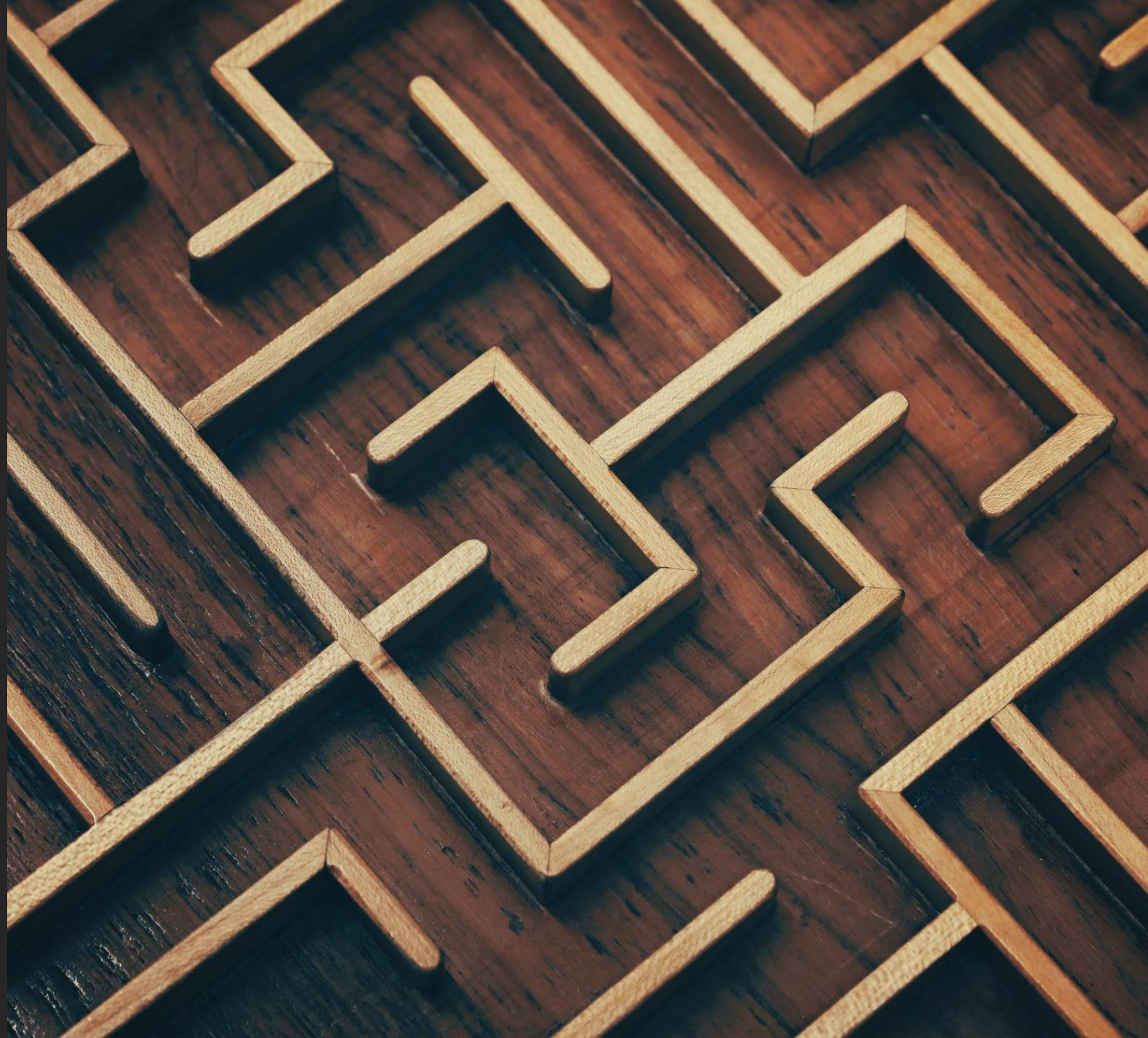


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# PATHWAY TO A CIRCULAR ECONOMY

22 APRIL 2021

CLARE OLLERENSHAW,  
ASSOCIATE DIRECTOR



## Circular economy principles

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems



Ref. Circular Flanders




Reform use of resources

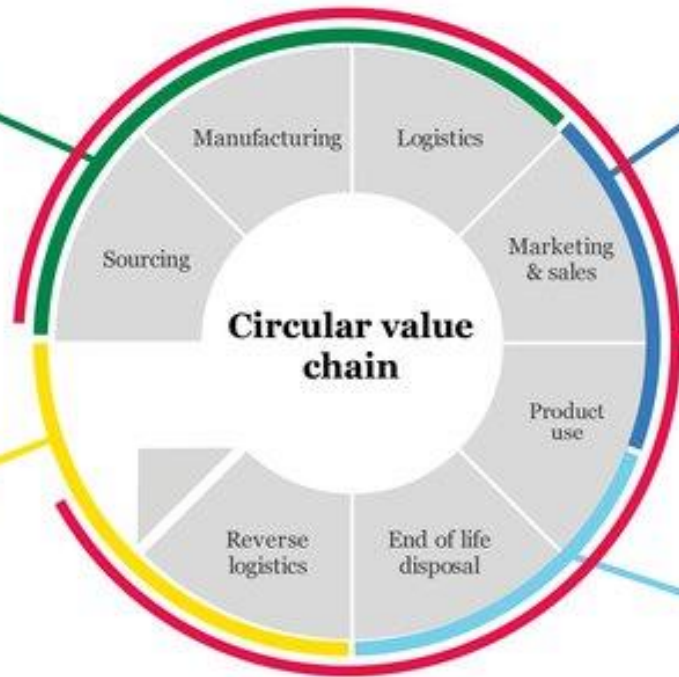
 **CIRCULAR SUPPLY CHAIN**

Use of renewable energy, bio-based or potentially completely recyclable materials

Recover value in waste

 **RECOVERY & RECYCLING**

Recovery of usable resources or energy from waste or by-products



Optimise capacity use

 **SHARING PLATFORM**


Increased usage rates through collaborative models for usage, access, or ownership

Offer outcome oriented solutions

 **PRODUCT AS A SERVICE**

Offering of products for use with retention of product ownership which incentivises increase in resource productivity along the whole life cycle

Extend life cycles

 **PRODUCT LIFE EXTENSION**

Extension of the life cycle through repair, maintenance, upgrading, resale and remanufacturing

# CIRCULAR SUPPLY CHAIN

**Notpla** is revolutionary material made from seaweed and plants. It biodegrades in weeks, naturally. The company, based in London, has created unique machines and materials to package products in the most sustainable way.

For example Oohos replace plastic cups and bottles for running events, races and other sporting events, it was used to removed single use plastic from the Virgin Money London Marathon. <https://www.notpla.com/>



Photo by [engin akyurt](#) on [Unsplash](#)

# PRODUCT AS A SERVICE

- **Circos** is an online shop where you rent high-quality design clothes for children from newborn up to 2-3 years and maternity wear that fit your taste, need, and budget.
- Order items you love from a selection of brands, enjoy them while they fit. You pay monthly for the kind and number of clothes that you're using at that moment. When it is time for the next size or style, just return the items and select your next favourites - you swap whenever it suits you best.

<https://circos.co/>



Photo by [Alexander Dummer](#) on [Unsplash](#)



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## PRODUCT LIFE EXTENSION

- **Aceleron** is a Birmingham based developer of sustainable and reusable batteries. They manufacture lithium ion batteries that are fully serviceable, upgradeable and recyclable.
- Their circular economy battery technology aims to negate the challenge of waste from lithium-ion batteries. Such technologies are currently rarely reused or recycled and the electric vehicle (EV) industry is expected to create more than 11 million tonnes of battery waste a year in the next 20 years globally. Aceleron are advancing research into 'end-of-life' battery cell and module repurposing, whilst offering immediate reuse opportunities for waste battery packs to help reduce carbon emissions and underpin the clean energy revolution. <https://www.aceleronenergy.com/>



Photo by [the blowup](#) on [Unsplash](#)

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## RECOVERY

**Paint 360** is based in Cradley Heath and was established to tackle the huge issue of waste paint disposal. The company re-engineers waste paint back into brand new paint which has been tried, tested and developed in conjunction with the trade. Each litre contains a minimum 65% recycled content, while competing on quality and price with premium brands. It is estimated by DEFRA that around 55 million litres of paint are thrown away each year in the UK alone.

Paint360 receives waste paint from Household Waste Recycling Centres, contractors and retailers which is re-engineered back into an award-winning range of emulsion paints with a minimum 60% recycled content. This paint is then sold direct to the market or through the UK's largest builder's merchant. <https://www.paint360.co.uk/>



Photo by [David Pisnoy](#) on [Unsplash](#)



# RECOVERY

**Toast Ale** reduces demand for natural resources by replacing virgin barley with surplus fresh bread. One of the biggest environmental challenges is the increasing demand for agricultural land to grow more crops for food, drink and animal feed (despite one third of food going uneaten).

By using less barley, they have a smaller footprint on the land, reduce demand for water and prevent carbon emissions, whilst also preventing food waste.

<https://www.toastale.com/about-us>

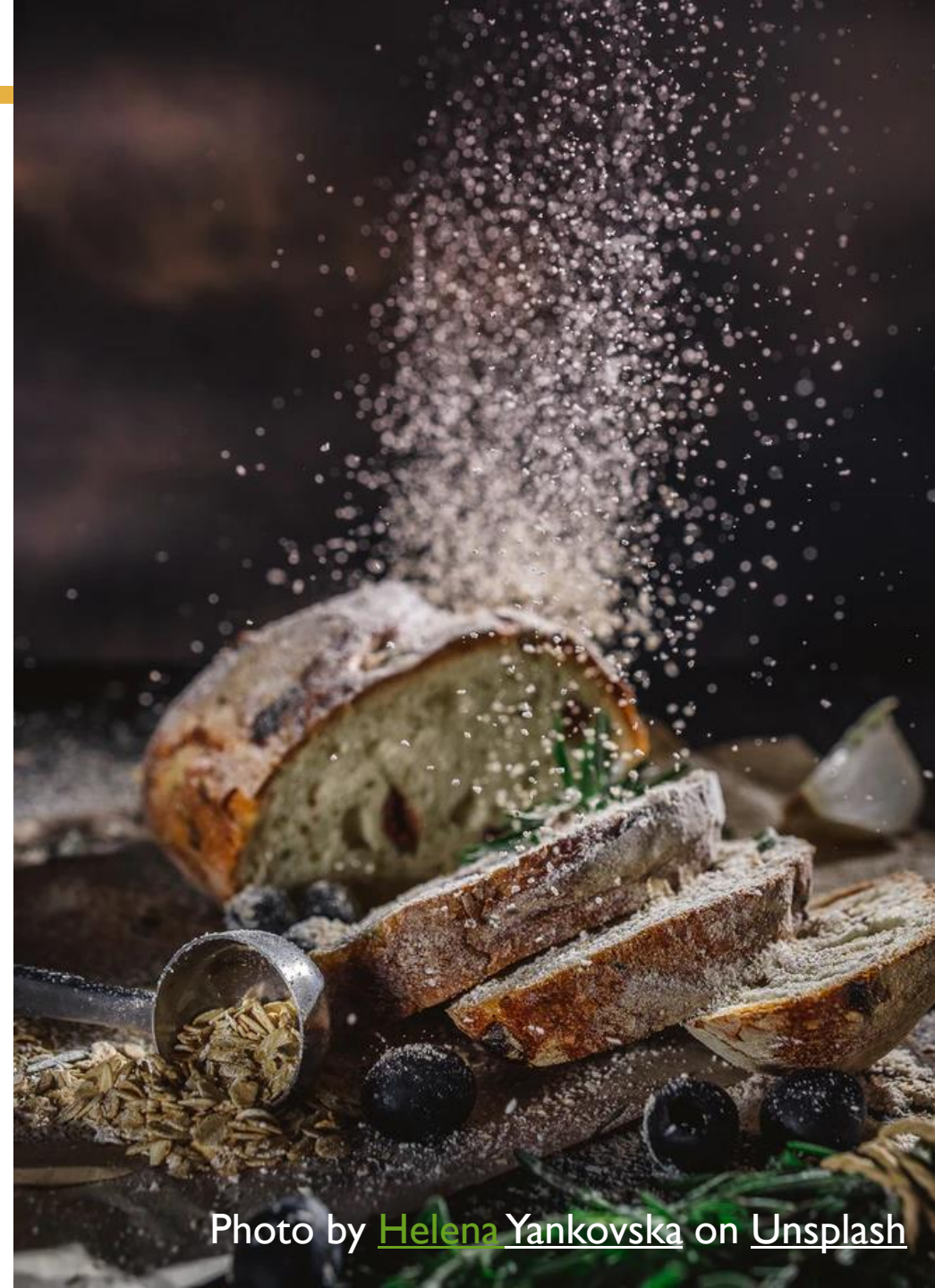


Photo by [Helena Yankovska](#) on [Unsplash](#)



# RESOURCES

Birmingham and West Midlands Circular Economy Club, part of a global circular economy network with +260 CEC local chapters in 110 countries. CEC's activity is global, non-profit and free to join, with the mission to bring the circular economy to every corner of the world.

- LinkedIn Group <https://www.linkedin.com/groups/8721417/>
- CEC website [Circular Economy Club \(CEC\) - Local action. Global impact.](#)

## Tools

- <https://www.strategyzer.com/canvas/business-model-canvas>
- <https://circulab.com/toolbox-circular-economy/circular-canvas-regenerative-business-models/>
- <https://intheloopgame.com/>

## Context

- <https://www.ellenmacarthurfoundation.org/>



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