

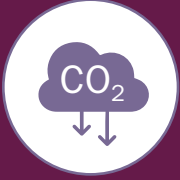
# Scotland

A LAND OF  
food and drink



**Leadership in a  
climate emergency**

## Glossary of icons



Reducing emissions at production level



Sustainable land use & water use



Transport



Circular economy



Consumer behaviour



Offsetting

## Our future as a climate-friendly food and drink sector

**The world is facing a climate emergency. The International Panel on Climate Change has stated that “we have just 12 years left to get ourselves on a pathway to avoid breaching 1.5 degrees of warming, a disaster for people and nature. That’s only 2,000 working days – an extreme time scale to accelerate action.”**

Scotland must play its part by driving change within our own shores and in showing leadership to the rest of the world.

Scotland’s food and drink industry is now a £15 billion industry. We’re the largest manufacturing sector and one of the best performing domestic sectors of Scotland’s economy. Building our reputation as a land of food and drink is key to this success. But continued growth is intrinsically tied to the future of Scotland’s natural resources.

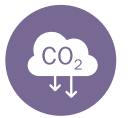
We want Scotland to continue to be a world-class producer of outstanding food and drink. Our industry strategy, *Ambition*

2030, commits our industry to becoming world leaders in responsible, profitable growth as we target our £30 billion goal. From sustainable red meat production and managing the waters from which we harvest our seafood, to lean manufacturing and transport, we have a foundation to lead a food and drink response to the climate emergency.

Scotland has a proud record of leading the way. We’ve chosen just ten companies that are currently blazing a trail to showcase the action already being undertaken. From reducing emissions at production level to sustainable land and water use. From innovation within transport to building full circular economic systems aimed at minimising waste and maximising resources. We hope these businesses provide the inspiration to challenge more companies – no matter what size – to demonstrate that Scotland can be at the forefront of climate-friendly food and drink production.



## Mackie's of Scotland: making 'green' ice-cream



**Who are we?** At Mackie's we make real dairy ice cream on the family farm in Aberdeenshire. We are one of the UK's most popular take-home ice creams and export to several countries with particular popularity in East Asia.

**What are we doing?** We are installing a new low carbon, power efficient refrigeration system run on ammonia - a natural refrigerant gas that poses no threat to the environment and is set to be one of the most sophisticated in Europe.

**Why are we doing it?** Our goal is to be the greenest ice cream producer in Europe.

**How are we doing it?** We changed the gas that is used in our refrigeration plants from HCFC gases - which have a very high global warming potential - to ammonia, which has zero global warming potential.

**What will be the impact?** This will be Scotland's first large scale plant combining biomass heat and absorption chilling, allowing us to target ambitious CO<sub>2</sub> equivalent reductions of 90% and energy costs of 70-80%.

**Who's helping us?** The £4 million project is being brought to life thanks to a grant from the Scottish Government's Low Carbon Infrastructure Transition Programme, match funded by Mackie's through a loan from Bank of Scotland.

"Since the first production of ice cream in 1986, Mackie's have been leaders in low carbon initiatives and renewables.

This project will help the Scottish Government to meet its energy strategy targets, which aim to generate 50% of Scotland's heat, transport and electricity consumption from renewable sources by 2030."

**Marc Gilmour**, Relationship Director, Bank of Scotland





## The Crafty Pickle Co

### Turning food waste into profit



**Who are we?** The Crafty Pickle Co. is a small fermented food business in Aberdeen Scotland. We're very new, only a few months old!

**What are we doing?** Our mission is to reduce food waste by using as much perfectly edible, imperfect, surplus produce as possible to create raw, unpasteurised, naturally nutritious fermented food products.

**Why are we doing it?** We wanted to create a brand and product that didn't make empty promises of health and longevity, but rather a promise to make a difference. We're a young company but we're passionate and ambitious about tackling food waste.

**How are we doing it?** We're building relationships with food producers and food retailers to gain access to their imperfect, surplus produce so we can take this unloved food and turn it into a product that is loved and celebrated worldwide.

**What is the impact so far?** We have rescued around 50kg of unloved surplus produce in our first three months. A small impact right now, but we hope to grow this impact substantially in the next year. We also donate a percentage of our sales to the local charity CFINE that aims to tackle food insecurity in the North East of Scotland.

**Who's helping us?** So far, we've received assistance from so many helpful organisations including; Elevator & Business Gateway, Scottish Enterprise, Scottish Institute for Enterprise, Opportunities North East, Santander University, University of Aberdeen and FareShare.

"We're the only fermented food business in the UK with the environmental aim of reducing food waste by taking imperfect, surplus produce and preserving it through fermentation"

Owners, **Arthur and Madi**



## Scottish Sea Farms: binning polystyrene



**Who are we?** Scottish Sea Farms is one of the country's leading growers of farmed salmon, producing 30,000 tonnes annually – that's the equivalent of 113,190 million meals. We export to over 24 countries worldwide. Closer to home, we are the exclusive supplier of farmed salmon to M&S.

**What are we doing?** In 2017 we introduced bulk bins to M&S deliveries, replacing polystyrene boxes with a returnable and reusable alternative.

**Why are we doing it?** Because growing healthy fish relies on a healthy habitat, and we want to do everything we can to protect the environments in which we live and work.

**How are we doing it?** We conducted extensive trials to research, test and identify the best model and invested significantly in new equipment and processes to achieve our goal.

**What has been the impact?** In two years, we've replaced 780,000 polystyrene boxes, saving an estimated 4,100 tonnes of CO<sub>2</sub>. Using bulk bins not only eliminates more plastic, but it also significantly reduces the carbon used: from production, processing and transport, through to washing and recycling.

**Who helped us?** We received £53,058 support from Scottish Enterprise towards our work to reduce polystyrene (total project cost in excess of £250k).

“Ensuring that we're operating in the most ethical and environmentally responsible way is a key objective both for Scottish Sea Farms and for M&S with its industry-leading Plan A.”

Scottish Sea Farms' Processing Manager, **Donald Buchanan**





## Circular traditions at Summer Harvest



**Who are we?** At Summer Harvest we grow, press and bottle our multi-award winning ‘Cold Pressed Rapeseed Oil’ on our family farm in the heart of Strathearn Valley in Perthshire. We supply to over 100 independent retailers, Waitrose and Morrisons in addition to restaurants and hotels including several Michelin Star restaurants.

**What are we doing?** We created a bee-friendly environment using traditional rotational farming methods, resulting in a fruitful circular economy.

**Why are we doing it?** Increasing our yield, supporting bio-diversity, and improving soil are all inextricably linked and interdependent. At Summer Harvest, being a responsible, successful farm means using traditional Scottish farming methods.

**How are we doing it?** It’s a step by step process, looking at what is best for the farm and how to sustain it for the next generation. To keep our soils fertile, we rotate the oilseed rape with wheat, barley, livestock and grass/clover. The clover also serves as extra food for the bees which work hard to pollinate our oilseed rape. Lastly, since we process the seed ourselves,

we use the by-product as a feed supplement for the cattle on our farm. We also invested in cutting edge ploughing equipment which helps to minimise the environmental disruption of ploughing.

**What has been the impact?** Our oilseed rape crop yield has increased 15-20% thanks to the increased number of bees frequenting the fields. With our neighbour, who’s a beekeeper, we have developed a reciprocal relationship whereby our farm provides his bees with food and his bees pollinate our crops.

**Who helped us?** We received a Scottish Rural Development Programme grant when we set up Summer Harvest.

“In my mind, farmers invented the ‘circular economy’, they have always looked for efficiencies by not letting anything go to waste. The cold pressed rapeseed oil is the end point that demonstrates how innovative, environmental and waste aware farmers are.”

**Mark Bush**, Managing Director



## Border Biscuits: unpacking plastic



**Who are we?** Borders Biscuits, a 35-year-old business based in Lanarkshire, supplying major customers across the UK and around the world.

**What are we doing?** We redesigned our packaging to reduce the amount of plastic by 90%.

**Why are we doing it?** We are committed to playing our part in producing sustainable products.

**How are we doing it?** Redesigning the packaging and manufacturing reconfiguration to reduce plastic took two years to complete and was achieved as part of a wider investment into our products and processes.

**What has been the impact?** We're going to save 537 tonnes of CO<sub>2</sub> equivalent emissions from the packaging manufacturing process and will reduce the number of vehicles needed to transport by 50%, further reducing our costs and strengthening our brand and reputation for environmental responsibility.

“As a business we are continuously looking at ways to improve our products and processes and the launch of this new packaging is the latest exciting development in that work.

Innovating to reduce single-use plastic has been a key focus over the last 12 months and our new packaging means we can address the environmental concerns of our customers without compromising on the high quality of our beautifully crafted biscuit.

As a family owned business, we pride ourselves on the craftsmanship of baking and are delighted to launch our new packaging, which is available in stores across Scotland and the UK.”

**Suzie Carlaw**, Marketing Manager at Border Biscuits



## Greencity Wholefoods: building a plastic-free future



**Who are we?** We are Greencity Wholefoods, a wholesaler of fine food and drink based in Glasgow's vibrant east end. We burst onto the wholefood scene in 1978 as a worker co-operative, democratically run by our members (54 and growing).

**What are we doing?** We decided to remove all single use plastic bottles from our offering in 2018.

**Why are we doing it?** We responded to consumer trends and demands to keep ahead of the game - plastic is a huge concern to our customer base. We feel it is ultimately up to industry to make the right decision, not the consumer.

**How are we doing it?** We announced the move in advance to give our supply chain and retailers enough time to adapt and find alternatives to plastic bottles.

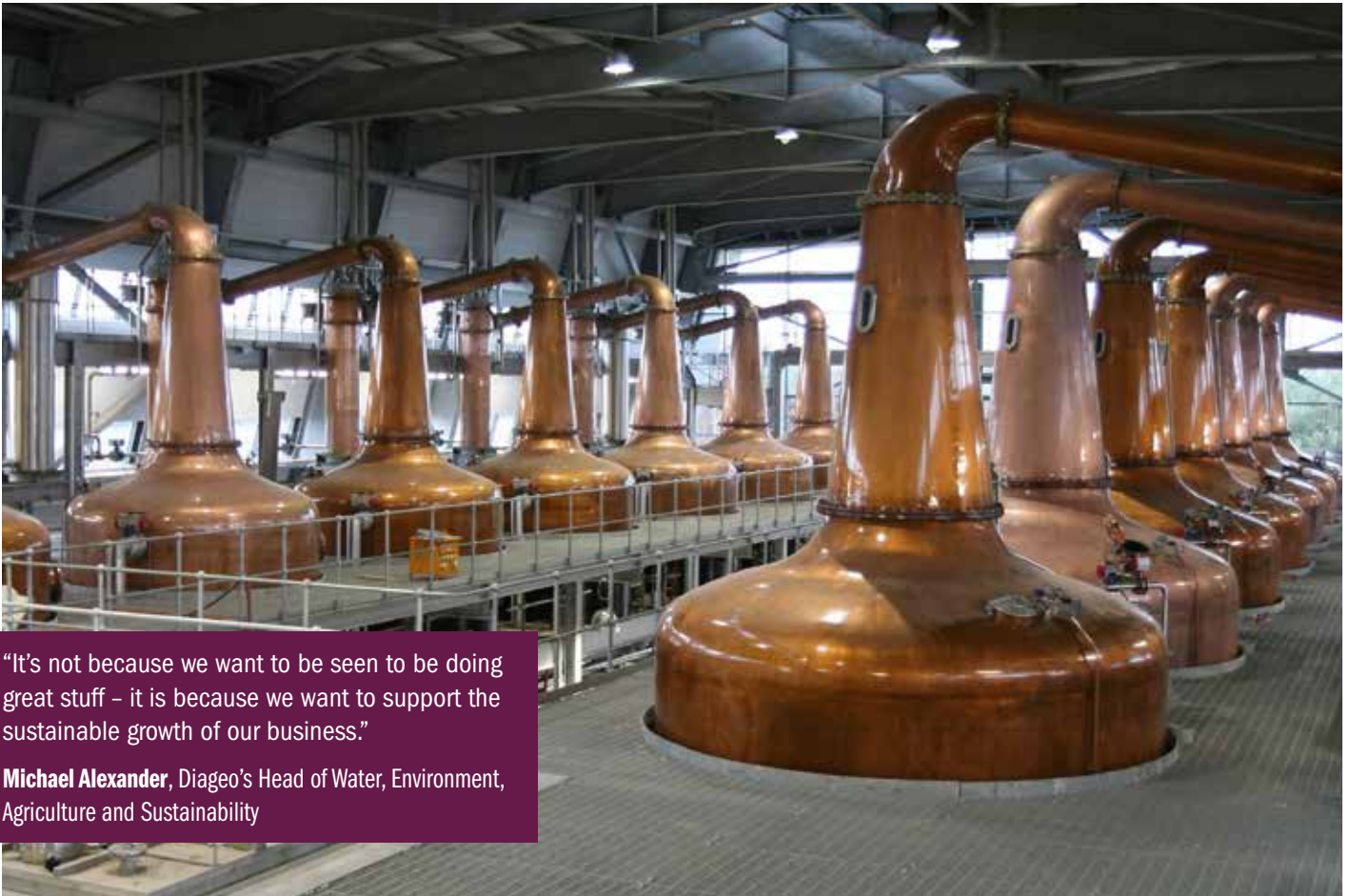
**What has been the impact?** Roughly 54,000 plastic bottles have been saved from the waste stream in the first year (2017 figures). It was encouraging to see industry and smaller producers adapting their production and switching to glass. We've seen how our small change has rippled through the supply chain - downstream to producers and upstream to retailers.

**Who helped us?** We want to help other wholesalers make similar changes to their business, so we engaged with Zero Waste Scotland to facilitate an onsite visit to share knowledge and experience in bulk buying.

"Industry should lead the way on reducing plastic- it's our responsibility to get as much plastic off the shelves as possible."

**Scott Erwin**, Member Director





“It’s not because we want to be seen to be doing great stuff – it is because we want to support the sustainable growth of our business.”

**Michael Alexander**, Diageo’s Head of Water, Environment, Agriculture and Sustainability

## Diageo: daring to cut emissions by 50%



**Who are we?** Diageo is a global leader in beverage alcohol, with a collection of over 200 brands across spirits and beer. Diageo produces its brands from more than 140 locations around the world, with over 100 manufacturing sites. Scotland is Diageo’s biggest global supply centre with 50 sites around the country, including 28 malt whisky distilleries, responsible for producing over 50 million cases of premium spirits each year.

**What are we doing?** We set ambitious environmental sustainability targets to be reached by 2020, which were selected to ensure we help to achieve the UN’s Global Sustainable Development Goals. Our targets cover water, carbon emissions, sustainable packaging and waste, including reducing absolute greenhouse gas emissions from direct operations by 50% and achieving a 30% reduction along the total supply chain. We will set ourselves new, stretching, targets in 2020 to ensure we continue to contribute towards the UN SDGs for 2030.

**Why are we do it?** Measuring and managing our environmental impact is not only important for the planet and the communities in which we work, it is essential for the sustainability of our supply chain and our business.

**How are we doing it?** One of the key actions we took in Scotland to reduce carbon is our investment in on-site bio-energy facilities that generate renewable energy for our distilleries. Since 2007 we have invested well over £100 million in innovative on-site sustainable power production. At several distilleries, we take the left-over grain, water and yeast from the distillation process and turn it into renewable power through biomass and anaerobic digestion. In 2010 we opened a new single malt distillery at Roseisle on Speyside, which included a £17m on-site renewable energy plant, making it the first in the industry to have its own purpose-built renewable energy supply.

**What has been the impact?** The investment in on-site renewable energy has contributed towards a reduction in our absolute carbon emissions of 44.7%, since 2007 with one year to go to meet our 50% target.

**Who helped us?** We set and measure global targets, so what helps us is the UN’s SGDs and the Paris Agreement, because they contextualize our global targets. We work with partners locally, nationally and internationally as we work towards our goals.



“We’ve consistently strived to challenge the stereotype that our industry can’t be sustainable. Issues like over-fishing, food waste and carbon footprint can affect any chippy, but getting to know and trust a responsible MSC certified supplier and investing in creative ways to manage food waste and compostable packaging really do make all the difference.”

CEO and Owner, **Calum Richardson**

## The Bay Fish & Chips: bringing sustainable fish suppers to the table



**Who are we?** We are The Bay Fish & Chips founded in 2006 in Stonehaven and were the first fish and chip shop in the UK to serve MSC-certified haddock.

**What are we doing?** We place sustainability, sourcing and education at the forefront of our business. Local and sustainable fish is at the heart of everything we do. It’s all about being responsible. By serving MSC fish and following MSC guidelines we’re doing what we can to spread our message – that sustainably sourced fish is the only way forward.

**Why are we do it?** We wanted to change people’s perspective on how a fast food restaurant can be run. Wherever we can, we promote sustainability and locality moving forward – there’s so much great produce on our doorstep and we have a responsibility to promote that by using nearby suppliers wherever possible.

**How are we doing it?** We invest in our staff and business systems to ensure The Bay is an efficient, sustainable and environmentally-friendly business, and most importantly we’ve built up relationships with local suppliers to get the best produce available. Almost 90% of all the produce used in the shop is sourced sustainably from within a 50-mile radius, derived from partnerships with the likes of the Ethical Shellfish Company on the Isle of Mull.

**What has been the impact?** We are widely considered to be one of the top fish and chip shops in the UK, and we’ve received a lot of recognition including Food Pioneer at the Scotland Food & Drink Excellence Awards in 2018, an award designed to recognise an innovative company or person who has made a ground-breaking impact on Scottish food and drink.





## Green Grow Foods: packing taste from waste



**Who are we?** We are Green Grow Club, an innovative eco-start up in Forres.

**What are we doing?** We take food waste like coffee grains and grow oyster mushrooms in shipping containers, then use the mushroom root by-products to develop plastic free eco-packaging.

**Why are we do it?** We believe that natural materials can provide a sustainable alternative to petroleum-based plastics and using food waste in a circular economy is key to tackling climate change.

**How are we doing it?** We use the root structures of mushrooms to transform and bind agricultural by-products into strong functional materials that are 100% compostable.

**What impact could we have on the future?** All food packaging and polystyrene replacements could be made of mushrooms, making them fully compostable and marine life friendly.

**Who helped us?** We've had help from Scottish Enterprise and Highlands and Islands Enterprise Unlocking Ambition initiative. We were winners of Climate Launchpad, the biggest eco-start-up competition in the world and we took top prize at Scotland's entrepreneurial competition, Scottish Edge.

“Our aim is to shine a light on opportunities that bring innovation and the environment together, and to highlight the importance of close collaboration between governments, entrepreneurs, investors, scientists, climate activists, and civil society at large.”

Founder, **Dr Isabella Guerrini de Claire**





“Compiling our strategy presented an opportunity to shape our activities so that we contribute towards the global priorities and aspirations detailed in the SDGs.”

Managing Director, **Ewan Reid**

## Matthew Algie: the whole approach



**Who are we?** We are Matthew Algie, a Glasgow-based coffee roaster. We sell coffee to shops, bars, restaurants, hotels and businesses across the UK & Ireland and also offer coffee machines. We are pioneers of Fairtrade coffee, having launched the UK’s first Fairtrade espresso blend, “Tiki” in 1997.

**What are we doing?** Building on some of the milestones we have achieved in the past, we have introduced our five year plan (2017-2021), using the United Nations Sustainable Development Goals as a framework to shape our priorities. The plan explains our commitments across our strategic pillars – sustainable sourcing of coffee and our other products, reducing our environmental impact, investing in our people and engaging with our community.

**Why are we do it?** Sustainability is, and always has been a core principle of how we do business at Matthew Algie. Our approach starts with coffee and our commitment to be a dependable partner for the farmers in our supply chains, many of whom operate in environmentally, socially or economically challenging contexts. Our intention for our five year plan is to deepen the impact of our work by setting meaningful priorities.

**How are we doing it?** We’ve set robust goals in all our strategic

workstreams. For example, our environmental goals include:

- Reduce percentage of waste to landfill to less than 1% of total waste
- Reduce our net CO<sub>2</sub> emissions per tonne of coffee roasted by 10%
- Conduct at least one employee engagement campaign per year which reaches 100% of employees
- Reduce the amount of non-production water used per £1,000 of company turnover by 5%
- Offset our carbon emissions working with Forest Carbon.

**What has been the impact?** The accountability of producing an annual report has improved the way that we monitor and evaluate our impact. We have also made great progress against our targets. For example, we are already a zero waste to landfill site and we recently became carbon neutral through an offsetting partnership.

**Who helped us?** Achieving true success in sustainability is often about partnerships and collaborations. A number of organisations have helped us along the way, for example, an energy audit by Resource Efficient Scotland led to our ongoing LED lighting roll out. Furthermore, a study into using coffee as a biofuel source came about through the Scottish Biofuel Programme, a collaboration between academics at the University of Edinburgh and the Scottish Government.



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