

The Plastics Conundrum Part 3: **What's going on?**

We shouldn't lose sight of the fact that plastic per se is no more 'the enemy' than any other material. The problem is plastic in the wrong place. The benefits for the food and drink sector alone include shelf-life protection and extension, hygiene, containment and more carbon-efficient transportation than heavier-weight alternative materials. None of that, though, is a justification for the environmental damage caused worldwide by careless disposal. Some of the more drastic interventions have yielded impacts, although we must always be alert to unintended consequences. In Kenya, which has introduced a \$40,000 fine for selling plastic bags, the enforcement director of the National Environment Management Authority has reported that where abattoirs used to find plastic in the guts of roughly 30% of animals taken to slaughter, this has gone down to 10%. Other countries in the region are now considering similar intervention.

Closer to home, alongside a plethora of voluntary initiatives across the food chain and beyond, regulation is also starting to appear. The EU has announced likely action from 2021; MEPs backed a ban on plastic cutlery and plates, cotton buds, straws, drink-stirrers and balloon sticks and for a reduction in single-use plastic for food and drink containers such as plastic cups. Whatever the UK's future political relationship with the rest of Europe, we are likely to have something similar here. The Scottish and Welsh Governments are already active in this arena and Environment Secretary, Michael Gove, in the recently-published Waste and Resources Strategy for England has unveiled a range of measures including targeted bans on problem items, improved identification and collection systems, and fiscal incentives for smarter design and inclusion of recycle. On our doorstep, Leeds is the test-bed for a scheme involving the charity Hubbub to improve on-the-go recycling, much of which, of course, will also be food and drink packaging.



Sandwich packaging inserts from the UK (left) and Italy (right)

Compostable or bio-degradable plastics are not necessarily the answer in practice that they may seem in theory, especially if the necessary composting conditions are only attainable in industrial processing. For one thing, they may be made from plant-based materials which compete for land with food crops. If they decompose to methane rather than carbon dioxide, the environmental impact may be significantly worse given the respective Global Warming Potential (GWP) of the two gases (atmospheric methane has a GWP 34 times that of CO₂ over 100 years). Consumers' engagement in the home will also be impacted by their own circumstances; city-dwellers, which now account for more than 50% of the global population, simply may not have the wherewithal to compost such materials in their urban surroundings. Even if they do, a system which relies upon consumers to carry out the quality control in their kitchens has clear weaknesses. A likely outcome is the 'contamination' of other recycling streams with undegraded bio-degradable polymers which will significantly reduce their utility.

[The Plastics Conundrum Part 1: The road to hell is paved with good intentions](#)

[The Plastics Conundrum Part 2: It's all downhill from here \(to the ocean\)](#)

[The Plastics Conundrum Part 4: Where do we go from here?](#)

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