Carbon Literacy for The Food Sector

Course Overview

Shareable Course

2025

The Carbon Literacy Project

Carbon Literacy Project

About

‘Future Proofing your Organisation through Educational Transformation’

The Carbon Literacy Standard is a training framework that has been designed to enable transformative behaviour change across an organisation.

This Shareable Course has been developed using this framework to allow accessible and engaging training specifically for food brands.

The materials allow easy access to the latest evidenced based science, empowering your people to develop definable, realisable actions towards sustainability initiatives.

The shared evidence base behind the course will also provide crucial support to your sustainability department, informing decision-making and guiding strategies.

“Thinking about running a Carbon Literacy course? Do it!

It’s informative, it’s fun, it’s scary at times…..I mean this is a big problem we’re facing – but you go away feeling really empowered, ready to do something about it.”

Hugh Fearnley-Whittingstall, celebrity chef & environmental campaigner

“We felt this training had a vast amount of important information that is very suited to helping everyone understand more about climate change due to carbon emissions more clearly.”

Lush

“It equips us to act in response to the climate crisis and strengthen our carbon knowledge.”

Mark Fenton, Carbon Manager, **HS2**

AutoTrader

Won *Company Award for Sustainability* at the *2022 Car Finance Awards*.

Work with the Carbon Literacy Project was noted by judges as a “fantastic achievement”

Why Carbon Literacy?

Carbon Literacy Project

Transform your culture by…

Creating Awareness

Empower your employees to embrace sustainability & motivate them to recognize the need for change and participation.

Shifting Mindsets & Values

Highlighting sustainability benefits & addressing resistance aligns employees with your sustainability goals.

Fostering Engagement & Ownership

Training promotes collaboration, allowing your employees to identify solutions & share best practices.

Improving Employee Morale & Engagement

Commitment to environmental responsibility boosts morale, engagement, & loyalty.

The question should be 'why not?' rather than 'why should you be engaging in behaviour change training?'

...to benefit from

Improved Public Perception & Reputation

Environmental training demonstrates commitment, enhancing your brand amongst investors & the public.

Greater Regulatory Compliance

Training ensures compliance with environmental regulations, avoiding penalties & legal issues.

Cost Savings

Low-carbon practices result in significant cost savings, including energy bills and waste disposal fees.

Enhanced Competitive Advantage

Differentiating as sustainable attracts and retains customers, giving you a competitive edge.

Innovation & Market Opportunity

Engaging staff drives innovation and creates market opportunities for sustainable products & services.

Better Risk Management

Environmental policies identify and mitigate risks, protecting your operations and supply chains.

Greater Investor Attractiveness

Environmental policies attract investors & increase capital access.

Future Proofing

Environmental policies position your organisation for a sustainable future, addressing challenges.

"The Carbon Literacy Project is a fantastic initiative for any business that wants to take an informed step forward in their sustainability agenda"
Emma Love, Product & Sustainability Director, **PROPER**

Getting Started

Sector Specific

Developed for the sector with the latest evidenced-based science & designed to be delivered by peers.

Adaptable

You can make it relevant to your organisation and area with customisable slides.

User Friendly

There's no need to be a carbon expert to deliver, but attending a Carbon Literacy course & our free Delivering Successful Carbon Literacy Workshop will be helpful.

Complete Kit

All materials needed for a day's worth of certified Carbon Literacy training are included

Accreditation

This Shareable Course is only licensed for certified Carbon Literacy training within the sector - all learners must pledge an individual and group action.
The trainer must submit learners' evidence forms to evidence@carbonliteracy.com within approx. 2 weeks of the training with a certificate request form.

Becoming a Carbon Literate Organisation showcases commitment to a low-carbon culture.

Before starting training

In our 'getting started' pack you will find our bank details document and our invoicing setup form.
Before starting training, please complete and return our invoicing setup form to accounts@carbonliteracy.com and set up The Carbon Literacy Trust on your accounting system. This allows us to issue invoices to cover certification costs and prevents hold-ups in returning certificates.
Some organisations bulk purchase certificate applications in advance which reduces admin for both parties.
Alternatively, we can invoice you for each batch of learners.

What does the Toolkit include?

- Getting Started Pack
- Slide Deck & Trainer Script
- Trainer Manual & Source Materials
- Pre & Post-Course Forms
- Evidence Forms
- Activity pdf

Process of Delivering Carbon Literacy Training

STEP ONE

Arrange a meeting with The Carbon Literacy Project asking to discuss the Shareable Course for the Food Sector

Contact email address: info @carbonliteracy.com

Receive course materials from the Carbon Literacy Project and customise the editable slides.

Questions may include:

Who will be involved in delivering the training?

Who will the training be delivered to first?

How often will the sessions be run?

How many segments will I break training into?

Will the sessions be online or in person?

Trainers to attend one of our 'Delivering Successful CL' workshops listed here.

This allows trainers to become a Carbon Literacy Facilitator

This is not an essential step but the sessions are recommeded to give trainers a better understanding of what being a Carbon Literacy Trainer entails.

STEP TWO

Begin training delivery

It's good to start with small sessions first to build confidence.

Submit learner evidence

It's a good idea to check over evidence first to ensure it meets the Certificate Marking Guide criteria

Evidence can be submitted to evidence@carbonliteracy.com, alongside the Certificate Request Form

Start working towards Carbon Literate Organisation accreditaiton

More information can be found on the Carbon Literacy website

Carbon Literacy Project

Running Order and Course Content

Module	Topic	Time	Activity Duration
Intro	Introductions/Housekeeping	9:00	0:06
	Optional What is Carbon Literacy? (4 mins)	9:07	0:00
	Learning outcomes/Certification	9:06	0:05
	The sustainable development goals	9:11	0:03
Module 1 Nature, Climate & Society	Optional video on sustainability (2 mins)	9:14	0:00
	Optional video on sustainability (3 mins)	9:14	0:00
	Icebreaker: Understanding the concept of risk	9:14	0:10
	Planetary boundaries	9:24	0:10
	Optional discussion (10 mins)	9:34	0:00
	Are we wearing plastic blinkers?	9:34	0:08
	Greenhouse gases and the greenhouse effect	9:42	0:11
	Values: Equity	9:53	0:08
	Optional video: Equity (4 mins)	10:01	0:00
	Break	10:01	0:10
	Editable: Reducing the UK's Carbon Footprint	10:11	0:07
	Local and national Impacts	10:18	0:15
	Editable: Impacts on your organisation	10:33	0:05
	Pathways to our future and close of module 1 (+ optional quiz, 5 mins & optional checkin, 5 mins)	10:38	0:18

	Choose any of the optional elements highlighted in red that are suitable for the audience (up to 8 - 10 mins of time available)	10:56	0:08
Module 2 The Power of Personal Change	Intro and learning outcomes	11:04	0:04
	Why is personal change so important?	11:08	0:07
	Carbon Footprints	11:15	0:04
	Optional Video: the carbon footprint (3 mins)	11:19	0:00
	Reducing your carbon footprint	11:19	0:20
	Optional break (if modules are being run across one day) 5 mins	11:39	0:00
	Greenhouse gases and food	11:39	0:06
	Optional: Are we missing the woods for the trees? (3 mins)	11:45	0:00
	Optional: Resource consumption (8 mins)	11:48	0:00
	Optional: Co-benefits of a healthy diet (10 mins)	11:48	0:00
	Green washing	11:48	0:09
	Communicating the environmental emergency	11:57	0:03
	Close (+ optional Quiz 5 mins & checkin)	12:00	0:02
	Choose any of the optional elements highlighted in red that are suitable for the audience (up to 8 - 10 mins of time available)	12:02	0:10
Module 3 Farming for our Future	Intro and learning outcomes	12:12	0:04
	Emissions in the food sector	12:16	0:05
	Food waste	12:21	0:15
	Optional: supply chain and farm food waste (10mins)	12:36	0:00

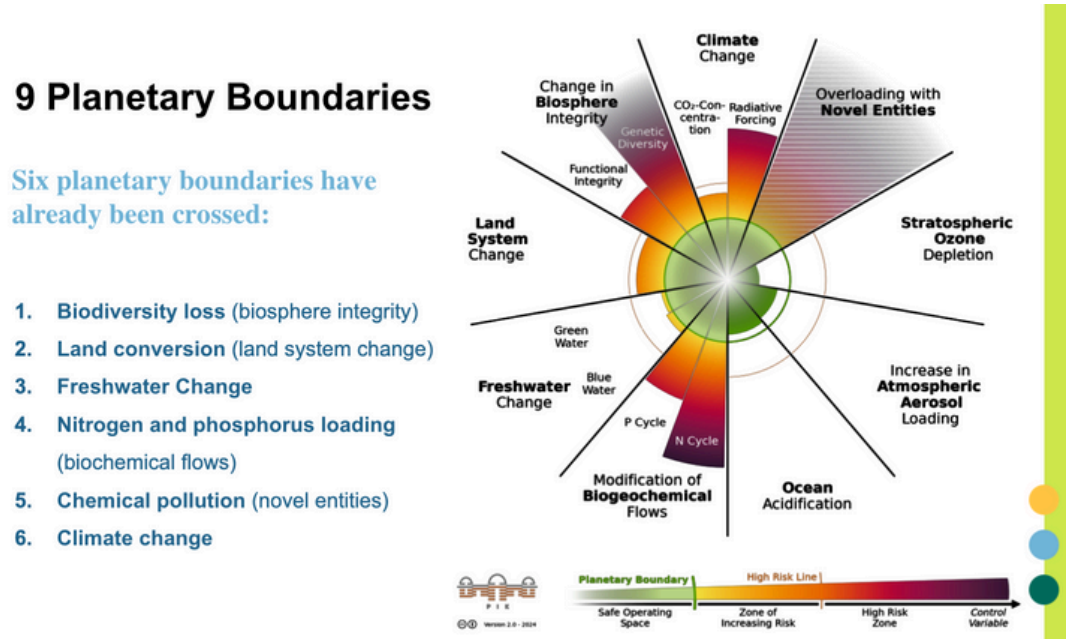
	Optional: Your food waste policy (3 mins)	12:36	0:00
	Optional: Food waste in the supply chain (2 mins)	12:36	0:00
	Linking enviromental issues with the food system	12:36	0:10
	Optional: Linking enviromental issues (8 mins)	12:46	0:00
	Biodiversity Loss	12:46	0:04
	Optional Video: The Sixth Extintion (4 mins)	12:50	0:00
	A different perspective on food	12:50	0:12
	Optional Video: Is it time to reasses our relationship with nature video (6 mins)	13:02	0:00
	Transforming our food system	13:02	0:04
	Food supply chain emissions	13:06	0:04
	The green revolution and industiral agriculture	13:10	0:08
	Soil	13:18	0:07
	Break	13:25	0:10
	Biomimicry	13:35	0:15
	Agroecology / Regenerative agriculture	13:50	0:06
	Farm case study video	13:56	0:05
	Livestock Integration	14:01	0:01
	Optional Video: Livestock Integration - Fir Farm (2 mins)	14:02	0:00
	Optional: Climate smart agriculture (prior reading homework required) 15 mins	14:02	0:00
	Policy for systemic change	14:02	0:02
	Optional Video: Agroforesty: farming for the future	14:04	0:00

	Optional: Equity in the food system (10 mins)	14:04	0:00
	Optional: Your transtion to sustainable agriculture (3 mins)	14:04	0:00
	Can agroecology feed the world?	14:04	0:04
	Optional Video: Food forests (5 mins)	14:08	0:00
	Close (+ optional Quiz 5 mins & checkin)	14:08	0:01
	Choose any of the optional elements highlighted in red that are suitable for the audience (up to 10-15 mins of time available)	14:09	0:10
Module 4 The Environment is our Business	Intro and learning outcomes	14:19	0:04
	Actions to reduce the carbon footprint of your organisation: emissions scopes	14:23	0:11
	The food sector: greenhouse gases (optional 5 minutes discussion on local food)	14:34	0:10
	Your organisations carbon footprint	14:44	0:02
	Optional: Your net zero targets (3 mins)	14:46	0:00
	Optional: Science based targets (8 mins)	14:46	0:00
	Your carbon hotspots (select and edit 3 slides), Options include, but are not limited to: Transport and Distribition, Employee Travel, Consumer Use, Packaging, Building Energy Management, Home Working, Manufacturing, Waste	14:46	0:15
	Developing a sustainable supply chain	15:01	0:03
	Influencing your supply chain	15:04	0:10

	Climate Action barriers & drivers in Climate Action	15:14	0:06
	Optional: Inspiring customers and colleagues (10 mins)	15:20	0:00
	Optional video: What is the circular economy (6 mins)	15:20	0:00
	Break	15:20	0:10
	Offsetting (optional 5 minutes discussion)	15:30	0:15
	Optional: Regenerative business (11 mins)	15:45	0:00
	Optional: GHG reduction opportunities in the food system (3 mins)	15:45	0:03
	Action planning & Evidence Form	15:48	0:35
	Wrap Up (optional quiz 5 mins & checkin)	16:23	0:03
	Choose any of the optional elements highlighted in red that are suitable for the audience (15 mins of time available)	16:26	0:17
Total Training Time (M1,2,3 &4)			7:40

Orange Slides = Activites
Blue Slides = Editable Slides
Red Slides = Optional Slides
Green Slides = Videos

Sample Slide with Trainer Script



Timing: 8 minutes (1 of 2)

At the end, there is an optional activity: Place learners in breakout rooms (10 mins)

Slide notes

- **As I said, Johan Rockström developed the 9 planetary boundaries model [1]**
  - He did this with 28 internationally renowned scientists
  - At the world leading Stockholm Resilience Centre
  - Which is part of Stockholm University
  - The planetary boundaries framework has generated huge interest within science, policy, and practice

- **They identified the nine processes that regulate the stability and resilience of the Earth system**
  - They are boundaries within which humanity can continue to develop and thrive for generations to come i.e. live sustainably
  - Crossing these boundaries increases the risk of irreversible environmental changes

- **In the red danger zones you can see that six planetary boundaries that have already been crossed**

- **The first boundary crossed is change in Biosphere Integrity – or more simply, Biodiversity loss, which we'll look at that in more detail later**

- **The second boundary crossed is land system change**
  - So when vital habitats get used for something else
  - **Can you write in the chat what you think the main pressure on these vital habitats is?**
  - again this is largely due to industrial agriculture

- **The third boundary crossed is freshwater change [5]**
  - Most of us are familiar with the term freshwater meaning water from rain, rivers, lakes and groundwater
  - But water is called green when it comes from the cycle created by soil and plants
  - The intensive use and consumption by humans depletes the resources of this water, this again is partly due to agriculture
  - It's essential for maintaining soils and humidity levels of the forests like the Amazon

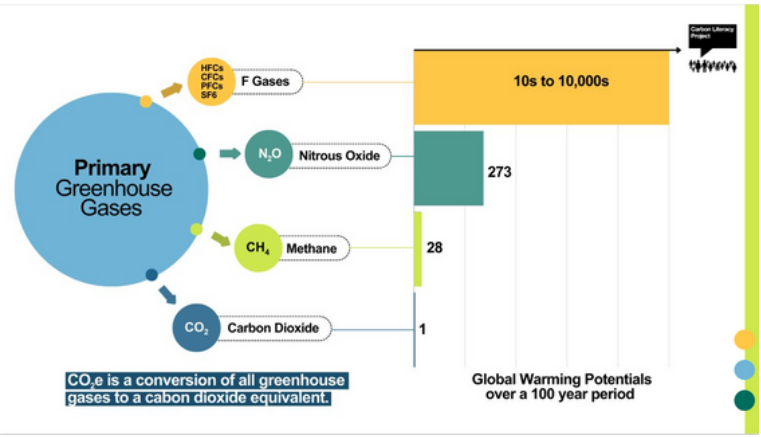
- **The fourth boundary crossed is the Modification of Biogeochemical Flows, which we will refer to as nitrogen and phosphorus loading [2]**
  - **<u>Can you write into the chat what you think the main pressure on this boundary is</u>**
  - This is largely due to the excessive use of fertilisers in industrial agriculture and animal slurry (manure) from factory farms
  - These contain a lot of nitrogen and phosphorus which run-off into waterways
  - It's not something we hear much about – but we should do!
  - It creates massive imbalances in soils so plants and animals can no longer thrive
  - It creates dead zones in the world's oceans where there is no oxygen and few organisms can survive
  - It is also the main cause of pollution in UK rivers (more problematic than the human effluent so often reported on)

- The fifth boundary crossed is Overloading with Novel Entities – or more simply - chemical pollution
- which we will look at briefly in the next slide

- The sixth and last boundary crossed is climate change
- we will look at climate change in much more detail throughout the course

[The Trainer Script continues with social boundaries, interlinking to the United Nations Sustainable Development Goals. Further reading on the information in the script is beneath the Trainer Notes along with the links to all evidenced-based sources.]

Sample Slides



<u>Focus on climate change</u>

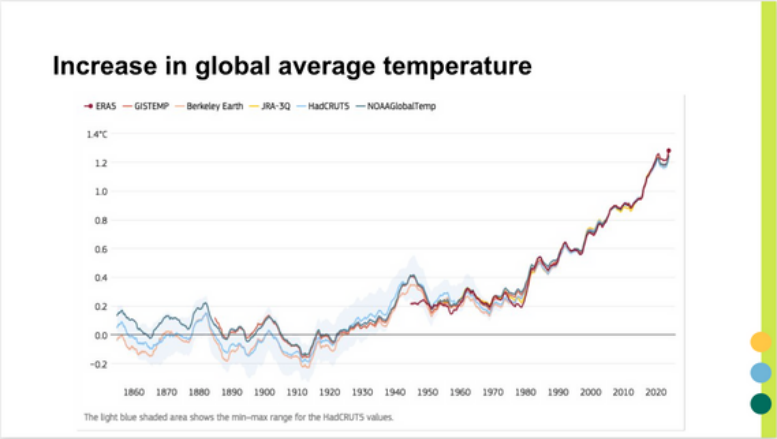
Summary of slide content:

Greenhouse gases and the greenhouse effect

- Brief explanation of the basic science and the main sources of GHGs

The carbon cycle

- There have been increases and decreases in carbon dioxide levels in the atmosphere in the past but the current speed of change is unprecedented. Natural ecosystems simply will not be able to adapt.



Emissions over time

Summary of slide content:

- About half the world's population is living in regions that saw their hottest daily temperatures since 1950 during the past 10 years.
- The graph shows six widely used datasets represented as different colour lines to show the temperature as an increase above the 1850-1900 average. Note: they all follow the same pattern.

Understanding the impacts of day-to-day activities

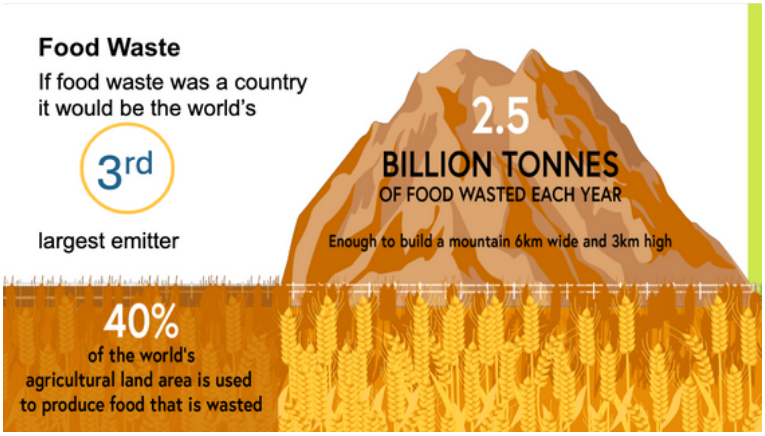
Summary of slide content:

So, let's start by looking at which activities would reduce your carbon footprint the most:

- We can then think about how these same actions impact other environmental issues

Interactive exercise:

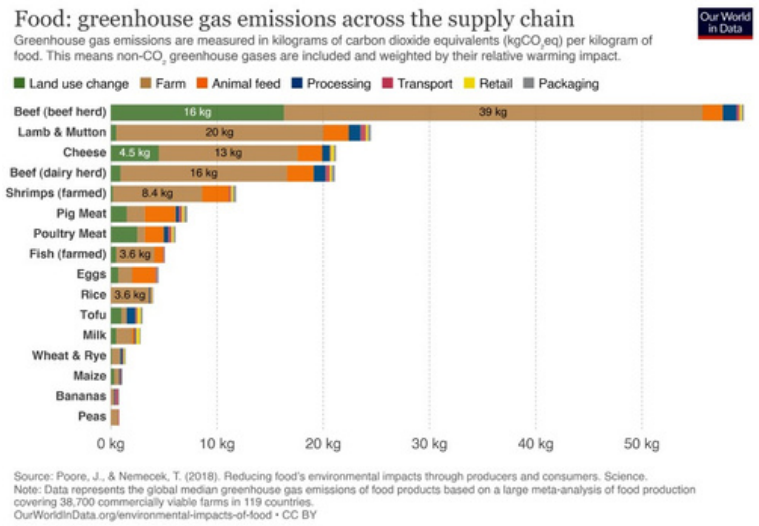
- **What two things would reduce your carbon footprint the most?**
- **And, which two things would reduce your carbon footprint the least?**



Food waste

Summary of slide content:

- New research from Tesco and WWF estimates that around 40% of the world's food was lost or wasted every year. If food waste was a country, it would be the world's 3rd largest emitter.
- Project Drawdown – which estimates the potential contribution of different mitigation actions – "ranks cutting food waste ahead of moving to electric cars and switching to plant-based diets"

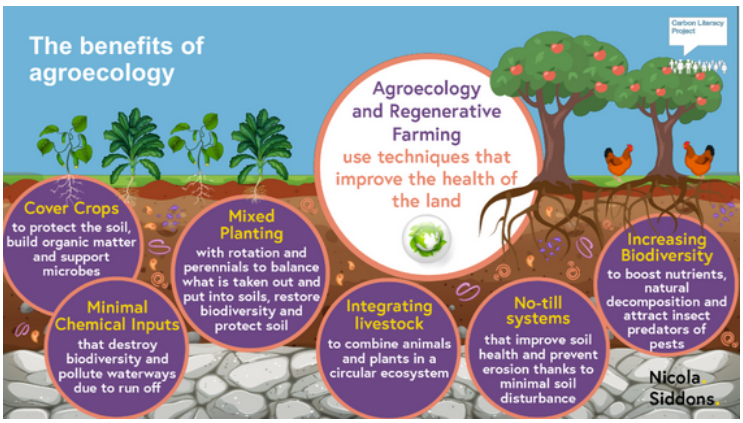


Greenhouse gases across the supply chain

Summary of slide content:

- The 'farm stage' of the supply chain creates the most greenhouse gas emissions accounting for 80% of emissions.
- Farm practises and land use also have a huge environmental impact in many other environmental areas.
- The other parts of the supply chain are comparatively small even for plant-based foods.
- This means, for many companies in the food sector, on-farm emissions will be the biggest component of their business carbon footprint.
- This is why improving our farming techniques is absolutely critical in tackling the environmental emergency.

Image courtesy of Our World in Data



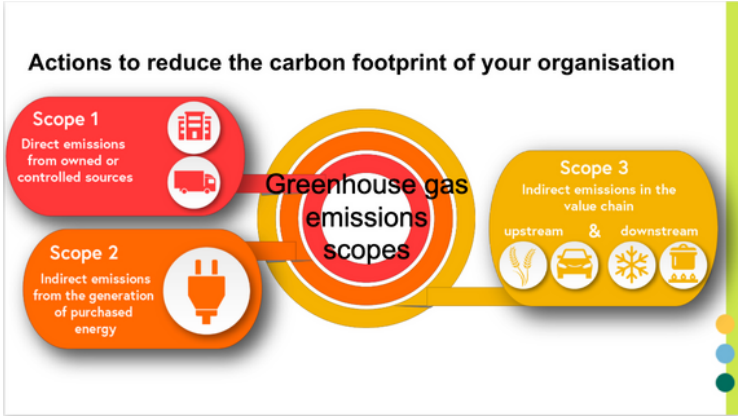
The benefits of regenerative farming and agroecology

Summary of slide content:

- An approach that works with nature.
- An umbrella term that incorporates techniques and values from regenerative agriculture & organic farming

Agroecology improves soils, stores carbon and creates fertility reducing the use of industrial fertilizers. Methods include many of those used by nature:

- Intercropping (mixed planting).
- Low or no till.
- Crop or animal rotation.
- Use of nitrogen fixing plants.
- Use of perennials and other plants with deep root systems.
- Mulch and cover crops.
- Pesticides are excluded or reduced to a small amount of natural, specific treatments.



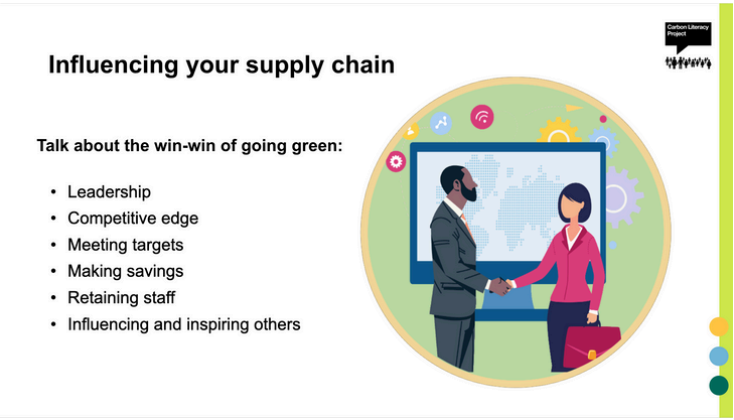
Business emissions scopes

Summary of slide content:

- Scope 1 – All direct emissions.
  Direct production of greenhouse gas emissions from sources owned or controlled by the company.
- Scope 2 – Indirect emissions from energy.
  GHG emissions from electricity purchased and used by the organisation.

Interactive exercise: Where in the business do you thi nk your scope 1 and 2 emissions are created?

- Scope 3 – All other indirect emissions from sources not owned or directly controlled by the company.



Influencing your supply chain (scope 3 emissions)

Summary of slide content:

- Creating change across your supply chain.
  Upstream and downstream targets and criteria.

Interactive exercise: Creating a sustainable supply chain

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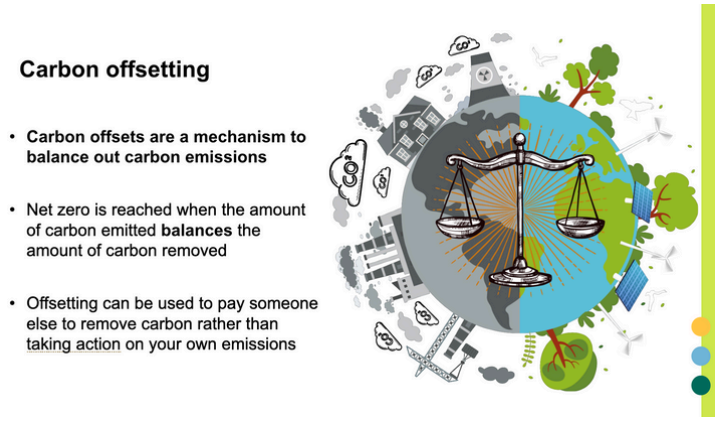
- ISO 14001 as a framework to help address your supply chain.
- Understanding the circular economy.



Carbon Offsets

Summary of slide content:

- Understanding Carbon offsets and the 'net' in net zero.
- Problems with carbon offsetting
  e.g., The land required to sequester just 2 Gigatonnes of carbon dioxide through ecosystem restoration is about 678 million hectares – about twice the area of India.
- Video – Problems with offsetting.
- Using carbon offsets effectively within a strategy of efficiency and innovation.