



UPGRADE THE PLASTIC DON'T BAN OR TAX IT

PRESS RELEASE

The following article by Michael Stephen, Chairman of the OPA, and Deputy Chairman of Symphony Environmental Technologies Plc, was published in EURACTIV1 on 1st December

“Plastics are the most popular materials around the world today. From plastic packaging to carrier bags, children’s toys to surgical equipment, plastics of different strengths, thicknesses and malleability have millions of applications.

Plastic is so useful that it is little wonder that globally we use 320 million tonnes of it each year, but unfortunately conventional plastic can lie or float around for decades if it gets into the open environment. As well as being harmful to wildlife on land and in the oceans, it attracts toxins, and breaks up into microplastics, which are now beginning to impact on the human food chain.

It is this characteristic of plastic which has led some governments to tax or ban some plastic items – from a legal requirement for shops in the UK to charge for shopping bags, to Kenya’s draconian system of imprisonment and fines of up to \$40,000. The European Union is aware of the problem, but there is no new thinking. They are encouraging better waste management, re-use, redesign, and recycling – which is fine – but there is a black hole in their policy. They have no idea what to do about the plastic waste which, despite their best efforts, gets into the environment, and particularly into the oceans.

Until now, the focus of the plastics industry has been on making plastics to specifications that are only relevant while they are being used, but we need a new type of plastic whose performance is just as good, but will biodegrade at the end of its useful life much more quickly than ordinary plastics. Fortunately, we can now upgrade the plastic by adding a special additive to normal polymers
– see www.biodeg.org

The key point is that the upgraded plastic does not just fragment, but its molecular structure is dismantled so that it is no longer a plastic. The residue is then recycled back into nature by naturally-occurring bacteria and fungi, leaving no fragments as a problem for future generations. The Eunomia Report for the European Commission confirms that it does indeed biodegrade much more quickly than ordinary plastic, and the relevant international standards e.g. ASTM D6954, require that there must be no heavy metals or eco-toxicity.

The environmental problem of plastic is caused by littering, but taxes and bans are not going to solve the problem in the foreseeable future, and they are depriving some of the poorest people of a very useful and inexpensive material. By contrast, upgraded plastics can be made quickly and easily with existing machinery and workforce at little or no extra cost. It has also been proved by scientific tests in Austria, South Africa and the UK that they can be safely recycled into short-life and long-life products, without the need for separation.



Upgraded plastics do not cause oil-depletion – they are made from a by-product of oil refining and the same amount of oil would be extracted from the ground for fuels even if plastics did not exist.

Plastics are changing: different countries have different regulations for the types of plastic they use. Europe, the UK and USA are still relatively behind when it comes to innovative solutions, but countries like Saudi Arabia are already insisting by law that the plastic be upgraded with additive technology, and the importing or manufacturing of conventional plastics has been banned for a wide range of products. They have not opted for “bioplastics” as they are too expensive, they contain a high proportion of oil-derived material, and they consume large amounts of fossil fuel in their production process. They cannot be recycled without separation, and as they are designed for industrial composting they don’t solve the problem of plastic litter in the open environment.

Europe needs a vision for the future in which the downsides of plastic are balanced by technological advances. We don’t have to ban or tax plastics - they are much too useful for that.

Thinking about plastic needs to be as adaptable as the material itself.

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