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How a circular economy could avert ecological disaster

An idea that has been gaining traction with economists and environmentalists alike over the past few years in particular is the idea of a circular economy. While the idea has been around for decades, only now are businesses and governments alike considering taking it to its full potential — creating economic growth and environmental sustainability.

[Dave Olsen](#) Aug 30, 2018 · 3 min read



The basic idea of a circular economy is very simple: as much as possible, waste products should be reused, and there should be minimum input and output. It is designed to create a more sustainable resource management system and to maximise economic growth.

Conversely, the linear economy uses the “take, make, dispose” system: take the resources, which is expensive and causes dwindling resources; make the product; dispose of the waste, causing environmental damage. This whole process is

incredibly costly for businesses too, which is why it has been going out of fashion over the past few decades.

This switch, at least partially, towards a circular economy has been driven by both necessity and the emergence of the means with which to execute the plan.

It is now imperative that businesses are as competitive as possible, and this means that costs must be lowered, in order to maintain a profit

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margin with falling prices. Therefore, as the circular economy allows these companies to spend less on waste disposal and raw materials, it makes sense to maximise reuse of waste products. Moreover, the sale of waste that would've previously gone to landfill to other businesses that have a use for it generates more income.

New technology has allowed companies to increase the amount of waste material they can reuse, which gives more an incentive to reuse more and take less.

The economic benefits for all businesses — large corporations and small start-ups alike — are incredibly obvious. A circular economy stimulates economic growth and boosts output, partly by minimising input. However, the environmental advantages, often looked past by economists and businesses, are even greater.

For a start, less overall use of resources, as promoted by a circular economy, will help to secure a more sustainable future. With important resources such as copper, helium, and phosphorus set to run out within decades, this will be necessary to avoid huge issues from shortages.

Indeed, freshwater is running out at alarming rates, and this could lead to the widespread extinction of many animal species across the world — as it is likely we will keep the water for

ourselves and our food. If companies cease over-abstraction of underground water sources, particularly in developing countries, the world's water shortages could be solved. A circular economy will help with this by providing recycling systems for greywater.

It would also help reduce the output of toxic chemicals into ecosystems and greenhouse gases into the atmosphere.

For example, methane produced as a by-product could, given appropriate technology, be recycled for use as a fuel or chemical feedstock. When methane is burned as a fuel, it releases less carbon dioxide than coal, oil, and gas — so there are fewer greenhouse gas emissions.

Carbon Dioxide could too be captured and used, for bread, wine, and fizzy drinks, as well as myriad industrial and technical uses such oil recovery.

In this way, the capture and recycling of harmful chemicals and greenhouse gases could help to stop climate change, as well as direct ecological damage such as eutrophication (the process by which rivers can die due to fertilisers).

As such, the ever-quickening pace of the shift towards a circular economy will undoubtedly bring about immense environmental benefits — and we can only hope that businesses remain fully invested in the idea.

Written by [Dave Olsen](#)

Politics, education, environmentalism, geopolitics, health, economics, philosophy. Deputy Editor at politika.org.uk. Leading a policy paper on 14–16 education.