AN JAMIE

loined-up approach needed on UK waste

Anyone who saw the BBC's Blue Planet II could not help but be very alarmed and sad about the amount of plastic waste that exists in our seas at the moment, and the image it is causing.

I favour closed loop recycling – all our waste plastic should recycled and reused within Europe and any imbalance to be incinerated safely, waste to energy. I was very excited to read in *Packaging News* about two new projects involving waste plastic. The first was the liaison between Unilever and Ioniqa to convert all PET waste, whether coloured or not, back to its natural state – transparent virgin food grade material. Could lead to a lot more PET waste being recycled in the UK?

Another development involved a company called Macrebur, who could take our printed plastic waste and use it to make road surfaces. With the amount of potholes around, this could be very useful!

A third initiative by a company called Break Down Plastic, is an additive, which can be added to any plastic that allows it to break down, in anaerobic conditions, into it natural constituent parts. As most plastic will be either be incinerated or landfilled at its end of life (after recycling seven or eight times) around the world, then this has to be taken very seriously indeed.

The plastic waste issue is far more complex than I ever could have imagined.

THE PLASTICS DEBATE

A better system of collecting and recycling waste in our public places is needed

Staeger have over the years strived to ensure that the recycled PET they use comes from a recycled food grade source, in line with the M&S specification of 60% post-consumer waste. Equally, attention has also been focused on the PET's end of life, to give it the greatest possible chance of being harvested successfully here in the UK. Whether the material is recycled or not is another matter.

In addition from the middle of this year, we will be using UK plastic made from UK waste, the only transparent packaging company to do this. We have also commissioned a report (part funded by the EU) by the National Non Food Crop Centre in York to examine all the bio polymers in existence to see if we can find one that meets everyone's needs. We are currently trialling one that is home compostable and fully recyclable for Waitrose

To conclude, I would like to offer some considerations for long term solutions to the UK's plastic recycling problem and how I see success might be achieved in the future. Overall I think the government needs to be far more prescriptive. I would start off in the education sector to try and mould future habits into successfully disposing of plastic at their end of life. This should be part of the industrial strategy. I would also encourage better packaging design to aid recyclability;

A reduction in the amount of polymers in packaging is needed. We also need to educate the public on what they are and how to deal with them. The UK also needs a uniform approach by councils to collecting recycled waste from our homes. A better system of collecting and recycling waste in our public places is needed such as a deposit return scheme.

The government also needs to reform the PRN system to favour home recycling and needs to support industries that deliberately set out to use recycled plastics as their feedstock.

Finally, the government needs to have a more considered approach to incineration. Surly that's a better approach than exporting plastic waste to regulated parts of the world?

● Ian Jamie is managing director at Staeger Packaging. For the full article go to www.packagingnews.co.uk

DAVID NEWMAN

Dispelling the myths around bioplastics

Philip Chadwick's comment in the July issue of *Packaging News* raised some frequently quoted questions that we feel need some urgent clarification so that we can dispel a number of myths that have appeared around bioplastics.

Bioplastics are a relatively new material to the packaging industry and it is understandable that a number of packaging experts are inexperienced in their properties and benefits, especially as bioplastics are improving and evolving at an exponential rate. There seems to be some confusion over claims of biodegradability and performance of which I will clarify here.

There are internationally recognised standards to be reached for any packaging or plastic that claims to biodegrade, which the UK has enshrined in law as BS EN 13432 and 14955. These standards stipulate that bioplastics will compost in an industrial composting plant or have a defined biodegradation measurement. They do not make claims around marine degradability, landfill decomposition, or biodegrading in the open environment.

If a material is not certified to these standards by a reputable certification authority, steer clear – the producer's word alone is not enough, we need certification. Our members' products are all certified or in the process of being certified accordingly.

There are materials known as oxo degradable plastics which some claim biodegrade. The European Commission is

THE PLASTICS DEBATE

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currently pushing through legislation to restrict or ban the sale of these in the EU. They are not bioplastics. So be careful. They cannot be mechanically or organically recycled.

A limited infrastructure to collect and treat bioplastics exists in the UK – some 19 composting plants and some Anaerobic Digestion (AD) plants can and do accept and treat bioplastics. In Italy, 10 times as many plants take bioplastics, so we have a long way to go. In addition, the route back to treatment through food waste collection is limited in England. Legislation may soon change this (as an EU wide obligation to separately collect food waste comes into force in 2024).

Inevitably, therefore, until this infrastructure is mature some bioplastics end up in landfill or incineration just as most plastics do currently. In landfill, unless it is very wet (unlikely in the UK) it will not degrade into methane. In incineration, it will burn as any normal plastic. Of course, neither disposal solution is optimal.

Let's not forget that after 25 years of investments and collection, total plastics packaging recovery is really very low. It represents 9% in the UK – and flexible plastics recycling is virtually non-existent, the rest is either incinerated, landfilled or shipped to Asia – hardly what you would expect after so much experience, investment and talk of recycling.

Therefore, contamination of plastic waste streams, now or potentially, from bioplastics is so theoretical as to be insignificant. However, technology can solve this as can better labelling of bioplastics. We should work together with the plastics recyclers to ensure no cross contamination.

In summary, bio-plastics are part of the evolution of plastic packaging; they don't claim to be the saviour. The industry must work together to find the most environmentally responsible solution for each application; to maintain product protection and shelf-life. To fully realise this we need governmental support to ensure the most efficient infrastructure is in place for both mechanical and organic recycling streams.

● David Newman is managing director at the Bio-based and Biodegradable Industry Association (BBIA)