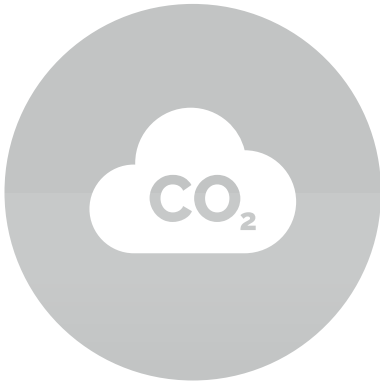
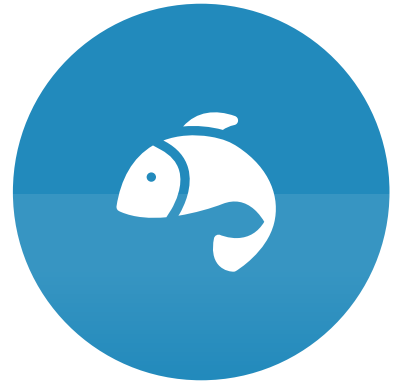




# SUSTAINABILITY FOR YOUR BUSINESS



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# Who are Food Innovation Wales?

Based at three food centres across Wales, our team of internationally recognised industry experts help food and drink companies grow, innovate, compete and reach new markets. From new start-ups to established companies, Food Innovation Wales is on hand to provide technical and commercial support.

Whether you run a food company in Wales, work for a multinational food manufacturer, or are taking your first tentative steps to set up a food micro business – Food Innovation Wales is the go-to resource for support, advice and creative ideas to help get you started, expand, and find solutions to technical operational conundrums.

# What is Project HELIX?

If your food and drink company is based in Wales then you may be eligible for Project HELIX funded support from Food Innovation Wales. Eligible companies have access to a range of technical and commercial support from our food centres.

Project HELIX delivers practical knowledge transfer activity, supporting Welsh companies to develop and reformulate innovative products from concept, design, development and manufacture, through to the consumer's shopping basket.



Project HELIX works with Welsh companies to forensically analyse each step of the manufacturing process, identifying ways of introducing efficiencies across process controls, site design and systems development.

Project HELIX's strategic approach enables food producers in Wales to benefit from best practice and industry intelligence from across the world. For example, companies can receive help to achieve third party certification such as BRCGS and SALSA which open up new markets for their products.

# FOREWORD

We have seen great success in our food and drink sector in Wales, and are now presented with new challenges and potential opportunities from Brexit, Covid-19 and the continued concern about the environmental and societal changes happening in our world.

We recognise we must face and address these long-term challenges. We must embed sustainable development into all our activities, taking into account the four dimensions – our economy, our society, our environment, and importantly for Wales, our language and culture – to set ourselves and our clients on a more sustainable pathway.

The Welsh Government shares the ambition laid out in the United Nations (UN) 2030 Agenda for Sustainable Development, and at Food Innovation Wales, we are committed to making our contribution to these goals. The overall strategic direction in Wales sets out a clear vision to create a strong and vibrant Welsh food and drink sector with a global reputation for excellence, having one of the most environmentally and socially responsible supply chains in the world.

We have developed this first ‘Sustainability for your Business’ guide to bring practical learnings and advice to our clients. It sets out how to work in a different way – this means looking to and planning for the future, collaborating to find and integrate more sustainable solutions, and developing efficient production and supply chain models to help create a vibrant sector that is fit for the future, within communities across Wales.

We already see examples of how we can make a difference. The demand for plastic reduction in food packaging is a challenge for the industry, and our Food Technologists are well placed to assess alternatives for our clients.



*Pennotec provides technical innovation to convert manufacturing waste into marketable resources, adding value to waste streams.*

We are also encouraged by progress so far with research focusing on delivering genuinely sustainable products; and in a highly competitive industry, this makes not only environmental but commercial sense.

It is worth noting that often small-scale changes can happen quickly and easily, resulting in immediate impact. So, this is a great opportunity for food and drink enterprises to excel and show what can be done!

We look forward to supporting our clients on this sustainable journey, so it becomes business as usual for all. Together we can create a resilient, efficient and greener Welsh food and drink sector.



**MARTIN JARDINE**  
**Director of Agri Food**  
**Grŵp Llandrillo Menai**  
**(one of the constituent parts**  
**of Food Innovation Wales)**

# INTRODUCTION

The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the **17 Sustainable Development Goals (SDGs)**, which are an urgent call for action by all countries - developed and developing – in a global partnership.

Legislatures across the UK are increasingly aiming to pass law that better protects the environment and sets clear targets for protection and improvement.

***‘Here in Wales we want to create and communicate a global reputation as a food producing nation, with businesses adopting high production values which embody our values of sustainable resource use and contribute positively to our nation’s well-being’.***

(Welsh Government (WG) Food and Drink Strategy 2020 – 2026).

But what is sustainability? As a broad term, sustainability can be defined under three pillars, commonly referred to as the **‘3 E’s’** – **Environmental, Economic and Equity**, offering a holistic approach to provide for the needs of current generations and preserve those of future ones. The environment is often considered the most pressing and heavily discussed pillar of sustainability – including the conservation of natural resources and the reduction of impact on ecosystems. The remaining ‘Es’, however, are just as pressing. Equity refers to social equity; where communities and individuals are educated and empowered as part of a strong society, while cost is the key consideration under the Economic pillar, to ensure long term feasibility and stability of any sustainability initiative.

Businesses have an essential role to play in safeguarding the future of our planet, and there has been a clear cultural shift in the impact of sustainability to brand reputation. To the modern business, sustainability is no longer a bolt-on PR initiative, but a central business strategy.

Embedding sustainability into your business can harness real opportunities. According to a report by Mintel in December 2019 – a global leader in market research – between the years 2020 to 2030, consumers will be hungry for demonstrable change on environmental issues, ethical business practices, public health, and other important causes. Consumers will reward companies that take action and improve important societal issues. The companies that will win in the next ten years will be those that fuel the new era of conscious consumption. Tomorrow’s consumers will be looking for eco-friendly packaging and products while also seeking guidance on how to make their diets more sustainable.

From an ethical perspective, by embedding sustainability initiatives into your business, you are engaging your employees to work towards a common goal. This strengthens your team, helps to retain and attract good employees, and makes you more appealing to customers and investors.

Ensuring a sustainable supply of food for the world’s fast-growing population is a major challenge. Food production is one of the key areas that requires action, alongside issues of food consumption, nutrition and food security.

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It is estimated that by 2050 the world's population will reach 9.1 billion. Food production will need to increase by 70 % to feed the larger and most likely more urban population. More food will have to be produced using less land. In addition, water and energy will become limiting factors.

Being sustainable not only reduces your impact on the environment, but also helps you to improve your customer experience, support your local economy, and stand out from your competitors.

Global food production methods must change to minimise the impact on the environment and support the world's capacity to produce food in the future. As with other man-made activities, food production contributes to climate change, water scarcity, soil degradation and the destruction of biodiversity.

Sustainable food production uses processes and systems that are non-polluting, conserves non-renewable energy and natural resources, are economically efficient, is safe for workers, communities and consumers, and does not compromise the needs of future generations.

The recovery from COVID-19 offers a window of real opportunity to not just restart but reset and 'build back better' to reshape the world in a more sustainable way. We all have a collective responsibility towards the future of our planet, and that ranges from the management team steering the strategic direction of their company to operatives on the shop floor simply ensuring they use the right bin for the right waste material.

Although embedding sustainability into Small and Medium Enterprises (SME) can initially appear challenging, immediate and simple changes can be made to food production to make it more sustainable, which is essential to ensure that the food system can sustainably meet the demands and needs of the world's growing population.

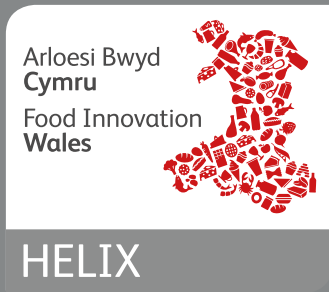
Food Innovation Wales has developed this handbook to help and assist you on your sustainability journey. There are easy to follow sections on key topics, such as:

- The Circular Economy
- Ethical Trade
- Forest
- Farm
- Marine
- Carbon
- Water
- Food Waste
- Packaging and Plastics
- Diet

You will find lots of background information, with some suggested simple measures you can take and useful links and tools to support you.

There is a handy checklist to get you started and information about how you can access potential funding streams and gain recognition through accreditations, certifications and awards.

We wish you well on your sustainability journey and hope that you find this handbook useful.



# CIRCULAR ECONOMY

# CIRCULAR ECONOMY

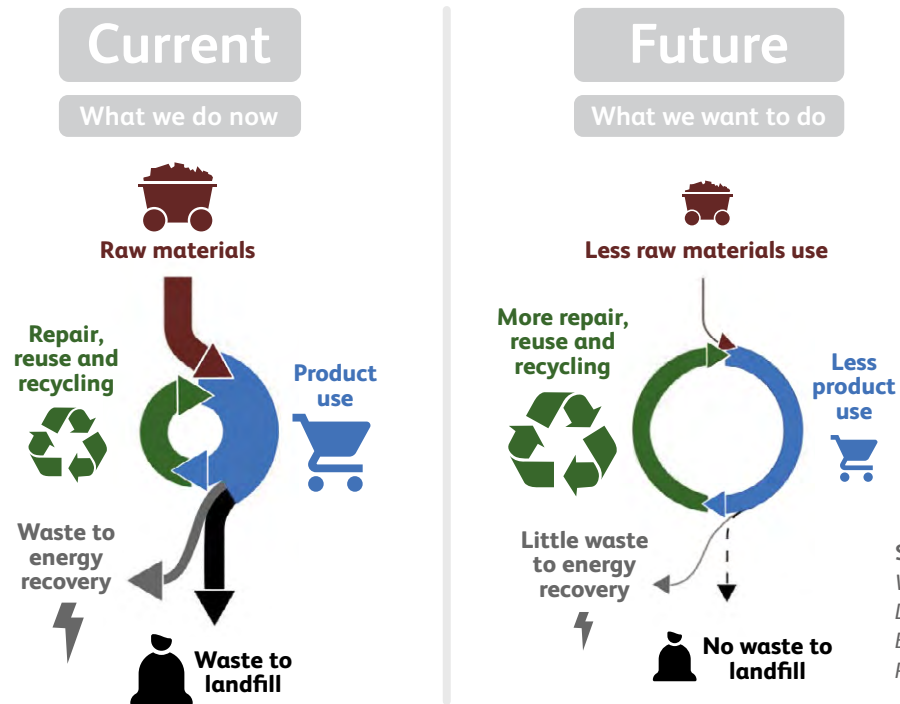
A circular economy – often referred to as ‘circularity’ – is an alternative concept to a traditional linear economy (one that follows a ‘take, make, use, dispose’ process). Instead, it is an embedded ‘closed loop’ business model that aims to maintain the efficient and ethical use of natural resources (e.g. water, energy, raw materials, packaging etc.) and reduce environmental impact throughout the lifecycle process. For the food and drink sector, circularity optimises the whole system – from farm to fork – to reduce food loss and waste.

A Circular Economy is based on 3 principles:

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

The way we currently use materials is unsustainable. If everyone in the world were to consume the same as the average Welsh citizen, 2.5 planets would be required to produce global resources. Moving to a more circular economy will encourage repair, re-use and recycling and needs to reduce the amount of raw materials we use so that economic growth is ‘dematerialised’. This will contribute significantly towards ensuring Wales uses only our ‘fair share’ of global resources.

In collaboration with WRAP Cymru, the WG has administered a Small Scale Circular Economy Fund Grant of £6.5m (see Discover more) for businesses looking to incorporate or increase recycled content in products manufactured in Wales, or to extend the useful life-time of products.



Source:  
WG Consultation  
Document,  
Beyond  
Recycling, 2020.

WG are also focussing on a low carbon zero waste Wales that uses a fair share of resources with a Beyond Recycling Strategy (see Discover More).

Some examples of simple steps you can take as a business to work towards a circular economy are:

- Prevent food loss by optimising manufacturing processes
- Innovate new products from leftover by-products and ingredients
- Redistribute edible non-sellable food to feed people
- Use by-products as animal feed and as inputs for other industries
- Turn waste into fertiliser and energy
- Use innovative packaging design to reduce packaging waste
- Where allowed by food hygiene laws, recover and reuse water, heat and steam
- Reduce your carbon and water footprint
- Source goods and services responsibly and ethically





## DISCOVER MORE

### **The Wales Circular Economy Strategy Summary (Consulted – April 2020)**

<https://gov.wales/circular-economy-strategy>

### **The Ellen MacArthur Foundation**

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

### **WRAP Cymru Circular Economy Fund – Small Scale Grant Programme**

<https://wrapcymru.org.uk/taking-action-wales/grants#>

### **Wales' Complementary Currency System, CELYN**

<https://circulareconomy.wales/wales-complementary-currency-system-the-celyn>

### **Squaring the Circle, The Grocer Vision Report**

<https://www.thegrocer.co.uk/whitepapers/squaring-the-circle-how-food-and-drink-manufacturers-can-unlock-the-value-of-the-circular-economy-after-covid-19/646016.article>



## GET INSPIRED

### **Follow the link for motivational, informative content.**

<https://businessnewswales.com/how-a-welsh-technology-firm-is-finding-ways-to-change-industrial-food-waste/>



## DID YOU KNOW?

Organisations of any size, which are operating in Wales, may apply for a capital grant to invest in infrastructure and equipment for eligible circular activities.

<https://wrapcymru.org.uk/taking-action/grants#>



## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started.



## GET RECOGNITION

**BS 8001:2017 Framework for implementing the principles of the circular economy in organizations.**

<https://www.bsigroup.com/en-GB/standards/benefits-of-using-standards/becoming-more-sustainable-with-standards/BS8001-Circular-Economy/>

Refer to Get Recognition section



# ETHICAL TRADE

# ETHICAL TRADE

Many food and drink companies across the UK trade internationally through an extensive global supply chain, to purchase ingredients, products and packaging back to source.

Ethical trade means ensuring that what we buy hasn't been made at the expense of workers in the global supply chain. This encompasses a breadth of international labour rights, such as working hours, health and safety, exploitation and discrimination, freedom of association and wages. Legislation, particularly in developing countries, is sometimes inadequate or poorly enforced with possible consequences of child labour, poor working conditions or gender inequity. To combat these issues, many non-government organisations (NGOs), trade unions and larger corporates collectively run the Ethical Trading Initiative alliance, working within the globally recognised framework set out in the UN Guiding Principles on Business and Human Rights (see Discover More).

Although smaller companies may not have the same leverage and resources as these organisations, they still bear the responsibility for worker welfare and ethical working conditions throughout their supply chain. Companies should take steps to identify potential problems, to build supply chains that are resilient to social, economic and environmental changes, and offer complete transparency from beginning to end.

To take practical steps towards understanding and managing ethical trade, the nine principles outlined in the Ethical Trading Initiative (ETI) Base Code, can be adopted by any business in the supply chain.



This is in addition to all relevant UK, EU and International legislation.

In the UK, the Modern Slavery Act (2015) was introduced to focus on the prevention and prosecution of modern slavery and the protection of victims. The legislation includes all forms of forced labour such as trafficking, debt bondage or child labour.

In this Act, the transparency of supply chain provision makes companies supplying products or services in the UK ( $\geq$  £36m turnover) accountable for slavery and modern labour abuses.

Whilst this legislation does not directly impact smaller food and drink businesses, it does raise the profile of ethical trade with UK consumers.

**Fairtrade** – a globally recognised certification scheme – is also working to improve ethical standards in the market. While a Fairtrade business must be ethical, an ethical business may not be supplying Fairtrade products. Permission must be sought to use the Fairtrade label on product packaging.



## DISCOVER MORE

**The UN Guiding Principles on Business and Human Rights**

[https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr\\_en.pdf](https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf)

**Ethical Trading Initiative (ETI Base Code)**

[www.ethicaltrade.org](http://www.ethicaltrade.org)

**Food Network for Ethical Trade**

[www.foodnetworkforethicaltrade.com](http://www.foodnetworkforethicaltrade.com)

**SEDEX**

[www.sedexglobal.com](http://www.sedexglobal.com)

**Modern Slavery Act**

[www.legislation.gov.uk/ukpga/2015/30/contents/enacted](http://www.legislation.gov.uk/ukpga/2015/30/contents/enacted)

**Welsh Government Code of Practice**

[www.gov.wales/sites/default/files/publications/2019-09/code-of-practice-guide-to-tackling-modern-slavery-and-human-rights-abuses.pdf](http://www.gov.wales/sites/default/files/publications/2019-09/code-of-practice-guide-to-tackling-modern-slavery-and-human-rights-abuses.pdf)

**The Gangmasters and Labour Abuse Authority**

[www.gla.gov.uk](http://www.gla.gov.uk)

**Stronger Together**

[www.stronger2gether.org](http://www.stronger2gether.org)



## GET INSPIRED

**Follow the link for motivational, informative content.**

[www.youtube.com/watch?v=xwGyhSg3Oh4](http://www.youtube.com/watch?v=xwGyhSg3Oh4)



## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started.



## GET RECOGNITION

**Ways to show customers your commitment to ethical trading include:**

- *Social Accountability International* factory certification against the SA8000 Code of Conduct or use certified suppliers
- Use Fairtrade certified products and ingredients
- Sign up to and complete the self assessment on SEDEX

Refer to Get Recognition section

## DID YOU KNOW?

An estimated 218 million children, aged under 15, work around the world to support their families, missing out on education, often damaging their health and reinforcing the cycle of poverty.

*Reference: Ethical Trading Initiative*





# FOREST

# FOREST

Forests play a critical role in our global ecosystem as a vital source of oxygen, absorbing and storing carbon dioxide, influencing global water and weather cycles, and mitigating climate change. Forests also provide livelihoods for an estimated 1.6 billion people, including many indigenous communities, and offer a home to 80 % of all biodiversity on earth.

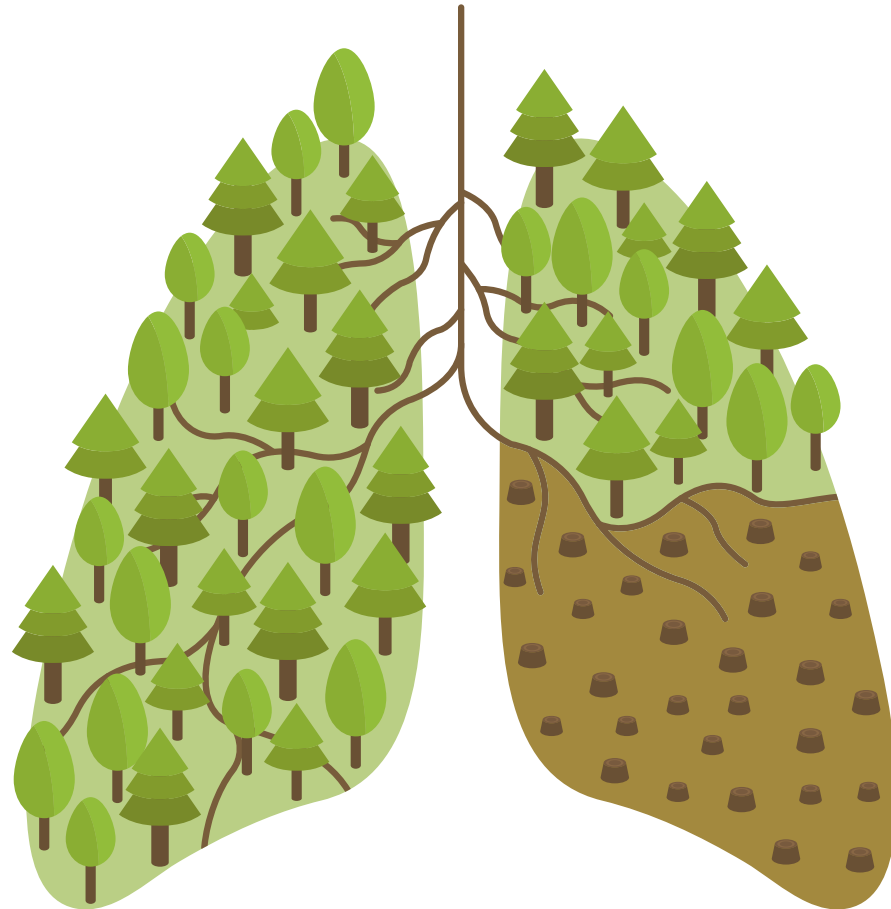
Deforestation – the permanent removal of forest – is concentrated in the tropical and subtropical regions, where agriculture has accounted for over 70 % of loss in forest cover. The majority of deforestation is linked to the production of beef, soybeans, palm oil and timber products.

In South America, clearing forests to make way for cattle ranches is commonplace practice. Here, beef production is the leading driver of forest loss and contributes to more deforestation than soy, palm oil and timber production combined.

In the UK, beef is typically British or Irish sourced. But, often products such as tinned corned beef can originate from Brazil and other South American countries, potentially contributing to deforestation indirectly.

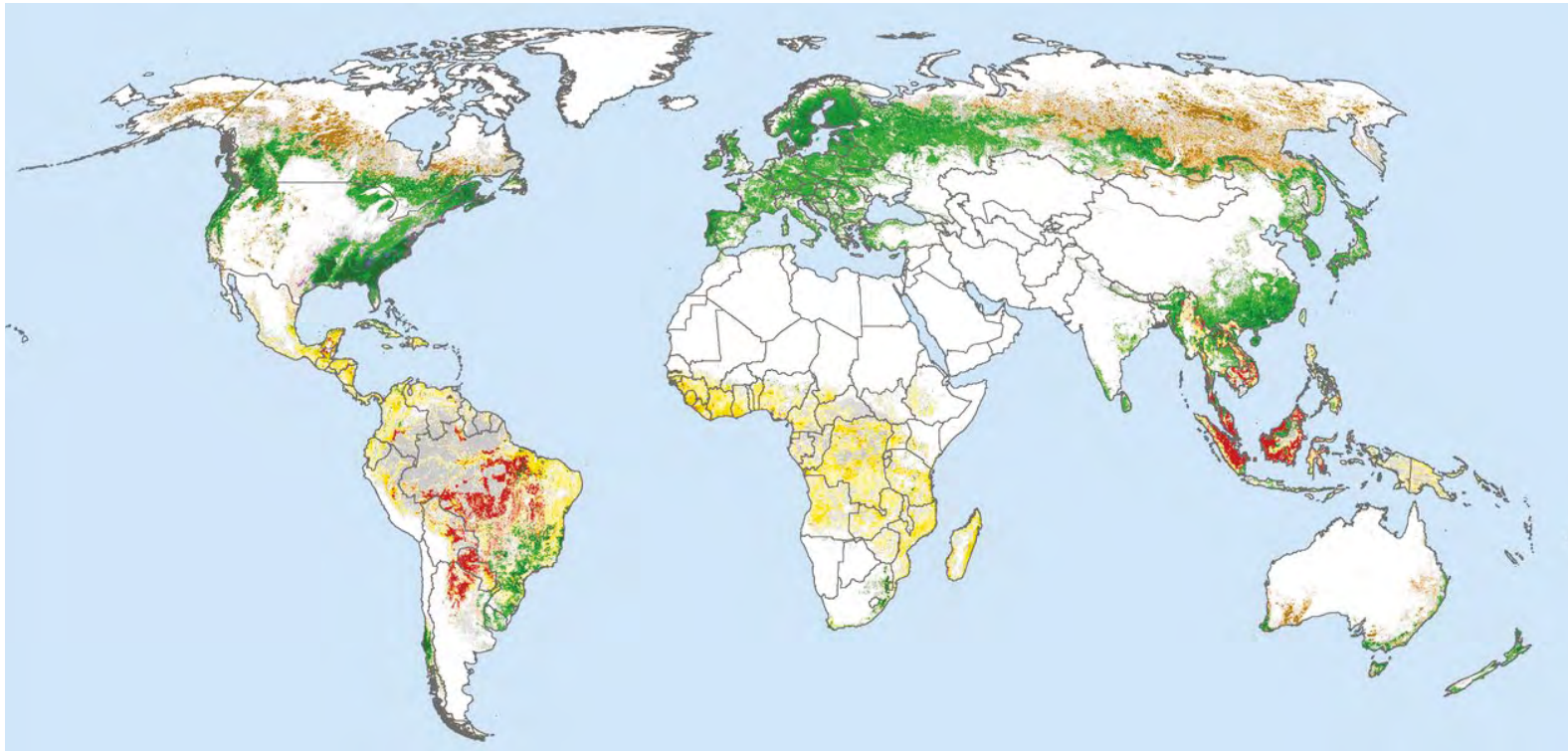
Soybeans, typically grown in South America, are a globally traded commodity with 80 % being used in animal feed. So, while a significant quantity of soy may not be directly consumed in the UK, soy is an integral part of the supply chain as poultry, pig and farmed fish feed, so even British meat may be unwittingly contributing to deforestation.

85 % of palm oil production is in Indonesia and Malaysia where there has been much media coverage on the loss of forest and the impact on biodiversity, particularly the loss of habitat for orangutans. Palm oil is found in about 50 % of all packaged products on UK supermarket shelves and is widely used, albeit usually in very small quantities.



A soaring demand for wood, timber, pulp, and paper represents a threat to forests with illegal logging and poor forest management.

For smaller food and drink companies, it is difficult to know how to make a difference to this complex global challenge, that government and expert bodies are struggling to manage. But there are positive steps that can be taken for businesses that aspire to sustainable credentials, such as setting a target to use certified raw materials. This is the recommended route rather than boycotting use, which would shift demand to an alternative, less efficient crop or production method.



<https://science.sciencemag.org/content/361/6407/1108/tab-figures-data>

■ Commodity Driven Deforestation ■ Shifting Agriculture ■ Forestry ■ Wildfire ■ Urbanization ■ Zero or Minor Loss

'Primary drivers of forest cover loss for the period 2001 to 2015.'

**The Round Table on Responsible Soy (RTRS)** promotes the responsible production, processing and trading of soy. They offer certification for sustainable soy with a chain of custody for mass balance or segregated soybean. This is likely to be most relevant when sourcing meat or fish, to establish the status of the soybean used in the animal feed.

**The Roundtable on Sustainable Palm Oil (RSPO)** operates a similar certification for sustainable palm oil, with many of the major suppliers as signatories. This means that a significant amount of palm oil entering the UK is now certified from a sustainable source, but this needs to be agreed in any specification, to secure supply.

Product packaging which can be card or paper-based can be sourced from a **Forest Stewardship Council (FSC)** certified source.

It is important that smaller food and drink companies play their part by asking questions and raising awareness along the supply chain, to help drive and contribute toward sustainable and responsible sourcing.



## DISCOVER MORE

### UN Environment Programme

[www.unenvironment.org](http://www.unenvironment.org)

### Global Forest Watch

[www.globalforestwatch.org](http://www.globalforestwatch.org)

### Tropical Forest Alliance

[www.tropicalforestalliance.org](http://www.tropicalforestalliance.org)

### The Cerrado Manifesto

[www.cerradostatement.fairr.org](http://www.cerradostatement.fairr.org)

### World Wildlife Fund

[www.worldwildlife.org](http://www.worldwildlife.org)

### Roundtable on Responsible Soy

<https://responsiblesoy.org/>

### Roundtable on Sustainable Palm Oil

[www.rspo.org](http://www.rspo.org)

### Forest Stewardship Council

[www.fsc.org](http://www.fsc.org)

### Woodlands for Wales

[www.gov.wales/sites/default/files/publications/2018-06/woodlands-for-wales-strategy\\_0.pdf](http://www.gov.wales/sites/default/files/publications/2018-06/woodlands-for-wales-strategy_0.pdf)



## GET INSPIRED

Follow the link for motivational, informative content.

[www.sizeofwales.org.uk](http://www.sizeofwales.org.uk)



## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started.



## GET RECOGNITION

Ways to show customers your commitment to tackling deforestation include:

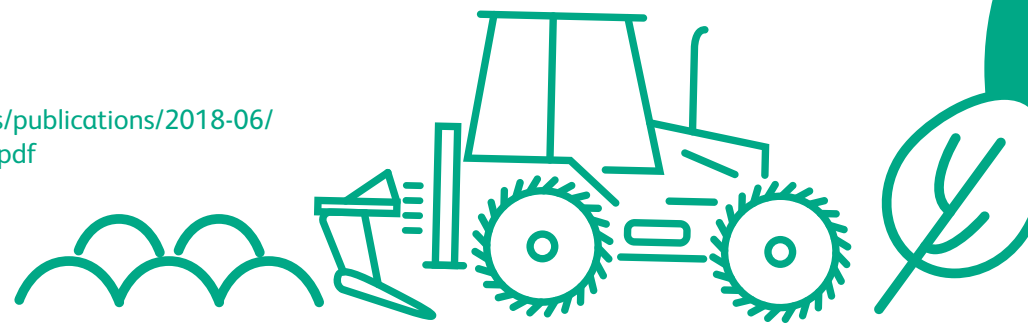
- Sourcing key raw materials from certified sources
- Raising customer awareness
- Planting a tree (or several)!

Refer to Get Recognition section

## DID YOU KNOW?

Across the world, about 18 million hectares of forest, the size of England and Wales, is felled every year.

*Reference: World Wildlife Fund*







FARM



# FARM

Whether its meat and dairy products, fruit or vegetables, wheat and other cereals, they all have their origins from farms.

Sustainability requires consideration of environmental, economic, ethical and social aspects. Social priorities include an increasing, worldwide consensus that animal welfare should be protected and improved.

The **Five Freedoms**, endorsed by the **UK Farm Animal Welfare Committee**, form a logical framework for assessing basic animal welfare standards and have been used as a foundation for policy and legislation around the world.

For smaller food and drink businesses, sourcing from farms that have been independently verified against a higher welfare standard is the recommended route, considering breeding, rearing, transport and slaughter. A simple way to manage this is to use UK farms that have been assured by the **Red Tractor** scheme. The **RSPCA Farm Assured** scheme assures higher welfare standards for many different species.

Other alternatives include using local farms that you know and trust, or sourcing customer recognised higher welfare products such as free-range chicken and eggs, outdoor bred pork or grass-fed beef. This does not just include foods, but also packaging materials that might be used such as wool, feather and leather.

On another note, there is growing concern around soil health on farms, as it has been a neglected feature of global environmental plans and legislation. A third of the soil used for farming globally is already

5

Five  
Freedoms  
of Animal  
Welfare



- **Freedom from hunger and thirst**  
– by ready access to fresh water and diet to maintain health and vigor
- **Freedom from discomfort**  
– by providing an appropriate environment including shelter and a comfortable resting area
- **Freedom from pain, injury, or disease**  
– by prevention or rapid diagnosis and treatment
- **Freedom to express normal behaviour**  
– by providing sufficient space, proper facilities and company of the animal's own kind
- **Freedom from fear and distress**  
– by ensuring conditions that avoid mental suffering

experiencing some level of degradation. Healthy soil is essential for farming and food production. Loss of topsoil (soil erosion) reduces the fertility of agricultural land, thereby adversely impacting crop production. Unsustainable farming practices can accelerate soil erosion, so addressing soil health is essential to secure a sustainable food supply, and maintain the nutrient value of foods grown in soil. Again, Red Tractor requires farmers to comply with CAP (Common Agricultural Policy) Regulations. Going one step further are schemes such as the LEAF Marque Standard, which is a comprehensive global farm assurance system, recognising that food has been grown sustainably with care for the environment.



## DISCOVER MORE

### National Farmers Union (NFU) Cymru

[www.nfu-cymru.org.uk/nfu-cymru/documents/nfu-cymru-sustainable-agriculture-report-english/](http://www.nfu-cymru.org.uk/nfu-cymru/documents/nfu-cymru-sustainable-agriculture-report-english/)

### FAO Soils Portal

[www.fao.org/soils-portal/soil-degradation-restoration/global-soil-health-indicators-and-assessment/global-soil-health/en/](http://www.fao.org/soils-portal/soil-degradation-restoration/global-soil-health-indicators-and-assessment/global-soil-health/en/)

### World Wildlife Fund

[www.worldwildlife.org/industries/sustainable-agriculture](http://www.worldwildlife.org/industries/sustainable-agriculture)

### Red Tractor Assurance Scheme

[Redtractor.org.uk](http://Redtractor.org.uk)

### RSPCA Farm Assured

[www.berspcaassured.org.uk/about-us/what-is-rspca-assured/](http://www.berspcaassured.org.uk/about-us/what-is-rspca-assured/)

### LEAF

[www.leafuk.org/](http://www.leafuk.org/)



## GET INSPIRED

Follow the link for motivational, informative content.

[www.youtube.com/watch?v=o0rMa2upxcA&feature=youtu.be](http://www.youtube.com/watch?v=o0rMa2upxcA&feature=youtu.be)



## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started.



## GET RECOGNITION

Ways to show customers your commitment to sustainable farming include:

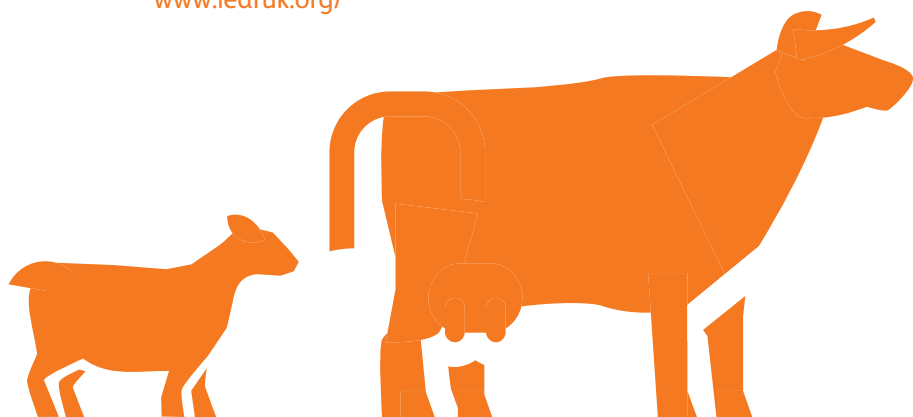
- Sourcing higher welfare products of animal origin

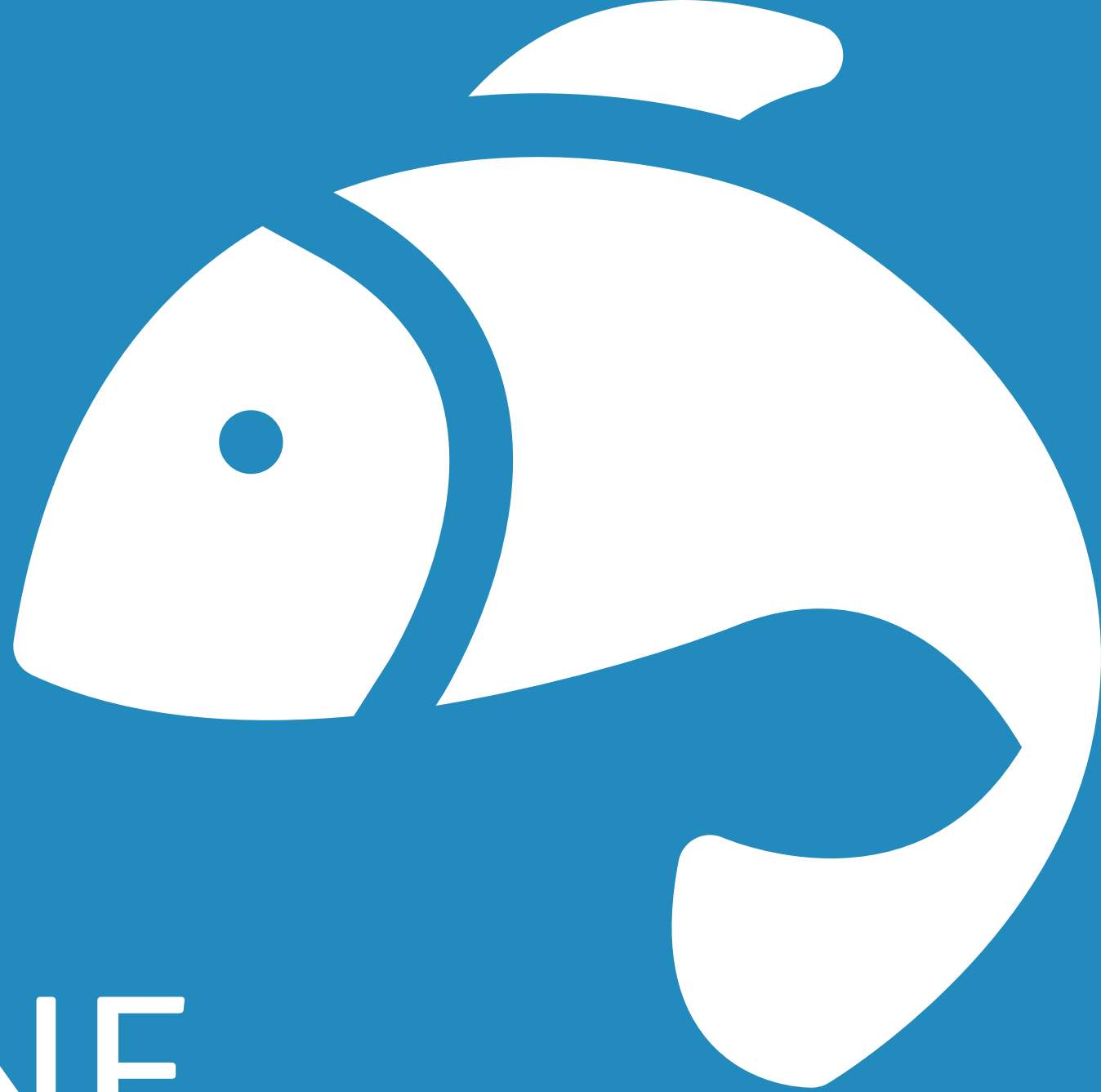
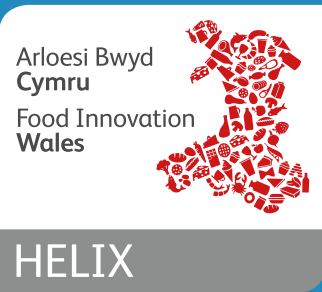
Refer to Get Recognition section

## DID YOU KNOW?

25 to 40 billion tonnes of topsoil are lost to erosion annually around the world.

*Reference: UN Food and Agriculture Organisation.*





# MARINE

# MARINE

In the UK, 90 % of the population consume one, or more, varieties of seafood, with an estimated 70 % of individuals wanting to buy this through a sustainable source (Seafish, 2019).

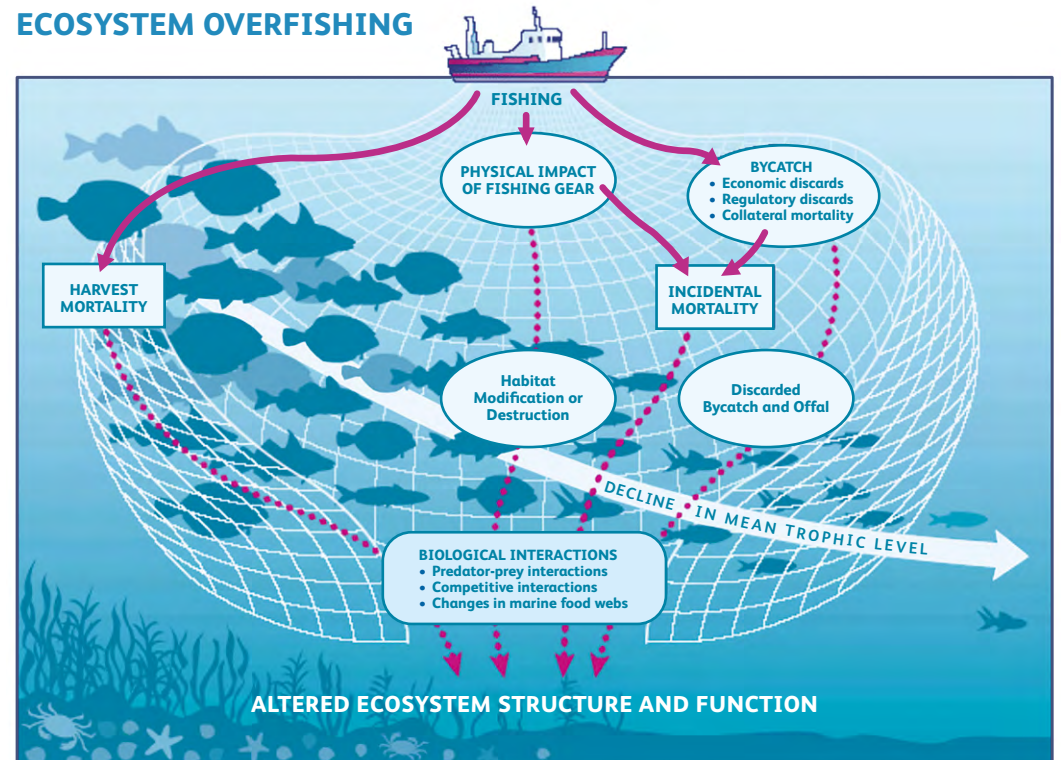
There is growing recognition and concern around the overfishing of our seas. Globally, fish species are declining rapidly, due to poorly managed fishing methods and illegal fishing practices – accounting for approximately 25 % of the total global catch. Also closely linked is by-catch, the harvesting of high levels of unwanted species.

By promoting responsible fishery management and sustainable practices – like pole and line fishing or seasonal harvesting – fish stocks are protected, and in turn, livelihoods and communities continue to be supported, particularly in developing countries where many fisheries are located.

Climate change can also affect the oceans and marine life, with rises in sea temperatures changing the distribution of fish stocks and unbalancing the structure of ecosystems. In the UK, the issue is compounded as we consume a limited variety of species – namely cod, haddock, salmon, tuna and prawns, also known as the ‘Big 5’ – mostly as pre-prepared, further processed products. One measure to help balance the UK’s demand (where fishing quotas allow), is to switch to alternative species such as coley, mackerel, rainbow trout, lemon sole or rope grown mussels.

Wild fish can be certified as sustainable through the **MSC (Marine Stewardship Council) blue label scheme**. While farmed fish that are bred, reared and harvested from managed water environments, can be certified by the **ASC (Aquaculture Stewardship Council) green label scheme**.

## ECOSYSTEM OVERFISHING



Art: John Michael Yanson

These schemes ensure that fish and seafood can be traced to a sustainable source, with verified fishing methods and the examination of the fish stock levels through frequent certified audits.

Smaller food and drink businesses can have confidence in their supply chain if seafood has been sourced and certified by either of these schemes.



## DISCOVER MORE

### UN Environment Programme

[www.unenvironment.org](http://www.unenvironment.org)

### Global Sustainable Seafood Initiative

[www.ourgssi.org](http://www.ourgssi.org)

### Marine Stewardship Council

[www.msc.org](http://www.msc.org)

### Aquaculture Stewardship Council

<https://www.asc-aqua.org/>

### Marine Conservation Society

<https://www.mcsuk.org/>

### Wales Fisheries Forum

[www.naturalresources.wales/guidance-and-advice/business-sectors/fisheries/wales-fisheries-forum/?lang=en](http://www.naturalresources.wales/guidance-and-advice/business-sectors/fisheries/wales-fisheries-forum/?lang=en)



## GET INSPIRED

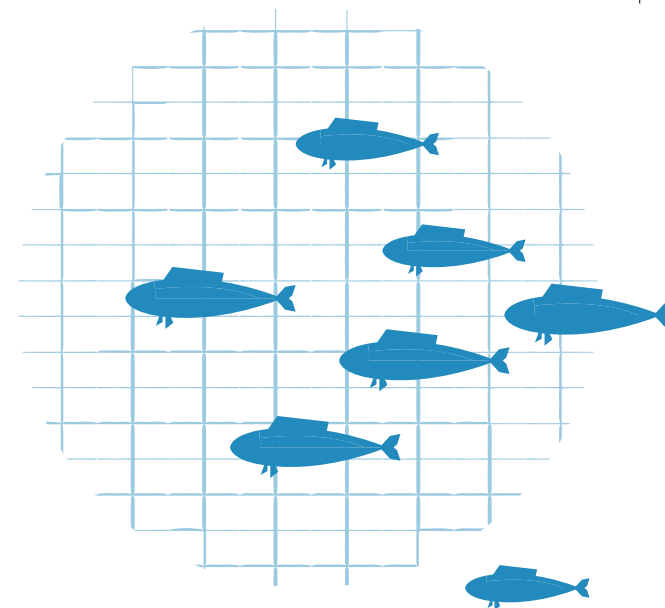
Follow the link for motivational, informative content.

[www.sustainweb.org/sustainablefishcity](http://www.sustainweb.org/sustainablefishcity)

## DID YOU KNOW?

Two thirds of the worlds' fish are overfished and depleted. 4,714 fisheries were assessed in 2012 (by UN Food and Agricultural Organisation, 2015), and only a third of fisheries were fished at levels that allow fish to re-populate.

*Reference: Forbes (2017)*



## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started.

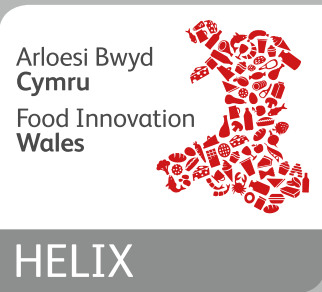


## GET RECOGNITION

Ways to show customers your commitment to supporting sustainable fish sourcing include:

- Sourcing fish from certified sources
- Developing products with different species avoiding use of the 'Big 5'
- Labelling the catch method and telling your customers about why this is important

Refer to Get Recognition section



# CARBON

# CARBON

Carbon footprint is a measure of the environmental impact of an organisation, event, person or product.

It measures the total greenhouse gas (GHG) emissions of a given activity or group of activities to provide a measure of the extent to which these activities produce harmful emissions, and therefore, contribute to global warming.

Emissions of GHG can occur throughout the life cycle of a product, from activities such as:

- Fuel combustion
- Manufacturing and process emissions
- Refrigerant losses
- Company vehicles
- Electricity or gas you purchase
- Purchased goods and services
- Employee commuting and business travel
- Outsourced transportation
- Waste disposal
- Food waste
- Water consumption

The **Well-Being of Future Generations (Wales) Act 2015** establishes seven well-being goals for Wales, that align with the UN's 17 Sustainable Development Goals (SDGs); including acting on climate change, the movement towards a low carbon society and the efficient use of resources.



Source:  
<https://www.carbonfootprint.com/>

The **Environment (Wales) Act 2016** sets a target of at least an 80 % emissions reduction by 2050 (lower than the baseline – compared with 1990).

Every business uses energy, and therefore, emits a certain amount of carbon emissions. But there are some simple steps you can take to decarbonise and reduce your carbon footprint. A good way to start is to measure your existing footprint and then identify and implement actions to reduce this (see Discover More for an example of a Carbon Footprint Calculator). You could also look to offset anything that cannot be eliminated (e.g. purchase of Carbon Offset Red Diesel CORD).

There are also business benefits to measuring your carbon footprint. Clients may be more attracted to the idea of doing business with a carbon neutral company and may well ask for details on how you measure your business's greenhouse gas/ carbon emissions as part of their procurement process.

Some simple steps to reduce your carbon footprint include sourcing renewable energy suppliers, maximising and maintaining transport operations/reducing food miles, investing in eco-efficient company vehicles (e.g. electric/hybrid), implementing green commuting schemes (e.g. carshare, cycle to work), utilisation of clean fuels (e.g. biofuels), sourcing locally, use of eco refrigerants, reducing food waste and water consumption, using efficient LED and motion sensor lighting, operating a lights off/IT equipment policy and installation or improvement of insulation/draught proofing (**Welsh Government Energy Generation in Wales 2017**).





## DISCOVER MORE

### Carbon Trust SME Carbon Footprint Calculator

<https://www.carbontrust.com/resources/sme-carbon-footprint-calculator>

### Refrigeration and Freezer Equipment Guidance

<https://www.netregs.org.uk/media/1742/2020-refrigerant-ban-awareness-raising-leaflet.pdf>

### Carbon Trust Green Business Directory

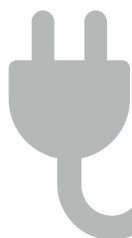
<https://www.carbontrust.com/resources/green-business-directory>

### Green Growth Pledge – Sign Up

<https://www.green-growth.org.uk/pledge/signup>

### Carbon Trust Energy Efficiency Loan Fund (Wales)

<https://www.carbontrust.com/what-we-do/finance-and-investment/energy-efficiency-loan-fund>



## DID YOU KNOW?

The equivalent of **48%** of electricity consumption in Wales was generated from renewable sources in 2017, an increase from **37%** in 2015.



## GET INSPIRED

Follow the link for motivational, informative content.

<https://www.youtube.com/watch?v=OOr7WA01iII&t=32s>



## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started



## GET RECOGNITION

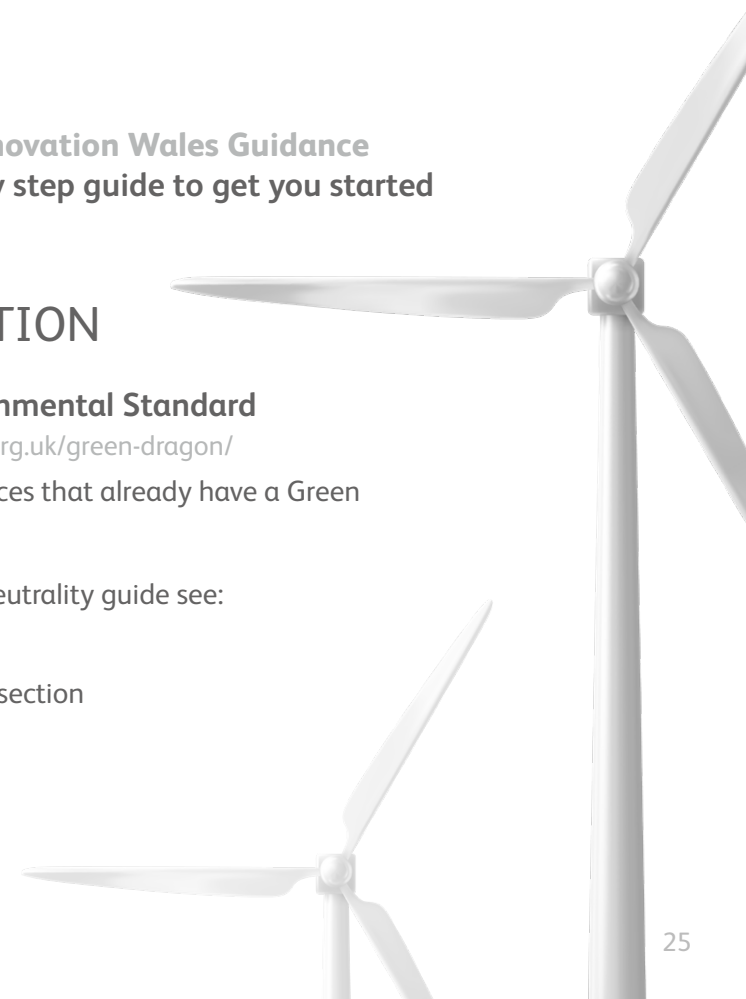
### Green Dragon Environmental Standard

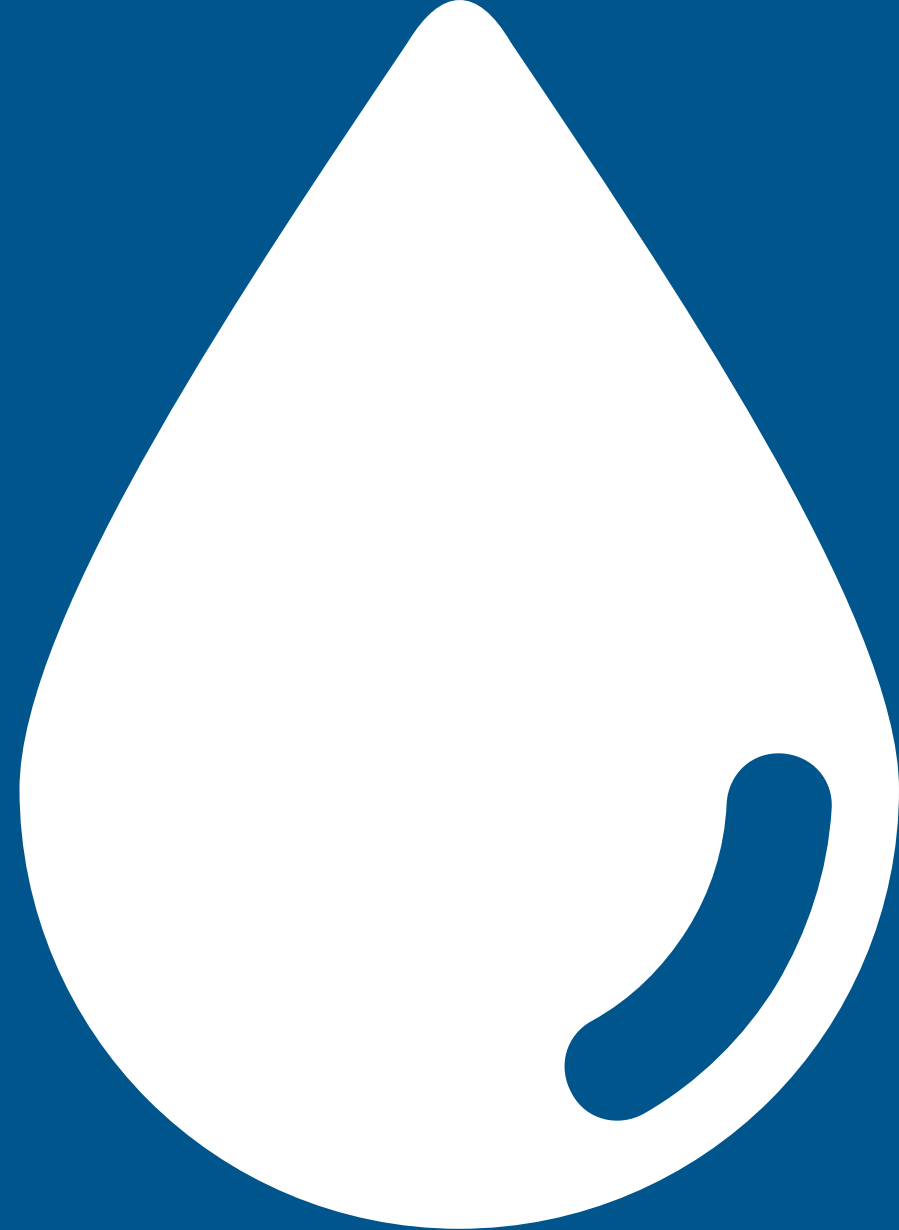
<https://www.groundwork.org.uk/green-dragon/>

or use suppliers and services that already have a Green Dragon certification.

For an in-depth carbon neutrality guide see:  
PAS 2060 Specification

Refer to Get Recognition section





# WATER

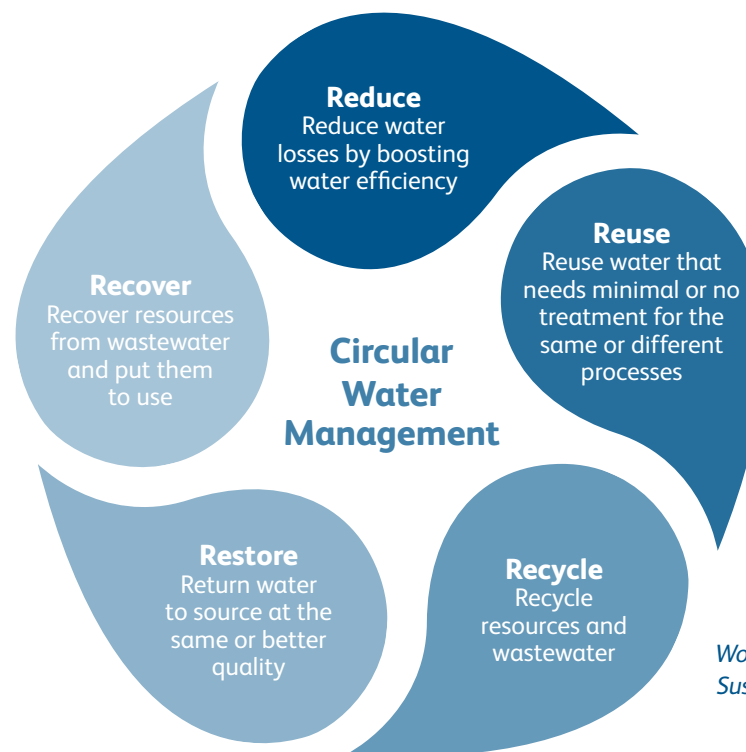
# WATER

Water is key to life, for both humans and ecosystems. In food production, from farm to factory, water plays an essential role; with around 25,000 litres required to grow and produce one day's food supply for a family of four (Save the Water, 2019). With the growth in human development and population, the value of water as a precious and finite resource is being increasingly recognised, especially in the food manufacturing industry; where it is heavily relied upon. Water is an indispensable element in many steps, such as washing, boiling, steaming, cooling and cleaning; in fact, the cleaning of processing equipment/plants and food products can account for up to 70 % of a factory's usage and generates significant wastewater.

Food businesses must ensure safe food production and comply with relevant legislation (**EC 852/2004 potable water**), but by developing a sustainable approach to water use and implementing circular water management practices, they can control their operating costs and minimise their environmental impact.

By conducting a thorough assessment of their water footprint (see link in Discover More) businesses can better understand their dependence on water and look at less impactful alternatives.

Simple actions such as installing metering and low or no cost water efficiency devices like efficient taps, urinal controls, waterless urinals and 'point of use' water machines can contribute to significant savings. **WRAP** (Waste and Resources Action Programme) identified the main ways of reducing water use in food manufacture processes in the UK as the reuse of cooling water, fixing water flow and leaks, automatic shut-off, control of overflows and optimising supply pressure. For food and factory cleaning, optimising cleaning routines and effective wash and



Source:  
*World Business Council for  
Sustainable Development  
(WBCSD, 2017)*

water recycling systems can reduce water consumption significantly. Controlling effluent concentration to minimise wastewater production can reduce water use without significant investment.

In terms of water resource, we should also give due consideration to fruit and vegetables and the amount of water required to successfully grow the quantities required for the UK market. We currently import approximately 42 % of our vegetables and almost 90 % of our fruit, predominantly from water stressed countries. When sourcing these products, we must have a contingency for drought growing seasons, we should scrutinise how much water is being used to grow these, and we could look at alternative, more local sourcing options, where possible.



## DISCOVER MORE

### Natural Resources Wales, Water Abstraction

<https://naturalresources.wales/permits-and-permissions/water-abstraction-and-impoundment/find-out-if-you-need-a-water-abstraction-or-impoundment-licence/?lang=en>

### Natural Resources Wales, Permit to Discharge

<https://naturalresources.wales/permits-and-permissions/water-discharges-and-septic-tanks/discharges-to-surface-water-and-groundwater/environmental-permitting-for-discharges-to-surface-water-and-groundwater/?lang=en>

### Potable Water in Food Businesses Legislation, Annex 2, Chapter VII

<https://www.legislation.gov.uk/eur/2004/852/annex/II>

### Water Footprint Calculator Tool SME

<https://www.waterfootprintassessmenttool.org/sme-calculator/en/>



## DID YOU KNOW?

In Regulation EC 852/2004 hygiene of foodstuffs, it is possible to re-use water in food processing environments if it does not present a risk of contamination and is of the same standard as potable water.



## GET INSPIRED

Follow the link for motivational, informative content.

<https://waterfootprint.org/en/water-footprint/business-water-footprint/>



## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started



## GET RECOGNITION

ISO 14046 Environmental management – Water footprint – A practical guide for SMEs

<https://www.iso.org/publication/PUB100419.html>

Refer to Get Recognition section



# FOOD WASTE

# FOOD WASTE

It is estimated that between one-third and half of the food we produce globally is wasted. Reducing this is good for the economy, food security, the climate and for your business.

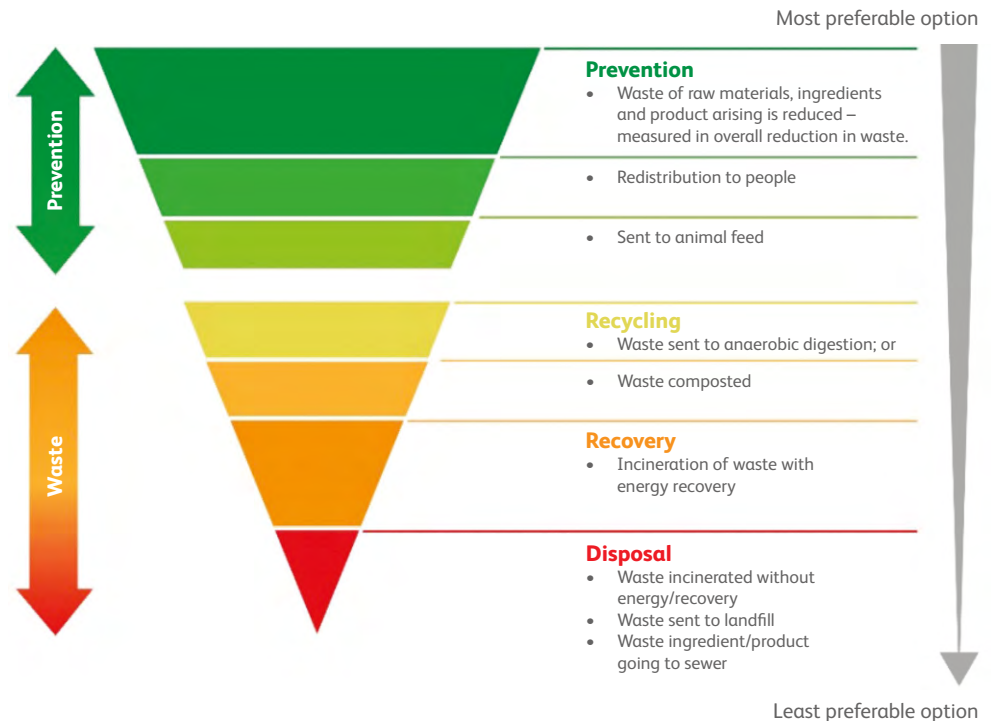
Wales is a global leader when it comes to managing our waste. In the 20 years since devolution, we have become first in the UK, second in Europe and third in the world in recycling (WG Food and Drink Strategy, 2020-2026).

Food waste management is a key element in preventing waste from going to landfill and reducing greenhouse gas (GHG) emissions. The reduction in food waste overall between 2015 and 2018 in the UK was 6.7 %, making significant progress towards the UK **Courtauld 2025** target of 20 % by 2025.

WRAP (Waste & Resources Action Programme UK) has previously estimated that around 150,000 tonnes of household food waste in the UK was avoided in 2015 compared to 2007, as a result of technical changes to products.

Some simple steps you can take as a food business are to proactively identify opportunities and take action to prevent food waste in your supply chain, apply the waste hierarchy and where surplus food is generated see whether there are any opportunities to rework, repurpose or redistribute to people or animal feed. **WRAP** published (April 2020) their updated surplus food redistribution labelling guidance, covering date labelling and storage instruction requirements for surplus food, including freezing and re-labelling fresh food (see [Discover More](#)).

## Food and drink material hierarchy



Work with your suppliers so that waste can be driven out at all stages of the supply chain and effectively segregate your food waste so that it can potentially be recovered and harnessed into renewable energy (anaerobic digestion) and/or fertiliser or compost.

Recent research by **CTF**, Centrum för tjänsteforskning, Service Research Centre, Sweden suggests that packaging design plays a much bigger role in food waste than originally thought; as a business they suggest helping consumers to reduce food waste by providing smaller portion sizes, clear date labelling and clear instructions on what consumers can safely do to make their purchases last longer. You may also be able to consider extending the shelf life of products by using appropriate validation methods so that safety and quality standards are not compromised.



## DISCOVER MORE

### WRAP Food and Drink Surplus Network

<https://foodsurplusnetwork.wrap.org.uk/>

### WRAP Your Business is Food: How much are you throwing away?

<https://www.wrap.org.uk/content/your-business-food-how-much-are-you-throwing-away>

### Welsh Government Waste Strategy

<https://gov.wales/towards-zero-waste-our-waste-strategy>

### WRAP Surplus Food Redistribution Guidance

<https://wrap.org.uk/resources/guide/surplus-food-redistribution-labelling-guidance>

### WRAP Walkaround Waste Checklist

<https://wrap.org.uk/resources/campaign-assets/your-business-food-manufacturing-walk-around-checklist>

### Institute of Food Science and Technology (IFST) Food Waste Fact Sheet

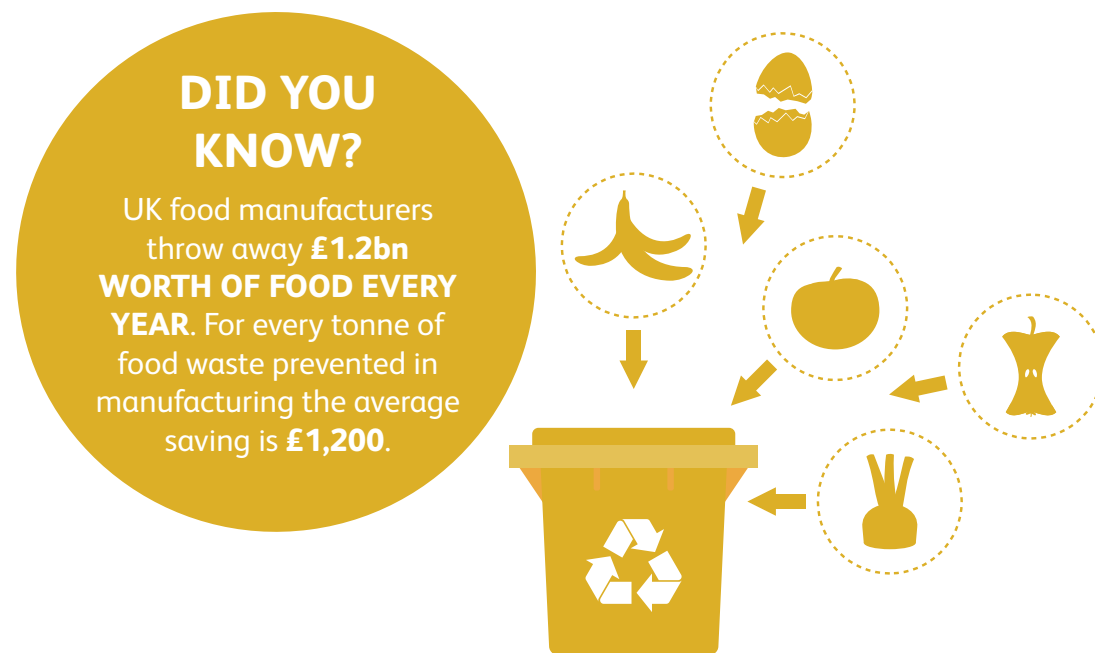
[https://www.ifst.org/sites/default/files/Food\\_Waste.pdf](https://www.ifst.org/sites/default/files/Food_Waste.pdf)



## GET INSPIRED

Follow the link for motivational, informative content.

<https://businesswales.gov.wales/carmarthenshire-cheese-company>



## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started.

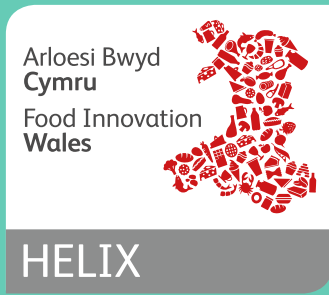


## GET RECOGNITION

### ISO 14001 Environmental Management

<https://www.iso.org/iso-14001-environmental-management.html> or use suppliers and services that already have ISO14001 certification.

Refer to Get Recognition section



# PACKAGING & PLASTICS





# PACKAGING & PLASTICS

Sustainable packaging refers to integrating environmental criteria into the design process of a product-packaging combination. This means that besides using normal criteria – such as marketing, functional, economic and technical – environmental criteria are also considered.

Our packaging industry plays a critical role in protecting and preserving the goods the UK produces, but in the food sector, the industry also has an essential role in preventing waste. So, it is crucial we continue to explore opportunities to ensure packaging throughout its lifecycle is not only effective but is also sustainable, recyclable where possible and contributes to the circular economy.

According to the Government's own figures, more than two million tonnes of plastic packaging are used in the UK annually. While packaging fulfils an important role in keeping the goods that we purchase free of contaminants and fresh, it does bring with it environmental impacts, both in the production of the plastic, but also from disposal.

To address these issues, a new sustainable food packaging hub is being established at the Advanced Manufacturing Research Centre Cymru (AMRC Cymru) in Broughton, North Wales, as a result of a £2m financial investment from the Welsh Government.

Single use plastic such as straws, cutlery, water bottles and polystyrene food and drink containers are set to be banned in Wales. Legislation continues to be introduced to restrict or prohibit their use, and therefore,

## Packaging symbols explained



The 'Mobius Loop' shows it can be recycled



Not collected by all LAs so check locally



Product is made from recyclable aluminium



The number indicates the resin code for the type of plastic used



Producer contributes to a packaging recovery scheme



Widely recycled by 75% or more of Local Authorities (LAs)



Indicates packaging is recycled by less than 20% of LAs



Recyclable glass. Remember to separate colours



Wood-based products from forests that are well managed



Reminder to be tidy and dispose of an item appropriately

*Which, 2018*

as a business you will need to consider sustainable packaging options at the product design stage and include primary, secondary and tertiary packaging, whilst making sure your packaging design is functional and legally compliant. Aim for multifunctional and zero waste packaging.

Apply the waste hierarchy – **prevent > reuse > recycle > recovery > disposal** – for packaging throughout your process and consider the use of biodegradable, returnable, reusable, refillable, compostable or edible packaging materials. Where plastic is necessary, try to use already recycled or part recycled materials, e.g. recycled PET (Polyethylene terephthalate).



## DISCOVER MORE

### Food and Drink Federation (FDF) Packaging Checklist

<https://www.fdf.org.uk/globalassets/resources/publications/packaging-checklist.pdf>

### Welsh Government Waste Strategy

<https://gov.wales/towards-zero-waste-our-waste-strategy>

### A Plastic Planet – Plastic Free Solutions Resource Library

<https://aplasticplanet.com/resource-library/>

### WRAP Walkaround Waste Checklist

<https://wrap.org.uk/resources/campaign-assets/your-business-food-manufacturing-walk-around-checklist>

### WRAP UK Plastics Pact

<https://www.wrap.org.uk/content/the-uk-plastics-pact>

### The Materials and Articles in Contact with Food (Wales) (Amendment) Regulations 2018

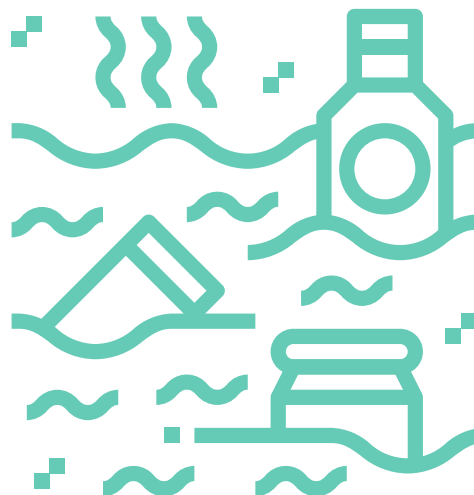
<http://www.legislation.gov.uk/wsi/2018/913/made?view=plain>

### WRAP Eliminating Problem Plastics

<https://wrap.org.uk/resources/report/eliminating-problem-plastics>

### Institute of Food Science and Technology (IFST) Packaging Fact Sheet

[https://www.ifst.org/sites/default/files/Food % 20and % 20 Drink % 20Packaging.pdf](https://www.ifst.org/sites/default/files/Food%20and%20Drink%20Packaging.pdf)



## DID YOU KNOW?

Whenever possible in food packaging, clear plastic should be used (rather than coloured/black plastic) since it has the greatest opportunity to be recycled back into plastic packaging.



## GET INSPIRED

Follow the link for motivational, informative content.

<https://www.graze.com/uk/about/sustainability>



## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started.

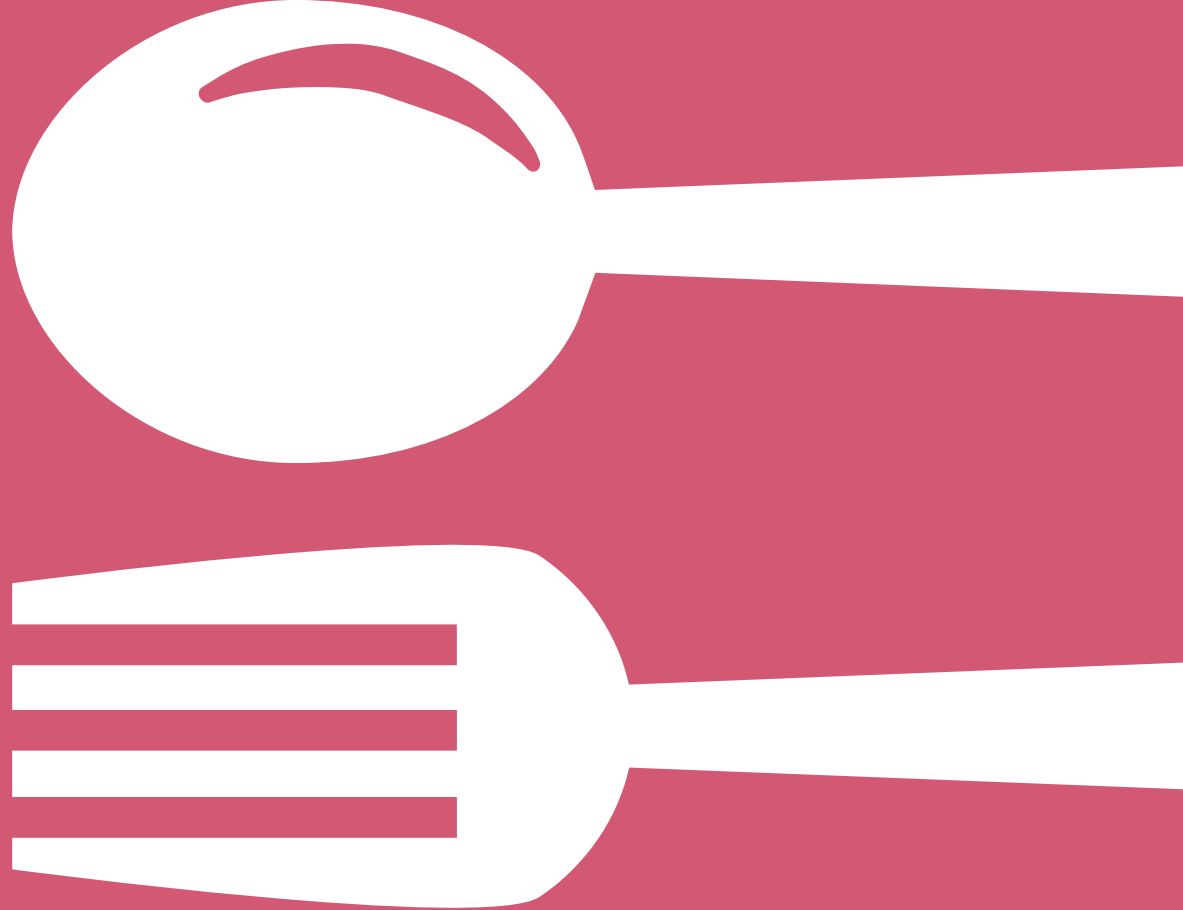
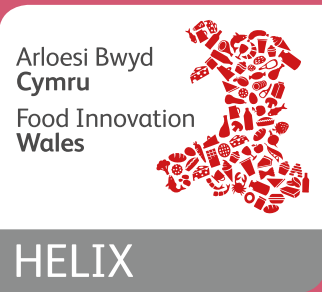


## GET RECOGNITION

**Green Mark accreditation**

or use suppliers and services that already have Green Mark certification.

Refer to Get Recognition section



# DIET

# DIET

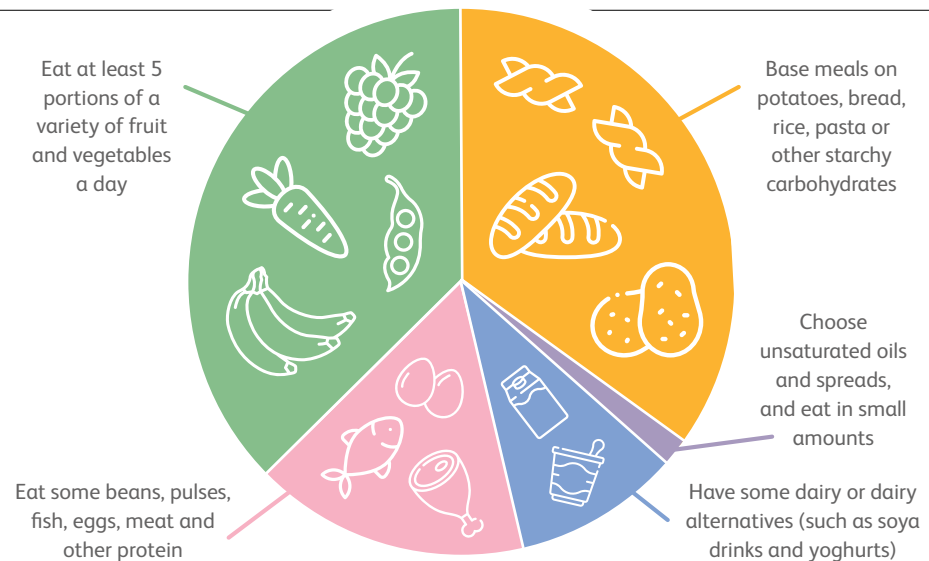
By looking at our everyday food choices, it is possible to ease the pressures on the global food system, while still eating a healthy and nutritionally balanced diet.

*‘Sustainable diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimising natural and human resources.’ (FAO 2010)*

One option for consumers is to buy and eat local food. Choosing to shop locally can be a large part of the carbon mitigation solution because local often eliminates the thousands of miles some foods can travel. Local is not legally defined and is not by default always the most sustainable choice, but local markets are a great platform for smaller food and drink companies, as consumers trust the food they buy to be fresh, direct from the grower or producer, seasonal and with less packaging and waste. This presents a great opportunity for smaller food and drink companies in Wales. Although local is an important hallmark of sustainable food, it is just one part of the possible solution.

Organic agriculture is perceived by some consumers to benefit the environment, although whether it is more sustainable than conventional farming techniques remains controversial. While organic farming may better protect the land, water, soil, or biodiversity, yields may be 5-34 % lower than conventional methods, depending on the type of crop grown and the local conditions, which brings into question the feasibility of the widespread adoption of organic methods.

An analysis performed by The Carbon Trust, reported that consuming



<https://www.nhs.uk/live-well/eat-well/the-eatwell-guide/>

a diet in line with the UK ‘Eatwell Guide’ adopted by the NHS, would have a 32 % lower environmental impact (in terms of greenhouse gas (GHG) emissions, water and land use) than the current average UK diet. The reduction was attributed to several factors, including increasing the consumption of potatoes, fish, bread, fruit and vegetables and lowering consumption of dairy foods, meat and sweet foods.

Rapidly evolving under the ‘veganism’ arena are plant-based or flexitarian diets, that eliminate or reduce meat and dairy consumption, in a bid to consume food more sustainably, on the basis that meat and dairy products are assumed to have a greater environmental impact. To balance the debate the **British Meat Processors Association** have launched their ‘Origin Matters’ campaign to assure customers of the sustainable credentials of British meat – see Discover More. This is a complex dynamic where all three of the **E factors (Environment, Equity, Economic)** need to be considered.

All smaller food and drink companies in Wales have the opportunity to help shape and simplify food choices for UK consumers in this tricky arena, by sourcing great Welsh produce and offering innovative, genuinely sustainable products.



## DISCOVER MORE

### UNSCN Sustainable Diets for Healthy People and a Healthy Planet

[www.unscn.org/uploads/web/news/document/Climate-Nutrition-Paper-EN-WEB.pdf](http://www.unscn.org/uploads/web/news/document/Climate-Nutrition-Paper-EN-WEB.pdf)

### UN / WHO Sustainable Healthy Diets Guiding Principles

[www.fao.org/3/ca6640en/ca6640en.pdf](http://www.fao.org/3/ca6640en/ca6640en.pdf)

### World Wildlife Fund

[https://wwf.panda.org/our\\_work/our\\_focus/food\\_practice/sustainable\\_diets/](https://wwf.panda.org/our_work/our_focus/food_practice/sustainable_diets/)

### Discover Delicious

<https://discoverdelicious.wales/lifestyle/the-welsh-meat-industry-sustainability/>

### British Meat Processors Association Origin Matters

[www.sustainablebritishmeat.org](http://www.sustainablebritishmeat.org)



## GET RECOGNITION

Ways to show customers your commitment to sustainable diets include:

- Promote your local credentials and locality within the area
- Showing customers how to consume your product as part of a sustainable diet, with positive messages
- Supporting and playing an active role in organisations such as [www.slowfood.org.uk](http://www.slowfood.org.uk)

Refer to Get Recognition section



## GET INSPIRED

Follow the link for motivational, informative content.

[www.fao.org/world-food-day/home/en/](http://www.fao.org/world-food-day/home/en/)



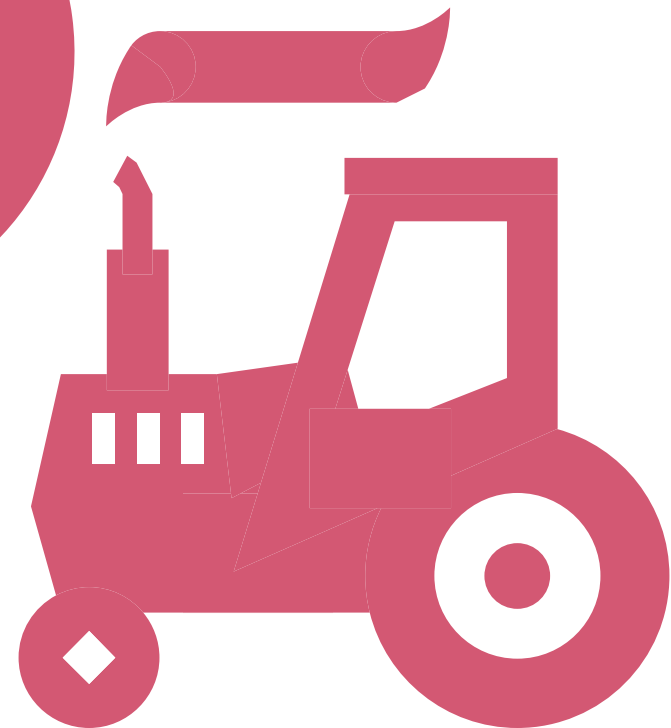
## STEP UP

Refer to our **Food Innovation Wales Guidance** for a practical step by step guide to get you started.

### DID YOU KNOW?

**80%** of Wales' farmland is not suited to growing crops, therefore rearing cattle and sheep is the best way to utilise the land and produce high quality food.

*Reference: Discover Delicious*



# Food Innovation Wales Guidance

We have developed this guide to support your business with the next step on your sustainable and ethical journey. We have our 'put it into practice' section here with a useful checklist, for each topic, to get you started.

The Food Innovation Wales team are available for any extra help and advice as some of the topics may seem a little challenging. There are also training resources and templates we can signpost you to, so you can develop an appropriate continuous improvement plan for your business.

Here are some easy things that can be done to start you on your sustainable journey, such as:

- Reducing the amount of water used by adjusting timers on taps or fixing any dripping taps.
- Switching off appliances and chargers from the wall to reduce energy usage overnight.
- Reducing waste by going paperless, installing easy to access recycling bins, or re-using what you can.
- Reducing fuel consumption by encouraging cycling or walking to work where possible.
- Simply decorating the office space with plants.
- Taking part in wider community projects, and organising litter picking in the local area.

You may also wish to utilise a simple, free and open to all tool such as the [Agribalyse](#) database developed in France. It provides environmental indicators for around 200 common agricultural products and 2,500 foods by using Life Cycle Analysis (LCA), to calculate 14 indicators which consider all of the stages "from field to fork". (NB animal welfare or fair trade are not considered). You can use the database to inform which ingredients/foods you select for your processes based on their indicated environmental impact, the lower the overall score, the lower the environmental impact.



## PUT IT INTO PRACTICE



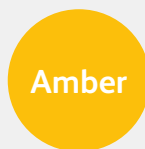
# CIRCULAR ECONOMY



Current  
Performance



No knowledge, no current policy, no awareness at own site or throughout supply chain.

☐


General awareness, existing policy but limited action plans, some plans for own site, no information through supply chain.

☐


Up to speed, active policy and continuous improvement plan both at own site and through the supply chain.

☐

Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Review purchase/ supply chain to identify opportunities to embed circularity.					
Review manufacturing processes to identify opportunities to embed circularity.					
Identify opportunities through the supply chain to re-purpose.					
Identify opportunities through the supply chain to re-distribute.					


Comments:

## PUT IT INTO PRACTICE



# ETHICAL TRADE



**Current  
Performance** 

**Red**

No knowledge, no current policy, no awareness at own site, traceability back to source not known. ☐

**Amber**

General awareness, existing policy but limited action plans, some plans for own site, traceability back to source but no information about ethical standards. ☐

**Green**

Up to speed, active policy and continuous improvement plan both at own site and through the supply chain with risk assessed traceability back to source. ☐

Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Review your own business site compliance to the Ethical Trading Initiative (ETI) Base Code.					
Identify all stages of the supply chain back to source for all ingredients, products and packaging.					
Risk assess all stages of the supply chain in line with the Ethical Trading Initiative (ETI) Base Code.					
Develop and implement an Ethical Trading Policy.					

Comments:



## PUT IT INTO PRACTICE

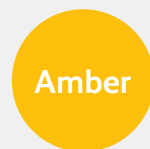


Current  
Performance



Red

No knowledge, no current policy or strategy, no awareness at own site, traceability for full supply chain not completed.



Amber

General awareness, traceability for full supply chain but no information about key 'deforestation' raw materials.



Green

Up to speed, active policy and continuous improvement plan in place.



Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Review product range to identify any key 'deforestation' raw materials - beef, soybean, palm oil, timber products.					
Identify all stages of the supply chain for key 'deforestation' raw materials.					
Contact suppliers of key 'deforestation' raw materials to identify certified materials.					
Develop plan with suppliers to move to certified key 'deforestation' raw materials with target dates.					


Comments:

## PUT IT INTO PRACTICE



# FARM



**Current Performance** 

**Red**

No knowledge, no current policy or strategy, no awareness at own site, traceability for full supply chain not completed. ☐

**Amber**

General awareness, traceability for full supply chain but no information about key animal origin products. ☐

**Green**

Up to speed, active policy and continuous improvement plan in place. ☐

Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Review product range to identify any animal origin products.					
Identify supply chain for animal origin products back to farm to establish any higher welfare farming standards.					
Identify any farm produce including cereals, dairy, fruit and vegetables in product range.					
Identify supply chain back to farm and ask questions about soil health.					


Comments:

## PUT IT INTO PRACTICE



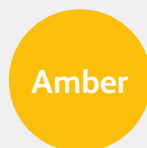
# MARINE



Current   
Performance



No knowledge, no current policy or strategy, no awareness at own site, traceability for full supply chain not completed. ☐



General awareness, traceability for full supply chain but no information about marine ingredients. ☐




Up to speed, active policy and continuous improvement plan in place. ☐

Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Review product range to identify any marine ingredients and products.					
Identify the supply chain back to source for marine ingredients and products.					
Contact suppliers of marine ingredients to confirm sourcing credentials.					
Develop plan with suppliers to move to certified marine ingredients with target dates.					

Comments:

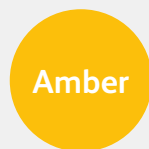
## PUT IT INTO PRACTICE



**Current Performance** 



No knowledge, no current policy, no awareness at own site or throughout supply chain. ☐



General awareness, existing policy but limited action plans, some plans for own site, no information about carbon footprint through supply chain. ☐




Up to speed, active policy and continuous improvement plan both at own site and through the supply chain. ☐

Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Measure your existing carbon footprint: <a href="https://www.carbontrust.com/resources/sme-carbon-footprint-calculator">https://www.carbontrust.com/resources/sme-carbon-footprint-calculator</a> .					
Identify simple actions to reduce your footprint.					
Implement and review simple actions to reduce your carbon footprint.					
Offset any unavoidable emissions: <a href="https://www.carbonfootprint.com/carbonoffset.html">https://www.carbonfootprint.com/carbonoffset.html</a> .					

Comments:

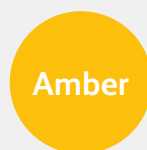
## PUT IT INTO PRACTICE



Current   
Performance



No knowledge, no current policy, no awareness at own site or throughout supply chain. ☐



General awareness, existing policy but limited action plans, some plans for own site, no information about water footprint through supply chain. ☐



Up to speed, active policy and continuous improvement plan both at own site and through the supply chain. ☐

Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Measure your existing water footprint: <a href="https://www.waterfootprintassessmenttool.org/sme-calculator/en/">https://www.waterfootprintassessmenttool.org/sme-calculator/en/</a> .					
Identify and implement simple actions to reduce your water footprint.					
Identify and source products and ingredients from sustainability conscious suppliers (i.e. accredited).					
Identify and repair water leaks and install water efficiency devices.					


Comments:

## PUT IT INTO PRACTICE



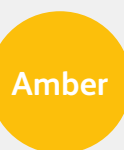
# FOOD WASTE



**Current Performance** 



No knowledge, no current policy, no awareness at own site or throughout supply chain. ☐



General awareness, existing policy but limited action plans, some plans for own site, no information about food waste through supply chain. ☐



Up to speed, active policy and continuous improvement plan both at own site and through the supply chain. ☐

Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Review processes and design (product & packaging) to identify opportunities to reduce food waste (from supply to consumer).					
Identify simple actions to reduce your food waste (see: WRAP Walkaround Waste Checklist <a href="https://wrap.org.uk/resources/campaign-assets/your-business-food-manufacturing-walk-around-checklist">https://wrap.org.uk/resources/campaign-assets/your-business-food-manufacturing-walk-around-checklist</a> ).					
Implement simple actions to reduce your food waste.					
Is food that's still edible ('surplus food') sent to a secondary market or charity for redistribution?					


Comments:

## PUT IT INTO PRACTICE



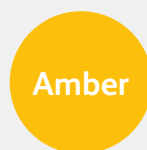
# PLASTICS & PACKAGING



**Current Performance** 



No knowledge, no current policy, no awareness at own site or throughout supply chain.



Amber

General awareness, existing policy but limited action plans, some plans for own site, no information about plastics and packaging through supply chain.



Green

Up to speed, active policy and continuous improvement plan both at own site and through the supply chain.




Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Review the entire supply chain to reduce packaging and packaging waste to a minimum (e.g. raw materials/suppliers/manufacture/consumers).					
Review existing packaging for potential re-use or re-purpose opportunities.					
Review purchase of existing packaging to identify opportunities to use more recycled materials.					
Review existing product packaging design to identify opportunities for more sustainable options.					

Comments:

## PUT IT INTO PRACTICE

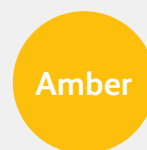


Current   
Performance



Red

No knowledge, no current policy, no awareness at own site or throughout supply chain.

☐


Amber

General awareness, existing policy but limited action plans, some plans for own site.

☐


Green

Up to speed, active policy and continuous improvement plan both at own site and through the supply chain.

☐

Checklist	Complete Y/N	Notes	Next Steps	Responsibility	Timescale
Maximise local product sales opportunities.					
Review products in the range and tweak to fit in with a sustainable diet, for example, suitable for freezing.					
Maximise locally sourced suppliers, products, services and ingredients.					
Market/label products to maximise sustainability credentials to enable consumers to make better informed choices.					

Comments:



# Get Recognition

## (Accreditation, Certification and Awards)

Sustainability standards and certifications are currently voluntary, usually third party assessed standards relating to environmental, social and ethical issues. They are adopted by companies to demonstrate the performance of their organisations or products in specific areas.

Normally sustainability standards are accompanied by a verification process - often referred to as 'certification' – to evaluate that an enterprise complies with a standard, as well as a traceability process for certified products to be sold along the supply chain, often resulting in a consumer-facing label.

Benefits of accreditation can include:

- **Opening doors to sales and helping to retain contracts**
- **Entering and succeeding in any significant trade with large retail and wholesale customers or to export**
- **Improving productivity, business growth and success**
- **Attracting and motivating employees and investors**
- **Securing and adding value to your brand reputation**
- **Creating new PR and social media opportunities**
- **Creating cost savings by improving efficiency**
- **Creating and improving customer trust and confidence**



In the Welsh Government Food and Drink Strategy 2020 - 2026 there is a target to increase the number of accredited businesses in the food and drink manufacturing sector in Wales by 50 %.

You should look to embed sustainability into your supply chains, using relevant and appropriate accredited suppliers and services wherever possible.

Some accreditations and certifications allow the use of logos and sustainability claims to be made on products; it is worth considering this when choosing an accreditation route, as the use of a logo is a clear and visible demonstration to the outside world of your commitment to genuine sustainability. Accreditation can help to promote and 'put a stamp' on all that you do to operate a sustainable business, gaining customer recognition, in what can be a very competitive market.

Below is a list of various accreditations, certifications and awards – the list is by no means exhaustive.



## Circular Economy

- BSI BS 8001 standard for implementing the principles of the circular economy  
<https://www.bsigroup.com/en-GB/standards/benefits-of-using-standards/becoming-more-sustainable-with-standards/BS8001-Circular-Economy/>



## Ethical Trade

- Social Accountability International factory certification against the SA8000 Code of Conduct  
<https://www.bsigroup.com/en-GB/sa8000-social-accountability/>
- The Supplier Data Ethical Data Exchange (SEDEX) Certification  
<https://www.isocertification.uk.com/product-compliance/sedex-certification/>
- Fair Trade Certified  
<https://www.fairtradecertified.org/>
- ISO 26000:2010 - Guidance on Social Responsibility  
<https://www.iso.org/standard/42546.html>



## Forest

- Round Table on Responsible Soy (RTRS)  
<https://responsiblesoy.org/>
- Roundtable on Sustainable Palm Oil (RSPO)  
<https://www.rspo.org/>
- Forest Stewardship Council (FSC)  
<https://www.fsc.org/en/businesses>



## Farm

- Sustainable Procurement - Guidance  
<https://shop.bsigroup.com/ProductDetail?pid=000000000030295293>
- Red Tractor Assurance Scheme  
<https://www.redtractor.org.uk/>
- Farm Assured Welsh Livestock  
<https://fawl.co.uk/>
- Soil Association  
<https://www.soilassociation.org/>
- Pasture Fed Livestock Association  
<https://www.pastureforlife.org/>
- LEAF Marque Global Assurance System  
<https://leafuk.org/farming/leaf-marque>
- RSPCA Assured (Animal Welfare)  
<https://www.rspcaassured.org.uk/>



## Marine

- Marine Stewardship Council  
[www.msc.org/home](http://www.msc.org/home)
- Aquaculture Stewardship Council  
[www.asc-aqua.org/](http://www.asc-aqua.org/)



## Carbon

- PAS 2050 - Specification for the assessment of the life cycle greenhouse gas emissions of goods and services  
<https://shop.bsigroup.com/en/Browse-By-Subject/Environmental-Management-and-Sustainability/PAS-2050/>
- PAS 2060 Specification for the demonstration of carbon neutrality  
<https://www.bsigroup.com/en-GB/PAS-2060-Carbon-Neutrality/>
- Carbon Footprint Standard  
<https://www.carbonfootprint.com/cfpstandard.html>
- ISO 14064 - Carbon Management  
<https://www.iso.org/standard/66453.html>



## Water

- ISO 14046 Environmental management – Water footprint – A practical guide for SMEs  
<https://www.iso.org/publication/PUB100419.html>



## Plastics and Packaging

- Plastic Free Trust Marks  
<https://aplasticplanet.com/trust-marks/>
- Food and Drink Federation Sustainable Packaging Awards  
<https://www.fdf.org.uk/fdf-awards.aspx#packaging>

## Generic

- Green Dragon Environmental Standard  
<https://www.groundwork.org.uk/green-dragon/>
- The EC Eco-Management and Audit Scheme (EMAS) for SMEs  
[https://ec.europa.eu/environment/emas/join\\_emas/what\\_if\\_i\\_am\\_an\\_sme\\_en.htm](https://ec.europa.eu/environment/emas/join_emas/what_if_i_am_an_sme_en.htm)
- ISO 14001 Environmental Management Systems  
<https://www.bsigroup.com/en-GB/iso-14001-environmental-management/ISO-14001-for-SMEs/>
- ISO 14005:2019 – Environmental Management Systems (for SMEs)  
<https://shop.bsigroup.com/ProductDetail/?pid=000000000030351768>
- ISO 50001 – Energy Management  
<https://www.iso.org/iso-50001-energy-management.html>
- BSI Kitemark™ for Energy Reduction Verification  
<https://www.bsigroup.com/en-GB/our-services/product-certification/industry-sector-schemes/energy-kitemark-schemes/kitemark-for-energy-reduction-verification/>
- Green Mark Accreditation  
<https://greenmark.co.uk/>
- B Corp Certification  
<https://bcorporation.uk/certification>
- The Planet Mark Sustainability Certification  
<https://theplanetmark.com/>

- Investors in the Environment Certification  
<https://www.iie.uk.com/>
- Green Accord Certification  
<https://www.green-accord.co.uk/>
- Green Achiever Environmental Accreditation  
<https://greenachiever.co.uk/>
- Business Wales Green Growth Pledge  
<https://businesswales.gov.wales/green-growth-pledge-1>
- The Prince's Responsible Business Network in Wales – Wales Responsible Business Awards  
<https://www.bitc.org.uk/responsible-business-awards-wales-2020/#awardcategorydetails>
- Global Good SME of the Year Award  
<https://globalgoodawards.co.uk/global-good-sme-of-the-year/>
- Sustainable Food Awards  
<http://sfawards.com/>



# GLOSSARY

**Anaerobic Digestion** – a biological process where biodegradable wastes, such as food waste, is encouraged to break down in the absence of oxygen in an enclosed vessel. It produces carbon dioxide, methane (which can be used as a fuel to generate renewable energy) and solids/liquids known as digestate which can be used as fertiliser.

**ASC** – Aquaculture Stewardship Council.

**Biodegradable** – able to decay naturally and in a way that is not harmful to the environment.

**Biodiversity** – the variety of life in plants, species and ecosystems found on Earth.

**Biowaste** – this includes biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises, and comparable waste from food processing plants.

**Carbon Footprint** – is an estimated measurement of the amount of Carbon Dioxide that is produced annually and emitted into the atmosphere by the direct and indirect actions of individuals, households, buildings, companies, cities, communities or countries.

**Carbon Offset** – a reduction in emissions of carbon dioxide or other greenhouse gases made in order to compensate for emissions made elsewhere.

**Child Labour** – the exploitation of children to engage in economic activity, on a part-time or full-time basis, and which deprives children of their childhood development.

**Circular Economy** – a circular economy is an alternative economic system based on the principles of designing out waste and pollution, keeping products and materials in use for as long as possible, and regenerating natural systems.

**Closed Loop Recycling** – collecting and capturing the components of products and putting them back into the production process to produce further goods.

**Climate Change** – a significant change in measurements (such as temperature, precipitation), relating to the climate which has occurred for an extended period.

**CSR** – Corporate Social Responsibility is a corporation's initiatives to assess and take responsibility for the company's effects on environmental and social wellbeing.

**Deforestation** – the cutting and removal of all or most of the trees in a forested area.

**Energy Efficiency** – reduction in the amount of energy used to provide products and services.

**Ethical Trade** – having confidence that the products we buy have not been made at the expense of workers in the global supply chain.

**Fairtrade Mark** – a registered certification label for products sourced from producers in developing countries. Fairtrade covers better prices, decent working conditions, local sustainability, and fair terms of trade for farmers and workers in the developing world.

**Flexitarian** – a semi vegetarian diet centred on plant foods with the occasional inclusion of meat.

**Food Security** – having reliable access to a sufficient quantity of affordable, nutritious food.

**FSC** – Forest Stewardship Council.

**Gender Equality** – equal ease of access to resources and opportunities regardless of sex.

**GHG** – Greenhouse gas.

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**Global Warming** – an increase in the average temperature in the atmosphere and The Earth’s surface, and which can contribute to the changes in global climate patterns.

**Linear Economy** – our current dominant economic system, which is based on the ‘Take-Make-Waste’ model, with little consideration of the end-of life stage, rather than regenerating as in a circular economy approach.

**Modern Slavery** – is the recruitment, movement, harbouring or receiving of children, women or men through the use of force, coercion, abuse of vulnerability, deception or other means for the purpose of exploitation.

**MSC** – Marine Stewardship Council.

**NGO** – Non-governmental organisation. A not for profit, citizen-based group that functions independently of government.

**Organic Farming** – growing and production of plants and animals for food and other products without using artificial chemicals.

**PR** – Public Relations.

**Recycling** – the control of materials at disposal to allow for the reuse of their components and materials.

**RSPO** – The Roundtable on Sustainable Palm Oil.

**RTRS** – The Round Table on Responsible Soy.

**SME – Small to Medium Enterprise** - medium sized businesses with less than 250 staff, a turnover of less than €50 million, or a balance sheet total of less than €43 million; small businesses with less than 50 staff, a turnover of less than €10 million, or a balance sheet total of less than €10 million; and micro-businesses with less than 10 staff, a turnover of less than €2 million, or a balance sheet total of less than €2 million.

**Supply Chain** – a system consisting of resources, activities, organisations, people, information which moves a product or service from suppliers to customers, in an onward chain, transforming resources and components into a finished product for the end customer.

**Sustainability** – focus on meeting the needs of the present without compromising the ability of future generations to meet their needs; in this instance related to the avoidance of the depletion of natural resources in order to maintain an ecological balance for the future.

**United Nations** – international organisation founded in 1945. It is currently made up of 193 Member States. The mission and work of the United Nations are guided by the purposes and principles contained in its founding Charter and is made up of the UN itself and many programmes, funds, and specialised agencies.

**Vegan** – a consumer who does not eat or use any animal products.

**Waste Hierarchy** – sets out the order in which options for waste management should be considered based on environmental impact. It is a useful framework that has become a cornerstone of sustainable waste management.

**Water Footprint** – a measurement of the total water consumed to produce the goods and services it provides.

**WRAP** – Waste and Resources Action Programme.

**WG** – Welsh Government.

Arloesi Bwyd  
**Cymru**  
Food Innovation  
**Wales**



HELIX



Ariennir gan  
**Lywodraeth Cymru**  
Funded by  
**Welsh Government**