



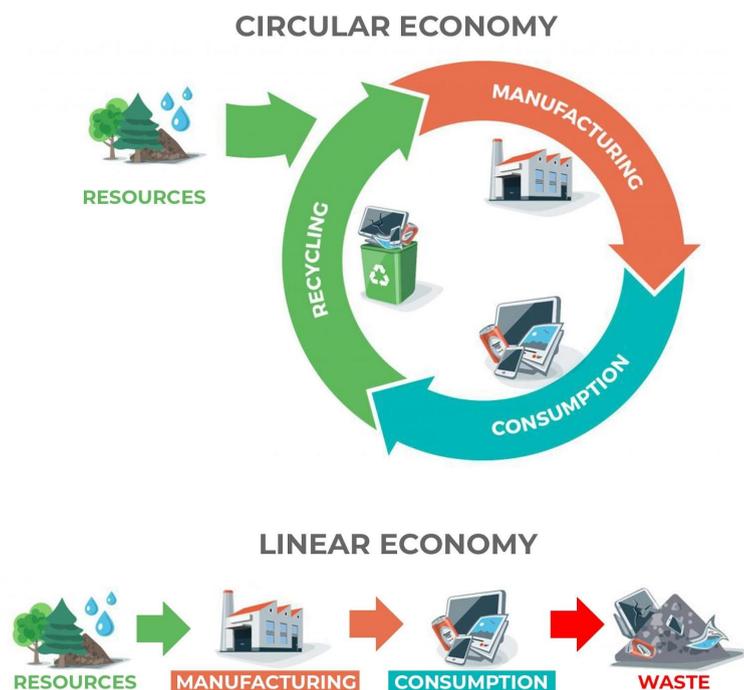
Organics Council®

**Organics Council® conclude: Circular
Economy allows continued use of safe
plastics**

Plastics undeniably possess many beneficial characteristics, such as their low cost, light weight, impermeability and durability, which help us tackle a significant number of challenges in modern society. However, these benefits have resulted in many areas of manufacturing and production being critically dependent on the use of plastics. Globally unsustainable levels of plastic waste are currently being generated: around 25.8 million tonnes of plastic waste are produced annually in Europe alone, and less than 30 percent of it is collected for recycling.^{1,2} Plastic packaging, particularly food packaging, is a priority area of concern, as it accounts for over half of post-consumer plastic waste produced in the European Union.^{1,2}

The European Union has been exporting a significant amount of waste to third-party countries; however, China has announced it will no longer accept imports of foreign waste starting from 2018,³ and other countries may soon follow suit. Active measures are required to ensure that this does not result in an increase in local landfilling. Harmful substances leaching from plastics and microparticles released during degradation are contaminating our soils, rivers and oceans. Not only does this pose a serious threat to natural ecosystems, particularly aquatic organisms, but there is also a risk of harmful plastic components contaminating our food chain.⁴⁻⁹ Current scientific evidence suggests that exposure to plastic additives and component substances can induce serious negative human health effects, including neurobehavioural problems, sex hormone disruption, altered gene expression and cancer.¹⁰⁻¹⁵

Improved product design that follows circular economy principles¹ can solve these issues by using only safe materials to make durable products that can be reused, repaired and recycled, as opposed to the current linear economy model of make, use and dispose of (see figure).



(Organics Council[®]'s image)

Despite growing evidence on the effects of exposure to harmful plastic components, protective legislation is largely absent worldwide.

Dr Esme Purdie, director of the Organics Council[®] Science Committee, stated: 'While in some regions there has been an increase in the awareness of the need to reduce plastic waste, current statutory regulations are not sufficient to achieve this goal and improve the safety and sustainability of plastics on a global scale. Responsible manufacturers, and the organic food industry in particular, must implement genuinely organic, circular economy principles in their production and packaging processes, therefore only allowing safe and sustainable use of plastics. For example, organic or eco-branded produce should not be wrapped in plastic packaging that is harmful to both environmental and human health. The organic food industry has an opportunity to lead the way in promoting change by ensuring safe plastic production and by helping build a sustainable circular economy.'

The Organics Council[®] Circular Economy Regulations provide a complete guide for manufacturers and producers to ensure that circular economy plastics are used in a safe and sustainable manner, based on the following principles:

- a. Manufacturers must ensure that the design of plastic elements (both in the product and packaging) is aimed at extending the longevity of the product and improving its quality, with a focus on safe and sustainable use and end-of-life disposal, assuring no plastic gets wasted or disposed of by incineration.
- b. Plastics used must only be made of substances and materials that have been safety tested and are present on the Organics Council[®] Approved Substance List or equivalent comprehensive safety lists; this ensures that use, recycling and disposal will cause no known irreversible, life-threatening or adversely life-altering effects on humans and the environment (subject to usage and handling according to defined conditions).
- c. Recycled materials must not be used for food packaging purposes unless manufacturers can ensure that:
 - i. the plastic packaging will retain sufficient strength and durability to be suitable for food contact and is free from recycling-stage additives and
 - ii. all used plastic packaging is reverse vended to go straight to the food industry packaging without mixing with non-food industry packaging.
- d. Measures must be taken to ensure that local authorities and the recycling sector have the means to increase the quantity and quality of plastics collected for recycling.
- e. Manufacturers should work towards 100 percent plastic food packaging recoverability via reverse vending schemes.
- f. Single-use, disposable plastic items should be banned and replaced with reusable and circular economy certified plastic or non-plastic compostable alternatives.

- g. Biodegradable plastics must not be used in any product where degradation may result in end user or environmental exposure to harmful components or particles; in particular, these must not be used for direct contact with food products.
- h. To meet circular economy end-of-life requirements, the end user must be able to separate and dismantle each different material before the product enters the recycling stream; non-separable packaging should not be permitted.

For more information on the Organics Council[®] Circular Economy Regulations, please see [\[link\]](#)

For more information and further reading on some of the reported issues:

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3. See www.parliament.uk/business/committees/committees-a-z/commons-select/environmental-audit-committee/inquiries/parliament-2017/chinese-waste-import-ban-17-19/.
4. [Auta HS](#), [Emenike CU](#) and [Fauziah SH](#), Distribution and importance of microplastics in the marine environment: A review of the sources, fate, effects, and potential solutions, *Environment International*; May 2017. Available at: www.ncbi.nlm.nih.gov/pubmed/28284818.
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13. Marie C, Vendittelli F and Sauvant-Rochat MP, Obstetrical outcomes and biomarkers to assess exposure to phthalates: A review, *Environment International*, Volume 83, October 2015, Pages 116-136. Available at: www.sciencedirect.com/science/article/pii/S0160412015001312.
14. Gao DW and Wen ZD, Phthalate esters in the environment: A critical review of their occurrence, biodegradation, and removal during wastewater treatment processes, *Science of The Total Environment*, Volume 541, 15 January 2016, Pages 986-1001. Available at: www.sciencedirect.com/science/article/pii/S0048969715308093.
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