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BBIA calls for immediate retraction of RTF's plastics report, for deliberate disinformation on bioplastics contained in the report "Eliminating avoidable plastic waste by 2042: a use-based approach to decision and policy making".

Premis:

BBIA was consulted on this paper with a spreadsheet sent to David Newman and a 15 minute conversation with Dr John Williams, of Aquapakpolymers, a BBIA member (John is also TD of BBIA). No further consultation nor review of the paper was made possible and therefore its contents were not shared prior to publication with either Dr Williams or Mr Newman.

This document has been approved by the BBIA Board and BBIA members of the Working Group on Communications.

General Considerations

The document is a "rapid research" and was not sent for review due to time limits. This is a serious error because minimal revision would have allowed time to correct textual mistakes that make the report less credible. None of the authors is known to us for their expertise on bioplastics or composting of compostable materials. Again, this is a serious error when commenting upon a sector that requires specific knowledge and experience beyond plastics.

It is clear that the objective of the report is to "*recognise.. the tremendous benefits that plastics provide and addresses some of the potential drawbacks of using alternative materials*". To the uninformed reader therefore, the report would appear to be oriented to making the case for plastics and against alternatives. The approach is confirmed when focusing upon the need for more recycling infrastructure rather than the need to reduce plastics use and introduce alternatives rapidly- possibly at lower economic cost and certainly a lower environmental cost option. The statement of need for the market to take up an extra 500,000 tonnes of recycling capacity seems to be detached from reality- plastics are so successful because they cost so little, therefore plastic waste has a negative value. Wouldn't it therefore be more sensible to reduce plastics use rather than create "pull factors"? After all, the top of the waste hierarchy is prevention.

We agree we need "Clarification and agreement on the role of bioplastics" but the inference is that bioplastics create problems for plastics, while we know full well that overall plastics recycling is only 9% of the total. This is evidenced by the recent Green Alliance report and in your own report on page 22 which states that only some 400,000 tonnes out of 3.7 million tonnes were actually collected for



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recycling, let alone finally recycled. Further, the problems plastics create to other recycling streams is already enormous- no mention here of the tens (or hundreds) of thousands of tonnes of plastics waste sent to AD and composting and having to be extracted at huge cost. The presence of standard plastics in AD and composting has nothing to do with labelling of biodegradables or their recognition by consumers, but has to do with the ubiquitous presence of plastics in all packaging, a presence which could be reduced to encourage consumers to use packaging that could actually be recycled. It is also a route of microplastics into soil, aquatic systems and marine systems through the digestate and compost which is the output of organic recycling, when polluted by plastics packaging.

These plastics go beyond packaging e.g. carrier bags, tea-bags, fruit labels etc., and include the myriad of plastic packaging items consumers mistakenly throw with their food waste and for which composting and AD receive absolutely no compensation.

So whilst we may need to understand better the role of bioplastics, which your report fails to do, we would state that actually we need clarification and agreement on the role of plastics first, given the failure of plastics recycling in the UK and elsewhere.

The reader could be forgiven for considering this report an exercise (as you state) to avoid *“the negative publicity around plastics and, in particular, single use plastics, (which) has the potential to influence decision-making without considering sound evidence”*. Presumably you mean the evidence that only 9% of plastics are recycled ?

More Specific Considerations

We wonder what the team actually means when writing about the need for a standard for biodegradable bags ? Those standards have existed since 2000 and are used in industrial and home compostable bags as shopping bags and food waste collection bags by millions of UK citizens every day.

Indeed here the problem is not that standards do not exist, because the EN13432 standard for biodegradability in industrial composting was adopted in the UK nearly 20 years ago; the problem is the use of the term *“biodegradability”*. Perhaps there is a case to ban the use of this term ? This would avoid unsubstantiated claims about how, when, where and for how long the biodegradability process takes place and force producers to go through a certification process, clarifying for consumers and retailers what biodegradable actually means when contextualised by standards.

Standards are being developed or discussed in the EU on home composting (a voluntary OK Home Compost standard exists) and marine biodegradation. Understanding how a polymer biodegrades naturally in water is extremely difficult. At which temperature ? At which depth ? In which time frame ? Where? At shoreline or ocean floor ? Interestingly however, it is the bioplastics industry that is working on getting these standards settled, and not the plastics industry.



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Building a stand alone UK standard for biodegradable is tempting though not useful. It will mean the UK adopts specific standards not recognised elsewhere and limits the markets for UK producers using this standard where other countries fail to adopt it, and it would be quite unlikely that our largest trading partner, the EU27, would.

On standards and the difference between biodegradability, compostability and other terms, please refer to our paper available on <http://bbia.org.uk/faq/>

Another standard on soil degradability of bioplastics soil mulch has just been approved by the European Commission, the EN17033 (<https://www.european-bioplastics.org/new-eu-standard-for-biodegradable-mulch-films-in-agriculture-published/>) which potentially eliminates the need for recovering and recycling the plastic soil mulches currently used in much of the world substituting these materials with soil degradable mulch films; the point being that only where internationally recognised standards exist, can one issue substantiated claims about the performance of a material.

The statement *“there are no currently known commercial avenues for recycling novel biodegradable bioplastics in the UK”* is false, badly informed, damaging. It denies the work being undertaken daily by waste operators and composting plants nationwide to return bioplastics to soil through composting. Vegware, a Scottish company, manufactures tableware and takeaway containers from a variety of plant-based compostable materials and has built a business out of selling, collecting and composting its over 300 compostable products. Of course, this is not enough, but it exists and one cannot write lazily that *“there are no currently known “* recycling of rigid compostables. We wonder if any of the authors actually ever visited a compost plant ? Moreover, there are 53 composting plants in the UK that have a licence to treat ABP and can therefore accept bioplastics contaminated with food waste, as they commonly are. That many do not, is due to their fear of adding more plastics packaging contamination to their feedstocks.

We recall that the Packaging and Packaging Waste Directive, which was amended and issued on June 14th in the EU Official Gazette, has for decades recognised organic recycling as being on a par with mechanical recycling. This means that in terms of process and contribution to meeting national and material recycling targets, those AD plants and compost plants which recover bioplastics entering their systems and where they are measured, can claim full recycling of the bioplastics and account for them in their recovery statistics. Indeed, were greater volumes of bioplastics to be composted and recovered organically, the plastics industry could account for these tonnages towards meeting the 55% recycling target of 2030, for which every help possible is needed, given the current 9% actually recycled.

The next statement is also without factual basis. *“The potential for novel biodegradable bio-based plastic products to contaminate and lower the quality of conventional plastics is considerable and*



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potentially damaging to the secondary plastics market.” We would like to see the evidence to support this. We have seen no such evidence. We have seen that plastics recycling is at a very low level, 9% overall. Moreover, plastic polymers contaminate one another: the largest source of contamination in standard plastics recovery are standard plastic materials. Finally, as biodegradable plastics used in packaging to be called biodegradable must be compostable and are labelled as such, it is unlikely that these are entering plastic recycling. Indeed, where lightweight plastic films are concerned there is virtually no recycling in the UK so any potential contamination is so hypothetical to be considered indeed another damaging and badly informed statement.

2.2.3.4 Compostability

Here the authors make another series of unsubstantiated statements. They do not understand that more rigid bioplastics, which may not immediately biodegrade within a shorter process, can be sifted at the end of the process and returned into the head of the windrow. In this they act as if they were oversized wood, and it is a perfectly normal practice to pass these through the windrows more than once to ensure total biodegradation. A visit to a compost plant would have shown you this.

Moreover, while you rightly claim that composters are unable to distinguish between plastics and bioplastics, you use this as a case for denigrating bioplastics- whereas, given that food waste is being recycled here, the problem is plastic contamination. We estimate that composters and AD operators need to spend an enormous £27mn a year to eliminate plastics collected with food waste- one cannot make biogas and compost from plastic, therefore its elimination is necessary. No mention of this in your text anywhere.

Market share: as you rightly say, out of 350 mn tonnes of plastics produced annually, some 1 mn are bioplastics, less than 0,3%. Less than half of these are compostable plastics, so a total of 0.15% of global plastic production. So you seriously think you are credible when you claim these “will cause confusion at plastics recycling facilities ?” especially when we know how little plastic is really recycled. Nor do you quote the studies undertaken by the Italian Government - controlled packaging industry consortium, CONAI, on potential contamination impacts of bioplastics. This work, undertaken ten years ago to answer similar fears, shows that no negative impacts from the contamination of plastics by bioplastics was discovered in mixes containing up to 10% bioplastics- around 60 times more in percentage terms than are sold globally.

4.2.1.2 Design for compostability

The statement that compostable materials “*are thus rarely accepted at composting facilities in the UK due to the increased time required to process*” is again misinformed and damaging to our industry, which invests, employs and produces in the UK as well as elsewhere in the EU. Perhaps the London Olympics escape your memory but almost all food service items were compostable plastics that were



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effectively composted in the UK. As we mentioned, Vegware have a successful and rapidly growing business doing just this, ensuring their compostable food service ware is composted.

What you fail to mention is that the composter is often reluctant to accept compostable plastics not because of them taking a long time to decompose, but because of the heavy amounts of non compostable plastics they receive from poor quality food waste collections. Here lies the problem, certainly not in compostable plastics not composting. A failure to police collection systems, reduce contamination of food waste, implement collection disciplines and remove plastics by collection crews means that the composter is relegated to being firstly a plant which has to sort and eliminate plastics contamination before getting on with the real task of composting food waste. As stated, with zero contribution from the plastics industry for the financial damage composters are subjected to.

Your statement *“Therefore product designers need to think carefully about how to label these products, so they are discarded correctly”* is one we agree upon and a subject we will raise in the Plastic Pact, to which we are a signatory. There is already labelling, but we agree it needs to be made more consumer friendly and easily recognisable.

4.2.3.2 Compostable plastics

This whole paragraph is disappointing and lazily written. Whilst you make out the case for the government to invest in new recycling facilities for plastics, because only 9% (maximum) are actually recycled, where food waste facilities have difficulty in accepting bioplastic, the answer is toclassify them as problematic. Conversely the answer is to ensure that the plastics going to composting facilities are actually compostable, by having clean collection systems using only compostable plastics. Then composters will accept the plastics comfortably as they do in other nations and often even in the UK. This reduces plastic waste, improves food waste collection and enhances organic carbon recovery. The case for food waste collections was clearly made in the REA report commissioned of Eunomia, which can be found here: this <http://www.organics-recycling.org.uk/page.php?article=3187&name=REA+launch+report+on+the+Real+Economic+Benefit+of+Separate+Biowaste+Collections>

Further, bioplastics entering the landfill will not create methane, as we have already illustrated in our document which you can find here (www.bbia.org.uk/faq) unless the landfill is very wet with untreated food waste- not allowed in the UK and rare in most OECD countries. This is again another false and misleading statement and seems that the authors have copied/pasted previous, old reports without making a minimum of research. This information is publicly available on our website.

The treatment pathways are “not clear” - they are perfectly clear. What needs to be done is to ensure that the route to composting is known, that food waste collections are mandatory throughout the UK as already in the three devolved nations, that composters can be sure they will receive certified

compostable materials, that householders know to send their compostable packaging with food waste to treatment, and that AD plants compost the digestate, as elsewhere in Europe, and recover thereby the compostable packaging they receive. Naturally none of the experiences from other countries in doing this are cited in this study.

6.1.2.1 Bioplastics and biodegradable plastics

The phrase *“Widespread contamination of both recycle streams and composting plants may significantly impact on the business case for both treatment sectors”* beggars belief because the contamination of food waste treatment by plastics is evident and documented, whilst there is no evidence whatsoever in the UK of bioplastics contaminating any waste streams; even in countries where bioplastics represent a larger part of the packaging mix than in the UK (Italy 120,000 tonnes biopolymers, UK 4/5000 tonnes) there is no such evidence. If there is, please let us have a copy. It is all “hypothetical” and like saying “my Ford Escort could win the Formula 1”. Possible, but not likely.

“It is unlikely that significant progress will be made towards improving the recycling rates without significant investment and linked demand generating interventions.” True. To get plastics recycling from the current 9% to the new EU target of 55% in 2030 will not be a picnic. The Valpack report suggested for the whole packaging sector, not just plastics, costs will run to around £800mn annually, against the c.£80mn now being spent. Compostable plastics, which may take around a 5%-10% of market share over the next decade require no such investment. Moreover, by accounting for that 5% -10% going to composting, compostables can contribute to the achievement of these targets for plastic recycling through organic recycling.

6.3 Intervention scenario conflicts

- *Biodegradable products conflicting with increased recycling as a result of contaminating feed stock;*
- *Producing products to be biodegradable adding to consumer confusion around plastics and increasing contamination;*

We understand from this that making biodegradable plastics increases consumer confusion whereas making plastics from a hundred different polymer types all of which are incompatible with one another and therefore leads to low recycling, is not causing consumer confusion. Is this what was intended? If your phrase is read literally, any new technology is to be eliminated because its juxtaposition to existing (and failing) technology may cause confusion. It leaves us speechless.

Appendix A. List of stakeholders

The RTF partners (CIWM, ESA, the Resource Association and WRAP) have published a report on bioplastics without directly consulting experts in bioplastics. Even Tony Breton, who sits on the CIWM BioSig committee as bioplastics expert was not consulted. It conveniently ignores all manner of



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research and real-life evidence which would disprove many of the report's claims and which are attached to this paper. More can be consulted on our website.

Conclusions

This is a missed opportunity to share evidence and tackle common misunderstandings. The resulting report looks a lot like deliberate disinformation by plastics enthusiasts, who evidently feel threatened by the rise of compostable bioplastics. The report's inaccuracies mislead the public at a time of unprecedented interest and are damaging to those in the UK who manufacture, distribute, sell and compost bioplastics on a daily basis.

For myself, and Dr Williams, we asked our names be deleted from the report as having endorsed the report. We do not.

We call for its withdrawal and a public correction to be published incorporating these comments.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'David Newman', is written in a cursive style.

David Newman
Managing Director

(See attachments)