach. Alignment with these proposed policy frameworks, as far as possible, will be critical to ensure an effective and complimentary suite of measures that work towards the same overall environmental objectives and reduce the risk of conflicting requirements that could place a disproportionate burden on businesses. Crucial to the success of the tax, the proposed policy frameworks aim to increase the quantity and quality of packaging that is captured and subsequently recycled and will play an important part in ensuring access to sufficient volumes of high quality recyclate. The impact assessment has also failed to address the possible negative impacts of limited availability and/or increased cost of recycled material on other manufacturing sectors such as building products and automotive components that could be caused by the misalignment of timing between the tax and other measures.

The lack of feedstock availability, in volume and at the right quality, linked to insufficient UK recycling operations and collection infrastructure will likely mean that a large proportion of businesses will be below the 30% threshold for a period of time and have to bear the cost of the tax. Larger businesses with the most aggressive purchasing behaviour are likely to buy up the majority of the available

recycled content, with smaller operators needing to find alternative means to reduce costs or avoid the tax. Significant and widespread investment in UK infrastructure and skills is required to generate the required supply of recycled material in the UK.

IOM3 believes that further work is required to assess how degradation will affect the quality and viability of the recycled content pool. Mechanical recycling can lead to changed physical properties, make it increasingly difficult to process the plastic into new items, decrease compatibility with virgin plastic and cause build-up of contamination and by products from the attenuation and carry-over of contaminants during use and processing. IOM3 would welcome development of a plan to manage the degraded/downcycled plastics back into useful materials, for example through chemical recycling and promotion of circular economy principles.

IOM3 supports the government's aim to drive the treatment of plastic waste up the waste hierarchy but it is important that this ambition does not stop with recycling. To achieve the stated aims including improving resource productivity, IOM3 strongly promotes and encourages the adoption of wider circular economy principles and keeping packaging and materials in circulation at their highest value for as long as possible.