

GLASGOW

THE BUSINESS COMMUNITY KICKSTARTING CIRCULAR CITIES AND REGIONS IN SCOTLAND

Adopting circular economy practices to create thriving cities and economies



GOVERNANCE

Glasgow City Council

POPULATION

621,000

GDP

53 billion EUR

DENSITY

3,548 per km²

AT A GLANCE

THE INITIATIVE

Circular Glasgow is an initiative of Glasgow Chamber of Commerce and is delivered in partnership with Zero Waste Scotland, Glasgow City Council and Circle Economy. It sets out a circular economy vision for Glasgow, together with practical steps for the city and business community that works towards supporting economic development, resource recovery and reuse, and carbon reductions.

Circular Glasgow was the starting point for a wider programme of cities & regions work across Scotland, led and funded by Zero Waste Scotland in partnership with local chambers of commerce and other key local stakeholders. The learnings and experience from Circular Glasgow have been adapted and developed to suit different cities and regions, and full programmes of regional activity are now underway in the following areas: Circular Tayside (Dundee, Perth & Angus); Circular North East (Aberdeen and Aberdeenshire); and Circular Edinburgh. Building on the experience of these cities, Scottish regional circular economy work continues to develop, and contributes to meeting some of the ambitions of the national government's [economic strategy](#) and [climate change proposals](#) and policies, both of which cite the value of adopting circular economy principles.

TIME FRAME

In 2015, through Zero Waste Scotland funding, Glasgow Chamber of Commerce commissioned Circle Economy, a circular economy consultancy firm, to carry out a city scan, identify circular economy potential and suggest next steps - the report was shared in 2016. Work between all the partners then took place between 2016 and 2018, and Circular Glasgow was launched in 2017. In 2018, Glasgow City Council announced it would lead the development of a circular economy roadmap.

FINANCE

Zero Waste Scotland hold GBP 73 million provided through the Scottish Government and the European Regional Development Fund. The latter's funding comes through the Resource Efficient Circular Economy Accelerator Programme Strategic Intervention.

A proportion of this funding is used for Zero Waste Scotland's circular economy business support programme. This programme of work includes Circular Glasgow, and the broader city and regions initiatives.

FOCUS AREAS

Three key focus areas were identified for initial material flow analysis due to their economic significance for Glasgow: healthcare, education, and manufacturing. Selected as a sub-sector of manufacturing, the food and beverage industry was established as a starting point to implement circular innovations and create learnings to carry into future projects. The construction, finance, tourism and creative sectors have since been added.

On a regional scale, focus areas vary from city to city, but broadly align with [Scotland's Circular Economy Strategy 2016](#) 'Making Things Last' which highlights food and drink, bioeconomy, energy infrastructure, and manufacturing as initial centres of interest.

CORE TEAM & PARTICIPANTS

In September 2015, Glasgow Chamber of Commerce partnered with Zero Waste Scotland, Glasgow City Council and Circle Economy. In addition to sharing their circular economy expertise, Zero Waste Scotland provided funding for the initiative, while Glasgow City Council were instrumental in providing city data. The Circular Glasgow report was produced by Circle Economy. Operational meetings are held together on a monthly basis as circular economy activities progress and evolve within the city.

OUTCOMES TO DATE

Since the launch of the Circular Glasgow initiative, several projects are underway within the city, examples of which are noted in this case.

Building on these and with an ambition to become Scotland's first circular city, the Leader of the City Government for Glasgow announced at the 2018 Circular Economy Hotspot Scotland that they will lead the development of a circular economy roadmap. The roadmap will build on the initial research undertaken in the Circular Glasgow report and will progress initiatives in the following areas:

- Built Environment: capacity building in circular construction techniques, following learnings from the Commonwealth Games Athletes Village
- Food: reducing food waste, addressing food insecurity, supporting local food economy and continuing to work with [Sustainable Food Cities](#)
- Textiles: convening with universities and colleges to embed circular design principles in textile design courses and with textile procurement departments of the public sector
- Energy: powering the equivalent of 15% of the city's homes using renewable energy
- Plastics: developing and publishing a strategy and action plan scheduled for 2019 to address discarded plastic through reducing, recycling and repurposing

As a way of crowdsourcing ideas and increasing public and SME engagement, Glasgow held a [Circle Lab Challenge](#) in April 2018 which reached 600,000 people from 13 countries. It resulted in three new projects focused on running large events and conferences in line with circular economy principles.

In 2017, the Scottish Government won the Public Sector category at The Circularity Awards for their work in placing circular economy at the centre of its economy strategy. The Circularity Awards are hosted at the annual World Economic Forum meeting, highlighting the achievements of public sector organisations enabling development of circular economy activities. In 2019, Circular Glasgow was selected as a Public Sector finalist.

To date, Circular Glasgow has engaged over 650 businesses through its activities. Building further on the Glasgow experience, Zero Waste Scotland launched [Circular Cities and Regions: Scotland](#), tailoring their approach for individual cities and regions to share circular economy business insights across Scotland.

THE JOURNEY**ORIGINS**

The Glasgow Chamber of Commerce (the Chamber) works to create strategic partnerships between organisations to support and promote commerce in Glasgow and beyond - membership is on a voluntary basis. The Chamber recognised the potential of the circular economy for innovating and future-proofing businesses, and via an introduction and funding through Zero Waste Scotland, it commissioned Circle Economy to help signpost the way to a circular economy vision and strategy.

IDENTIFYING THE STARTING POINT

After analysing Glasgow's past, present and projected activities, and political and economic priorities, the research identified three key sectors: healthcare, education, and manufacturing. Combined, they represent almost 30% of Glasgow's workforce and 27% of Glasgow's economy.

A material flow analysis of these sectors was undertaken to map how materials and energy are sourced, used, and discarded and where the most catalytic opportunities to create change lay. The process and findings are outlined in the 2016 [Circular Glasgow](#) report, together with material flow visuals and circular innovations.

FROM PLANNING TO ACTION

Selected as a sub-sector of manufacturing, and with many links to local SMEs, the food and beverage sector was established as the most appropriate starting point for further exploration. Innovations in heat recovery, aquaponics and use of residual food streams were highlighted and an action plan outlined a strategy for turning ideas into reality.

In June 2016, the Chamber hosted a multi-stakeholder summit to launch the Circular Glasgow report and deepen understanding of circular economy opportunities. Their guests included entrepreneurs, and private and public sector organisations. The session highlighted areas that would support circular innovation and potential pilots within the food and drink sector.

Consultations have also been conducted with the local business community to identify and develop additional opportunities. The Chamber worked to bring potential partners together and build capacity by signposting businesses to sources of additional support and funding.

Since the launch of the Circular Glasgow initiative, several projects are underway, including:

- Jaw Brew, a family brewery in Glasgow, partnered with Aulds the Bakery to create Hardtack, an award-winning beer brewed from unsaleable bread.
- Revive Eco collects coffee grinds from independent and chain cafes in the city and uses them to produce bio-oils for use in cosmetics, pharmaceuticals, and food and drink.
- Glasgow Coffee Festival 2018 organised by Dear Green Coffee was the first coffee festival globally to ban disposable cups, saving 18,000 cups and composting waste coffee grounds.
- Graven, an independent design studio in Glasgow has partnered with Spreng Thomson, communications specialists, to pilot a circular design led programme with local SMEs.
- Young Enterprise Scotland, a charity working with young people has developed a programme in Glasgow primary schools, challenging pupils to develop circular ideas and products.

Having identified additional sectors ready to benefit from circular economy opportunities, Glasgow Chamber of Commerce hosted a second summit in 2018, tailored to the construction and finance sectors. By March 2019, a white paper will be published sharing the findings of this ongoing sector engagement.



EXPANDING TO A REGIONAL PROGRAMME

Building on the experience in Glasgow, Zero Waste Scotland developed the [Circular Cities and Regions - Scotland](#) initiative, working with chambers of commerce and city councils in Edinburgh, Aberdeen, Dundee and Perth. Initial scoping reports have been developed with each city, establishing their priority sectors and key opportunities. The respective city chambers of commerce also work with Zero Waste Scotland to raise awareness, provide occasions to convene and partner, and signpost organisations to further financial or advisory support.

In the future, Zero Waste Scotland plans to develop a toolkit for cities to build capacity independently as it seeks to embed circular economy principles in local economic strategies and infrastructure developments.

MEASURING PROGRESS

Since the launch of Circular Glasgow over 650 businesses have engaged with the initiative.

Following creation of a methodology to calculate the current baseline of circular jobs in Glasgow a report on employment stated that 21,000 jobs, representing 6% of all jobs in the city, are connected to circular activities, with an expectation that this will grow.

The Circular Glasgow initiative is being independently evaluated with progress measured on a quarterly basis through a series of key performance indicators related to:

- Carbon and energy savings
- Materials diverted from landfill
- Financial benefits
- Number of organisations engaged

The method for measuring at this scale is still in its early phase and is being developed by the University of Strathclyde. Initial findings are due to be captured during the course of 2019.

REFLECTIONS

Demonstrating what is possible in practice.

Collaborations, such as that between Jaw Brew and Aulds Bakery, provide tangible examples of what can be achieved. By providing collaborative opportunities that assist the creation of pilots, Circular Glasgow supports peer-to-peer learning, the potential for new ventures and the development of resilient business models.

Supporting local businesses by providing an enabling environment. Integrating circular practices often requires a willingness to experiment and try new ways of operating, which can compete with existing priorities. However, businesses have demonstrated an appetite exists

for convening, partnering and learning together. Circular Glasgow's broad engagement across multiple sectors is key to creating environments in which organisations can connect, while also being signposted to strategies and financial support.

Designing a city initiative that can be expanded regionally. Learning from the Circular Glasgow experience, Zero Waste Scotland continue to apply a similar approach in cities across Scotland. By applying bespoke city scans, key city priorities and economic activities can be addressed. Expansion of the programme further complements the vision set out by the Scottish Government in the Circular Economy Strategy for Scotland 2016.

FOR MORE INFORMATION

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This case study is part of [Circular economy in cities](#), Ellen MacArthur Foundation