

Building your Net Zero roadmap

A guide for industry leaders
and decision makers



from **IGD**

Our ambition at IGD is to accelerate progress towards a sustainable food system.

We are focused on mobilising the food and consumer goods industry to tackle climate change, reduce food waste and deliver sustainable packaging systems.

We do this by bringing people and different parts of the system together, helping everyone to build knowledge, reach consensus and co-create solutions to the complex challenges we face.



Climate change is one of the greatest challenges facing the world.

The UK Government has committed to achieving Net Zero greenhouse gas emissions by 2050 and its great news that an increasing number of UK businesses and industry organisations within the food and consumer goods industry are committing to Net Zero by 2040.

Having spoken with many leaders and decision-makers, from businesses of all sizes across our industry's supply chain, we know there is a huge appetite to innovate and lead our industry's transition to a Net Zero economy. We also know that for many businesses it's not always clear where to start the journey.

We have partnered with climate change specialists [South Pole](#) to create this new guide which is designed to help business leaders and decision makers kick start their Net Zero journey.

It includes the business case for urgent action and a new framework for a robust Net Zero strategy, including how to make a start and build momentum.

We hope you find this guide inspiring and helpful in driving action in your business and through your supply chain. We look forward to your feedback and to working closely with you on this issue.

Susan Barratt CEO, IGD

“ Simple, practical guidance is essential to engaging all businesses in the race to Net Zero and I very much welcome this guide developed by IGD.

We need UK businesses to be at the forefront of decarbonisation: given our heritage of innovation and our global supply chains, the positive actions we take here will cascade across the world.

”



Andrew Griffith MP

UK Net Zero Business Champion

There is a huge opportunity for businesses of all sizes to innovate and lead the UK's transition to a Net Zero economy.

Use our free guide to make a start, build momentum and achieve a leadership position on your journey towards Net Zero.

You can contact us for more information, best practice guidance and to share your Net Zero journey progress at

sustainability@igd.com

Social Impact from **IGD**

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Acknowledgements

We would like to thank the industry partners who contributed their time and insights in the preparation of this report.

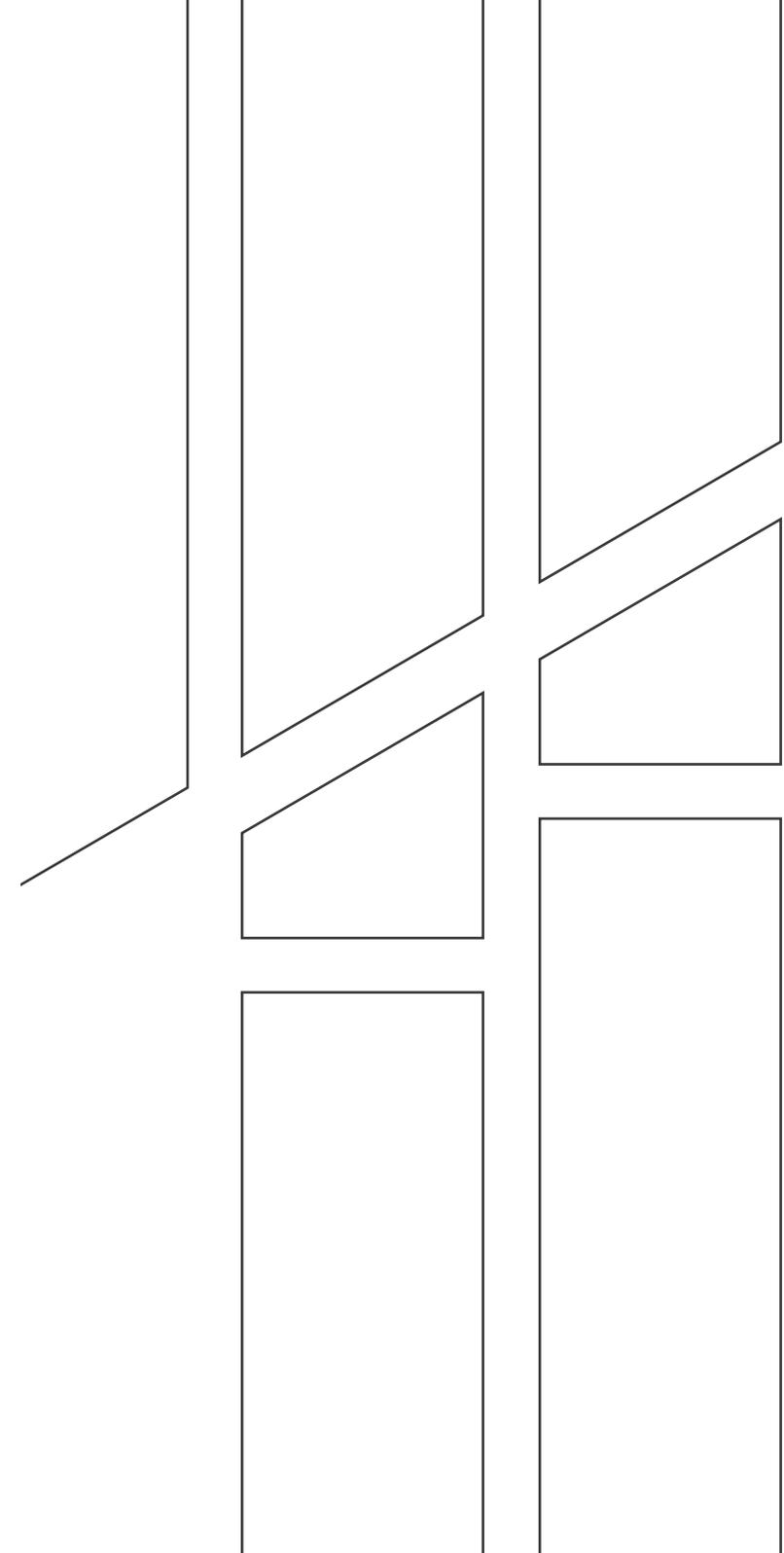
Climate change caused by human activities is one of the greatest challenges facing the world.

The UK Government has committed to achieving Net Zero greenhouse gas emissions by 2050 and an increasing number of UK businesses and industry organisations are committing to Net Zero by 2040.

There is an opportunity for businesses of all sizes and across all parts of the value chain to work in partnership to tackle carbon hotspots and accelerate the UK's progress towards Net Zero. Businesses leading the transition to a Net Zero economy are set to benefit through gaining competitive advantage, building more resilient businesses models and exceeding stakeholder expectations.



There are five key areas where businesses of all sizes can act to accelerate progress towards Net Zero. For each of these areas, we set out how businesses can make a start, build momentum and achieve a leadership position.



Climate change:

The case for
urgent action

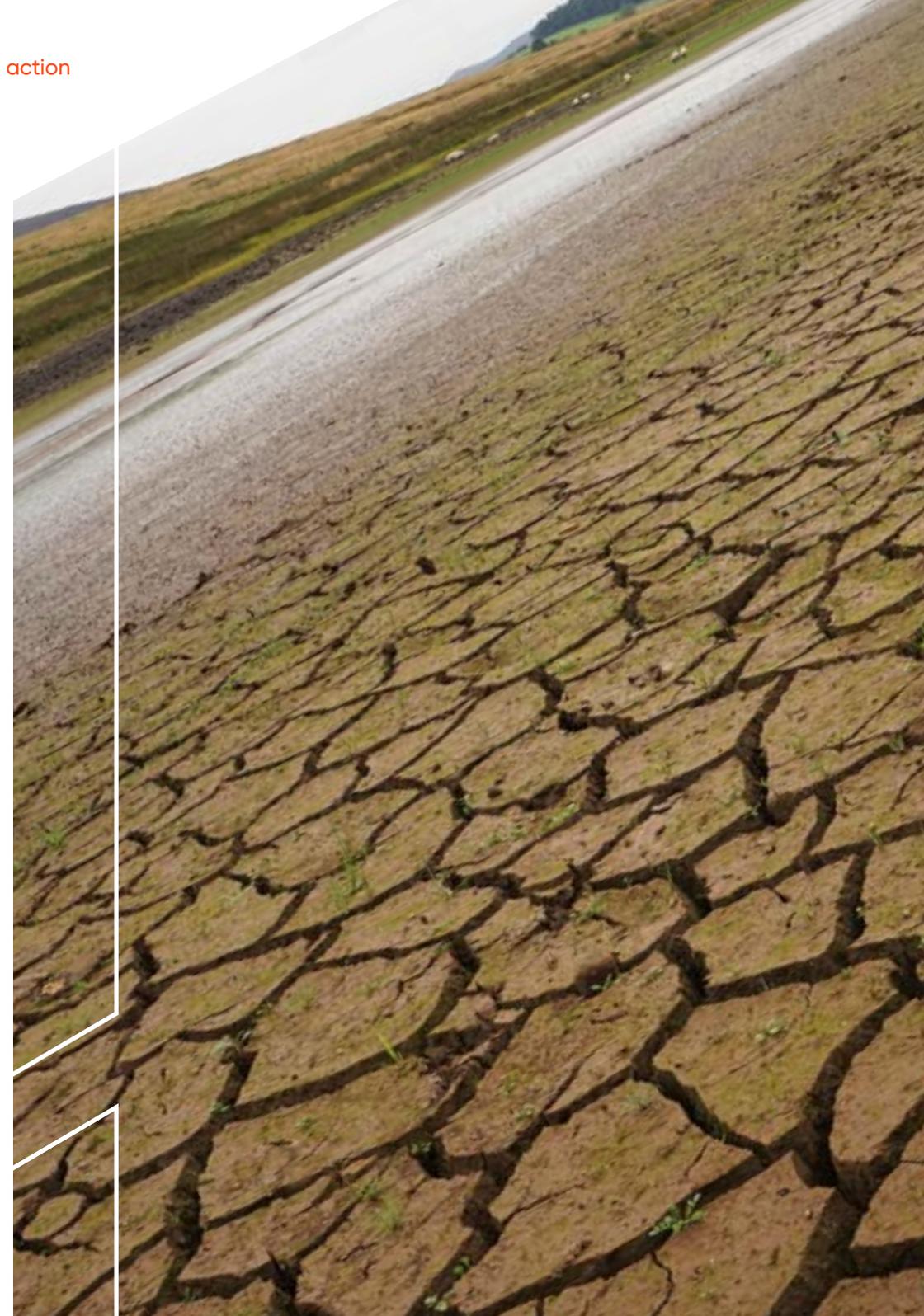
The climate emergency

Climate change is one of the greatest challenges facing the world.

Greenhouse gases from human activity have already led to 1.2°C of global warming from pre-industrial levels, which has resulted in damaging impacts on lives, infrastructure, agriculture and ecosystems.

Global emissions of greenhouse gases will continue to rise without immediate action. Under current policies, global temperatures will rise by around 3°C by the end of this century.

The United Nations Intergovernmental Panel on Climate Change has concluded that we need to keep global warming to a maximum of 1.5°C to avoid irreparable damage and catastrophic consequences for people and our planet.





Net Zero emissions involves significant reductions in greenhouse emissions with any emissions that cannot be prevented being neutralised by nature based or technology solutions. To achieve Net Zero, the world needs to reduce its emissions by 45% by 2030 and achieve – at a minimum – Net Zero emissions by 2050.

The UK Government has committed to a 68% reduction in greenhouse gas emissions by 2030, 78% by 2035 and to achieve Net Zero by 2050. Close to 130 other nations, representing 70% of global gross domestic product, have also committed to Net Zero targets within the next three decades.

Businesses across all industries have a **central role** to play in delivering greenhouse gas emissions reduction targets and achieving Net Zero

The pathway to Net Zero

For businesses, delivering Net Zero will involve two main elements:

Near-term: Deep carbon reduction - at least 45% reduction by 2030: as a priority, businesses must rapidly reduce human-caused emissions – such as those from fossil fuel use or deforestation – from across their value chain, to be as close to zero as possible.

Long-term: Further reductions and carbon neutralisation through removals – by 2050: Once businesses deliver deep carbon reductions in the near-term, a minimum reduction of 72% for FLAG emissions and 90% for non-FLAG emissions needs to be delivered by 2050. Any remaining emissions that are difficult to avoid should be neutralised with an equivalent amount of carbon removal credits through nature-based solutions like restoring forests or technology such as direct air capture and storage.

The Science Based Targets Initiative (SBTi) has published sectoral guidance for companies with land intensive activities, referred to as Forest, Land and Agriculture (FLAG). For target setting and validation, these companies need to split out and report emissions from FLAG and non-FLAG activities separately. Both land-related emissions and removals occurring within production areas count towards near-term target performance.

The role of the food supply chain

The food supply chain is responsible for approximately 26% of global greenhouse gas emissions annually.

At the same time, the industry is on the frontline when it comes to experiencing the effects of climate change. However the industry also holds many of the solutions to delivering a Net Zero world, including:

- ▶ Ensuring sustainable and resilient agricultural systems
- ▶ Switching to renewable energy
- ▶ Promoting resource efficiency and circularity from farm to fork, including tackling food waste
- ▶ Making healthy and sustainable diets affordable and accessible to all

An increasing number of UK food businesses and industry bodies are committing to Net Zero by 2040 including:



[British Retail Consortium](#)



[Food and Drink Federation](#)



[National Farmers Union](#)

There is an opportunity for businesses of all sizes and across all parts of the value chain to work in partnership to **tackle carbon hotspots and deliver a Net Zero UK food industry**

The business case

Businesses leading the transition to a Net Zero economy are set to benefit in three main ways:

Gaining competitive advantage

Innovation and efficiency will lead to new revenue generation and cost saving opportunities. Immediate action will help businesses stay ahead of customer requirements and new regulatory and carbon tax/ pricing schemes. Strong commitments and their delivery will result in better access to financing and reduced insurance costs.

Building resilient business models

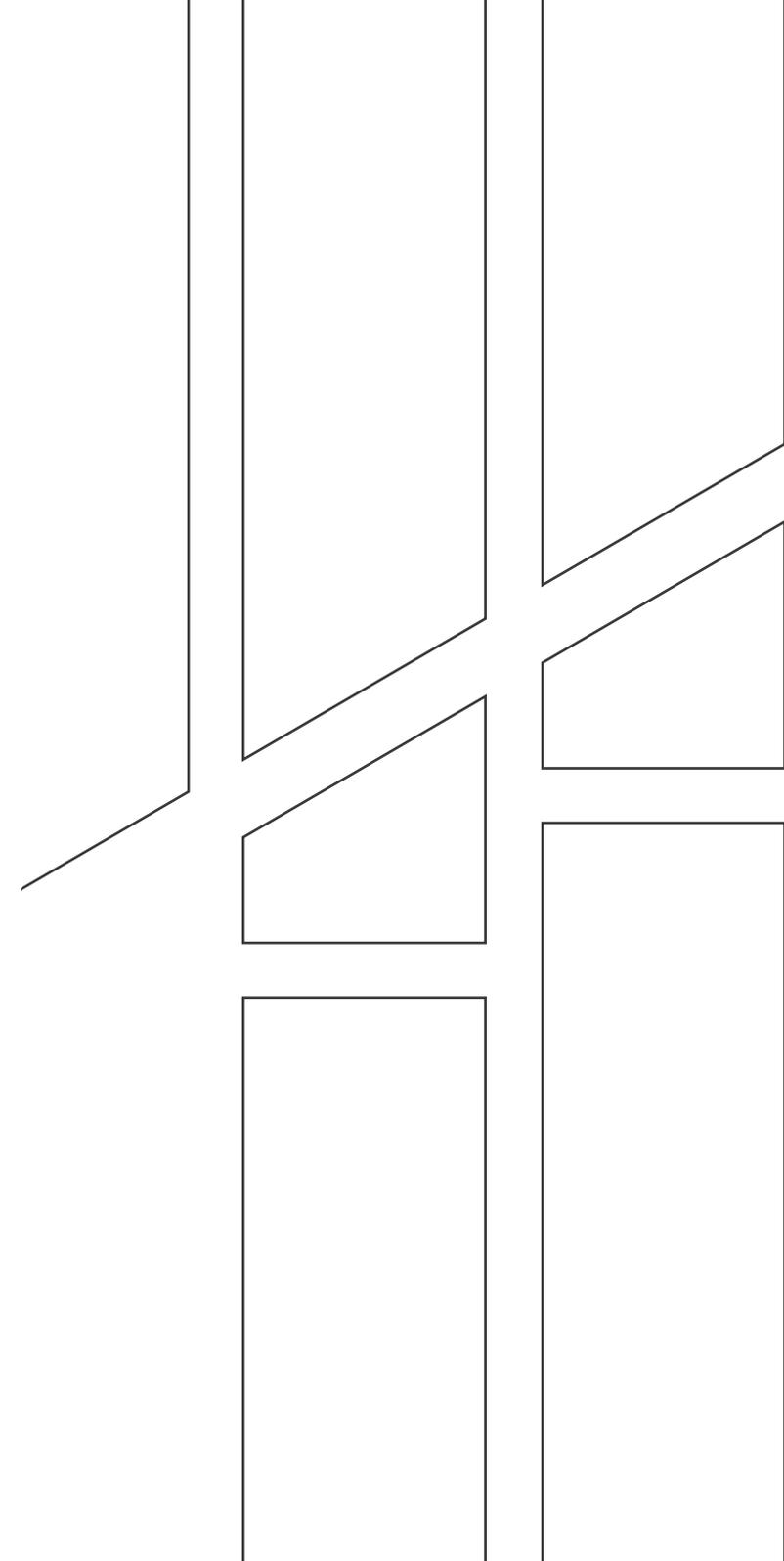
Building partnerships and investing in supply chains will help drive efficiency and increase resilience to existing and future impacts of climate change. Responding to growing consumer preferences for lower carbon products and services presents an opportunity for new business models and sustained growth.

Exceeding stakeholder expectations

Leadership will build trust and drive engagement with customers, investors, colleagues, suppliers, consumers and communities.

A strategic framework for Net Zero

There are five key areas where businesses of all sizes can act to accelerate progress towards Net Zero. For each of these areas, we set out how businesses can make a start, build momentum and achieve a leadership position.



Measure

An important starting point is understanding the relationship between the activities delivered across business operations and the value chain, and the greenhouse gas emissions that are generated as a result.

This provides the basis from which to set targets and a roadmap for their delivery.



The Greenhouse Gas Protocol [Corporate Standard](#) and [Corporate Value Chain Standard](#) have been developed to enable businesses to calculate their greenhouse gas emissions across the full value chain.

The GHG Protocol [Land Sector and Removals Guidance](#), to be published in 2023, will supplement the Corporate Standard and Corporate Value Chain Standard by describing how companies should account for GHG emissions and removals from activities such as:

- ▶ land management;
- ▶ land use change; and
- ▶ carbon removals and storage.

WRAP have also published additional guidance for food and drink businesses: [Scope 3 GHG Measurement and Reporting Protocols for Food and Drink Businesses](#). This guidance is particularly helpful for purchased goods and services.

A carbon footprint analysis involves two main steps:

1. Collecting the relevant business activity data related to the Scope 1, 2 and 3 emissions sources
2. Applying greenhouse gas 'emissions factors' to convert these activities into greenhouse gas emissions. [The Greenhouse Gas Protocol Agriculture Guidance](#) provides a list of tools to help calculate agricultural emissions.

Based on this understanding, you can also start identifying and assessing the impact of current and emerging climate risks (physical, transitional, liability) using climate change scenario analysis, as per the [Task Force for Climate-related Financial Disclosures](#) (TCFD) guidelines.

From 6 April 2022, all private companies with over 500 employees and £500 million in turnover will have to [disclose](#) climate-related financial information in accordance with TCFD guidelines.



Scope 1, 2 and 3 greenhouse gas emissions

Direct or 'Scope 1' greenhouse gas emissions are generated through producing products or delivering services. Common activities resulting in Scope 1 emissions include:

- ▲ Emissions from agriculture and land use change (e.g. deforestation/ conversion) on owned/controlled land.
- ▲ Fuel used to operate equipment in processing sites and in company-owned vehicles
- ▲ Gas consumption for heating
- ▲ Use of refrigerant gases for cooling

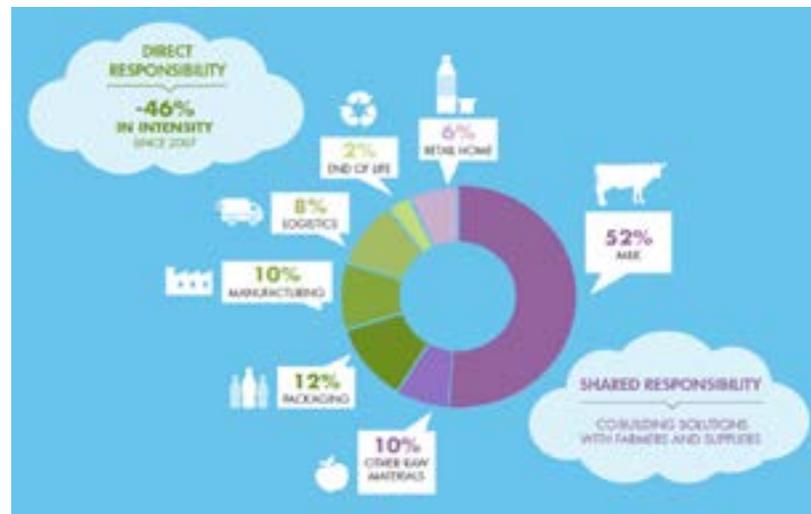
Scope 2 emissions are indirect emissions related to purchased electricity, heat, and/or steam used on sites.

Scope 3 emissions are indirect emissions from sources upstream or downstream of business' sites. Common activities resulting in Scope 3 emissions include:

- ▲ Production/extraction of raw materials (e.g. agriculture ingredients, minerals, chemicals)
- ▲ Processing and transport of upstream products
- ▲ Services acquired by the business (e.g. outsourced logistics, construction of new facilities)
- ▲ Energy emissions associated with the use of the product, and any end-of-life processing or treatment

Example carbon footprints

Carbon footprint data reported through the Carbon Disclosure Project (CDP) reveals that supply chain greenhouse gas emissions are on average 11.4 times higher than emissions from the own operations of a business. The breakdown of emissions can vary greatly, depending on the nature of the business, and highlights the areas that require focus.



Danone's carbon footprint for scope 1, 2 and 3 as reported in its 2020 [CDP](#) submission. Footprint is 27,518,028 tonnes CO₂e.

Source: Danone Climate Policy

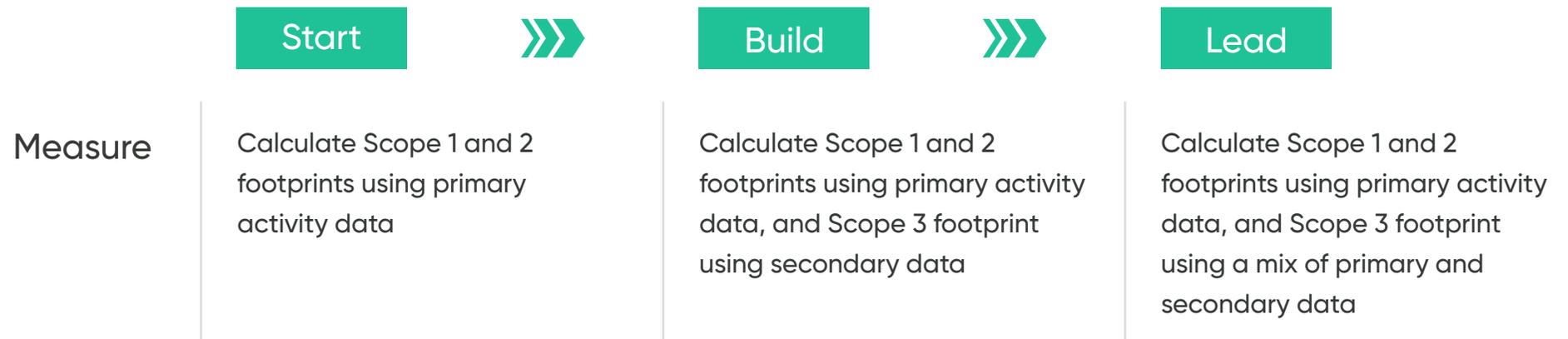


The Coca-Cola European Partners' carbon footprint for scope 1, 2 and 3 as reported in its 2020 [CDP](#) submission. Footprint is 4,260,142 tonnes CO₂e.

Source: Coca-Cola European Partners

Measure

Make a start, build momentum and achieve a leadership position



Target

Setting a science-based Climate Net Zero target and developing a Net Zero implementation roadmap enables businesses to prioritise actions and reduce climate impacts at scale and pace.



Setting a science-based Climate Net Zero target

The [Science Based Targets Initiative \(SBTi\)](#) has developed the most credible and widely accepted climate target setting approach, which has been applied by more than 1,500 businesses worldwide, representing over US\$15.4 trillion in turnover.

To kickstart the target-setting process, companies need to [commit](#) to setting Science Based Targets (SBTs) and submit target validation forms within 24 months of acknowledgement of this commitment. Within the 24-month period, food & drink companies are advised to review the following guidelines, as targets will need to consider the criteria within these:

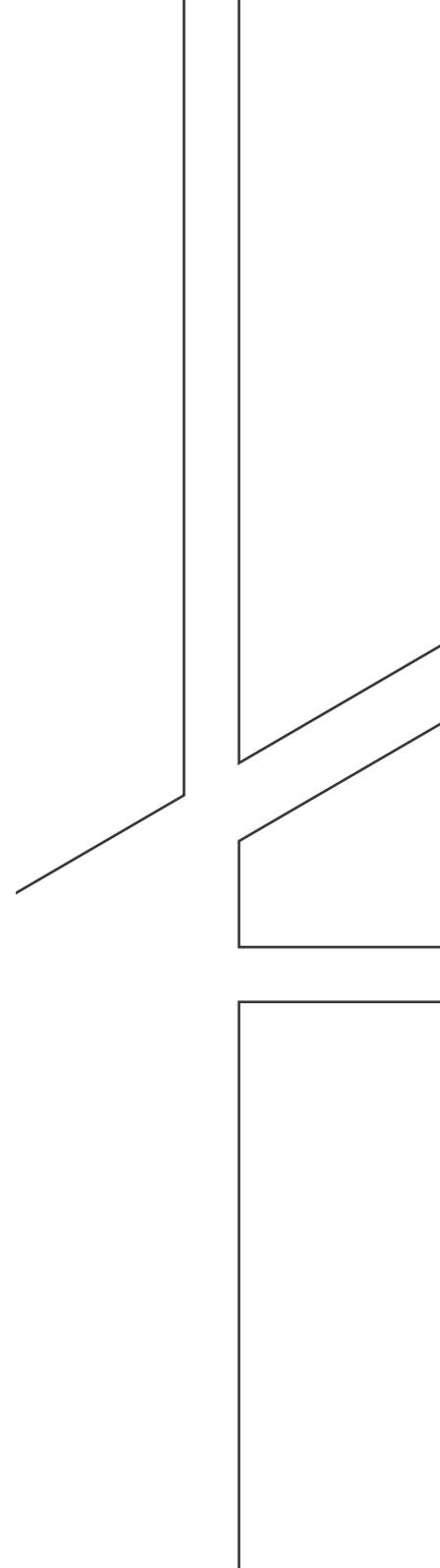
1. [The SBTi Criteria & Recommendations](#) provide criteria by which to set near-term science-based targets (5-10 years in duration from the date of validation)
2. [The Forest, Land Use and Agriculture \(FLAG\) Guidance](#) provides criteria by which to set science-based targets for companies in land-intensive sectors. Baseline emissions must be separated for FLAG and non-FLAG activities. The [GHG Protocol Land Sector & Removals Guidance](#) should be the basis for accounting FLAG emissions.
3. The [Net Zero Standard](#) provides criteria by which to set science-based Net Zero targets.

The Science Based Targets initiative has developed a [new streamlined approach for SMEs](#), to set their SBTs, which only requires businesses to set targets for Scope 1 and 2 and take action on Scope 3. The organisation defines SMEs as a non-subsidiary independent business

Developing a Net Zero roadmap

Key actions to develop a robust Net Zero roadmap include:

- Identify your material carbon hotspots across your Scope 1/2/3 carbon footprint
- Identify suitable activities that can significantly reduce greenhouse gas emissions, as well as any that can remove carbon
- Assess in further detail these interventions and the associated carbon reduction and removal potentials, implementation costs and savings
- Based on your ambition, strategy, science based targets and finances, prioritise the carbon reduction and removal interventions and develop your Net Zero roadmap and associated financing plan
- Develop a high level delivery framework including accountabilities and responsibilities across management levels and functions, an implementation programme and resources, and an approach to monitoring/ reporting/ verification (see the next section on implementation for further details)
- Share across the management team, build expertise, and gain full technical and financial buy-in
- Prepare to launch, communicate, build stakeholder buy-in and implement



Target

Make a start, build momentum and achieve a leadership position



Near-term targets	FLAG guidance aligned science-based targets for Scope 1, 2* and 3** targets		
Long-term (Net Zero) targets	72% reduction for FLAG emissions and a 90% reduction for non-FLAG emissions by the selected Net Zero year***		
Target goal year	Net Zero by 2050	Net Zero by 2040	Net Zero by 2030

*Near-term scope 1 and 2 targets must cover at least 95% of emissions under the target boundary.

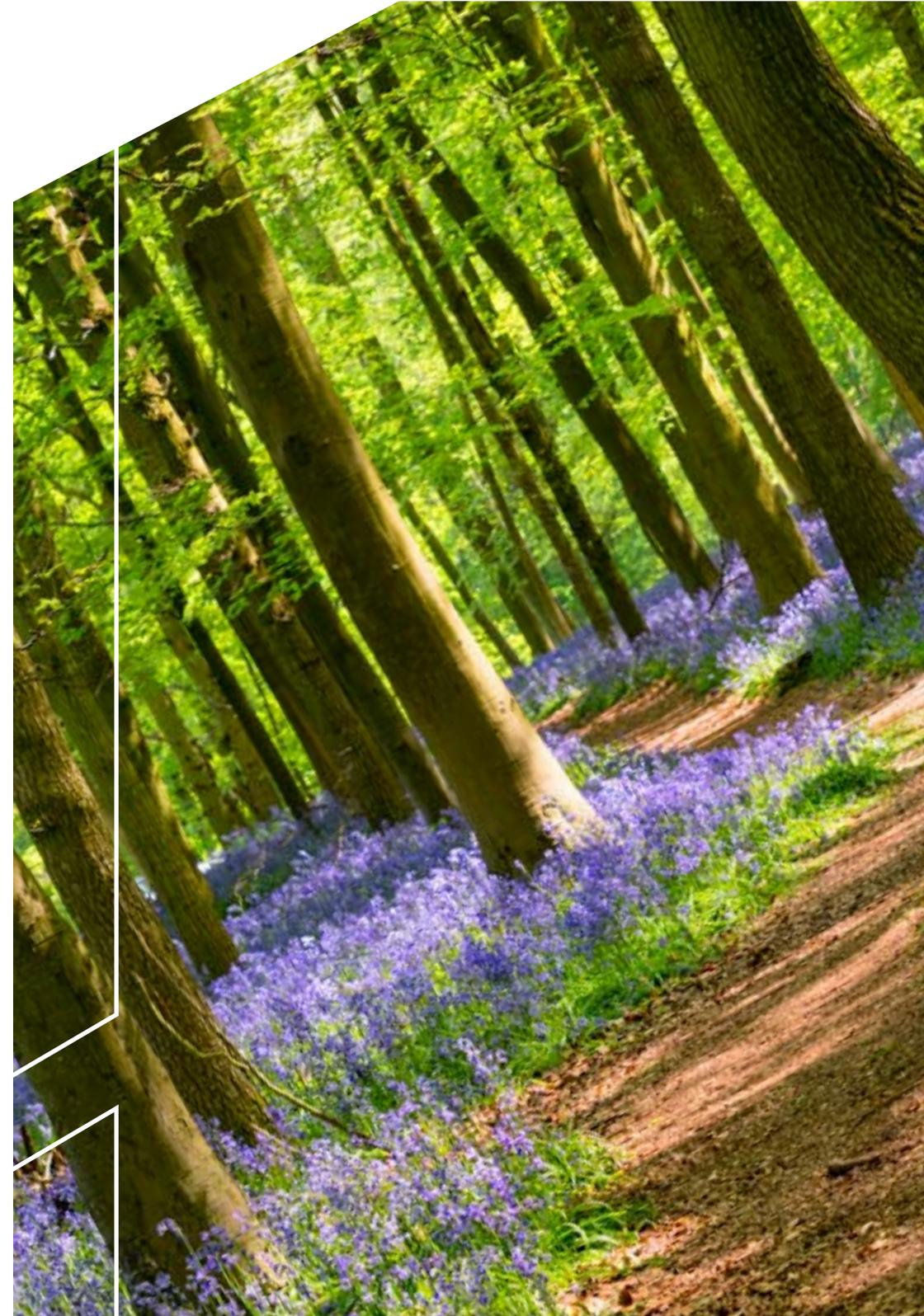
**Near-term scope 3 targets must cover at least 67% of emissions under the target boundary.

*** Long-term targets must cover at least 90% of scope emissions under the target boundary.

Implement

Climate action requires major changes to business operations and across your value chain. A robust Net Zero strategy is one that is deeply integrated into the overall strategy of a business and is fully embedded in different functions.

Working in partnership with suppliers will maximise impact and accelerate progress towards Net Zero.

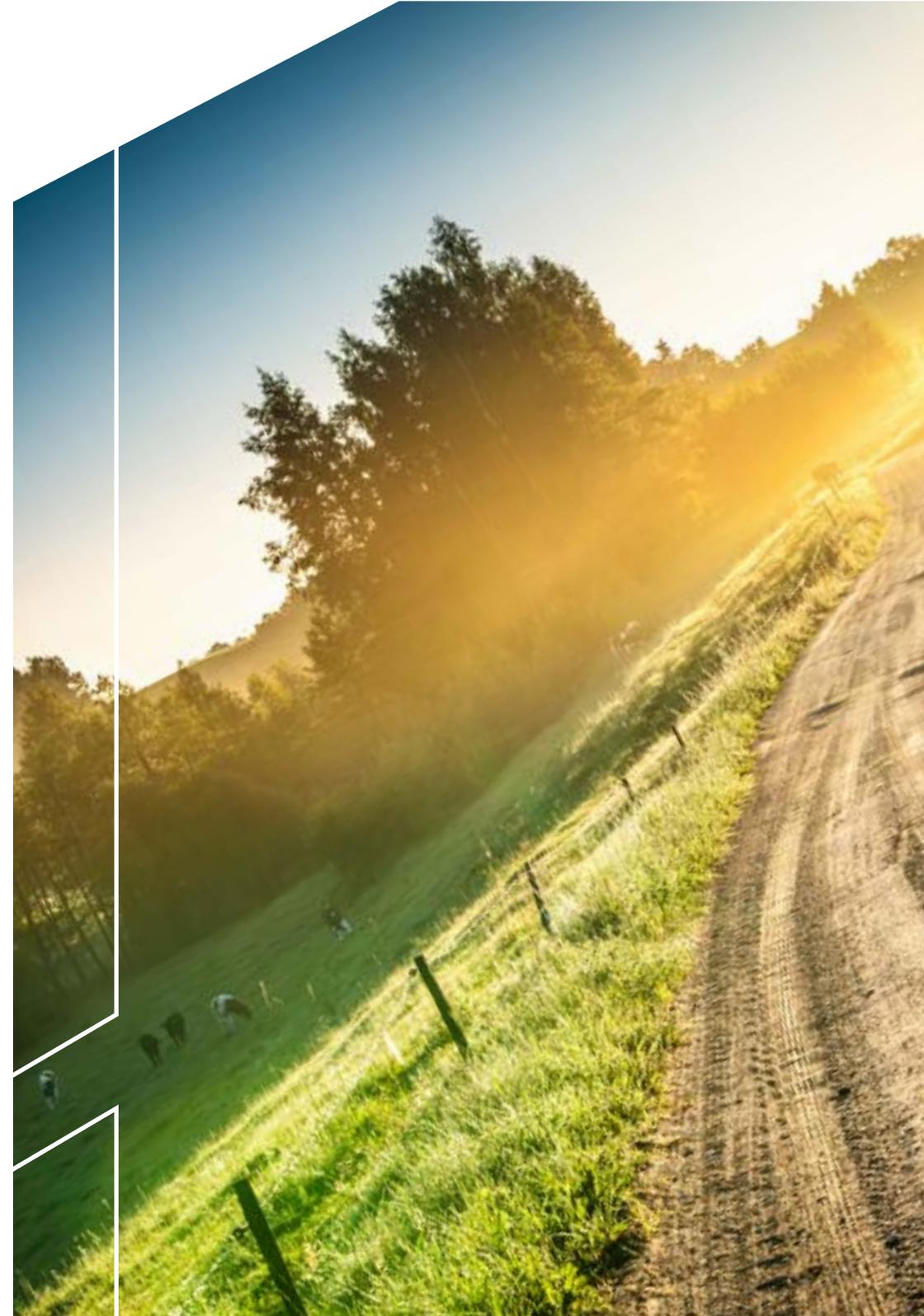




Establish governance and embed climate action into your business

- ▶ Ensure climate change is addressed at the highest levels of corporate leadership, including Board and CEO responsibility and oversight
- ▶ Assign clear accountabilities and responsibilities throughout the organisation for delivering carbon reductions, especially in each relevant function connected to your Net Zero roadmap
- ▶ Review and update business visions and mission statements to reflect climate targets and commitments
- ▶ Integrate carbon reduction criteria and metrics within your organisation's core processes to ensure decisions are made in line with your targets and defined roadmap e.g. capital expenditure/ operational expenditure, acquisitions, procurement, research and new product development

- ▶ Continuously improve the quality of your carbon footprint across Scope 1/2/3. Define specific KPIs to monitor performance by function and drive performance improvement
- ▶ Build expertise, capacity and empower colleagues to deliver your Net Zero strategy. Create climate champions for priority areas and foster friendly competition between teams and sites
- ▶ As best practice, align your governance and management of climate risks and performance to the recommendations of the [Task Force on Climate-related Financial Disclosures](#)



Neutralisation through removals

In order to achieve Net Zero, businesses will have to firstly decarbonise their Scope 1/2/3 emissions by at least 72% for FLAG emissions and 90% for non-FLAG emissions, before they would be eligible to neutralise their total remaining emissions through carbon removals.

Neutralisation through removals can be achieved through either nature-based (e.g. restoring forests/peatlands/ wetlands, biochar) or technology solutions (e.g. direct air capture and storage technology).





'Climate Neutral' vs 'Climate Net Zero'

The terms **'Climate Neutral'** and **'Climate Net Zero'** are very similar, in that they describe a point when a business balances their remaining greenhouse gas emissions with an equivalent amount of carbon credits. However, there can be key differences between these two performance claims.

Unlike **'Climate Net Zero'**, **'Climate Neutral'** claims do not always require deep decarbonisation of business' carbon footprints and can be associated with only a part of the business operations or an individual product, rather than the whole business or value chain.

'Climate Neutral' can be achieved through all types of carbon credits including projects which avoid, reduce or remove greenhouse gas emissions.

Based on the SBTi Net Zero standard, **'Climate Net Zero'** claims can only be achieved using removals.

Implement

Make a start, build momentum and achieve a leadership position

	Start	»»»	Build	»»»	Lead
Reductions	Meeting your interim and final science-based targets		Exceeding your interim and final science-based targets by 5-10%		Exceeding your interim and final science-based targets by >10%
Neutralisation through removals	Remove all remaining carbon emissions from the Net Zero target year onwards		In addition, deliver Climate Neutral operations/ products as a stepping stone towards Net Zero		In addition, become Climate Negative by removing more than all remaining emissions (either before or after the Net Zero target year)

Finance

The transition to a Net Zero economy requires businesses to invest in transforming their own operations and value chains.

Harnessing internal and external financing can help accelerate progress and incentivise the delivery of a Net Zero target.



There are three broad types of financing instruments available to businesses:

Internal financing instruments

Designed to set incentives within the organisation, these are often accounting mechanisms – such as an internal carbon price or carbon tax – that link monetary value to climate/ sustainability performance and ensure appropriate allocation of capital to low carbon investments.

Traditional external financing

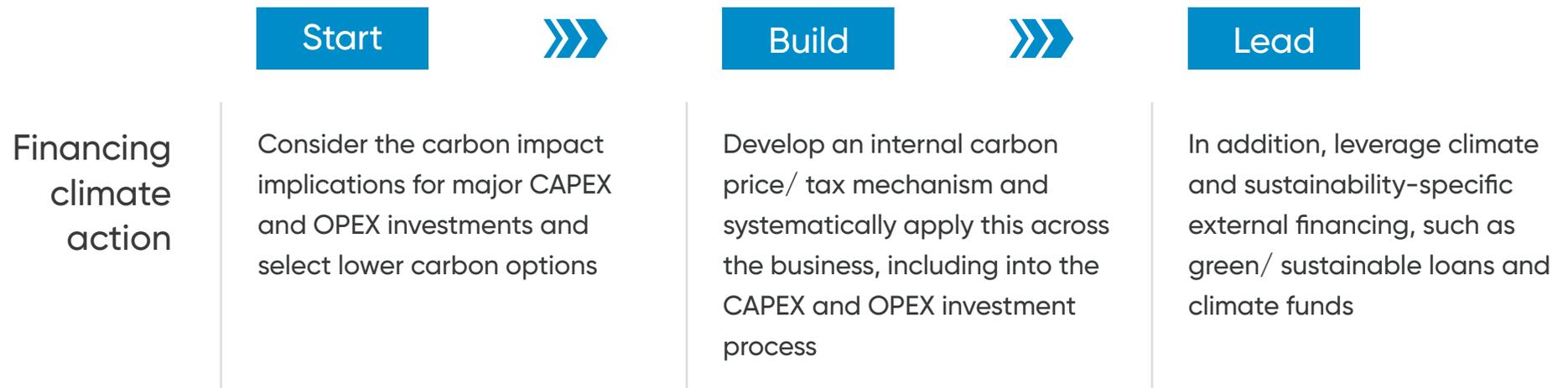
Typical corporate finance instruments (debt & equity) raised to finance interventions that have a positive Internal Rate of Return. In addition, with governments implementing national Net Zero targets, there is a significant opportunity to explore and access public-private funding schemes (e.g. grants and guarantees).

Climate/sustainability specific external financing

Green/sustainable loans and bonds, and climate funds are designed to mobilise external resources to finance interventions within businesses. The co-financing of projects with supply chain actors (e.g. customers/suppliers or with public/development agencies) is another approach that could spread the investment cost and risk of decarbonisation activities.

Finance

Make a start, build momentum and achieve a leadership position



Communicate and advocate

Leadership on Net Zero provides the opportunity to build trust and drive engagement with key stakeholders including customers, investors, colleagues, suppliers, consumers and communities.



Reporting and disclosure

Raise internal and external awareness on climate action through reporting and disclosure of your total carbon footprint, scope, targets and progress.

Consider voluntary disclosure schemes endorsed by investors, such as [Carbon Disclosure Project](#), [Global Reporting Initiative](#) and [Task Force for Climate-related Financial Disclosures](#).

Communicating progress and delivering shared value through climate performance

- ▲ Start with a solid foundation of tangible climate action
- ▲ Develop and spell out an authentic narrative that is accessible, inspiring, and resonates with key stakeholders
- ▲ Ensure claims are consistent with the Department for Environment, Food, and Rural Affairs' [green claims code](#), and guidance from the [Advertising Standards Authority](#)

Leading and advocating for change

Implement employee and supplier initiatives to drive climate action within and beyond the business. Build collaborations with industry peers, NGOs and other community organisations to drive change across the industry.



Communicate and advocate

Make a start, build momentum and achieve a leadership position

Start



Reporting and disclosure, communicating, advocating

Reporting your carbon footprint, strategy and performance on your website/annual report/sustainability report in line the Global Reporting Initiative (GRI)

Build



In addition, publicly disclose performance through the Carbon Disclosure Project (CDP). Communicate progress and deliver shared value through your climate performance

Lead

In addition, advocate for change at global, national and industry levels and lead industry wide collaboration

There is a huge opportunity for businesses of all sizes to innovate and lead the UK's transition to a Net Zero economy.

Use our free guide to make a start, build momentum and achieve a leadership position on your journey towards Net Zero.

You can contact us for more information, best practice guidance and to share your Net Zero journey progress at

sustainability@igd.com

Social Impact from **IGD**

Summary Table of Key Guidance Documents

Greenhouse Gas Accounting

Greenhouse Gas (GHG) Accounting

These documents provide guidance for corporate GHG accounting. The Science Based Target initiative (SBTi) recommends that companies follow the GHG Protocol to calculate their emissions.

Setting a target

These documents provide guidance for setting corporate targets aligned with climate science set out by the Intergovernmental Panel on Climate Change (IPCC).

GHG Protocol

Land Sector & Removals Guidance

Supplements the Corporate Standard and Corporate Value Chain Standard by describing how companies should account for GHG emissions and removals from activities such as:

- land management;
- land use change; and
- carbon dioxide removal technologies.

Corporate Standard

Provides requirements and guidance for preparing a corporate level GHG emissions inventory

Corporate Value Chain Standard

Provides additional guidance on how to account for indirect emissions resulting from value (supply) chain activities.

WRAP

Scope 3 GHG Measurement and Reporting Protocols for Food and Drink Businesses

Additional guidance for food and drink companies; this guidance is particularly helpful for purchased goods and services.

Science Based Target initiative (SBTi)

Forest, Land Use and Agriculture (FLAG) Guidance

Criteria by which to set science-based targets for companies in land-intensive sectors. This applies to all companies in the food, forestry and paper, and tobacco sectors, plus any others where $\geq 20\%$ of revenue or total emissions come from these activities.

Criteria and Recommendations

Criteria by which to set near-term science-based targets.

Net Zero Standard

Criteria by which to set science-based Net Zero targets.