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Second Party Opinion

Carrefour Sustainability-Linked Bond Framework

June 13, 2025

Location: France	Sector: Food Retail
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Alignment Summary

Aligned = ✓   Conceptually aligned = ○   Not aligned = ✕

✓ Sustainability-Linked Bond Principles, ICMA, 2024

See [Alignment Assessment](#) for more detail.

Strengths

**Positively, Carrefour's sustainability-linked bond framework addresses key sustainability factors for food retailers.** The framework, includes a comprehensive set of key performance indicators (KPIs), addressing climate and waste and pollution, which we view as material issues for the sector. We also view favorably that the KPIs selected, and sustainability performance targets (SPTs) set under the framework align with Carrefour's climate and sustainability strategies.

**Carrefour has a comprehensive strategy which supports its scope 3 emissions reduction target.** The group aims to reduce these emissions, which account for 99% of its overall emissions, by 32% by 2040. To meet this target, Carrefour will, among other measures, increase the number of suppliers committed to a 1.5°C pathway and to regenerative agriculture practices, as well as promote more plant-based diets.

Weaknesses

No weaknesses to report.

Areas to watch

**The food retail sector is exposed to waste and pollution, mainly from single-use plastics and high food waste across the value chain.** Carrefour has only recently started reporting on the virgin plastic and food-waste related KPIs. This somewhat limits our ability to benchmark these SPTs against its historical performance. Moreover, few peers disclose similar metrics. In our view, the KPIs target issues that are relevant for food-retailers. Therefore, we expect industry-level reporting on these metrics to improve overtime, which will allow for the external benchmarking of the selected KPIs.

Relevance And Ambition Analysis Summary

	Relevance	Ambition
SPT/KPI 1    A 50% reduction in scope 1&2 CO2 emissions by 2030, and 70% reduction in scope 1 and 2 CO2 emissions by 2040.	Relevant	Ambitious
SPT/KPI 2a    32% reduction in scope 3 emissions by 2030 compared to a 2019 baseline	Highly relevant	Highly ambitious

<b>SPT/KPI 2b</b>	One hundred and fifty suppliers committed to a climate strategy by 2030.	Relevant	Ambitious
<b>SPT/KPI 3</b>	A 10% reduction of virgin plastic in Carrefour’s brand packaging by 2030.	Relevant	Ambitious
<b>SPT/KPI 4</b>	A 42% reduction in food waste by stores by 2030 from 2023 levels.	Relevant	Ambitious

SPT--Sustainability performance target. KPI—Key performance indicator. See [Relevance And Ambition Analysis](#) for more detail.

## Issuer Sustainability Context

This section provides an analysis of the issuer’s sustainability management and the embeddedness of the financing framework within its overall strategy.

## Company Description

Carrefour is a publicly traded French multinational retailer headquartered in Massy, a suburb of Paris. The company operates hypermarkets, supermarkets, convenience stores, club stores, and cash and carry stores; e-commerce sites; and service stations. Carrefour operates directly in six countries in Europe (France, Spain, Italy, Belgium, Romania, and Poland) and two in Latin America (Brazil and Argentina). In Asia, the Middle East, and Africa, Carrefour collaborates with local partners through a network of stores under Carrefour banners (both franchise and integrated stores). In 2024, revenue amounted to €94.55 billion. Its main markets were France (45% of 2024 sales), Brazil (22%), and Spain (12.5%).

Lease management and franchising are relevant aspects for Carrefour’s business model, as 90% of shop openings in Europe since 2018 have been on a franchise basis. We expect online sales to propel growth, with projections pointing to global growth of 8.6% in the segment from 2022-2027, compared with 3.7% growth for in-store sales.

## Material Sustainability Factors

### Climate Transition Risk

Climate transition risks are material for consumers and suppliers such as logistics of food retail. Retail supply chains are responsible for 25% of global greenhouse gas (GHG) emissions, from distribution transport, refrigerants, food production, waste, and energy use to power retail facilities. The increase in e-commerce has significant implications on food distribution and logistics, so climate transition risk could become more material as consumers demand more delivery services from retailers. Carrefour’s main market include France and Spain, part of the EU, which has pledged to cut net emissions 55% by 2030. Brazil, another key market, has pledged to reduce its carbon emissions by up to 67% by 2035.

### Waste And Recycling

Waste and recycling, mainly from single-use plastics and high food waste across the value chain, are material for in food retail. According to the United Nations Environment Programme (UNEP) Food Waste Index report of 2024, 19% of total global food production was wasted in 2024. Waste-related regulations will become increasingly material for both waste streams. Consumer awareness of negative environmental consequences of plastic and food waste could gradually shift demand for more sustainable food packaging and delivery methods. In the EU, retailers are subject to plastic waste regulations, including the Single-Use Plastics Directive and the Packaging and Packaging Waste Regulation. These regulations include measures such as bans on specific single-use plastic items, and targets for recycled content in packaging.

## Sustainable Products And Services

Consumer demand will continue growing for healthy, sustainable, quality products with lower environment impacts in food retail. Many retailers are stocking healthier foods, with fewer chemical, carbon, and water-intensive production methods, such as plant-based protein. Shifting consumer preferences are driving this evolution and might require major changes in the retailers' supply chains. More sustainably produced foods can reduce the environmental and social externalities of agriculture and manufacturing, while healthier, more nutritious food benefits consumer health.

## Customer Health And Safety

Much of the food retail sector offers highly processed foods, which can be seen to have negative health impacts on customers. Following rising regulatory actions and public attention to wellness, many retailers and restaurants, particularly in developed markets, are adapting offerings to include healthier foods and ingredients. Additionally, food safety incidents (related to foods prepared at retail store kitchens or from packaging facilities) can cause acute illness and, on rare occasions, fatalities. In the EU, the EU General Food Law is the starting point for all food safety regulations, addressing safety and quality standards, and the traceability of food products, for instance. In Brazil, the National Health Surveillance Agency oversees food health and safety.

## Issuer And Context Analysis

**The framework aims to address climate transition risk, waste and recycling, and sustainable products, which we view as key sustainability factors.** Carrefour has a set of initiatives and policies to address climate transition risks as part of its Climate Plan. These include a roadmap to achieve carbon-neutral stores by 2040 (across scopes 1 and 2) and carbon-neutral e-commerce activities by 2030.

**Carrefour has set comprehensive targets to decarbonize its direct and value-chain operations, and its reduction targets for scope 1, 2, and 3 have been recognized as in line with 1.5°C targets by the French Agency for Ecological Transition (ADEME).** Carrefour aims to reduce its scope 1 and scope 2 CO<sub>2</sub> emissions by 30% by 2025, by 50% by 2030 and by 70% by 2040 from 2019 values. To do this, the company aims to reach 100% renewable electricity use by 2030, reduce its energy consumption by 27.5%, and reduce refrigerant use emissions by 50% by 2030 and 80% by 2040 from 2019 values.

**Scope 3 emissions account for about 99% of Carrefour's emissions.** The company has set targets covering the three main perimeters that account for more than 90% of its scope 3 emissions. By 2030 and compared to a 2019 baseline, Carrefour aims to reduce emissions linked to purchases of goods and services, product usage, and downstream emissions linked to out-bound transport by 30%, 27.5%, and 20%, respectively. This emission reduction plan is supported by a plan to encourage suppliers to reduce GHG emissions, enhance regenerative agriculture practices, and reduce food waste across the value chain.

**Carrefour has consistently targeted waste reduction, including packaging and food waste.** In 2023, the company achieved its target of a cumulative reduction of 20,000 metric tons of packaging by 2025, following efforts to reduce or replace packaging across its shops. For instance, 80% of the fruit and vegetables shelf is already plastic-free. Other efforts to reduce waste include the introduction of returnable packaging, and encouraging consumers to reduce the use of packaging for products purchased in the fresh food departments, by bringing their own containers. Carrefour also has initiatives to minimize food waste, including improving inventory management and more attractive prices for short-dated products. In 2018, the company signed the Ellen McArthur Foundation's New Plastic Economy Global Commitment to tackle plastic pollution, further demonstrating its commitment to decreasing global plastic production and waste.

**Providing healthy and safe options to consumers is a key priority for Carrefour.** The company has established targets to support its strategy, and ensure adequate monitoring of product health and safety. These include targets to reduce sugar and salt in food products, and the commitment to have a quality audit on its entire supplier base. For its own brands, Carrefour has

a process to ensure quality, which includes suppliers' compliance with product quality standards, the disclosure of product specifications, quality control plans, and customer opinion surveys. It also monitors and promotes the sale of more sustainable products. The company aims to increase its sales of plant-based protein products by 62% by 2026 from a 2022 baseline.

## Investments

**Carrefour has earmarked about €500 million of capital expenditure (capex) over 2022-2026 for the energy and environmental transition.** Actions include increasing renewable energy capacity through the installation of solar panels on hypermarkets, the installation of electric vehicle chargers, and the refurbishment of assets to make them more efficient (including with LED lighting, and refrigeration systems).

**In 2024, Carrefour announced a partnership with GreenYellow, a company specialized in decentralized photovoltaic production, energy efficiency projects, and energy and electric mobility services.** The two companies will collaborate in installing and operating solar panels in about 350 hypermarket and supermarket car parks in France. Carrefour aims to extend this initiative internationally and is targeting solar power production of 1 terawatt-hour per year from 2027 in France, Spain, and Brazil. This partnership will also support the group's goal of using 100% renewable energy in its electricity consumption by 2030. According to the company, within three years' production, it should be able to cover about 20% of its stores' needs.

**Carrefour reports that 1.2% of its 2024 capex was aligned with the EU Taxonomy, while 36.6% was linked to eligible activities.** Taxonomy-aligned capex is linked to the waste collection activity, energy efficiency equipment, charging stations for electric vehicles, instruments and devices for controlling building energy performance, renewable energy equipment and acquisition, and ownership of buildings activities. The overall low alignment rate is, according to Carrefour, due to the complexity in collecting data and stringency of the activities related to the leasing, construction, and building renovation activities (EU Taxonomy activities 7.1, 7.2, and 7.7), which accounted for a significant portion of capex in 2024,

**In our view, the company's investment strategy is closely aligned with its decarbonization plan.** These investments play a role in meeting the carbon and waste reduction targets established in this framework. The implementation plan to reduce scope 3 emissions will not involve significant operating expenditure or capex, as it relies on actions by Carrefours suppliers, including agricultural producers and franchise partners, and on evolving consumption trends.

# Alignment Assessment

This section provides an analysis of the framework's alignment to the Sustainability-Linked Bond principles.

## Alignment Summary

Aligned = ✓    Conceptually aligned = ○    Not aligned = ✗

✓ Sustainability-Linked Bond Principles, ICMA, 2024

## Sustainability-Linked Alignment

### ✓ Selection of key performance indicators (KPIs)

We view the KPIs as aligned with the Principles because their scope, objective, and calculation are clearly articulated in the framework. Furthermore, all KPIs address a relevant sustainability challenge for the retailing (food) sector. The sector is particularly exposed to climate transition risks through energy consumption by stores, upstream and downstream activities, transportation, embodied emissions, refrigerants, food production, and waste. The selected KPIs demonstrate the issuer's commitment to mitigate these exposures, in line with its sustainability strategy.

For more information, see KPIs in [Relevance And Ambition Analysis](#). KPI--Key performance indicator.

### ✓ Calibration of sustainability performance targets (SPTs)

The framework outlines the expected observation date, relevant triggers events, and frequency of all SPTs. We consider all SPTs ambitious, because they promote improvements over the business-as-usual trajectory and compare favorably to peers' performance or industry benchmarks. We view positively that the issuer selected SPTs consistent with its overall strategic sustainability and business strategy.

For more information, see SPTs in [Relevance And Ambition Analysis](#).

### ✓ Instrument characteristics

Instruments issued under the framework will be subject to changes in the financial or structural characteristics triggered by the failure to achieve the stated SPTs by the target observation dates. The specific variations will be specified in the relevant transaction document for each specific instrument. Additionally, the transaction documents will include a fallback mechanism in case the SPTs cannot be calculated or if Carrefour fails to publish relevant information satisfactorily.

### ✓ Reporting

Carrefour commits to annually disclose the SPT's performance for all KPIs set out in the framework within its Universal Registration Document or any equivalent publication made available through its website. The reporting will have relevant information that enables investors to monitor progress against the SPTs, including a qualitative or quantitative explanation of the contribution of the main factors, such as acquisitions, affecting the evolution of the KPI performance, illustrating the performance improvement's positive sustainability impact, and any recalculation and updates to the SPTs or baselines. Furthermore, it commits to provide an annual external verification assurance certificate on the KPI's performance against the SPTs.

### ✓ Post-issuance review

Carrefour commits to obtain an annual independent post-issuance verification of its annual performance against SPTs by a qualified external reviewer, and an assurance report issued on the observation dates as to whether the relevant SPTs have been achieved. The company will publish results on its website. Please note, our second party opinion is not itself a post-issuance review.

# Relevance And Ambition Analysis

This section provides an analysis of whether the financing’s KPIs and SPTs are consistent with its progress towards a sustainable future.

**KPI 1** Group GHG emissions reduction (Scope 1 and 2, in tons of carbon dioxide-equivalent [T. CO2eq.])

**SPT 1** A 50% reduction in scope 1 and 2 CO2 emissions by 2030, and 70% reduction by 2040

## KPI 1 – Relevance

Not aligned      Relevant      Highly relevant

### Analytical considerations

- We view the selected KPI as relevant because it addresses climate change mitigation, a material sustainability issue for the retailing (food) sector. Most material emissions for the industry typically arise from food production, distribution transportation, refrigerants, energy consumption of retail facilities, and waste management. The increase in e-commerce also has significant implications for food distribution and logistics. KPI 1 is a direct link for the environmental impact of Carrefour operations and aims to track a relative reduction in absolute scope 1 and 2 emissions from the company’s operations. We see as a strength that KPI 1 is expressed as a sustainability outcome rather than a proxy for performance against a sustainability factor. The KPI is effectively in line with Carrefour’s sustainability strategy and the group’s overarching goal of reducing emissions in line with the 2015 U.N. Paris Agreement and its long-term ambition of carbon-neutral stores by 2040 (scopes 1 and 2).
- Carrefour’s scope 1 emissions comprise refrigerant fluids, gas, and fuel, whereas the scope 2 emissions include the sum of electrical energy emissions from the national grid (location-based) and those from renewable sources (market-based) from its integrated stores. Carrefour’s framework uses a market-based approach for scope 2 reporting. In our view, this method does not necessarily translate into an improvement in terms of regional or national emissions, because the market-based approach allows companies to report emissions based on contracted agreements with energy suppliers for any procured renewable energy. We generally see the use of a location-based approach for measuring scope 2 emissions more favorably because it enables the close monitoring of emission reductions at both the company and national level. Carrefour calculates and reports both location-based and market-based scope 2 emissions, which we view as best practice. The company’s transition plan is based on decarbonization levers like the implementation of energy efficiency projects, increasing the use of renewable energy, and cutting emissions from refrigerant use in accordance with the EU F-Gas Regulation.
- KPI 1 is one of the most frequently used KPIs in the market, allowing for external benchmarking. That it is expressed in absolute terms is a strength, in our view, considering a reduction in emissions intensity could still be accompanied by an overall increase in total emissions. We view favorably that the KPI is calculated using methodologies in line with the ADEME, the Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories and GHG Protocol carbon footprint method. These are commonly used in the market, allowing for external benchmarking. The emissions factors used are mainly from the DEFRA (Department for Environment Food and Rural Affairs) GHG Conversion Factors, the IPCC, and the UNEP. We positively note that this overarching target

has been reviewed and validated by the ADEME's ACT Assessment as aligned with the 1.5°C scenario.

- The scope of KPI 1, covers all the integrated stores in the group's integrated countries (Argentina, Brazil, Belgium, France, Italy, Poland, Romania, and Spain). The KPI excludes franchised stores. Reducing scope 1 and 2 emissions is necessary if the company is to achieve its sustainability objectives; however, this KPI represents about 1% of Carrefour's overall carbon footprint, with scope 3 emissions accounting for the remaining 99%. The retail industry, especially the food sector, typically has a high share of Scope 3 emissions, which account for 90%-95% of total GHG emissions. Therefore, while we consider this KPI somewhat relevant for the company, we think tracking other KPIs could enhance Carrefour's GHG emissions reduction efforts. Still, we view positively that the framework also includes KPIs (2,3 and 4) for scope 3 emissions both for upstream and downstream activities but note there is no commitment to using this KPI together with KPIs that address scope 3 emissions, which would be seen as a strength.

SPT 1 - Ambition

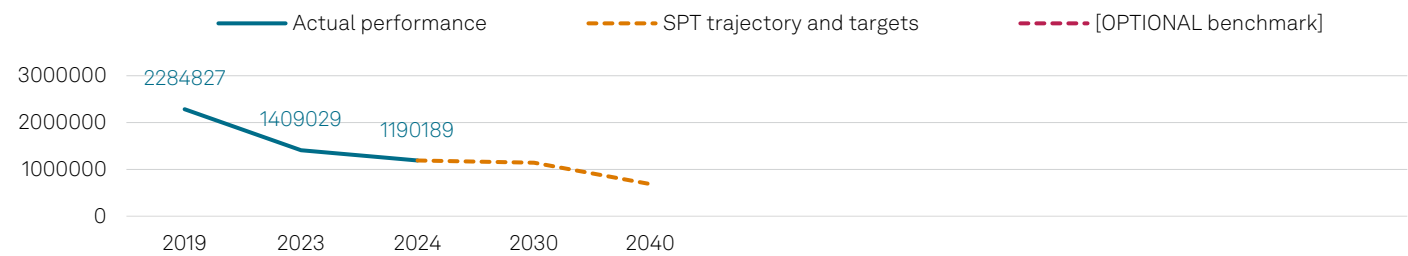
Not aligned                      Ambitious                      Highly ambitious

Analytical considerations

- Overall, we consider SPT 1 ambitious. Through this SPT, Carrefour intends to achieve a 50% reduction in scope 1 and 2 emissions by 2030 and 70% by 2040. The framework provides information on the baseline year (2019) and target observation date (Dec. 31 of each year). It also covers trigger events such as the failure to achieve the SPT on the target date.
- Carrefour intends to reduce absolute scope 1 and 2 by 50% by 2030 from a 2019 base level and by 70% by 2040 against the same baseline. The company had already achieved a 48% reduction by 2024 (approximately an annualized 9.6% reduction) compared to the base year. To achieve the SPT, Carrefour will need to reduce in-scope emissions by an additional 2% by 2030 and 22% by 2040, which requires a rate of reduction below that achieved previously (less than 1% per year until 2030 and below 1.5% per year until 2040). Nevertheless, the company achieved a large decrease of its scope 1 and 2 emissions in 2024, mainly due to an increased share of renewables and reduced refrigerants leakage rate. We positively note that its target to reduce absolute scope 1 and 2 emissions has been reviewed by Ademe's ACT Assessment to ensure it is consistent with the 1.5°C scenario which supports our assessment of its ambitiousness. Additionally, Carrefour intends to validate its targets with Science Based Targets initiative (SBTi) and we consider that combining the ACT assessment with SBTi or Net Zero frameworks as a very strong practice.
- The ACT Evaluation was built by the Carbon Disclosure Project and the French Environmental Agency Ademe. It analyzes emission reduction targets and the associated low-carbon transition strategy against science-based scenarios.
- The framework provides information on the strategy to reach the SPT, which includes measures like the use of 100% renewable electricity and power purchase agreements (PPAs) if required, and 27.5% reduction in energy consumption (both by 2030); and reduced emissions from refrigerants by 50% by 2030 and by 80% by 2040 (refrigerant gas leaks accounting for about 80% of scope 1 emissions). It also identifies key risks beyond Carrefour's control that could impair its ability to meet the target, namely significant transformation in the energy mix of the countries where the group operates.

SPT 1 performance and trajectory (tons of CO2 equivalent)





Source: S&P Global Ratings.

**KPI 2a** Greenhouse gas (GHG) Emissions reduction (Scope 3 in T. CO2eq.)

**SPT 2a** 32% reduction in scope 3 emissions by 2030 compared to a 2019 baseline.

**KPI 2a– Relevance**

Not aligned	Relevant	Highly relevant
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**Analytical considerations**

- We think the selected KPI is highly relevant given that the scope, objective, and calculation methodology are clearly articulated in the framework. Furthermore, we consider this KPI closely linked with Carrefour’s decarbonization strategy and climate change mitigation, a key sustainability challenge for the company and food retail industry.
- This KPI is one of the most effective ways to measure the company’s performance in achieving its decarbonization strategy, given scope 3 emissions represent about 99% of the company’s overall emission footprint.
- The KPI covers all integrated stores in the group's integrated countries and includes all material sources of scope 3 emissions, namely purchased goods and services, including FLAG and non-FLAG, (about 80% of the overall footprint in 2024) use of sold products (10%), and franchises and downstream transportation and distribution (less than 1%). The KPI covers about 90% of total scope 3 emissions. Carrefour’s carbon inventory is performed following the GHG protocol, which we view as in line with market practice, thereby facilitating benchmarking to peers.
- The KPI is expressed in absolute terms, which we view positively, considering that a reduction in emissions intensity could still be accompanied by an overall increase in total emissions. Additionally, it is outcome-focused instead of a proxy for performance against a sustainability factor, which again we view as a strength. The company has a long record of disclosing and verifying its scope 3 emissions in its annual sustainability report.
- Carrefour’s transition plan is based on various decarbonization levers, including engaging suppliers to implement low-carbon farming practices to produce the group’s priority raw materials: meat, primarily beef and pork, dairy products, cereals, and fruits and vegetables; engaging suppliers to decarbonize their activities in line with the 1.5°C warming scenario; and promoting more plant-based diets.

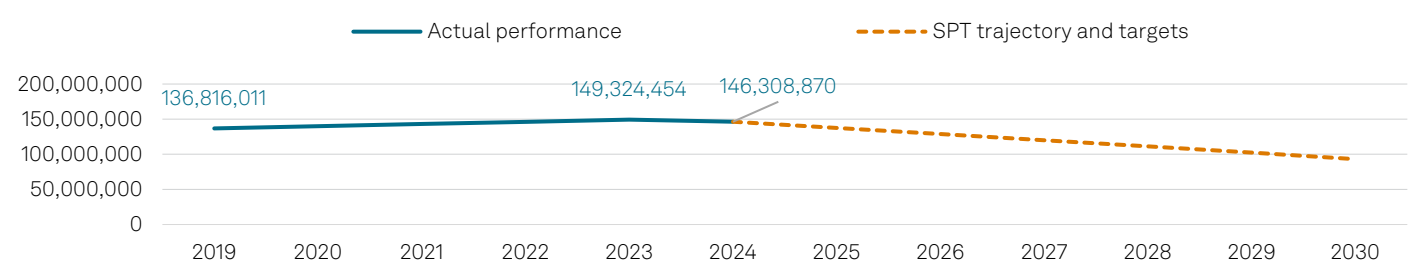
**SPT 2a - Ambition**

Not aligned	Ambitious	Highly ambitious
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Analytical considerations

- Overall, we consider SPT 2a highly ambitious. Through this SPT, Carrefour intends to achieve a 32% reduction of its scope 3 emissions (namely those related to purchased goods and services) by 2030. The framework provides information on the baseline year (2019) and target observation date (Dec. 31, 2030). It also covers trigger events such as the failure to achieve the SPT on the target date.
- This overall scope 3 commitment has subtargets covering the main components of the group's related emissions (90% of its total): purchased goods and services (representing 80% of its overall footprint) use of sold products (10%), franchises and downstream transportation and distribution (less than 1%). The framework provides three years of historical performance, in line with the Principles' recommendations. The historical trajectory shows no emission reductions until 2024, when in-scope emissions were 7% higher than the baseline. This increase results from the group's organic growth from 2019-2022, and because the calculation of the scope 3 carbon footprint since 2024 is based on the FLAG methodology, which increases emissions in relation to the calculations of previous years. To achieve the target, emissions will need to fall an additional 36% (approximately an annual rate of 6%), a rate of improvement significantly higher than that achieved historically.
- Like for SPT 1, we positively note that this target has been reviewed by ADEME's ACT Assessment to ensure it is consistent with the 1.5°C scenario, which supports our assessment of its ambitiousness. Additionally, Carrefour intends to validate its targets with SBTi, and we consider that combining the ACT assessment with SBTi or Net Zero frameworks as a very strong practice.
- The framework includes relevant information on the strategy to reach the target and has provided a breakdown of the emissions it estimates can be reduced through each lever. The strategy includes increasing the number of suppliers committed to a 1.5°C pathway (SPT 2b) through which it expects an 8% reduction of overall scope 3 emissions by 2030; increasing the number of suppliers committed to regenerative agriculture (8% reduction estimated); combating deforestation in terms of priority raw materials (4% reduction estimated), and promoting more plant-based diets (3%). We view this strategy as comprehensive and likely to significantly improve this KPI.
- The framework includes information on external factors beyond Carrefour's control that could affect achieving the SPTs. For instance, it mentions the weakening of regulations regarding agriculture and deforestation (that is, regulations in producing countries such as Brazil, and regulations in consuming markets, such as the EUDR), or lack of interest from consumers and suppliers regarding plant-based alternatives, to name a few.

SPT 2a performance and trajectory (tons of CO2 equivalent)



Source: S&P Global Ratings.

KPI 2b    Number of suppliers committed to a climate strategy (scope 3)

SPT 2b    Reach 150 suppliers committed to a climate strategy by 2030

KPI 2b – Relevance

Not aligned                      Relevant                      Highly relevant

Analytical considerations

- We view the selected KPI as relevant because it addresses climate change mitigation, a material sustainability challenge for Carrefour and the food retail industry. Through this KPI, the issuer measures and addresses some of its most material GHG emissions, namely scope 3 emissions from purchased goods and services, which account for 80% of its overall footprint.
- Carrefour’s transition plan is based on various decarbonization levers including engaging suppliers to decarbonize their activities in line with the 1.5°C scenario. While this initiative alone might not be one of the most effective ways to achieve a meaningful decarbonization of its activities, the company has estimated that by 2030, it can help reduce by 8% emissions from purchased goods and services, which represent some of the most material sources of emissions for the group (together with emissions associated with the use of sold products and upstream transportation and distribution).
- The scope of the KPI includes all suppliers in Carrefour’s integrated countries who have submitted a 1.5°C file to SBTi or have an approved 1.5°C trajectory, or who are committed to the ADEME Act Evaluation Methodology. The scope is not limited to Carrefour’s top 100 suppliers, because it includes SMEs and other types of suppliers in its integrated countries.
- The KPI’s calculation is based on proprietary information, limiting benchmarking to peers. Still, it is measurable on a consistent methodological basis, and is externally verifiable. There is a growing trend among major food retailers to encourage suppliers to set science-based targets, so we expect comparability to become easier.

SPT 2b - Ambition

Not aligned                      Ambitious                      Highly ambitious

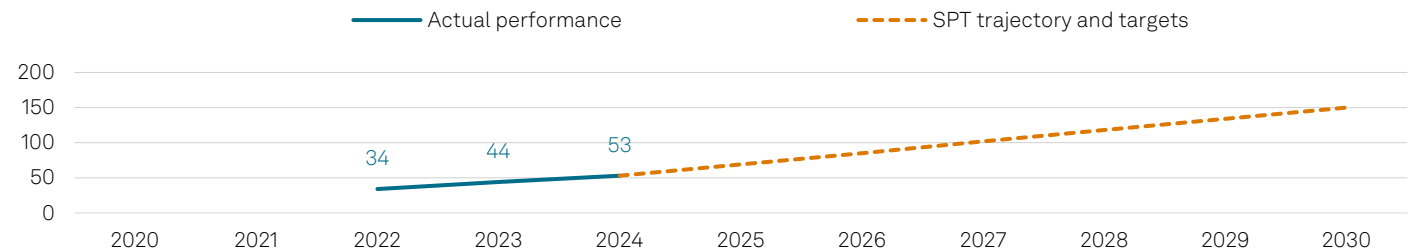
Analytical considerations

- Overall, we consider SPT 2b ambitious. Through this SPT, Carrefour intends to achieve 8% reduction of its scope 3 emissions (those related to purchased goods and services) by 2030.
- Carrefour set the target to reach 150 suppliers committed to a climate strategy by 2030. This target builds upon the previous commitment the company had to ensure its top 100 suppliers align with a 1.5°C strategy by 2026, and increases the scope to cover SME suppliers. The framework provides three years of historical performance, in line with the Principles’ recommendations. In 2024, the group counts 53 suppliers who have submitted a 1.5°C file to SBTi or have an approved 1.5°C trajectory, or who are committed to the ADEME Act Evaluation Methodology (representing 53% of Carrefour’s top 100 suppliers). To achieve its target, the company needs to ensure an additional 97 suppliers (big and small) commit to a 1.5°C trajectory, a pace of improvement in line with that from the past.
- Through this initiative, the issuer expects to reduce by 8% its scope 3 emissions from the purchase of goods and services, which we view as a significant contribution to its decarbonization strategy. While the scope of this indicator increased in 2025, historical

information has been subject to external verification as part of the limited assurance review of Carrefour’s annual reporting. The company has set one target observation date in 2030 to measure progress against this SPT.

- Additionally and as established for SPT 2a, Carrefour is targeting a 32% reduction in scope 3 emissions by 2030 compared with 2019. This commitment is broken down into subtargets covering the main components of the group’s scope 3 emissions. In this regard, we appreciate that achieving this SPT will affect achieving the overall scope 3 emission reduction SPT.
- To achieve its target, Carrefour will continue to encourage its top 100 suppliers to align with a 1.5°C strategy by 2026, to ensure they remain listed by the group. Additionally, it plans to facilitate knowledge sharing through webinars and meetings, and to further collaborate with ADEME and other organizations to support SMEs in adopting science-based targets. We think this strategy is comprehensive and that it doesn’t introduce significant social or environmental risks. The framework also mentions factors beyond Carrefour’s control that could hinder its ability to reach the target, namely significant strategy change from suppliers, although we view this as highly unlikely.

SPT 2b performance and trajectory (number of suppliers committed to a climate strategy)



Source: S&P Global Ratings.

**KPI 3** Reduction of virgin plastic used in disposable products packaging from Carrefour’s brand (scope 3).

**SPT 3** A 10% reduction of virgin plastic on Carrefour’s brand packaging by 2030.

KPI 3 – Relevance

Not aligned      Relevant      Highly relevant

Analytical considerations

- We view the selected KPI as relevant, because it addresses waste and recycling and climate mitigation, key material sustainability issues for food retailers (see "ESG Materiality Map Retailing (Food)," published Oct. 27, 2022). The industry is one of the largest users of single-use plastic items, for instance through packaging. Virgin plastics are also a significant source

of GHG emissions: The production of virgin plastic accounts for approximately 5% of total GHG emissions globally.

- KPI 3 is in line with Carrefour's publicly announced target to remove 15,000 tons of virgin plastic from own-brand product packaging by 2030, equivalent to a 10% reduction virgin plastic used in its single-use packaging. This reduction can be achieved through a decrease in total plastics from packaging, or increased recycled content in packaging products. The KPI directly measures the amount of virgin plastic that Carrefour is avoiding and is a direct measure of the company's more efficient use of resources and waste management. By reducing plastic packaging and incorporating more recycled content in packaging, Carrefour is also addressing its packaging's carbon footprint, part of its scope 3 emissions. Reducing the amount of packaging entering the market, along with promoting reuse and recycling, is one action under Carrefour's roadmap to reduce scope 3 emissions by 32% by 2030.
- The KPI's calculation is measurable on a consistent methodological basis, and it is externally verifiable. Positively, the framework clearly expresses the definition of virgin plastics as plastic that has not been recycled (first-generation plastic). While few food retailers report on comparable metrics, we expect this to become a more standard practice because of initiatives such as the U.N.'s treaty on plastics, which Carrefour has already adopted. This will facilitate benchmarking to peers, and enhance the comparability of the KPI. We view favorably that the KPI is expressed as an absolute metric, so if the sales of own brand products increase, the group must increase its efforts to reach its target.
- The scope of the KPI comprises from Carrefour's brand sales in integrated countries, including online and all stores under its banner. We view positively that the KPI's scope comprises most of the company's own brand product sales, as sales in nonintegrated countries represent a minor share of the group's sales.
- As of 2024, Carrefour's own brand product accounted for 37% of total sales, a figure the company aims to increase to 40% by 2026. The KPI does not include products from other brands. We understand that this is due to the lesser degree of control Carrefour has over the packaging in products outside of its private label.

### SPT 3 - Ambition

Not aligned

Ambitious

Highly ambitious

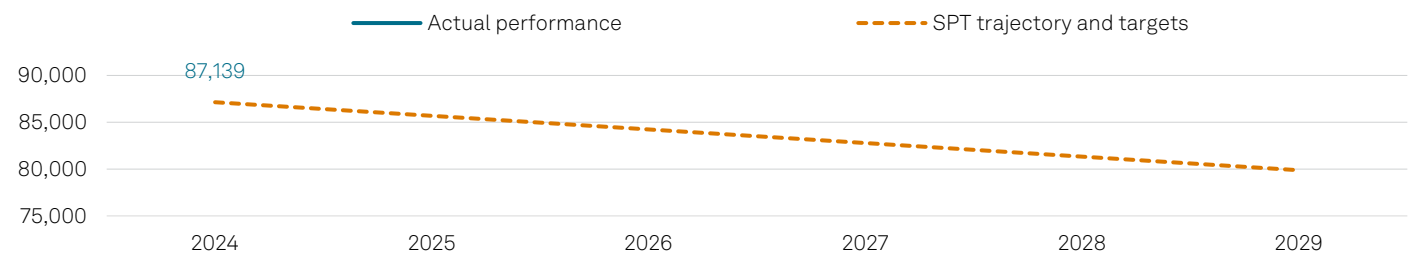
#### Analytical considerations

- Carrefour is targeting a 10% reduction of virgin plastic on its brand packaging by 2030 from 2024 levels. The framework provides information on the baseline year (2024) and target observation date (Dec. 31 of each year). It also covers trigger events, such as the failure to achieve the SPT on the target date. Overall, we consider SPT 3 to be ambitious, and consistent with its overall sustainability efforts to reduce the use of virgin plastic in packaging.
- Carrefour has conducted a benchmarking exercise to set the level of ambition for this SPT. The exercise uses publicly disclosed data for a sample group of four food-retail companies and 15 consumer goods companies. In our view, the food retailer peers selected for the benchmarking exercise compare well with Carrefour because they have similar business models and geographical footprint. Most peers have not set targets beyond 2025, which somewhat limits our ability to benchmark Carrefour's target against that of its food-retailer peers. The peer benchmark exercise also showcases the difficulties faced by the industry in meeting virgin plastic reduction targets: of the four peers, two have not been able to keep up with their commitments, due to shortage of high-quality PCR, specially especially those used for food. Additionally, the majority of retail peers are yet to establish targets to reduce virgin plastic in packaging. From the information provided, we conclude that the

issuer-defined SPT trajectory is in line with industry standards and stands out from those set by its peers by being more future-looking.

- Some peers from the consumer goods sector aim for a higher reduction rate than that of the retailers, due to specific characteristics of the products being sold. For example, food contact material regulations might limit the packing from post-consumer recycled materials content by requiring higher-grade, more expensive recycled plastics. On the other hand, companies focused on household and personal care products appear to have a relative advantage in achieving virgin plastic reduction, as the products are suitable for refill or concentrate, and subject to less stringent packaging regulations.
- To complement its peer benchmarking exercise, Carrefour has shared context around corporates progress in reducing plastic packaging, based on the Ellen MacArthur Foundation’s 2024 progress report. According to this report, only 32% of signatories to the global commitment with a virgin plastic reduction target have either achieved or are on track to meet it. This indicates the complexity of meeting these targets, due to product specific packing needs, laid out above. Additionally, companies in the industry struggle to decouple growth from material consumption, because its business growth directly correlates with the selling volume of products, which leads to increased absolute virgin plastic usage, even if per-unit plastic content decreases.
- Carrefour has started tracking this metric and publicly reporting on it in 2024, so there is no historical data for this KPI, limiting our ability to benchmark it against trends. Before 2024, the group reached the goal of reducing virgin plastic use by 20,000 tons from 2017-2025. The company has therefore already made significant progress in certain areas of its business-- for instance, 80% of the fruit and vegetables shelf is plastic-free, and the batteries and light bulbs shelves are almost fully plastic-free.
- The framework outlines the issuer’s strategy to meet this SPT, which entails efforts to reduce packaging or choosing alternatives to plastics, such as cardboard. The company also plans to increase its use of recycled plastics as a replacement to virgin plastics, and implement a training program for its procurement teams, to facilitate the strategy’s implementation and ensure that efforts to reduce plastic packaging are well communicated at all levels of the organization and during the procurement stage. The group also acknowledges that some product categories, such as food products that need to be protected against humidity, are a more complex challenge than others, such as dry products.
- Carrefour has identified factors beyond its control that could impair its ability to meet this SPT, and which include massive increase of prices of alternatives to plastics, as well as policy changes in the jurisdictions where it operates. When setting this target, Carrefour also took into consideration changes supported by the French Anti-Waste and Circular Economy Law, “Loi anti-gaspillage pour une économie circulaire”, and the EU Packaging and Packaging Waste Regulation.

SPT 3 performance and trajectory (tons)



Source: S&P Global Ratings.

**KPI 4**    Reduction of food waste generated by stores (scope 3).

**SPT 4**    Reducing food waste by 42% by 2030 compared with 2023 levels.

**KPI 4 – Relevance**

Not aligned                      Relevant                      Highly relevant

**Analytical considerations**

- We view the selected KPI as relevant, because it addresses waste and recycling and climate mitigation, key material sustainability challenges for food retailers (see "ESG Materiality Map Retailing (Food)," Oct. 27, 2022). Food waste accounted for 19% of total global food production as of 2024, according to the UNEP Food Waste Index report for that year. Besides representing an inefficient use of resources like agriculture land, water, and agrochemicals, food waste contributes to significant GHG emissions, accounting for 8%-10% of global GHG emissions.
- KPI 4 directly links to the environmental and climate impact of Carrefour’s value chain. Food waste is identified as one of the issues with highest relevance for stakeholders and impact on business, according to the company’s materiality matrix. Furthermore, reducing food waste across the value chain is one action under the group’s roadmap to decrease scope 3 emissions by 29% by 2030.
- Carrefour has been tracking food waste figures consistently in recent years. In 2023, the company changed its definition of food waste, making it more stringent and aligning with the ADEME definition of food waste, which comes from the French Anti-Waste and Circular Economy Law (Anti-Gaspillage pour une Économie Circulaire).
- The KPI is measurable on a consistent methodological basis, and it is externally verifiable. The selected KPI is expressed as the yearly reduction of in-store food waste, with food waste defined as “any food intended for human consumption that is lost, thrown away or spoiled at any stage of the food chain”. Moreover, the KPI is expressed as an absolute metric, ensuring that Carrefour will decrease the total food waste, even if sales increase, a feature we view positively.
- The scope of the KPI comprises Carrefour’s stores in integrated countries. This KPI does not cover franchise stores. As of 2024, franchisees accounted for 71% of stores in integrated countries. Additionally, food waste data from e-commerce and warehouses is not included in the calculation of KPI. In our view, this exclusion of material sources of food waste across the value chain represents a limitation in the KPI’s scope.

**SPT 4 - Ambition**

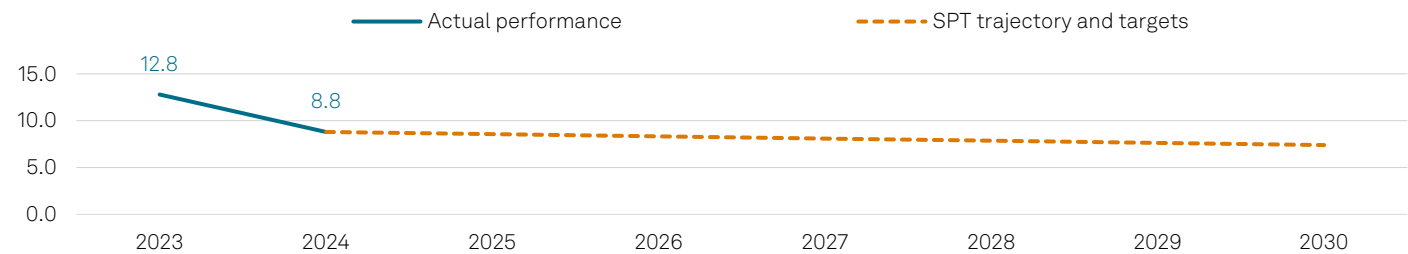
Not aligned                      Ambitious                      Highly ambitious

**Analytical considerations**

- Carrefour is targeting a 42% reduction in food waste generated by stores by 2030 compared with 2023 levels. The framework provides information on the baseline year (2023) and target observation date (Dec. 31 of each year). It also covers trigger events, such as the failure to achieve the SPT on the target observation date. Overall, we consider SPT 4 ambitious, and consistent with its overall sustainability efforts to reduce waste, and in particular food waste.

- Carrefour has conducted a benchmarking exercise to set the level of ambition for this SPT. The exercise uses publicly disclosed data for a sample group of four companies. It compares the issuer's target with those of peers and measures peers' historical performance against the metric. In our view, the peers selected for the benchmarking exercise compare well with Carrefour because they have similar business models and geographical footprints. The benchmarking exercise indicates that this SPT is in line with those of the group's peers.
- To achieve its target, Carrefour will continue improving stock and order management, for instance by introducing digital tools to improve inventory management. The company will also continue promoting short-dated products, for instance by selling them at a discount. It is maintaining its strategy of promoting damaged products that are still edible, and introducing anti-waste baskets, which contain fruit and vegetables that do not meet aesthetic or presentation criteria but are still adequate for consumption. Carrefour also partners with other organizations to help reduce food waste, for instance with its collaboration with the Furthermore, Good To Go application, which offers consumers unsold food products at lower prices. Through these measures, the group has reduced by 50% its food waste from 2016-2024.
- Due to the company's recent update in its definition of food waste, Carrefour does not provide three years of historical data for this KPI, limiting our ability to benchmark it against historical trends. In 2023 and 2024, Carrefour achieved a 31% reduction in food waste. This company has already made significant progress in reducing store-generated food waste, but it is particularly challenging for Carrefour to further reduce it, because the measures it has already undertaken are more easily achievable.
- Food waste regulations are present in several of Carrefour's key markets, and meeting them could help the company achieve this SPT. In France, the "Loi Garot" (Garot Law) was passed in 2016 and mandates that retailers with a surface area of more than 400 square meters must donate their surplus food to charity organizations instead of destroying it. In Brazil, while there is no enforcement, Law 14.016/20 encourages food donations and offers liability protection to establishments that donate surplus, edible food.
- The issuer identified no outside factors beyond its control which could hinder its ability to meet the SPT.

SPT 4 performance and trajectory (food waste generated in kilograms per meter squared)




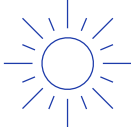



Source: S&P Global Ratings.



# Mapping To The U.N.'s Sustainable Development Goals

Where the financing documentation references the Sustainable Development Goals (SDGs), we consider which SDGs it contributes to. We compare the activities funded by the financing to the International Capital Markets Association (ICMA) SDG mapping and outline the intended linkages within our SPO analysis. Our assessment of SDG mapping does not affect our alignment opinion.

This framework intends to contribute to the following SDGs:

KPI	SDGs
Greenhouse gas (GHG) emissions reduction (scope 1 and 2, in T. CO2eq.)	<div></div> <div>7. Affordable and clean energy*13. Climate action*</div>
GHG emissions reduction (scope 3, in T. CO2eq.)	<div></div> <div>13. Climate action*</div>
Number of suppliers committed to a climate strategy (scope 3)	<div></div> <div>13. Climate action*</div>
Reduction of virgin plastic used in disposable products packaging from Carrefour's brand (scope 3)	<div></div> <div>12. Responsible consumption and production*</div>

Reduction of food waste generated  
by the stores (scope 3)



2. Zero hunger\*

\*The KPI is likely to contribute to the SDGs.

# Related Research

- [Analytical Approach: Second Party Opinions](#), March 6, 2025
- [FAQ: Applying Our Integrated Analytical Approach For Second Party Opinions](#), March 6, 2025
- [ESG Materiality Map Retailing \(Food\)](#), Oct. 27, 2022

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## Second Party Opinion: Carrefour Sustainability-Linked Bond Framework

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