“CLEAN UP ON AISLE 3”

THE METHANE MESS SUPERMARKETS ARE HIDING

MARCH 2025

Changing Markets Foundation
MIGHTY EARTH

Executive Summary

The rate of global heating is pushing natural systems toward dangerous tipping points. Methane is 80 times more potent than carbon dioxide, but its shorter lifespan means cutting emissions now can rapidly slow warming. It's the emergency lever we must pull to avert climate breakdown and nature loss.

Methane is responsible for about 0.5°C of heating today and contributes to 25% of the heating the planet has already experienced. While agriculture as a whole is the largest source of human-caused methane emissions, animal agriculture alone accounts for approximately 60% of these emissions.

Food retailers - or supermarkets - are where most people purchase food and interact with the meat and dairy supply chain, putting them in a unique position to drive emissions reductions. Yet, reporting and action on methane remain a worrying blind spot, despite meat and dairy accounting for an estimated third of their total emissions.

Our research reveals that none of the 20 top-grossing retailers in the US and Europe - including household names Ahold Delhaize, Carrefour, Lidl, Tesco, and Walmart - report on their methane emissions or have set methane emissions reduction targets. While many retailers make bold statements about their climate plans, the focus is often on Scope 1 and 2 (direct) emissions reductions, however these only represent approximately 7% of retailers total emissions.

There appears to be a disconnect between retailers' climate promises and action - while nine of the largest food retailers have committed to achieving net zero by 2050, these are just empty words when meat and dairy emissions remain a blindspot. 19 out of the 20 food retailers included in this scorecard secured less than 50% of the total points available, with Tesco being the only exception at 51%. US retailers performed especially badly, displaying a stark lack of climate accountability and ambition from their European counterparts.

While eleven of the supermarkets acknowledged that emissions from animal agriculture significantly drive climate change and many suggest increasing plant-based sales could help, they typically fail to implement specific, measurable actions to address their role in the problem.

The food retailers named in our report have the solutions and know what action needs to be taken, but are not moving fast enough despite the effects of climate change already being felt. Retailers must urgently deliver climate action as a top priority by setting targets to reduce their methane emissions and reporting transparently on these.

For retailer climate plans to be credible, they must adhere to science and set methane reduction targets of at least 30% by 2030 (from a 2020 baseline), backed by a comprehensive plan for the entire value chain. By increasing and promoting their plant-based* offering working towards a target of 60% against 40% animal based protein by 2030, food retailers can enable a rapid shift to more sustainable and healthy diets.

* The term 'plant-based proteins' includes wholefood and vegetable proteins as well as meat and dairy substitutes.

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Introduction

At the heart of the global food system stand major food retailers, wielding considerable influence over supply chains and shaping consumer preferences. In light of the urgent need to address the climate and ecological crises, their ability to drive change cannot be ignored. Even if fossil fuel emissions stopped today, those from food production alone would still drive the planet dangerously close to a 2°C temperature rise.[1] In 2024, the world temporarily exceeded the 1.5°C warming limit, indicating that we may soon leave the "safe zone" for humanity.[2]

Reducing food-related emissions is therefore no longer optional: it is vital. The UN Environment Programme's Global Methane Assessment states that in order to limit global temperature rise to 1.5°C, methane emissions must drop by 40 to 45% by 2030.[3] The current global food supply chain, with its high meat and dairy production and consumption, is the leading human-caused source of methane, a powerful greenhouse gas with a short lifespan. This presents both an urgent challenge and a critical opportunity: drastically cutting methane emissions this decade could slow the rate of global heating.

As key intermediaries between producers and consumers, food retailers have both the leverage and responsibility to address these emissions throughout their supply chains. They are therefore in a unique position to lead the way towards a more sustainable food system, anticipating stricter regulations, and responding to the growing climate crisis. Science-based targets to cut methane emissions must be included in their climate plans, but this report concludes that none of the major food retailers currently report on or have targets for reducing them.

Why methane matters

Methane is the second most important greenhouse gas, responsible for about 0.5°C of heating today and contributing to 25% of the heating the planet has already experienced.[4] It has a global warming potential approximately 80 times that of carbon dioxide over a 20-year period, making it a critical target for rapid climate action and often described as a 'super-heater'.[5] The scale of methane reductions - along with rapid decarbonisation and end to the use of fossil fuels - will decide whether global heating can be kept below 1.5°C and whether we can avoid crossing dangerous tipping points that could trigger irreversible changes to the climate system and precious ecosystems that support all life on earth.[6] The food and agriculture sector is the biggest driver of anthropogenic methane emissions.[7]

Adopted at the UNFCCC's COP26 in Glasgow in 2021, the Global Methane Pledge, led by the US and the EU, sees 160 countries commit to reducing global methane emissions by at least 30 percent by 2030 from 2020 levels – a reduction consistent with a 1.5°C pathway.[8]

Food-related methane is primarily released by enteric fermentation, a digestive process in ruminant animals such as cows and sheep, by manure management, and by the decomposition of food waste in landfill sites. Combined, these factors contribute to around one-third of global greenhouse gas emissions, with livestock agriculture accounting for approximately 32% of human-caused methane emissions.[9][10] While agriculture as a whole is the largest source of human-caused methane emissions, animal agriculture alone accounts for approximately 60% of these emissions.[11]

Animal agriculture accounts for approximately 60% of human-caused methane emissions.

For food retailers, methane accounts for a significant, but often overlooked, part of their Scope 3 emissions - those generated across their supply chain - from farm to store and through product use and disposal. The single largest source of methane emissions in a supermarket's operations is likely to be meat and dairy products.[12]

By prioritising methane reduction and mitigation, retailers can help drive systemic change in the agricultural sector, catalysing methane emission reductions throughout livestock production, manure management, and food waste.

The meat and dairy supply chain

Major food retailers serve as the main interface between consumers and the meat and dairy industries, since supermarkets and grocery stores are where the majority of food consumed by Europeans and Americans is sold.[13] Food retailers therefore play a pivotal role in shaping the food environment, affecting how animal-derived products are displayed, labelled and priced, and how people consume them. These actions have a significant impact on consumers' food choices, from the moment they enter the store, influencing behaviour and product selection. It is the responsibility of retailers, not consumers, to initiate the necessary changes in the food environment. This change can be achieved by their selection of products, as well as how they market, display, price, and make these items available.

In an industry dominated by major companies, food retailers are the most visible and accessible companies to the public. The major supermarkets analysed in our report, wield significant power in the supply chain and can put pressure on globally dominant meat producers, such as JBS, Tyson and Cargill, or dairy processors, such as Lactalis, Arla and Dairy Farmers of America.

Supermarket supply chain

While many companies in the meat and dairy supply chain have pledged net-zero commitments and have started addressing Scope 3 emissions See Scopes 1, 2 and 3 explainer (page 12) for more information, the only major player to have set a methane reduction target is the dairy company Danone. Bel Group, Nestlé[14] and Lactalis USA separately disclose their methane emissions.[15] Although some food producers and manufacturers are starting to make modest strides, none of the food retailers have committed to disclosing their methane emissions separately or setting a target to reduce methane emissions. As a result, they are falling behind.

Addressing methane emissions is not just about reducing climate risks; it is also an opportunity for supermarkets to position themselves as leaders in the transition to a sustainable food system. Furthermore, reducing consumption of red and processed meat can lower the risk of heart disease, obesity and certain cancers.[16] Setting specific targets for reducing methane emissions, publicly reporting on progress, and investing in innovative solutions can help retailers meet the expectations of all stakeholders, including consumers, policymakers and investors. This report identifies a key blind spot regarding methane in the food retail sector, and outlines a clear pathway for companies to align with scientific evidence and take meaningful and urgent action.

Increased regulatory and legislative emissions disclosure

The need to better understand and assess the financial risks associated with climate change has led to many differing levels of climate disclosure frameworks. Voluntary guidance on climate reporting disclosure, which has become a legal requirement in some cases, has been brought forward by financial regulators and governments.[17] While none currently mandate separate methane reporting as standard, there is an increased focus on Scope 3 disclosure. This is particularly relevant to food retailers, since Scope 3 emissions account for the majority of their footprint. The adoption of advisory good practice from institutions such as the Greenhouse Gas (GHG) Protocol, which includes guidance for separate reporting on individual GHG gases, aims to remedy the lack of accurate, transparent and accessible Scope 3 reporting.[18]

In Europe, EU initiatives such as the Corporate Sustainability Reporting Directive (CSRD) and the Corporate Sustainability Due Diligence Directive (CSDDD) both have the potential to improve GHG disclosure to a more publicly transparent and frequent level. Similarly, existing regulation on mandatory climate disclosure, introduced by the UK's Climate Change Act (2008) and the Task Force on Climate-Related Financial Disclosure (TCFD), as well as strategic reporting via Companies Act (2006) are set to be reinforced by the UK Sustainability Reporting Standards (UK SRS). It is anticipated that implementation will begin in 2026.[19]

The US Securities and Exchange Commission (SEC) is bringing in stricter climate disclosure laws requiring GHG emissions disclosure from companies where emissions represent climate-related risks to their business strategy and outlook. However, these rules only cover Scopes 1 and 2.[20] The states of California, New York, Illinois and Washington are progressing laws that require companies with revenues over $1 billion to disclose their Scope 1 and 2 GHG emissions, as well as, in some cases, Scope 3.[21] However, the progression of these rules is facing criticism and potential dismantlement by the new administration.

Although there are short-term political setbacks, the impacts of the climate and nature crises continue to become more evident. There is an urgent need to dramatically reduce global emissions, and the global brands assessed in this report have the power and responsibility to lead the required shift in the food system to tackle global heating and biodiversity loss.

In relation to food waste, another critical area for retailers to tackle supply chain methane emissions, the recent EU decision on updating the Waste Framework Directive will set targets for retailers to reduce food waste by 30% per capita by 2030 against a baseline of the average between 2021 and 2023.[22] As it stands in the UK, companies do not have to report on food waste or legal target however, there have recently been calls for greater transparency as a first step, even from retailers themselves.[23] In the US, the 2030 Food Loss and Waste Reduction goal, announced by the Department of Agriculture (USDA) and EPA in 2015, aims to cut food loss and waste by half by 2030. This goal is still valid, but there are no legally binding targets for retail specifically, nor any mandatory reporting requirements.[24]

Major food retailers and their (in)action on methane

We examined the 20 largest food retailers in Europe and the US to evaluate their progress towards reducing methane emissions.[25] Since none of the food retailers surveyed has set a methane reduction target, our scorecard assessed them based on other indicators that suggest progress in mitigating their methane impact.

Methodology

20 of the world's largest food retailers, were selected for assessment in this scorecard, based on their yearly revenue; volume of grocery sales; and dominance in the meat and dairy retail market. These retailers were evaluated on 18 indicators in five categories. Only publicly available data was analysed, and the research took place between January 1st - 31st, 2025. Assessments focused on the latest climate reports, where relevant, and were based solely on data published on retailers' websites, with the exception of indicator 3.4, which also included the SBTi commitment database.

The overall score was 100 points, distributed among 18 indicators. Each indicator was divided into full points, half points or zero points. Each indicator was assigned a specific number of total points, which varied between indicators, based on their importance in relation to the impact they would have on a retailer's methane emissions and climate accountability. The specifics of each indicator are discussed in the following analysis.

Our findings reveal a significant lack of action to address methane emissions across the food retail industry. Only one retailer scored above 50, with Tesco leading the way with 51 points, followed by Carrefour at a significant distance of 11.5 points behind.

Average scores were low across all categories, with the highest being 26% for food waste, but worryingly low across in categories 2 and 3, which examined emissions reporting, commitments and action plans, averaging just 15% and 16%, respectively. The average score in total across all retailers and indicators was only 20%.

Methane Action Tracker

Country and Retailer	Role Of Methane	Emissions Reporting	Commitments and Action Plans	Food Waste and Landfill	Protein Alternatives	Score
TESCO PLC	10/15	7/21	18/36	6/8	10/15	51/100
Carrefour	10/15	7/21	9/36	6/8	7.5/15	39.5/100
MIGROS	7.5/15	7/21	15/36	0/8	5/15	34.5/100
Ahold Delhaize	7.5/15	7/21	9/36	2/8	7.5/15	33/100
SCHWARZ	5/15	7/21	6/36	2/8	12.5/15	32.5/100
J Sainsbury plc	0/15	0/21	15/36	6/8	10/15	31/100
ALDI	5/15	7/21	9/36	2/8	5/15	28/100
ASDA	5/15	3.5/21	3/36	6/8	7.5/15	25/100
REWE	5/15	0/21	12/36	0/8	5/15	22/100
EDEKA	5/15	0/21	9/36	0/8	5/15	19/100
ELO	0/15	7/21	3/36	2/8	5/15	17/100
Groupe Casino	5/15	7/21	0/36	0/8	5/15	17/100
Intermarché	5/15	0/21	6/36	0/8	2.5/15	11/100
Kroger	2.5/15	0/21	0/36	2/8	5/15	9.5/100
Walmart	0/15	0/21	3/36	4/8	0/15	7/100
E.Leclerc	0/15	0/21	0/36	4/8	2.5/15	6.5/100
Costco Wholesale	2.5/15	3.5/21	0/36	0/8	0/15	6/100
Publix	0/15	0/21	0/36	0/8	2.5/15	2.5/100
Albertsons	0/15	0/21	0/36	0/8	0/15	0/100
Mercadona	0/15	0/21	0/36	0/8	0/15	0/100

Role Of Methane · Emissions Reporting · Commitments and Action Plans · Food Waste and Landfill · Protein Alternatives

Category 1
The Role of Methane

It is estimated that the Scope 3 emissions of European retailers make up 93% of their total emissions profile, with meat and dairy accounting for almost half.[26] Given the sheer scale of meat and dairy emissions, firm targets and plans to reduce them should be a key strategy in retailers' net zero plans. Acknowledging and communicating about their outsized methane problem would demonstrate that supermarkets take this issue seriously, and are willing to help consumers make more sustainable product and dietary choices, as well as support broader regulatory and policy environments for sustainable food systems.

Scope 3 emissions of European retailers make up 93% of their total emissions profile, with meat and dairy accounting for almost half.

1.1 Acknowledging the role of methane and meat and dairy products in climate change

All food retailers headquartered in Germany (Aldi Süd, Edeka-Verbund, Rewe Group and Schwarz Group) articulated the role of livestock farming in methane emissions and climate change impacts. There were also well-rounded acknowledgements from Migros in Switzerland, Tesco in the UK and Carrefour in France. Tesco's UK competitors fell short, with Asda only citing food waste as a driver of methane emissions, and while Sainsbury's recognised that "over one third of GHG emissions come from the food system", it failed to highlight meat and dairy production as the largest contributor to these food-related emissions.[27] Carrefour outperformed its other French competitors, with ITM by Groupe Les Mousquetaires - Intermarché scoring half but the rest failed to acknowledge any connection. Spanish retailer Mercadona doesn't link meat or dairy to climate change at all.

Not a single US food retailer scored full points on this indicator. Publix, Walmart and Albertsons performed the worst, failing to establish any connection between agricultural emissions and the climate and nature crisis. Although Walmart mentioned methane in relation to food waste in landfills,[28] it neglected to draw attention to the primary driver of their methane emissions: meat and dairy. Costco made some acknowledgement stating "protein diversification" could address deforestation and climate change,[29] but failed to inform customers and stakeholders of the impact of livestock. Instead, the company incorrectly stated that the impact of beef production could be "negative, positive or somewhere in between".[30] Costco's focus on the effects of beef production on deforestation overlooks the broader negative consequences created by beef specifically and meat and dairy production more widely. The idea that beef can have a "positive" impact reflects a widespread misleading narrative from the meat and dairy industries. This narrative is based on the idea that regenerative agriculture – a farming method that aims to improve land, water, and biodiversity – can absorb more greenhouse gas emissions than industrial livestock farming produce.[31] However, the mitigation potential of regenerative farming is likely insufficient to deliver the necessary scale of emissions reductions, especially regarding methane.[32]

1.2 Support for meat and dairy consumption reduction

Given that meat and dairy make up a significant portion of most supermarkets' emissions footprint, the failure to acknowledge the role of meat and dairy production in driving methane increases, or to transparently articulate plans to reduce meat and dairy consumption does not align with retailers' net zero plans. Instead, the retailers' climate efforts focus on minimising emissions within their own operations, specifically Scope 1 and Scope 2 emissions, which account for 7% or less of their total emissions.[33]

Both Casino and Tesco scored full points for explicitly stating how reducing meat and dairy consumption can have a positive impact on the climate and nature emergency, with Casino making the most explicit and clear statement:

> ***"...to reduce the impact of what we eat on the climate and the environment, several studies have demonstrated the need to change the carbon footprint of the average French person's diet by eating less animal protein and more fruit, vegetables and legumes."*** Casino, 2025.[34]

Carrefour states: "*Foods of animal origin - particularly red meat, dairy products and farmed shrimp– are generally associated with the highest greenhouse gas emissions*"[35] but fails to articulate any support for a reduction in meat and dairy per se, instead highlighting support for an increase in plant-based consumption. "*Diversifying one's diet by incorporating plant proteins into it is an effective way of significantly reducing greenhouse gas emissions*"[36] In the same report, Carrefour estimates that 7% of its Scope 3 emissions reductions will come from a shift to a plant-based diet.[37]

While three other European supermarkets (Ahold Delhaize, Asda, ITM by Groupe Les Mousquetaires - Intermarché and Migros) made some reference to the high emissions of meat production and consumption, they fell short of acknowledging a direct link between meat and dairy consumption and methane. For example, Migros tells its customers:

> ***"We are aware of the link between climate protection and meat consumption. We are actively promoting the development, production and sale of vegan meat substitutes."*** [38]

The statement highlights a general trend for supermarkets to promote plant-based, alternative protein or vegan products, rather than clearly articulating the higher climate impact of meat and dairy, particularly from the rise in meat consumption in Europe and the US in recent years.[39]

1.3 Executive remuneration reflecting sustainability targets

No retailer in the assessment publicly documented remuneration linked to targets for reducing methane emissions and increasing sales of plant-based alternatives. Only one supermarket in the scorecard, Carrefour, has a plant-based alternative sales target of €650 million in plant-based sales by 2026 (as part of the company's Corporate Sustainability Reporting and Food Index) and rewards senior executives for progress against these indicators.[40] Other retailers, including Tesco and Ahold Delhaize, have set performance-based indicators for food waste and sales of "healthy products".[41][42] Among the remaining retailers, executive remuneration packages tied to sustainability targets were non-existent or linked to broader "ESG" and "CSR" goals, but what these targets entail is somewhat unclear. The absence of CEO and senior executive remuneration linked to successful progress on relevant climate targets suggests that companies do not place sufficient emphasis on them, or that there is a lack of confidence in the short-term targets and associated plans for which senior executives can be held accountable.

The trend of linking senior executive remuneration to climate goals has been on the rise in recent years, and given the increased shareholder interest in these issues,[43] it is surprising that, with the exception of one retailer, none of the world's highest-revenue food retailers are doing so. A lack of senior-level accountability may be a key factor in the lack of progress outlined in this scorecard.

Category 2
Emissions Reporting

Not a single supermarket reports methane emissions from their supply chains separately.

Retailers that have yet to acknowledge the impact of supply chain methane emissions on their net zero goals and the health of the planet must first do so. A second step is to calculate these emissions across Scopes 1, 2 and 3, with public disclosure and measurable action to reduce them. Assessing companies based on their recognition of the Greenhouse Gas (GHG) Protocol, a standardised framework for corporate emissions accounting, should indicate that, at least internally, they are quantifying their different GHG emissions, including methane, as part of their climate reporting. However, our analysis shows that not a single company, even those that refer to the GHG Protocol, publicly report methane emissions from their supply chains separately, let alone disclose emissions specific to meat and dairy products.

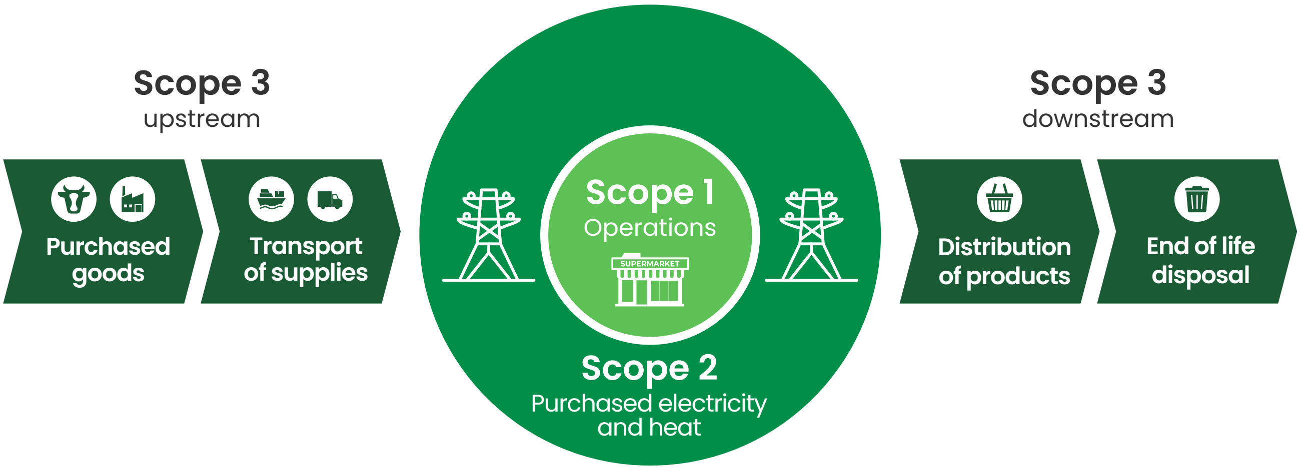
2.1 Emissions reporting across all Scopes

Reporting emissions across Scopes 1, 2 and 3, as set out in the GHG Protocol,[44] is critical to ensure that companies are accountable for all emissions associated with their operations, even if they are indirect (Scope 3). The GHG methodology requires companies to separate different emissions (e.g. methane from carbon dioxide) when calculating their Scopes, but it does not require them to report these separately. Instead, they are generally reported in aggregate in carbon dioxide equivalent (CO2e). For food retailers, the majority of their emissions fall in Scope 3 (see emission scopes explainer on page 12). An analysis of 40 of the world's largest retailers found that 93% of their emissions come from 'Scope 3' sources[45] (see supply chain infographic on page 5).

Our assessment looked at retailers' reporting across Scopes 1, 2 and 3, with full points awarded to those that referred to the GHG Protocol, indicating that they separately calculate greenhouse gas emissions, including methane, even if they don't report them publicly.[46] When it comes to food retailers, emissions reporting is inconsistent, and there is a large performance gap between European and US-based companies. This may reflect both stricter regulations and higher consumer expectations in Europe.[47,48,49] European retailers are at the forefront of emissions reporting, with Carrefour, Casino, Elo/Auchan, Schwarz Group, Aldi Süd, Migros, Tesco and Ahold Delhaize reporting across Scopes 1, 2 and 3, following the GHG Protocol. For these food retailers, publishing these methane calculations would be a simple but transformative step towards significantly increasing transparency. UK retailer Asda earned half points for reporting on all three scopes but not referencing the GHG protocol. Leclerc, ITM by Groupe Les Mousquetaires - Intermarché, Rewe, Mercadona, Sainsbury's and Kroger all fail to report on Scope 3, either insufficiently or, in the case of Mercadona, not at all - which completely undermines the retailer's publicly announced commitment to decarbonisation and emission reductions by 2050.[50] In 2022, Edeka-Verbund in Germany reported on Scopes 1, 2 and 3, but has not provided any further annual data for comparison since then.

US retailers lag behind their European counterparts, with no US company scoring full points for emissions reporting. Costco scored half points for reporting on Scopes 1, 2 and 3, but did not refer to the GHG Protocol. Kroger referred to the GHG Protocol, but did not report its Scope 3, instead claiming to be "opting to refine [its] 2021 baseline".[51] Walmart also referred to the Protocol, but only reported an estimate for 90% of its Scope 3 emissions.[52] Albertsons appears to submit its emissions reports only to the CDP (formerly the Carbon Disclosure Project), a non-profit organisation that operates an environmental disclosure system where submissions are not publicly available. The lack of full transparency among US retailers reflects the systemic gap in corporate climate regulation and the urgent need for a stronger framework in the US at a time when climate regulation is being rolled back further.[53]

Emissions scope explainer



Scopes 1, 2 and 3 explained

Scope 1: Direct emissions from company-owned and controlled resources, including offices, stores, company-owned transportation and equipment.

Scope 2: Indirect emissions from purchased electricity, heating and cooling consumed by the company, which for retailers would include the emissions associated with the energy used to keep refrigerated meat and dairy products cold.

Scope 3: Emissions from upstream and downstream supply chains, including those associated with meat and dairy production, such as emissions from livestock, manure, fuel for agricultural equipment, production of animal feed, inputs required for its production (e.g., nitrogen fertiliser), land-use changes caused by the expansion of livestock grazing and feed production, and other sources. Retailers would also account for emissions related to the transportation of goods, waste disposal, and the use of products in this scope.

2.2 Reporting methane emissions across all scopes and operations globally (including waste, fuel, energy)

For food retailers, around half of their Scope 3 emissions stem from meat and dairy,[54] a high proportion of which are methane,[55] making comprehensive, public reporting of methane emissions, essential for transparency and accountability.

Not a single retailer received points for disclosing methane emissions in any operational scope.

The meat and dairy sectors are responsible for significant methane emissions, with the FAO estimating that they account for 11% of global livestock-related methane emissions.[56] Other studies put the figure closer to 17%.[57] And yet, despite the key role retailers play in the food environment, there is a lack of reporting on this potent greenhouse gas across this sector. Not a single retailer received points for disclosing methane-specific emissions in any operational scope. Even industry leaders, such as Carrefour, Schwarz Group, and Tesco, which do report carbon dioxide emissions failed to provide dedicated methane data. The absence of methane-specific data casts doubt on the credibility of some retailers' climate commitments (see section 3).

2.3 Methane emissions from dairy and beef products reporting

None of the retailers assessed in this scorecard report methane emissions, let alone the specific emissions associated with the meat and dairy products they sell.

Eleven of the 20 retailers publicly acknowledge the role of agriculture in climate change and refers to livestock or cattle, including eight of which directly refer to methane from livestock and cattle, as outlined in section 1.1. However, this acknowledgement does not translate into reporting and remains a critical next step for companies to demonstrate their commitment to reducing their impact on global warming and biodiversity loss.

Source: Shutterstock

Category 3
Emissions reduction commitments and action plans

For food retailers to reduce their climate impact, clear targets and plans are needed to ensure that these decarbonisation efforts reduce emissions at the scale and speed necessary to stay within a 1.5°C temperature increase above pre-industrial levels. Realistic but ambitious targets are seen as an important first step for supermarkets in addressing these issues. Transparent and accessible targets and plans allow consumers and regulators to see where progress is and isn't being made.

3.1 Net zero commitment

More than half of the retailers failed to articulate a 2050 net zero target at group level, let alone the earlier date of 2040. Of the supermarkets that scored half points for a net zero commitment beyond 2040, all were European retailers. Cleverly worded net zero commitments that only covered certain types of emissions, selected stores, subsidiaries or geographical regions did not score any points. For example, Asda states "net zero operations by 2040", a target that applies to its own operations but does not include its total Scope 3 emissions.[58] Carrefour and Casino, which both refer to the Paris Climate Agreement, have committed to reducing emissions in line with a 1.5°C temperature rise, but only committed to Scope 1 and 2 emission reductions. Casino does not provide any emissions reduction targets at all.

Walmart outlines a net zero target by 2040. However, on closer inspection, its commitment applies to its "own operations", which appear to cover only Scopes 1 and 2 in its climate plan.[59] In the very same document, the retailer admits that "most emissions in the retail sector lie in the product supply chains rather than in stores and distributions centres", but fails to adequately address these emissions in its target or roadmap. Albertsons uses the same tactic.[60] US retailer The Kroger Co. is part of "Ad Net Zero", a trade association focused on sustainability in the advertising industry, but has not committed to a net zero target in any timeframe.[61][62] Costco does not have a net zero commitment, saying it needs to "rely upon and partner with suppliers to make substantial transformation". Publix does not set any climate targets and stands out as one of the worst performers overall.

3.2 Methane-specific commitment

Although methane emissions are estimated to account for a third of supermarkets' total Scope 3 emissions profile, it is striking that not a single supermarket in the 20 largest food retailers had a specific methane reduction target, either for their private label products or for their supply chain as a whole.[63] As no company has set a methane reduction target, the scorecard aimed to assess retailers on other indicators where they may be making some progress in addressing methane emissions. Given the proportion of retailers' total emissions from meat and dairy, the lack of focus, transparency and action on methane is inconsistent with achieving net zero emissions by 2040 or beyond.

Not a single supermarket in the 20 largest food retailers had a specific methane reduction target.

3.3 Private label meat and dairy action plans

An obstacle often cited by food retailers for implementing changes across their value chain is the need to rely on upstream suppliers to reduce their emissions. One area where they have control to implement changes is in their own-brand, or private label ranges. However, our analysis found little detail related to emission-reducing strategies on these product lines across the board. Tesco referenced its partnership with Arla to trial the methane reducing feed additive, Bovaer.[64] This trial also includes Aldi Süd (and UK food retailer Morrisons which was not included in this assessment). However, Aldi Süd didn't score any points as there was no reference to the trial on its website. Carrefour and Migros also refer to cattle feed additives as a methane reduction strategy and ITM by Groupe Les Mousquetaires - Intermarché reference a farm project aimed at reducing emissions from beef.[65] [66] While Carrefour and Tesco do not confirm specific financial support for the feed initiatives, Migros refers to its "Migros Climate Fund" to cover any additional costs of the feed for its farmers.[67] While the scalability and sustainability of methane-reducing additives and other technological solutions remains unknown, the companies' investment is seen as a sign of their commitment to tackling methane from their private label and branded products.[68]

3.4 Science Based Target initiative (SBTi) approval

The SBTi, a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI) and the World Wide Fund for Nature (WWF) offers detailed standards and associated guidance tools to support companies defining pathways to GHG reduction and net zero targets, which are validated against a set of methodology, and can be sector specific. Forest, Land Use and Agriculture (FLAG) guidance is applicable to companies where FLAG-related emissions are at least 20% of the company's total emissions.[69] SBTi's FLAG methodology has been criticised by NGOs because it requires companies to report and set targets for 67%, rather than 100%, of their FLAG emissions, and does not require companies with targets set before 1 January 2024 to report details of their methane emissions separately. It is argued that without a target covering a company's total FLAG emissions, a comprehensive net zero target cannot be sufficiently justified.[70] Despite these concerns, SBTi is a widely recognised standard for climate targets, used by over 4000 companies to set and verify climate targets.

Four retailers – Migros, Rewe, Sainsbury's and Tesco – have SBTi validated near-term and long-term net zero targets, as well as FLAG targets. They are the top scorers in this indicator. Alongside Aldi Süd and Edeka-Verbund, Asda ranked fifth, as the company has established near-term targets but has not yet validated any long-term targets. It remains uncertain whether the FLAG-related targets are ambitious enough to be endorsed by SBTi, based on the retailer's website or SBTi's information. The remaining 13 retailers failed to outline sufficient Net Zero or FLAG targets within a 1.5°C threshold resulting in them all receiving no points.

Costco, Edeka-Verbund, Publix and ITM by Groupe Les Mousquetaires - Intermarché did not submit targets to SBTi for validation. In the case of The Kroger Co., their commitment was not validated, as the supermarket cited that SBTi's targets "*are challenging for [The Kroger Co.'s] business to achieve in a way that is sustainable and enables future growth*".[71] The remaining companies had set SBTi targets, but which either failed to meet a 1.5°C trajectory or FLAG specific targets. Additionally, they failed to disclose or set targets for Scope 3 emissions reductions.

3.5 Scope 3 emission targets

Only six of the 20 largest food retailers have set Scope 3 emissions reduction targets. Ahold Delhaize leads the field with a 37% reduction in all Scope 3 emissions by 2030 compared to 2020, a target that appears to have been quietly adjusted from a more ambitious reduction target in 2022, as the updated 2023 target under the SBTi guidelines no longer fully covers all FLAG emissions.[72] The old target would reduce Scope 3 emissions by 24.3 MtCO2e, the updated target only 17.1 MtCO2e.[73] This updated target lowers the ambition by more than 7 MtCO2e or around 30% of the original target. Other retailers like Migros, Rewe, Sainsbury's and Tesco, all of which have validated SBTi FLAG targets, have split Scope 3 emissions into FLAG and operational targets, showing a higher level of granularity. Albertsons was the only US retailer to mention a target beyond Scope 1 and 2, stating a reduction in "downstream emissions from the use of sold goods by 27% by 2030".[74] Carrefour have a Scope 3 emission reduction of 32% by 2030, however this Scope 3 target fails to include any FLAG emissions.[75]

Aldi Süd scored half points, since it has included a FLAG committment but has not set a long term target for any of the scopes. The company stated that 99% of its emissions fall under Scope 3. "*Carbon emissions resulting from our corporate value chain are known as Scope 3 emissions. In total, approximately 99% of our total greenhouse gas emissions are attributable to our business value chain*".[76] Ultimately, Aldi's Scope 3 target does not deliver the amount of reduction required to meet the SBTi's "business ambition" of 1.5°C.

Four retailers who have validated SBTi FLAG targets – Migros, Rewe, Sainsbury's and Tesco – have set Scope 3 reduction targets of at least 50% by 2030, from a 2020 baseline. However, while Rewe has a net zero 2040 target and has SBTi FLAG validated, the company fails to articulate its Scope 3 emissions reduction in its climate reports. Detailed data can be found in the Sustainability Linked Bonds progress paper and does not appear to be included in the group's main climate change reporting.[77]

3.6 Deforestation and conversion-free commitment

2025 is the widely agreed target date deadline for eliminating deforestation, in line with the EU Deforestation Regulation (EUDR), and with cut-off dates that vary across commodities. The Accountability Framework Initiative (AFi) outlines that a deforestation and conversion-free (DCF) commitment should include a 2025 target date, and a 2020 cut-off date (the date after which deforestation should not have occurred), with a specific 2008 cut-off date for the Amazon according to the Amazon Soy Moratorium (ASM).[78]

Disappointingly, given the focus on deforestation driven by commodities like palm oil, beef and more recently soy, none of the retailers assessed in this scorecard articulated sufficient DCF commitments across all commodities to earn full points.

Schwarz Group was awarded half points, because, while it has implemented a beef and soy policy with adequate cut-off dates and a 2025 deadline, this policy applied only to its Lidl brand and did not cover other brands in the group. Similarly, Edeka-Verbund and Sainsbury's had a 2025 deadline and 2020 cut-off date, but this commitment only covered their own-brand or private label products.[79] [80] Aldi Süd had no cut-off date or commitment to the ASM 2008 cut-off date, and Walmart also failed to mention the ASM.[81] [82]

Tesco received half points for its 2025 deadline commitment for "100% of soy from verified Deforestation and Conversion Free Sourcing Areas by 2025, which includes all forms of deforestation (legal and illegal) and with a cut-off of 2020 (31 December 2019)."[83] Tesco states it does not source beef from Brazil, but fails to outline a beef DCF policy that covers other potential high-risk areas.[84] In the case of Mercadona, if they want to fulfil the sentiment shared with Mighty Earth: "As a company, we assume our responsibility and work to achieve a sustainable supply chain that allows the conservation of forests and biodiversity" [85], a deforestation and conversion-free policy is imperative.

To effectively combat deforestation in their supply chains, the majority of food retailers need to enhance their policies. This includes implementing a 2008 cut-off date for soy and beef sourced from the Amazon, as well as extending these policies to all high-risk commodities. Retailers who have yet to publish deforestation policies, should urgently implement a 2025 DCF policy.

Category 4
Food and landfill waste policies

Food waste from the retail stage of the meat and dairy supply chain contributes to emissions both from the production of wasted products – such as farming, transport, packaging, and storage – and from their disposal. The UN Environment Programme Food Waste Index estimates that 131 million tonnes of food was wasted at the retail level in 2022.[86] However, given the influence that retailers have on consumer behaviour, their role is likely much greater than this estimate suggests.

4.1 Zero-landfill and incineration food waste policy

Food waste is another critical source of methane emissions from food retailers and their supply chains, alongside meat and dairy.[87] As a first step, in line with the recognised waste hierarchy, no food waste should go to landfill or incineration, as both contribute to environmental harm. Landfilling generates methane emissions, while incineration releases other greenhouse gases and pollutants.[88][89] Retailers should be enacting zero landfill and incineration policies as a fundamental step towards waste reduction and sustainability. While European retailers have shown greater commitment to zero-landfill food waste policies than their US counterparts, commitments remain generally inconsistent. Tesco and Walmart scored half points for having and reporting on a zero-landfill food waste policy, which for Walmart includes incineration, but this is not applied across its global operations.[90][91] Carrefour scored half points for having a policy but not reporting adequately on it.[92] Commitments to divert food waste from incineration remain largely unaddressed, highlighting the need for stronger, transparent policies that prioritise food waste prevention, redistribution, and composting over disposal-based solutions.

4.2 Food waste reduction policy

The 20 largest food retailers score comparatively well on the food waste reduction policy compared to other areas in the scorecard, with three – Carrefour, Leclerc and Tesco – scoring full points and eight scoring half points.

While progress on food waste should be recognised, this only represents a small portion of methane emissions from retailers, so only four points were available. What's more, the Consumer Goods Forum (CGF) target of a 50% reduction of waste by 2030, on which we've based our half-points indicator, tackles just a small fraction of the waste connected to retailers, as this target doesn't require reductions across the supply chain, opting instead for vague terms such as "involve" and "engage" the supply chain.[93][94] The CGF also seems to repeatedly shift the goalposts for businesses - the initial CGF food waste goal was 50% reduction by 2025[95], something that very few retailers have committed to or maintained.

Category 5
Protein Alternatives

In 2019, the plant-based protein market, often referred to as the alternative protein market, was growing at five times the rate of the animal-based protein market.[96] In 2022, trends indicated a slight decline in the growth of the alternative meat segment, indicating that challenges remain in this new market.[97]

Over the past decade, alternative proteins have moved from niche to mainstream, driven by investment and changing consumer preferences.[98] Alternative proteins are forecast to reach 11% of global protein consumption by 2035, potentially saving 0.85 gigatonnes of CO_2e by 2030 – equivalent to a 95% reduction in aviation emissions.[99] As the demand for a healthier, more sustainable food systems grows, plant-based proteins are essential for reducing environmental impact and ensuring global nutrition. Investing in alternative proteins saves 14 times more emissions than renewable energy, yet funding for these climate solutions lags far behind that of clean energy.[100]

However, to compete with conventional meat, alternative proteins must achieve at least price parity to make the transition accessible for consumers. While taste and availability matter, affordability remains a major barrier, as plant-based meat costs, on average, twice as much as beef, over four times as much as chicken, and three times as much as pork per pound.[101][102] Retailers can control the price of their private-label products directly and make these cheaper for consumers.[103] In 2019, sales of own-brand alternative proteins grew by 72%.[104] WWF recommends a 74% plant-based diet, urging retailers to support moves to support shoppers with moving toward this much-needed shift.[105] Supermarkets can accelerate this shift by matching the price of their own-brand alternative proteins with their animal-based counterparts, one of the key indicators on which we scored them in this category. This would challenge the perception that plant-based meat alternatives are too expensive, encourage more purchases, and drive wider adoption, positioning retailers as leaders in sustainable food innovation.[106]

5.1 Offering of private label alternatives

Private label[107], plant-based alternatives are a stronghold for European retailers, with most offering a wide range of private label plant-based meat alternatives. Supermarkets across the region have actively invested in developing and promoting their own plant-based lines, ensuring widespread availability to consumers. In stark contrast, US retailers lag significantly behind, with many offering no private label options or a limited selection. Costco, for example, sells "Kirkland Signature plant-based alternative beverages sourced from oats, almonds and coconuts" alongside two soy milk products - Walmart also only offer plant-based milks.[108] This range is limited and excludes plant-based meat alternatives, reflecting a minimal commitment to offering a wider variety of plant-based options. Albertsons only offers own-brand almond milk and vegan mac and cheese. Demand for alternative proteins is similarly strong across Europe and the US, with 87% of consumers in the US, UK, Netherlands, and Germany committed to becoming non-meat eaters, flexitarians or conscious meat eaters (consumers who aim to make more ethical and environmentally friendly choices).[109] Evidently, European retailers are capitalising on this trend with their plant-based ranges, while their US counterparts have been slow to respond.

Plant-based alternatives are a stronghold for European retailers, with most offering a wide range of private label plant-based meat alternatives.

5.2 Alternative product range sales increase targets

The Planetary Health Diet – a set of science-based targets and guidelines developed by the EAT-Lancet Commission – states that an optimal diet for human health and environmental sustainability includes a protein split of 60% plant and 40% animal.[110] Proportional targets are key to achieving meaningful change. An increase in plant-based sales must be matched by a corresponding reduction in animal protein sales to reduce emissions. Lidl (as part of the Schwarz Group) and Ahold Delhaize have shown leadership in this area by setting target ratios for increasing sales of alternative proteins and reducing meat sales. Lidl aims to increase the share of plant-based protein (including legumes and plant-based meat alternatives) to animal protein sources to 20 per cent by 2030, and to increase the share of dairy alternatives to animal-based dairy products to 10 per cent by 2030 - this however, is not for the whole Schwarz group.[111] Meanwhile, Ahold Delhaize has announced a protein (plant-based to animal) split target of 50 per cent for all its EU retail brands.[112] In 2022, Ahold's Dutch subsidiary, Albert Heijn set a "protein split target of achieving 60 per cent plant-based sales by 2030".[113] However, none of Ahold Delhaize's US subsidiaries has yet publicly committed to a protein target. Both Ahold Delhaize and Lidl receive half points for this indicator, missing the commitment to a 60-40 protein split by 2030 at group level, which would have earned full points. Rewe recently announced a protein ratio split to the media as part of an upcoming 'Protein Strategy' and opened an 'exclusively fully plant-based store' in Berlin, however this was after the cut off date for the research for this report.[114 115]

Beyond this, Tesco, Asda and Carrefour have publicly set measurable targets to grow their plant-based product sales. Among them, Tesco leads the way in ambition with a 2020 commitment to increase sales of meat alternatives by 300% by 2025, although reporting in 2024 showed it still had some way to go to meet this target.[116 117] Asda has set a target of increasing sales of plant-based products by 100% by 2030 (although no baseline is provided), while Carrefour aims to reach €650 million in plant-based protein sales in Europe by 2026.[118 119] However, all three failed to mention a corresponding or comparative reduction in meat sales, meaning they only received half points for this indicator.

Costco, Kroger , Edeka-Verbund, Casino, Elo/Auchan and Migros all reference plant-based products or diets as a way to reduce emissions, but none of them have set targets to increase sales of these items.

Outside of these selected companies, there is a lack of protein-split and plant-based products sales targets, highlighting a general reluctance to commit to a structured shift towards a more sustainable food offer. This undermines the statements made by so many of the companies linking the potential of plant-based foods to reduce emissions, proving once again that actions in their supply chains don't equal the supermarkets' external climate messaging. Costco, Kroger[120], Edeka-Verbund, Casino, Elo[121] and Migros[122] all reference plant-based products or diets as a way to reduce emissions, but none of them have set targets to increase sales of these items.

5.3 Prices of private-label alternatives

Pricing transparency for private-label plant-based alternatives remains an area of underperformance for these supermarkets. None of the retailers have implemented a clear, publicly available pricing parity policy, making it difficult to assess affordability and accessibility, with the exception of the Schwarz Group. For nearly all of it's Vemondo vegan range, "an animal-based comparison product was defined, with prices based on the basic price per 100g/ml".[123] However, Schwarz Group only scored half points as this policy does not cover its group operations.

5.4 Alternatives sales figure publication

Transparency in sales figures for plant-based alternatives is minimal among the food retailers assessed. Only three retailers scored points: Sainsbury's received full points, and Schwarz Group and Tesco scored half points. While Tesco's reported figures allow a comparison between plant-based and meat and dairy products, it only reports UK figures, not its global portfolio.[124]

The lack of publicly available sales data limits visibility into the success and market penetration of alternative protein products. Without disclosure, it is difficult to measure retailers' progress in moving towards sustainable food systems.

Source: Shutterstock

Conclusion

While some retailers are making progress on specific areas of the scorecard, not a single food retailer reports separately on methane emissions or has set a target to reduce them. This assessment reveals that major global food retailers are not addressing this potent and prevalent greenhouse gas in their meat and dairy supply chains. The top-ranked retailer, Tesco, has demonstrated relatively strong leadership compared to its global competitors, but there is still significant room for improvement in enhancing its current commitments, as Tesco's overall score falls short of true climate leadership.

Although nine of the largest food retailers have committed to achieving net zero by 2050, not a single retailer publicly discloses its methane emissions or has set a target to reduce these significant emissions. Given methane's 'super-heater' properties, the need to reduce methane emissions in the short term is imperative to address the climate and nature crises, as well as retailers' ability to meet their net zero targets. Retailers are failing to identify and quantify the methane issue in their supply chains and set out clear plans to reduce this potent GHG.

A 50% shift to plant-based proteins by six leading food retailers alone could also save emissions equivalent to removing 25 million cars.

Retailers share a common blind spot regarding methane emission reduction solutions in the meat and dairy sector. While supermarkets acknowledge that these emissions significantly drive climate change and suggest increasing plant-based sales could help, they typically fail to implement specific, measurable actions to address the problem. Despite sixteen of the retailers offering some form of plant-based range, only five have articulated targets for increasing these sales. This suggests a lack of a strategic prioritisation of the issue of methane in the retailers' supply chains, and at best a piecemeal and tokenistic response to their climate impact. A 50 per cent shift to plant-based proteins by six leading food retailers alone could also save emissions equivalent to removing 25 million cars (internal combustion engine vehicles) from the EU, demonstrating the significant potential for these targets to reduce emissions.[125]

We know that price and in-store presentation are key as supermarkets try to stem the loss of meat sales.[126] Instead of responding to declining sales or increased losses due to market volatility by doubling down on the status quo, retailers can and should meet their climate commitments by shifting consumers to more sustainable diets using all the solutions they already have.[127] Retailers know what needs to be done, but they're not moving fast enough despite the effects of global warming already being felt.

Reducing the meat and dairy offer to curb Scope 3 emissions should be a core strategy for every supermarket, and is critical to accountability for those with a net zero pledge. By being clear and vocal with customers about the links to outsized emissions from meat and dairy products versus their plant-based counterparts, supermarkets could help consumers to make more informed choices.

The category with the best result was food waste, and this is often an area retailers hold up to illustrate their commitment to sustainability. However, in terms of methane emissions, it only accounts for a small piece of the puzzle.

The performance gap among these global food retailers is most acute for US-based retailers, which lack even basic transparency over their supply chain emissions, highlighting the systemic gap in corporate climate regulation and the urgent need for a stronger US framework, at a time when climate regulation is being rolled back further.[128]

Addressing methane emissions remains an opportunity for retailers to position themselves as leaders in the transition to a sustainable food system. By setting methane-specific targets, publicly reporting progress, and investing in innovative solutions, retailers can help ensure they meet the expectations of consumers, policymakers, and investors alike. This report highlights the critical methane blind spots in the retail sector and offers a clear pathway for companies to align with the science and take meaningful action.

Recommendations

As a first step, retailers should recognise the significant impact of methane on their emissions profiles and climate change plans, and raise consumer awareness of this important issue.

Retailers should publicly acknowledge the impact of livestock methane emissions on climate change and articulate the need to support meat and dairy reductions in their stores to mitigate their overall climate impact. Incorporating methane emission reduction targets and plant-based sales increases into executive remuneration packages across the group would help to focus senior leaders on further solutions related to methane reduction in supply chains.

To increase transparency in climate reporting, retailers must:

- Implement annual public reporting of methane and other GHG emissions across Scopes 1, 2 and 3, as outlined in the GHG Protocol 2.0 methodology (with independent verification).
- Publish the methane emissions from meat and dairy products, to help inform relevant climate plans, and help consumers to make more informed decisions on product choices.

Retailers should make climate action a top priority by implementing bold climate plans in a transparent and accessible way. This can be achieved by:

- Establishing and committing to a collective net zero target by 2040 or earlier.
- Adhering to science and setting methane reduction targets of at least 30% below 2020 levels by 2030.
- Adhering to AFi standards by implementing a group-wide policy of zero deforestation and conversion of forest risk commodities by 2025, including relevant cut-off dates.
- Making sure that the net zero emissions targets are backed by a comprehensive plan for the entire value chain, with time-bound interim targets and specific actions to achieve them.

Companies must increase their ambition and financial support for scaling plant-based products. They can do this by:

- Investing in alternative proteins, including an extensive and attractive own-brand plant-based product range across the entire retailer's group and global operations.
- Setting a target of at least 60% plant-based versus 40% animal-based ratio by 2030, and regularly reporting on progress publicly.
- Supporting this with a group-level price parity policy to ensure that alternative proteins and plant-based products are attractive to consumers.
- Shifting marketing efforts and food displays in stores to incentivise the consumption of healthy and sustainable plant-based proteins (including wholefoods such as legumes and traditional alternatives, such as tofu) and away from meat and dairy.

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