

# Big changes in store: How can the global supermarket sector accelerate to Net Zero?

An assessment of the Net Zero commitments and plans of the top ten highest revenue global supermarkets, and the solutions needed to drive progress across the sector

February 2025



# Executive summary

## Supermarkets sit at the centre of the global food system

The food system is both a leading cause of climate change, responsible for up to a third of global emissions, and acutely vulnerable to its impacts.<sup>1</sup> Rising global temperatures could render many of our daily essentials unavailable or unaffordable, from potatoes to coffee. Supermarkets are already feeling these impacts and are key to breaking this vicious cycle, given their position of relative power and influence in the value chain.<sup>2</sup> Supermarkets can play a pivotal role in driving the collaboration needed to enable a Net Zero and climate resilient food system, acting as the touchpoint between millions of customers, and thousands of food producers and consumer packaged goods companies.

Building on the work already underway across the retail sector, accelerating the Net Zero transition can help unlock significant benefits for supermarkets, from reduced exposure to the physical risks of climate change to new commercial opportunities in low carbon markets. However, the journey to Net Zero is challenging, especially as the vast proportion of supermarkets' emissions lie outside of their direct control, throughout the supply chain.

## Cutting the sector's emissions remains a challenge and an urgent priority

Tracking emissions across thousands of products, which often pass through farmers, commodity traders, and processors before reaching supermarket shelves is a mammoth task. Some carbon-intensive products have also historically been profitable for supermarkets, which makes shifting consumer demand away from these products challenging amid the sector's intense competition and low margins. Recent high food inflation has also put pressure on suppliers to prioritise cost reduction and potentially delay sustainability investments. Amid these obstacles, the sector has been able to make some valuable progress on climate, largely through interventions such as using renewable electricity in stores, minimising retail food waste and reducing plastic packaging.

However, making a dent in the sector's biggest source of emissions – food procurement – remains both a challenge and an urgent priority. Doubling down on material areas will allow supermarkets to address multiple climate challenges at once. By supporting suppliers to improve soil health, for example, supermarkets can reduce emissions, minimise their impacts on nature and improve supply chain resilience, while also scaling up soil carbon sequestration, a key measure to reach Net Zero. Meanwhile, engaging with suppliers on data collection will improve the accuracy of supermarkets' footprints, which in turn will improve sustainability disclosure, target-setting, sourcing decisions and decarbonisation strategies.

## This report offers targeted recommendations to accelerate progress to Net Zero. These are based on an assessment of the supermarket sector's current plans using the Carbon Trust's Net Zero Sector Assessment tool

Given the small window of opportunity remaining to limit global warming to 1.5C, it is timely to explore how the barriers to Net Zero faced by the supermarket sector can be overcome and further climate progress can be achieved.

This report draws on the Carbon Trust's experience of working directly with supermarkets and food producers to offer recommendations for advancing towards Net Zero and developing business models that will thrive in a sustainable economy. To provide targeted recommendations, we analysed the most recent annual reports, sustainability reports and emissions reports of ten of the highest revenue supermarkets, hypermarkets and grocery discount stores globally, using the Carbon Trust's Net Zero Sector Assessment tool.<sup>3</sup> The tool was designed to take stock of where individual sectors of the economy stand on their journey to Net Zero to better understand the gaps and identify areas where solutions are most needed.<sup>4</sup>

1 [What impact does food production have on climate change? | World Economic Forum \(weforum.org\)](#)

2 [Supermarkets rationing UK: What is causing the fresh produce shortage and how long will it last? | The Independent](#)

3 [Global Powers of Retailing 2023 | Deloitte Global](#). Carrefour requested to be excluded from Deloitte's report, but has been included in our sample based on reported global revenue for 2021. We recognise that Aldi North and Aldi South are distinct entities; for the purposes of our analysis, only Aldi South has been assessed, as the larger of the two.

4 The Net Zero Sector Assessment tool uses seven metrics to assess corporate plans and progress towards Net Zero. Emerging best practice is to address these seven metrics within one Transition Plan. However, as transition planning is relatively nascent in the corporate world, we have used companies' main disclosure documents for this assessment.

## The Carbon Trust's Net Zero Sector Assessment: Seven metrics for assessing Net Zero commitments and plans

The Net Zero Sector Assessment looks for seven key approaches that form the basis of a best practice response to climate change:

1. Recognition and ownership of the sector's role in creating and solving climate change
2. Ambitious targets and accountability mechanisms, which enable the organisation to meet its targets
3. A robust Net Zero implementation strategy, setting out how targets will be met
4. Responsible use of natural resources, which accounts for planetary boundaries
5. An approach to carbon offsetting and carbon removal in line with international best practice
6. Transparent disclosure and external verification of environmental claims
7. Engagement with stakeholders to secure external drivers for action on climate



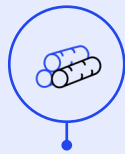
Recognition and ownership



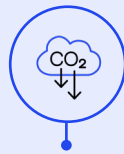
Targets and accountability mechanisms



Robust implementation strategy



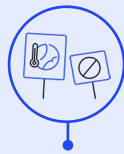
Use of natural resources



Approach to offsetting and carbon dioxide removal



Disclosure and verification



External drivers for action on climate

### Our seven key findings

5/10



have a Net Zero commitment

#### Recognition and ownership:

The world's ten largest supermarkets all recognise the climate impacts of the sector and the need for food systems change, and 5 out of the 10 translate this into a commitment to Net Zero.

10/10



have near term Scope 1 and 2 targets

#### Targets and accountability mechanisms:

All ten supermarkets have ambitious near-term targets for their operational emissions, but the sector does not appear to show a similar level of ambition for the supply chain, where over 90% of emissions lie.

4/10



have detailed plans for decarbonising agriculture

#### Robust implementation strategy:

All ten supermarkets have plans in place to reduce emissions from operations, and all ten are tackling supply chain emissions in some way, mostly through action on packaging and food waste. That said, 6 out of the 10 are just getting started with the biggest chunk of emissions: food production.

8/10

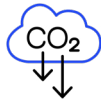


have targets to eliminate deforestation

**Use of natural resources:**

8 out of the 10 supermarkets have ambitious targets to eliminate deforestation from product supply chains, but as with many other sectors, transparency and traceability challenges are restricting progress.

2/10



have a plan for carbon dioxide removals

**Approach to offsetting and carbon dioxide removal:**

In the context of the ongoing debate around the value and integrity of voluntary carbon markets, supermarkets correctly recognise the need to prioritise emissions reduction over offsetting but are generally not clear enough about their approach to using carbon offsets in public reports. Long term, supermarkets will also need carbon removal technologies to reach Net Zero. Plans for scaling carbon removals are at a very early stage, partly due to uncertainty around the type and volume needed, with 2 of the 10 supermarkets setting out a plan for neutralising residual emissions to reach Net Zero by 2050.

3/10

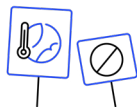


have a validated Net Zero target

**Disclosure and verification:**

With complex supply chains and data collection challenges, only half of supermarkets assessed disclose their main source of emissions (purchased goods and services) and only 3 of the 10 have a science-aligned Net Zero target that has been externally validated by the Science Based Targets initiative (SBTi).

2/10



detail Net Zero policy asks

**External drivers for action on climate:**

Supermarkets are adapting quickly to changing regulations and consumer demand but could accelerate progress by actively advocating for policies and consumption habits that would help the sector transition to Net Zero. Currently only 2 of the 10 highlight Net Zero policy asks, while 4 of the 10 detail steps they take to encourage and enable more sustainable diets.



## Our seven key recommendations for the sector

### 1. To drive recognition and ownership



**Supermarkets should undertake a climate compatibility check for their business models given their dependence on nature and vulnerability to extreme weather.**

- Routinely monitor and quantify climate and nature-based risks to the business, in order to build resilience and make the internal case for change. The food supply chain is a hotspot, so supermarkets must look upstream.
- Use these insights and convene senior-level working groups to stress test whether the current business model is compatible with Net Zero and develop options as to how the model could evolve.

### 2. To enhance targets and accountability



**Supermarkets should ensure that climate action trickles down into every part of the business; getting finance teams on board is key to empowering procurement teams.**

- Set targets which reflect the urgency of the climate challenge, including for Scope 3 emission reductions.
- Drive alignment between Net Zero and other business priorities by ensuring finance, procurement and sustainability teams speak each other's language. Confirm that Net Zero plans are properly costed and resourced, and that CFOs and investors understand the cost of inaction.
- Develop supplier finance programmes to close the food system's climate finance gap. Explore premium pricing, volume guarantees, early access to payments and low-interest loans to suppliers that take ambitious climate action.

### 3. To develop robust implementation plans



**As supermarkets' biggest challenge and biggest opportunity, supply chain emissions must be the focus of climate action plans. Food products make up the bulk of emissions and revenue and must take centre stage.**

- Root climate and sourcing plans in sustainable agriculture. Supermarkets can influence food standards and farm practices, with enormous repercussions for carbon emissions. Partner with key suppliers to create decarbonisation strategies for carbon-intensive commodities, and make sure targets, metrics and certifications for sustainable sourcing include carbon.

## 4. To improve use of natural resources



## 5. To ensure a best-practice approach to offsetting and carbon dioxide removal



- Collaborate with food producers and innovators to develop low carbon products using regenerative farming practices, and pilot, test and scale these with customers.
- Create a winning supplier engagement strategy, which educates and incentivises suppliers to measure and reduce emissions. Supermarkets should target suppliers they have most influence over or which contribute most to their Scope 3 emissions.
- Outside of food, tackle emissions hotspots such as fuel sales, logistics and packaging; explore opportunities to co-invest in the technologies and infrastructure needed to decarbonise these areas.

### **In a Net Zero world, healthy soils and flourishing ecosystems will balance out the food system's most stubborn emissions; supermarkets cannot tackle climate change without protecting and enhancing nature.**

- Branch out by collaborating with competitors on deforestation. Work to establish consistent supplier expectations, enable a common approach to investment and develop a collective roadmap for action.
- Invest in healthy soils. Regenerative agriculture can boost soil's health and ability to absorb carbon, as well as reduce the impact of emission-intensive commodities. Strike a balance that optimises use of fertilisers, pesticides and herbicides (including use of natural fertilisers) and minimises land use change, supporting suppliers to assess the most suitable measures for individual farms and crops.
- Embed planetary boundaries into climate strategies, starting with your food waste strategy. Reduce food loss and waste throughout the supply chain by identifying on-farm hotspots, implementing sustainable cold chains and engaging with consumers on household food waste.

### **Supermarkets' supply chains contain some of the toughest emissions to cut; it is in the sector's best interests to scale up removals, even if they don't have all the answers yet.**

- Outline how the supermarket invests in climate and nature today by publishing a carbon credit strategy. The strategy should clarify what projects supermarkets are funding, the due diligence steps taken to identify high-quality carbon credits and how these credits are being used.
- Over time, adapt the strategy to pivot towards removals. Within the next five years, supermarkets should start investing to scale the provision of high-quality carbon removal technologies that will be needed to tackle the final 10% of their emissions. Allocate a percentage of turnover to these investments and look to increase this year on year.

## 6. To reap the benefits of disclosures and verification



### In supermarkets' complex but common supply chains, continuous improvement and collaboration are key to winning the Scope 3 battle.

- Share as much as possible now and be prepared to refine information over time. Be clear about any data gaps, changes and steps being taken to improve data quality.
- Come together to raise the bar on disclosure. Collaborate with suppliers, industry initiatives and environmental service providers to improve and streamline measurement and reporting.
- As well as verification for climate targets through the SBTi, consider seeking independent third-party opinions of climate risk assessments and implementation strategies.

## 7. To support the development of external drivers for action on climate



### With only a tiny fraction of emissions within their direct control, supermarkets' power lies in influencing policymakers, consumers and suppliers.

- Take bigger and bolder action to nudge shoppers towards healthy sustainable diets by making them easy, affordable and attractive to adopt. Supermarkets have the opportunity to influence shopping habits by reshaping the choices available to customers; consider removing the most carbon-intensive products from shelves altogether.
- Highlight policy barriers to Net Zero and propose policies that support a just transition to a sustainable, resilient food system.



## Our findings and recommendations point to three priority issues for the sector to rally around

Our research indicates that supermarkets are making progress on climate, particularly on reducing Scope 1 and 2 emissions. The most recent sustainability and annual reports of the ten highest-revenue supermarkets globally demonstrate increased ambition in target-setting and a growing focus on sustainable agriculture compared to previous years. However, there remains a significant gap between the sector's progress to date and the transformational change needed to deliver Net Zero.

Our key findings and recommendations reflect three overarching and interconnected issues:

1. Emissions from industrial agriculture and deforestation

2. Access to Scope 3 data

3. The need for policy and dietary shifts

These shared challenges are currently holding supermarkets back across all seven metrics of the Net Zero Sector Assessment, but for this same reason, they also represent critical opportunities for sector-wide collaboration. For example, shared data platforms can reduce the burden on each supermarket and supplier to track links to deforestation and collect emissions data. Co-investment and partnerships can help to scale regenerative agricultural practices and technologies like carbon dioxide removal.

Adopting a collective vision and voice will also give supermarkets much more influence over shopping habits and the policy environment. Working together and with their supply chain, supermarkets can unlock a step change in progress towards Net Zero.

