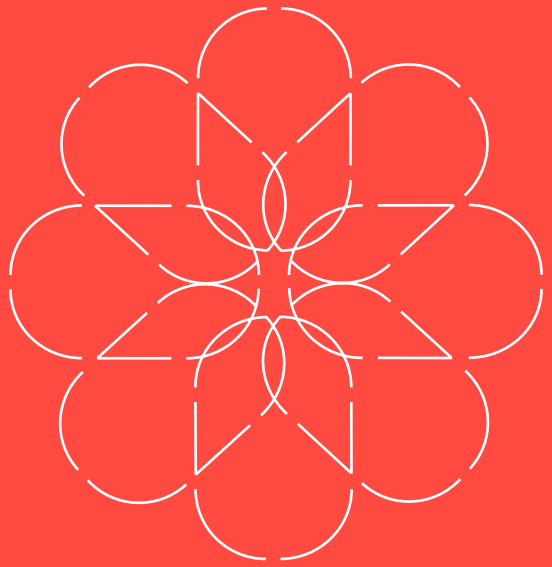

CIRCULAR GLASGOW TOOLKIT

GLASGOW CHAMBER OF COMMERCE | Circular Glasgow

How to be a leading circular economy business

GLASGOW CHAMBER OF COMMERCE | Circular Glasgow

ZERO WASTE SCOTLAND

Glasgow CITY COUNCIL

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European Regional Development Fund
Investing in a Smart, Sustainable and Inclusive Future

CIRCLE ECONOMY

Welcome to Circular Glasgow's Toolkit

Designed for businesses of any size or sector, this toolkit can help unpick what the circular economy is and how your business can get started on its circular journey.

If you have an ambition to help tackle the climate emergency and contribute to Glasgow's net-zero goals, you are in the right place.

What's included in the toolkit?

- What the circular economy is and why it is important
- How your business can get started on its circular economy journey
- Next steps and useful resources
- Circular Glasgow – how you can join Glasgow's circular economy movement

The Circular Economy

Why is this important?

The Circular Economy

Why is this important?

Our current linear ‘take-make-waste’ economy is harming our planet and contributing to the climate change emergency we now find ourselves in. As a result of industrialisation; changing lifestyles and consumer behaviours; and increasing populations, we are producing and consuming at an alarming rate.

We need to fundamentally change how we manage resources and produce and consume products.

The Answer:

A circular economy where we make effective use of the resources we already have.

We are now consuming 75% more natural resources than we are regenerating each year.

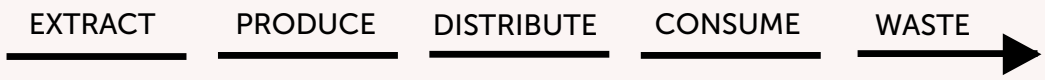
The Circular Economy

Enough For Everyone. Forever.

What is the circular economy?

The circular economy is a holistic solution to the world's emerging resource problem that has resulted from the linear 'take-make-waste' economy.

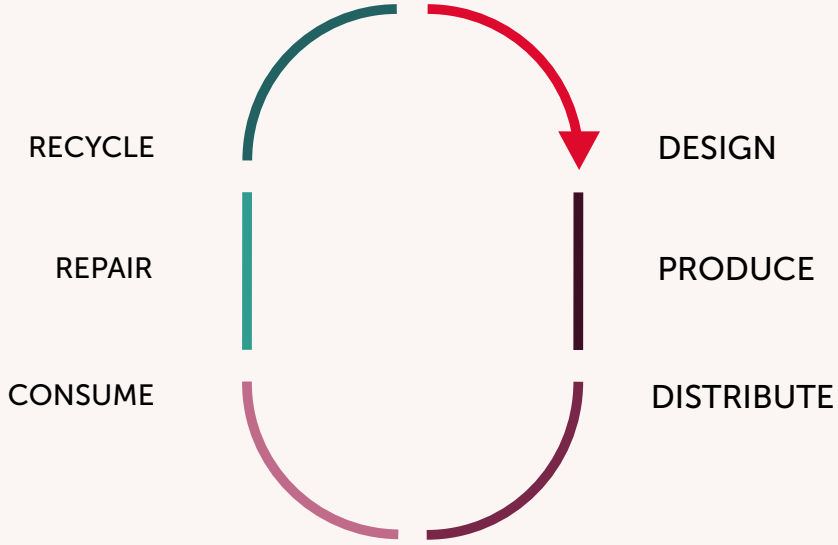
In a circular economy waste is minimised and resources maximised through long-lasting design, maintenance, repair, reuse, remanufacturing, recycling and up-cycling.



LINEAR

TO

CIRCULAR



A Circular Economy could save Scottish businesses collectively at least £3 billion.

Globally, shifting to a circular economy could reduce CO2 emissions by up to 66%, contributing to the wider net-zero goals cities are making.

The Circular Economy

Good news for business, society and our planet

Now you might be thinking I know this is important and I really do want to contribute towards reversing climate change but can I do this and continue to run a financially stable and competitive business?

The answer is YES.

Have a look at our next page to see more about the business benefits of adopting circular economy strategies and how they contribute towards tackling the climate emergency.

The Circular Economy

What's in it for your business?

Adopting circular economy strategies within your business is not only about addressing the climate change emergency. It presents significant financial and competitive opportunities for business of all sizes and sectors.

Potential business benefits:

- New markets and revenue streams
- Competitive market position
- Increased product value
- Building customer relationships
- Significant financial savings
- Meets increasing customer demand for sustainability

Scottish Leather Group

Case study

By developing their own renewable driven, self-heating system they have reduced waste sent to landfill by 63%.

By sourcing locally, they have reduced their carbon footprint and associated transport costs.

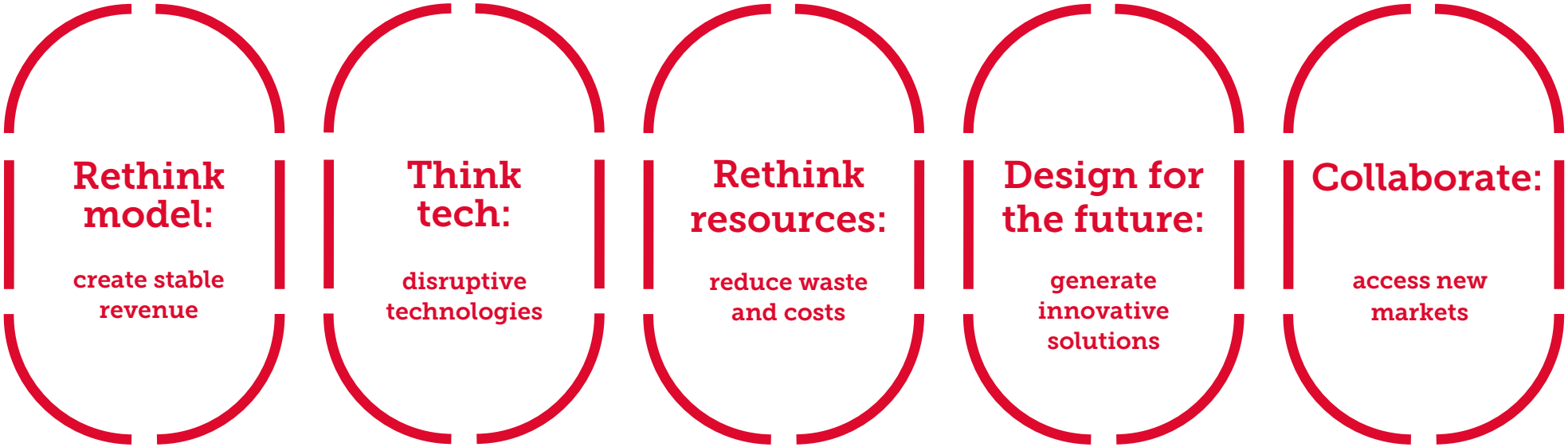
Learn more here

5 WAYS TO BE CIRCULAR

5 ways to be circular

A profitable future requires areas of review and reinvention

In the following slides, we'll take you through 5 circular economy strategies that can help your business realise financial and competitive advantage while also reducing reliance on our planet's finite resources.



1.
Do business differently

Rethink your business model: create stable revenue

About

Think about how your business currently operates. There could be a more effective way to do business that could still generate profit while maximising the value of your resources and materials.

Examples include:

- Product or Software-as-a-Service
- Take-back programmes for remanufacture or recycling
- Subscription, rental and leasing models

Questions to get you started:

Does your customer need to have ownership or just access to your product? Could you offer your product as a service instead?

Could you offer a subscription, rental or pay-per-use model that offers customers more value for money and generates less waste?

Could your business offer a take-back scheme which would result in less waste to landfill and reduced costs on new materials?

EGG Lighting

Case study

Product-as-a-Service

The EGG Circular platform is offered to customers on a subscription-model basis. The platform aims to reduce lighting equipment waste while also saving customers money. EGG maintain ownership of the lighting equipment and are responsible for installation, maintenance, upgrades and returns.

Learn more here

Patagonia

Case study

Take-back programme

Patagonia lead from the front on environmental causes and one initiative that helps them do this is Worn Wear. Worn Wear is an online store for used Patagonia clothing. When you no longer want your Patagonia gear, you can trade it in and receive credit to use in the Worn Wear store.

Learn more here

2.
Embrace the fourth revolution

Think tech: disruptive technologies

About

From tracking resource use, to increasing systems and processes for optimal efficiency, to creating whole new platforms (think Air BnB) that could disrupt an entire industry, embracing digital technology can help your business stay ahead of the competition.

Examples include:

- 3D modelling and printing
- Online market places
- Artificial intelligence
- Material passports

Questions to get you started:

How could data insights, analytics, and modelling help you to optimise the use of your resources?

How could digital platforms and technologies strengthen the connection between supply chains?

How could monitoring systems, tracking or connected internet-enabled information provide greater insights to your supply chain?

Project Milestone

Case study

3D printing

In the Netherlands, a commercial housing project is developing 5 3D-printed houses that will be occupied by residents and meet all modern comfort requirements.
By using 3D printing, less cement is used than through regular construction methods, meaning less CO2 is emitted.

Learn more here

Winnow

Case study

Artificial Intelligence

Winnow's technology is designed for food businesses to save time and money.

Through Winnow Vision, their food waste technology enabled with AI, busy kitchens can capture, track and manage its food waste with ease.

Learn more here

3.
Waste not want not

Rethink resources: reduce waste and costs

About

The famous saying goes: One man's waste is another man's treasure. This concept is important in a circular economy and identifying waste streams in your own or another's organisation could help realise both resource and cost savings.

Examples include:

- Using a waste stream as a resource for a new product or even as a source of energy
- Monetising waste streams
- Maximising resource life-time while in use through maintenance, repair and upgrade

Questions to get you started:

Could you use your own or someone else's waste streams as a resource?

Could you generate energy such as heat from waste streams?

Do you have a waste stream that could be sold on to other businesses and industries?

MacRebur

Case study

Using waste as a resource

MacRebur use waste plastic to make road surfaces.

In simple terms, traditional asphalt used to make roads is made of bitumen and stone. But with MacRebur's technology, part of the bitumen can be replaced with waste plastic, reducing the amount of fossil fuel required and cutting carbon.

Learn more here

Jaw Brew

Case study

Using waste as a resource

Jaw Brew partnered with Aulds the Baker to use their leftover morning rolls as a product in a new low alcohol beer.

While Aulds found an alternative to sending the rolls to landfill or cattle feed, Jaw Brew reduced resource costs as the bread replaced 30% of original ingredients.

Learn more here

4.
Innovate through design

Design for the future: generate innovative solutions

About

Design will define the future of the circular economy. In the Circular Design Guide, readers are asked: ‘What if we could redesign everything? What would you do differently?’. Within a circular economy we should be looking at re-designing everything from products, to our built environments, to entire processes and systems.

Examples include:

- Design for durability
- Design for modularity
- Design out waste
- Maximising resource life-time while in use

Questions to get you started:

Could you design your product in a modular way to allow for easy repair and extended use?

Could products be designed with monomaterials to allow for easier reuse or recycling?

Could you design your entire manufacturing process to keep resources and energy at their highest value for as long as possible?

FAIRPHONE

Case study

Products made to last

FAIRPHONE design their products with longevity in mind, both in its original form and in making repair as easy as possible.

If the screen breaks, only the screen needs replaced, not the entire phone.

Learn more here

Timberland

Case study

Design out waste

Through the materials they use and the way they make products, Timberland have committed to making a net positive impact on nature.

With full transparency about the materials used, their boots have been designed for minimal impact and longevity.

Learn more here

5.
Create courageous conversations

Collaborate: access new markets

About

On a daily basis we can engage with colleagues, customers, suppliers, industry partners, stakeholders, community groups, academia and government. Building connections across all of these networks to share best practice, collaborate and find new business opportunities is vital to creating a truly circular economy across our city.

Examples include:

- Collaborating across industries to create joint value
- Sharing your circular story via social media, events and other online platforms.
- Creating a dedicated circular economy team within your business

Questions to get you started:

How do you communicate your organisation's circular economy and climate change goals to your customers?

Could you work with your industry to communicate and share the importance of transitioning to a circular economy?

Could you collaborate with a business in another sector to create joint value?

Glasgow Coffee Festival

Case study

Industry collaboration

In 2018, Glasgow Coffee Festival became the first coffee festival to go disposable-cup free. Only reusable cups were accepted.

Working with Keep Cup and all coffee retailers, the festival saved over 18,000 single-use cups from going to landfill.

Learn more here

IKEA

Case study

Internal collaboration

IKEA's sustainability strategy, People and Planet Positive, describes the sustainability vision for everyone in the IKEA franchise systems and value chain.

The strategy gives all IKEA employees a roadmap to follow and outlines the long-term commitment to sustainability.

Learn more here

Circular Checklist

Further questions to get you started

Design, Manufacture & Distribute

- ☐ Do we waste material, and could this be reduced through redesign?
- ☐ Is our material biodegradable?
- ☐ Do we use recycled material?
- ☐ Do we use 'at risk' scarce material?
- ☐ Is our material eco-efficient?
- ☐ Is our material toxic?
- ☐ How much waste are we sending to landfill?
- ☐ Does our product have a short lifetime?

Repair/Maintenance/Reuse of the product

- ☐ Is the cost to repair our product much less than the cost of our actual product?
- ☐ Can we offer a repair service?
- ☐ Do we have a market for secondhand sales?
- ☐ Are refurbishment / remanufacturing cost expensive?
- ☐ Is it unnecessarily difficult to assemble our product?
- ☐ Can we make any of our product parts modular?

Products as a service

- ☐ Do we have a market to sell our product as a service ?
- ☐ How can we lease our product as a service?

What Next?

Start your circular economy journey today

Next Steps

Start your circular economy journey today

Once you have an understanding of what the circular economy is, the next step is to start your circular economy journey for your business.

And you don't have to do it alone.

Get in touch with our Circular Glasgow team and we can help you:

- Identify circular economy opportunities for your business through a 1-1 conversation.
- Signpost support and funding available that can help turn your circular economy ideas into action

If you are interested in taking the next step towards a circular, net-zero future, email the team at circularglasgow@glasgowchamberofcommerce.com to arrange a call.

Join Our Movement

Join Glasgow's circular economy movement

- Join our Circular Glasgow Network to connect with a growing community of individuals interested in the circular economy and build your own knwoledge.
- Share your circular economy story with us and help to inspire other businesses
- Share your own views on how we can accelerate the transition to a circular economy with a guest blog.

If you are interested in any of the above opportunities,
email Lisa at lisa.mcconnell@glasgowchamberofcommerce.com

Further resources

Further resources

Dive deeper into the circular economy with the experts

Zero Waste Scotland

Circular economy accelerator

Explore here

Circle Economy

Knowledge Hub

Explore here

Ellen MacArthur Foundation

Learning Hub

Explore here

Accenture

Circulars Insights

Explore here

Circular Glasgow vision

Position Glasgow as a leading circular city by inspiring businesses of all sizes and sectors to innovation and become future-proof by adopting circular economy strategies.

GLASGOW CHAMBER OF COMMERCE | Circular Glasgow

Who is Circular Glasgow?

Circular Glasgow is an initiative of Glasgow Chamber of Commerce with key stakeholders including Zero Waste Scotland, Glasgow City Council and Circle Economy. Its is funded through the European and Regional Development Fund.

ZERO WASTE SCOTLAND

CIRCLE ECONOMY

Glasgow CITY COUNCIL

European Union

gov.scot

EUROPE & SCOTLAND
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"Circular Glasgow has played a valuable role in raising the profile of circular economy and the opportunities it offers for business growth, innovation and resilience."

Iain Gulland, Zero Waste Scotland

GLASGOW CHAMBER OF COMMERCE | Circular Glasgow

BUSINESS FOR A BETTER FUTURE

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