



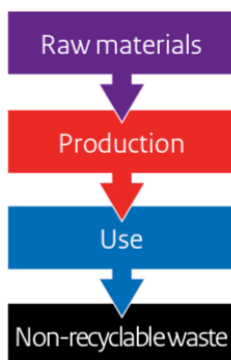
Summary

As global consumption continues to increase, there is more pressure than ever on the earth's decreasing resources. However, there are growing inequalities in the world with European citizens consuming far more than our fair share of resources. That's why we urgently need to transform the way we consume and manage resources in Scotland.

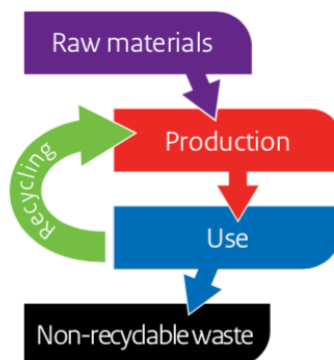
The next logical step in reducing our overconsumption of natural resources is to move to a circular economy where products are designed to last as long as possible, are easy to repair and made out of materials that can be recycled repeatedly. Essentially, we need to keep materials circulating around the economy for as long as possible before they become waste.

In order to address the climate emergency and drive the necessary action needed to transform Scotland into a true circular economy, **Friends of the Earth Scotland** are calling for an **ambitious Circular Economy Bill which includes robust targets to reduce our consumption of resources**. These should include a **carbon footprint target, material footprint target** and a commitment to set a **biomass reduction target** when data is available.

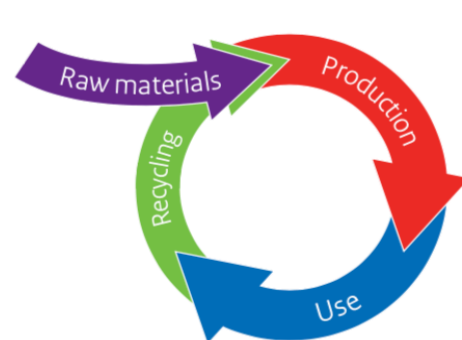
Linear economy



Reuse economy



Circular economy



(Government-wide Programme for a Circular Economy, Netherlands, 2016)

The need for a circular economy

As global consumption increases, there is more pressure than ever before on the earth's decreasing resources. There are growing inequalities in the world and alarming levels of resource use by a small minority of the global population, with

European citizens consuming far more than our fair share of resources.

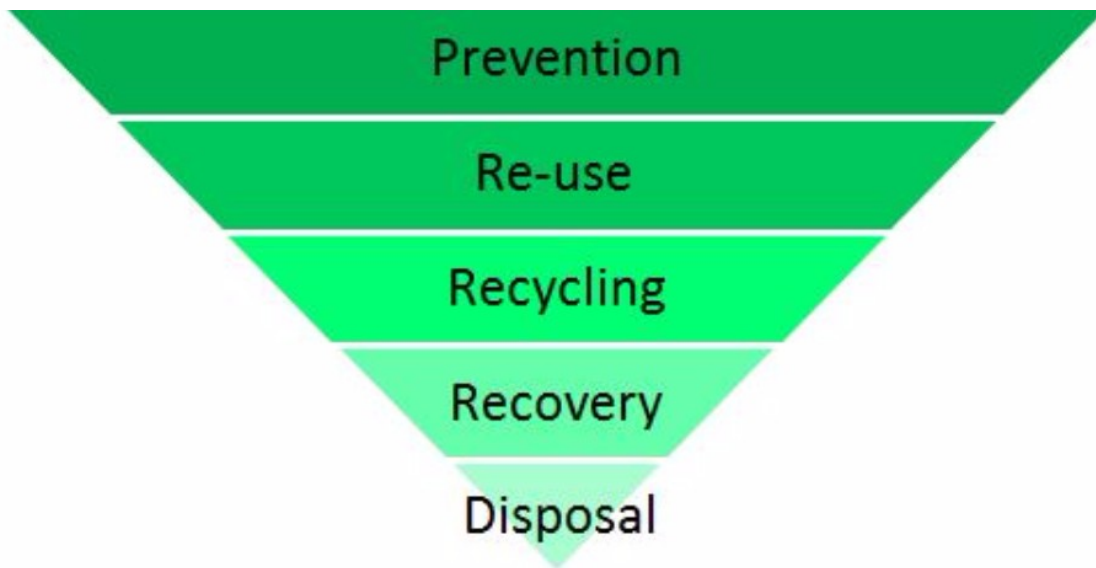
Our increasing consumption of resources is also having a devastating impact on poorer countries. From the millions of tonnes of plastic waste that is exported to South East Asia each year to the mining of lithium for batteries from the Congo to power our smartphones and laptops.

This growing inequality in resource consumption is why we need to address the impacts of our resource use on poorer countries around the world.

Scotland currently operates under a **linear economy** model described as take-make-waste where raw materials are extracted from the earth, made into products, and then discarded as part of our throwaway culture, with only limited recycling of

resources and very little reuse of products.

Under a **reuse economy**, many materials are used again but there is still waste from non-recyclable products. In order to reduce our reliance on the planet's resources we need to urgently move to a **circular economy** where there are high rates of recycling, reuse and repair and materials circulate in the economy for as long as possible.



(waste hierarchy diagram - <https://www.recycle-more.co.uk/>)

When we think about moving to a circular economy, it's also vital that we consider the waste hierarchy which sets out the order of preferences for reduction and managing waste with emphasis on prevention and reuse before recycle.

Benefits of a circular economy

We currently consume as if we had three planets available to produce the resources we use and absorb the waste we create. It's clear that something needs to change.

Scotland's material consumption also accounts for 68% to 74% of our entire carbon footprint, meaning that moving to a circular economy will contribute significantly to efforts to tackle the climate emergency. It's estimated that a circular economy would save Scotland 11 million

tonnes of carbon dioxide emissions by 2050 – a quarter of our current total.¹

A move to a circular economy would also reduce the burden we place on people in other countries and by keeping materials circulating in our economy for longer, the amount of waste that litters our streets and countryside, pollutes our waters and injures our wildlife will be reduced.

In order to successfully move towards a circular economy, major changes to the way we make products and consume resources will need to be made, bringing economic opportunities and innovation to both existing businesses and new start-up companies.

Challenges of a circular economy

The transition to a circular economy is an international challenge and still in the early stages. At present, the concept of a circular economy is still new and is not a widely shared ambition among many countries. The Netherlands is leading the way, having made significant steps by committing to move to a full circular economy by 2050, with an interim objective of a 50% reduction in the primary raw materials (minerals, fossil fuels and metals) by 2030.²

A circular economy requires technological, social and system changes in order to be successful. At present, the benefits and costs for the environment are not sufficiently reflected in the price of a product. Plastic is convenient and cheap in relation to more sustainable products.

It also requires behaviour change as people are used to living with non-circular behavioural patterns. The plastic bag charge which came into force in 2014 is a good example of changing people's behaviour and resulted in an 80% - 90% drop in plastic bag uptake in the first year. If we want to significantly reduce our consumption of resources, then similar behaviour changes need to be applied to move us from our throwaway culture.

We believe that, in order to drive the necessary transformative action, we need to move towards a fully circular economy, we must set robust targets to reduce our overconsumption of resources.

Problem with Plastic

Plastic pollutes at every stage of its lifecycle, from when the oil and gas is extracted to produce it, to what happens to it when it reaches the end of its life, as it

litters our streets, pollutes our beaches and directly harms birds and wildlife. It's a symbol of the throwaway culture in our current linear economy, as well as being a major contributor to climate change.

The more plastic we produce and consume, the more greenhouse gas emissions we release to the atmosphere. In Scotland, a major source of the problem is INEOS in Grangemouth which is the largest producer of plastic in the UK, and one of the largest in the EU. Global trade in plastic waste continues to be a big problem, with many people in the Global South suffering as we continue to export our plastic waste across the world.

From 1988 to 2016, the top ten plastic waste exporters (which includes the US, Japan and the UK) exported 168 million tonnes of waste, most of which ended up in China.³ In 2018, China introduced a ban on the import of plastic waste but now nearby countries including Indonesia and Thailand are facing increased plastic waste imports as the problem has just moved from one country to another.

Bioplastics in a circular economy

There is a growing concern that instead of focusing on reducing plastic use, there will be a rise in bioplastics as we move towards a circular economy. Bioplastic is a term which covered plastics which are bio-based, biodegradable or both. While bioplastics are often cited as the more environmentally friendly option, many are difficult to recycle properly and often end up in landfill, incinerators or the environment which poses a risk to wildlife.

The term 'bioplastics' is often very misleading to customers who may see them as an eco-friendlier option when these plastics have different types of biodegradability, with many only breaking

down in industrial conditions, which people do not have access to.

As we move to reduce single-use plastic, it's vital that we do not rush into replacing them with bioplastics. We need to have a full analysis of a product's environmental impact before it's put onto the market. The widespread uptake of bioplastics could also have a disastrous land-use consequence, particularly for the developing world if agricultural land is replaced by land for bioplastics.

Circular Economy Bill

In September 2019, the Scottish Government's Programme for Government committed to creating a Circular Economy Bill. The subsequent consultation was a welcome step to tackling our resource consumption, with proposals including charges for environmentally harming products, mandatory public reporting of waste, and work to increasing recycling rates.

However, the consultation raised alarms that the Bill will fail to set targets for reducing our consumption of resources, focusing more on behavioural changes rather than environmentally harming business models. We believe that in order to properly capture the environmental impact of consumption and help Scotland move towards a circular economy, the Bill must include reduction targets which replicate the model used in the Climate Change Act. These targets should include:

Carbon – reduction to net zero by 2050

The carbon footprint covers greenhouse gas emissions from goods and services consumed in Scotland, including those which are imported as well as directly produced by Scottish residents including heating and transport. (Note: this is

different from the 2045 net zero target which captures emissions only produced in Scotland).

Material – 50% reduction from 2020 to 2030 for minerals, metals and fossil fuel feedstock

The material footprint covers raw materials of all goods consumed in Scotland and is measured by weight. This target comes from the Netherlands, who are leading in Europe, having set a target to halve primary raw material use by 2030.

Biomass – strategy to be developed

While we need to use more timber in construction, substituting for concrete and steel, we need a strategy, with targets, for biomass to ensure increasing demands do not result in habitat destruction and biodiversity loss.

As well as a commitment to developing a strategy, we would also like to see the forthcoming Circular Economy Bill include a duty on relevant ministers to report annually on the progress of these targets, and for a Resources Reduction Plan to be introduced and updated every 5 years with policies and other instruments to steer our economy towards meeting these targets.

References

1. <https://www.zerowastescotland.org.uk/CarbonImpactsOfTheCircularEconomy>
2. <https://www.government.nl/documents/policy-notes/2016/09/14/a-circular-economy-in-the-netherlands-by-2050>
3. <https://ourworldindata.org/grapher/cumulative-plastic-exports>

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