

2.4 Reporting methodology and verification of information

2.4.1 DETAILED REPORTING METHODOLOGY FOR CSR INDICATORS

For the preparation of the 2023 Universal Registration Document, the CSR department mobilises the relevant Group departments (Quality, Human Resources, Legal, Marketing, Assets, Sales and Merchandise, and Logistics) and country representatives.

Principles for drawing up the CSR report

The Carrefour group's Universal Registration Document adheres to the following principles:

- **impact and materiality:** through a risk mapping exercise, the Group identifies the most significant non-financial risks for its business and the Company, which are reviewed every year and validated by the governance bodies. Only the main risks are presented in this report. The Non-Financial Statement therefore focuses on the most relevant social, economic and environmental issues and risks for the Group's business;
- **CSR context:** Carrefour places its own performance within the context of the social, economic and environmental constraints that weigh upon the Group, and puts the resulting data into perspective;
- **stakeholders' involvement:** by maintaining an ongoing dialogue with stakeholders (customers, employees, franchisees, suppliers, local communities and shareholders), the Carrefour group can anticipate and meet the expectations of its target audiences and prevent risks. Its transparent commitments, and the involvement of its stakeholders in carrying them out, mean it can envisage long-term solutions and ensure the engagement of all those concerned. This dialogue and these partnerships are maintained either at the Group level by the CSR department, or at the local level by the countries, banners and stores;
- **frequency:** since 2001, Carrefour has produced and published a non-financial report every year. Since 2012, it has been integrated into the Group's management report;
- **clarity:** the Carrefour group endeavours to present information that can be easily understood by the greatest number of people with an appropriate level of detail.

Scope of reporting

Principles applied

Continuous improvement of transparency. As part of an ongoing effort to improve its reporting quality, Carrefour is increasing the number of indicators it reports on from year to year. The goal is to (i) provide information on new strategic priorities, (ii) meet stakeholder expectations and standards and (iii) ensure a high level of transparency to anticipate potential regulatory changes. The new indicators added to this document each year are subject to a three-year performance review to ensure that the information provided is reliable and complete. In 2023, six new indicators were published (8 billion sales of certified sustainable products by 2026, 50 million euros in sales of plant-based proteins by 2026, 150 million euros in bulk and reusable packaging sales by 2026, top 100 suppliers aligned with a 1.5°C trajectory by 2026 and 20 megatonnes of CO₂ emissions avoided by 2030, 2,600 tonnes of sugar and 250 tonnes of salt eliminated from Carrefour-branded products by 2026, an active community of consumers of healthy and sustainable products in every host country). Nine indicators have been published within the last three years, six of which still cover a limited scope.

Hypermarket	HM
Supermarket	SM
Convenience Store	CO
Cash & Carry	CC
Argentina	AR
Belgium	BE
Brazil Atacadão	BR AT
Brazil BIG	BR BIG
Brazil Carrefour	BR C
Brazil Sams	BR SAMS
Spain	ES
Italy	IT
Poland	PL
Romania	RO

Comprehensiveness. The Group strives to be as comprehensive as possible. Its CSR reporting covers implementation of its policy in the eight integrated countries. All the objectives announced by the Group concern the eight integrated countries, except in certain cases where the scope is explained in this document. The published performance indicators aim for 100% coverage of the integrated countries concerned. With this in mind, we apply a three-year threshold:

- indicators that have been published for three years or more should be published with a 100% coverage rate. Lower coverage rates are an irregularity and are subject to an immediate corrective action plan with the country in question;

- the new indicators are published starting from the first year to ensure transparency. A performance review is implemented to achieve 100% coverage within three years. Since the action plans are rolled out across the operating countries on a gradual basis, the new indicators may be published for a limited scope during the first two years.

Indicators published less than three years ago are marked with the symbol ** in this chapter.

Scope of indicators published as a % of consolidated net sales. This information provides an indication of the representativeness (comprehensiveness) of the data reported. It is calculated by comparing the sales of consolidated countries with the sales of all countries covered by the indicator.

Franchises. Franchised stores are not included in the “stores” indicators (see below). Sales of products by franchised stores in the eight countries in which the Group operates are taken into account in the “merchandise” indicators (see below). The headcount and human resources indicators only take into account the Group’s own employees (the employees of franchisees are not included in the reporting scope).

Comparability. When the scope of reporting is not exhaustive, the scope is clearly explained next to each graph and Business Units (BUs) excluded from the scope are indicated. For figures and changes presented over several years, the report indicates that calculations are based on comparable BUs. If non-comparable BUs are included in the calculation, the items included or excluded compared to the previous year are specified.

Scope of environmental and social indicators

Change of scope

In 2022, following the disposal of the Taiwanese activities, the Business Unit was removed from the reporting scope, which now consists of eight integrated countries. In order to have a comparable scope between 2022 and 2021, the 2021 data and objectives have been restated with the exclusion of Taiwan. This principle was also applied to past years that were used as reference years for some indicators. For example, for the climate indicator “Percentage reduction in Scope 1 and Scope 2 GHG emissions since 2019”, the 2019 data was calculated excluding Taiwan.

Conversely, following the completion of the integration of Grupo BIG into the Carrefour group during 2022, BIG will be included in the scope of consolidation in 2023. Work has been undertaken to recalculate the baseline for the Food Waste (baseline: 2016) and Climate Scope 1 and 2 indicators (baseline: 2019).

Store indicators (waste management, food waste, greenhouse gas emissions, water)

The scope covers all integrated stores open and operating under a Group banner for the entire reporting period. The scope excludes consumption related to non-Group activities, transport of people, warehouses, franchised stores, head offices and other administrative offices. For some indicators, warehouses are included, in which case this is specified with a note under the tables of indicators (example: food waste). Any BUs that were sold or closed during the reporting period are not included.

For indicators on indirect purchases (e.g., sales and marketing publications), the consumption level of stores opened during the year, as well as that of franchised stores may be included.

The number of square metres of sales area includes all stores open during the entire reporting period and does not include storage areas, food preparation areas or the adjacent shopping mall, if applicable.

The same rules regarding scope and environmental indicators apply to Installations Classified for the Protection of the Environment (ICPE) coming under the regulations of stores and other sites.

COVERAGE RATE AND EXCLUSIONS FROM STORES INDICATORS

Indicators published less than three years ago are marked with the symbol ** in this chapter.

Indicators	2023 scope (% of gross sales)	2023 exclusions	2022 scope (% of gross sales)	2021 scope (% of gross sales)
Energy	100%	-	99.5%	100%
Water	100%	-	100%	100%
Food waste				
■ Baseline 2016	72%	BE, BR AT, BR SAMS	70.9%	88.4%
■ Baseline 2022	76%	BR AT, BR SAMS	New	New
Waste	97%	IT (SM, CO, CC)	95.2%	94%
Refrigerants	100%	-	77%	82.9%
Outbound transport	69%	BR	77%	82.5%
Climate (Scope 3) – Top 100 suppliers**	100%	-		
Climate (Scope 3) – 20 megatonnes**	100%	-		

Merchandise indicators (organic products, Carrefour Quality Lines, sustainable fishing, sustainable forest management, textiles, packaging, animal welfare)

The scope covers products sold under the Group banner, without distinguishing between franchises, integrated stores or formats (stores, drives, online purchasing).

- Regarding the organic product sales indicators, total food sales only include sales by physical store or e-commerce specialists (e.g., Bio C Bon, So Bio).

- Regarding the textile indicators, they are reported by the purchasing centres (including, for example, the Global Sourcing purchasing centre).

- The tonnes of packaging avoided indicator is calculated based on the quantities of packaging purchased as reported by the purchasing centres (including, for example, the Global Sourcing purchasing centre), with the exception of Brazil which calculates the indicator based on the quantities of packaging sold.

COVERAGE RATE AND EXCLUSIONS FROM MERCHANDISE INDICATORS

Indicators published less than three years ago are marked with the symbol ** in this chapter.

Indicators	2023 scope (% of gross sales)	2023 exclusions	2022 scope (% of gross sales)	2021 scope (% of gross sales)
Organic products	99.8%	BR SAMS	100%	100%
Carrefour Quality Lines	100%	-	100%	100%
Sustainable fishing ⁽¹⁾	98%	BR AT, BR SAMS	95%	100%
Responsible textile**	100%		100%	100%
Responsible products – ecolabels**	95%	BR	81%	100%
Plant-based alternatives**	100%	-		
Deforestation – wood/paper/pulp	100%	-	100%	100%
Deforestation – palm oil	100%	-	94%	100%
Deforestation – beef	100.0% (BR C, BR & BRAT, SAMS)		100.0% (BR & BRAT)	100.0% (BR & BRAT)
Deforestation – soy**	95%	BR C	83%	54.3%
Deforestation – cocoa**	100%	Includes FR, BE, IT, ES only	100%	100%
Carrefour Quality Lines committed to an agroecological approach**	91%	BR C, PL	100%	100%
Partner producers	95%	BR	100%	100%
Animal welfare – shell eggs	99.7%	BR, SAMS	100%	100%
Animal welfare – egg ingredients	100%	Includes Europe only	100%	100%
Animal welfare – chickens	87%	BR C, AR	100%	100%
Animal welfare – slaughterhouses	100%	-	100%	91.7%
Animal welfare – pigs**	63%	FR		
Animal welfare – horses**	100%			
Animal welfare – rabbits and quail**	100%			
Animal welfare – transparency**	96%	BR C		
Packaging – tonnes	100%	-	100%	100%
Packaging – recyclable, reusable and compostable	100%	-	71%	54.3%
Packaging – bulk products and reusable **	97%	BR, PL		

(1) The Sustainable Fishing indicator excludes MSC, ASC, Organic and FQC.

HR indicators

The scope covers all of the Group's BUs and headquarters. Any BUs that were sold or closed during the reporting period are not

included. The Non-Financial Statement presented in this chapter encompasses Carrefour Banque and Carrefour Property Development, both of which are covered by Carrefour SA (the parent company).

COVERAGE RATE AND EXCLUSIONS FROM HUMAN RESOURCES INDICATORS

Indicators published less than three years ago are marked with the symbol ** in this chapter

Indicators	2023 scope (% of gross sales)	2023 exclusions	2022 scope (% of gross sales)	2021 scope (% of gross sales)
Headcount	100%	-	100%	100%
Part-time employees	100%	-	100%	100%
Hires (fixed-term/permanent)	100%	-	100%	100%
Permanent employee turnover	100%	-	100%	100%
Accidents	89.6%	BRAT & BR	86%	89.6%
Women managers	100%	-	100%	100%
Disabled workers	100%	-	100%	100%
Training	100%	-	100%	100%

CSR indicators

Principles applied

CSR reporting adheres to the following principles:

- **accuracy:** the Carrefour group strives to ensure the accuracy of published data by stepping up the number of manual and automatic internal controls;
- **comparability:** the Group strives to maintain consistency throughout its reports. Figures presented for several years apply the same definition.

Choice of indicators

Since 2003, Carrefour has used indicators associated with its strategic priorities for CSR. These indicators, which are revised over the years, are designed to monitor the commitments and progress made in terms of its environmental and social performance. Each indicator is chosen for its relevance to risks and societal challenges identified by the Group and with regard to its CSR policies. In 2021, the Group revised the CSR index and drafted purchasing rules on its priority environmental and social topics. Following this work, new indicators were defined. In 2023, the index was revised again in line with the new Carrefour 2026 strategic plan.

References used

The information detailed in this section complies with the requirements of French government order no. 2017-1180 of July 19, 2017 and decree no. 2017-1265 of August 9, 2017, providing for a Non-Financial Statement as stipulated notably under Articles L. 225-102-1 and R. 225-105 *et seq.* of the French Commercial Code (*Code de commerce*). This information concerns the activities of Carrefour SA (the parent company) and all the Group's consolidated companies. Carrefour SA's Non-Financial Statement notably covers Carrefour Banque, with risks relating to the banking sector integrated into the risk analysis presented in Section 2.1.

The information contained in Section 2.2 meets the requirements provided for by French law no. 2017-399 of March 27, 2017 with regard to the duty of care of parent companies and contracting companies (also called the duty of care law), namely: risk mapping, procedures for regularly assessing the situation of subsidiaries, subcontractors and suppliers with which the Group has an established commercial relationship, appropriate actions to mitigate risks or prevent serious harm, a whistleblowing and alert system, as well as a system for tracking the measures implemented and evaluating their effectiveness.

Section 2.3 of this document is provided in response to (EU) Regulation 2020/852 of the European Parliament and of the Council of June 18, 2020 on the establishment of a framework to promote sustainable investments. The latter establishes criteria to distinguish "green" investments from other investments, in a totally transparent manner.

The 2022 Universal Registration Document adheres to the guidelines of the main international standards of reference, in particular the Sustainability Accounting Standards Board (SASB), the Task Force on Climate Disclosure (TCFD) and the Global Reporting Initiative (GRI), the guiding principles of the OECD and the Global Compact's recommendations for "Communication on Progress" (CoP). Carrefour's CoP is published yearly on the United Nations website (<https://www.unglobalcompact.org/>) and has been certified as "Advanced" (since 2014) following a peer review under the aegis of Global Compact France.

A CSR reporting manual stipulating the Group's collection, calculation and consolidation rules is updated each reporting period and distributed to all CSR reporting managers.

Methodology: specificities and limitations

Some indicators may have methodology constraints arising from a lack of uniformity between national and international laws and definitions (e.g., regarding work-related accidents) and/or from the qualitative, and therefore subjective, nature of certain data (e.g., indicators linked to purchasing quality, the logistics process, stakeholders and consumer awareness).

In some cases, KPIs may involve an estimation (as with the energy and water consumption indicators, which are calculated on the amount billed at an average price per kWh or cubic metre). If necessary, BUs are required to specify and justify the relevance of assumptions used in making estimates. Estimation methodologies are regulated by the Group's non-financial reporting manual.

CO₂ emission factors

Emission factors are used to calculate CO₂ emissions based on site energy consumption, refrigerant consumption, and fuel consumption for downstream transport. The emission factors in question are suggested by international organisations such as the DEFRA GHG Conversion Factors, the Intergovernmental Panel on Climate Change (IPCC), and the United Nations Environment Programme (UNEP). The indicators concerned are energy, refrigerants and logistics. BUs may also use specific national indicators.

Electricity: to calculate the CO₂ emission equivalent caused by the consumption of electrical energy, the emission factor from the local energy supplier is ideally used (market-based method). In the absence of such a value, a default value is used that is

based on the most recent data provided by:

- the AIB's European residual mix for European countries;
- the Ministry of Science, Technology and Innovation of Brazil for Brazil;
- the report on climate transparency, based on CAMMESA data, for Argentina.

Natural gas: to calculate the CO₂ emission equivalent caused by the consumption of natural gas, the emission factor provided by DEFRA – UK Government GHG Conversion Factors for Company Reporting is used: 2022 = 0.18397 kgCO₂e/kWh (gross CV).

LPG: to calculate the CO₂ emission equivalent caused by the consumption of LPG, the emission factor provided by DEFRA – UK Government GHG Conversion Factors for Company Reporting is used: 2022 = 0.21449 kgCO₂e/kWh (gross CV).

Fuel: to calculate the CO₂ emission equivalent caused by the consumption of fuel, the emission factor provided by DEFRA – UK Government GHG Conversion Factors for Company Reporting is used: 2022 = 2.7586 kgCO₂e/litre (gross CV medium gas oil).

Refrigerants: to calculate the CO₂ emission equivalent caused by the consumption of refrigerants, the global warming potential of the refrigerants (GWP 100 years) is used, which is published in the fifth evaluative report of the IPCC, "Climate Change 2013: The Physical Science Basis" Appendix 8.a (notwithstanding certain "natural" refrigerants, for which the PRG 100 years is taken from UNEP Ozoneaction, and a value of 4 PRG 100 years is used for Isopentane).

Fuel used for transport: to calculate the CO₂ emission equivalent caused by Carrefour's logistics, the national emission factors recorded locally are used. Failing that, a default value based on the most recent data provided by DEFRA – UK Government GHG Conversion Factors for Company Reporting is used instead as follows (2022 conversion factors):

- for diesel consumption: 2.70553 kgCO₂e/litre (100% mineral diesel);
- for biofuel consumption:
 - (i) biodiesel: 0.16751 kgCO₂e/litre,
 - (ii) bioethanol: 0.00901 kgCO₂e/litre,
 - (iii) biomethane: 0.10625 kgCO₂e/GJ,
 - (iv) BioGNC: 0.61 kgCO₂e/kg;
- for rail transport: 0.02782 kgCO₂e/tonne.km;
- for river transport: 0.03681 kgCO₂e/tonne.km (load capacity up to 999 TEU).

Environmental information

Logistics KPI: CO₂ emissions from the Group's logistics activity includes CO₂ emissions from downstream road transport. This indicator counts CO₂ emissions related to the transport of goods between warehouses and stores. The following CO₂ emissions are not taken into account:

- emissions generated during the upstream transport of goods to the warehouse;
- emissions generated by direct deliveries (direct "producer-to-store" transport of goods without going through a warehouse);
- emissions generated by customer and employee journeys;
- emissions generated by downstream maritime transport.

Note that "store/warehouse" return trips are only taken into account for fleets hired for Carrefour's exclusive use.

In the vast majority of cases, CO₂ emissions related to the transport of goods are calculated on the basis of distance travelled since there is no actual data on service providers' fuel consumption and average consumption by type of vehicle.

Pallets (transport units) used for backhauling are not included in the total number of pallets used in downstream transport.

Energy KPI: the quantity of energy reported corresponds to the quantity purchased and not the quantity actually consumed for heating oil and gas (15% of the energy consumed by the stores).

Water KPI: the quantity of water reported corresponds mainly to the quantity of water purchased. Depending on the country, water collected by some stores through drilling may not be counted when there is no charge for its withdrawal. In addition, in some cases, there is an insignificant overvaluation of consumption (consumption of water for the shopping centre, costs related to and indissociable from the costs of water consumption).

Refrigerants KPI: any leaks that may have occurred prior to a change of equipment are not quantified in the reporting. They correspond to emissions generated between the last maintenance operation and replacement of the unit. The impact is insignificant at Group level thanks to both regular monitoring of the units and the staggered timetable for their replacement. Note that mass balances are not systematically carried out each time the fluid is reloaded or at year-end. Some BUs purchase and store refrigerants in advance and may include refrigerants still stored in containers in consumption figures for the year of purchase.

Waste KPI: the chosen reporting scope includes BUs that use waste collection companies which provide information about the tonnage of waste removed. Generally speaking, when waste is collected directly by local authorities, information is not available (the case at present in Spain, Italy and France). The tonnages of waste evacuated by local authorities can therefore be estimated using an estimation methodology approved by the Group. Supermarkets in Italy are excluded from the reporting scope because more than 90% of waste is collected by local municipalities and therefore this data cannot be estimated reliably.

Food waste KPI: To monitor the reduction in food waste, Carrefour has decided to publish as an indicator the percent reduction in food waste intensity in a given year compared to 2016 (in kg/sq.m.). The food waste intensity ratio corresponds to quantity of food waste (in kg) divided by surface area (in sq.m.). The surface areas used for the calculation are sales areas.

In 2023, Carrefour changed the definition of food waste to take into account the definition recommended by ADEME (*Agence de la transition écologique – Bilan du GT 1 du Pacte National de Lutte contre le Gaspillage Alimentaire*, 2019) which considers food waste to be: "All food intended for human consumption that is lost, thrown away or spoiled, regardless of its value". In Carrefour stores, food waste corresponds to the known amount by which foods are marked down. Biowaste recovered for energy or animal feed is now considered to be food waste.

This change in definition means changing the way this indicator is calculated and restating historical data.

Depending on the country, there are two possible methods for monitoring the indicator:

- (i) monitoring food markdowns directly in tonnes (Spain and Argentina);
- (ii) monitoring food markdowns in monetary units (euros, etc.) and then converting them into tonne equivalents (see below). The Group uses a euro/tonne conversion factor, calculated annually on the basis of data for Spain. This conversion factor is calculated per format and adjusted for annual inflation per country. In 2023, this method was used for all countries except Spain and Argentina. Its use is provisional. All countries are working to improve the reliability of markdown monitoring in tonnes.

In order to restate 2016 historical data in line with the new definition, the method used for making estimates is as follows:

- (i) food waste intensity ratio calculated according to the old method/Intensity ratio calculated according to the new method (for 2021 and 2022);
- (ii) average of the ratios calculated over 2021 and 2022;
- (iii) average waste intensity for 2016 applied, calculated according to the old method.

This method was used accordingly to recalculate the 2016 baseline data to reflect the impact of the change in definition of food waste. The average difference between the new and old methodologies is -22%, reflecting the exclusion of energy recovery (anaerobic digestion) and the increased reliability of data on the reasons for markdowns.

Note that data for Belgium, Atacadão in Brazil and Sam's Club in Brazil are not available for the 2016 baseline. As such, they are not included in the reduction indicator with the 2016 baseline, but are however taken into account when calculating reductions in food waste with a 2022 baseline.

Food donations KPI: the ratio used to calculate the number of meal equivalents donated to food aid associations in all Group countries is 1 meal = 500g.

Top 100: Carrefour's Top 100 suppliers must commit to a 1.5°C trajectory to reduce their carbon emissions. In 2023, the Top 100 included 96 suppliers. From 2024, this monitoring will be extended to an increasing number of suppliers

Product information

Number of listed organic Carrefour food products: the number of listed organic products reported pertains to the number of organic products labelled by outside third parties found among retailer-branded products whose sales during the year were not zero. The number of Group listed products corresponds to the number of listed Carrefour Bio organic products sold by the Group.

Number of Carrefour Quality Lines products: the calculation methodology was adjusted in 2019. The number of CQL products corresponds to the sum of all products in the assortment that customers can identify throughout the year as being offered under the CQL programme. The following rules apply: a given product packaged in different ways is only counted once; in the meat and fish sections, a given product presented in different cuts is only counted once; if the offering is segmented by breed or variety, that breed or variety corresponds to one product.

Certified sustainable products: certified sustainable products claim a verified link with environmental and/or social protection. This category includes organic food and non-food products, products from Carrefour Quality Lines, responsible fishing, responsible wood and paper, responsible textiles (recycled, cashmere, wool and viscose) and European Ecolabel products.

Plant Based: plant proteins are all products that are direct substitutes for products whose main ingredients are derived from animal products, other vegetarian or vegan products identified by a specific brand (e.g., Carrefour Veggie), label or certification (Veggie, Vegan), or whose packaging refers to it, and finally all pulses (legumes with seeds that are edible for humans) or vegetarian processed products with at least 50% pulses (e.g., hummus)

Carrefour Quality Lines committed to an agroecological approach: this indicator was reported for the first time in 2022 for France only. The reporting methodology is being rolled out in other countries. A Carrefour Quality Line is considered to be committed to an agroecological approach if all of the suppliers in the line are committed. A Carrefour Quality Line supplier is considered to be committed to an agroecological approach if at least one pilot producer using an agroecological approach is included. An agroecological line features a specific message for customers, "cultivated without -ides". It commits suppliers not only to eliminating all or part of the synthetic pesticides used in cultivation, but also to working on soil conservation and biodiversity.

Sustainable fishing: sustainable fishing products identified as "responsible" are as follows: ASC (Aquaculture Stewardship Council) products, MSC (Marine Stewardship Council) products, organic products, Carrefour Quality Line products, Green List species (responsible species), products from a sustainable fishing/responsible farming approach whose credibility is confirmed by stakeholders and validated by the Group CSR Department, products from fisheries that have implemented a Fisheries Improvement Project (FIP) assessed as credible (tuna excluded) in Annex 7. For tinned tuna, the sustainability criteria are listed in Annex 6 (MSC without fish aggregation devices and caught with pole and line).

Sustainable agriculture: Carrefour's strategy for developing sustainable agriculture is based on two pillars: the development of its organic range and the development of agroecology through its Carrefour Quality Lines.

Soy: this indicator concerns soy contained in unprocessed fresh and frozen products (excluding deli meats) in the following categories: chicken, turkey, pork, beef, veal, lamb, salmon, eggs, milk and minced meat. It is a means indicator, based on a contractual commitment made by the supplier.

Sustainable soy: soy certified deforestation-free with full traceability. Carrefour recognises the Proterra, RTRS at the segregated level at least, Danau Soy and Europe Soy certifications. Soy from local, non-deforested production (e.g., Sojalim suppliers in France, local soy production in Europe, etc.). Soy from a region where there is no risk of deforestation (see food transition purchasing rules). Soy from a high-risk region where a progress plan has been contracted with producers through a field project, such as the Cerrado Compensation Mechanism, and validated by stakeholders.

Palm oil: Carrefour guarantees that 100% of its palm oil supplies comply with its Responsible Forestry commitments (i.e., POIG, RSPO IP, RSPO Segregated or RSPO Mass Balance). Palm oil derivatives used in household, perfume and hygiene products are excluded from the scope.

Sustainable cocoa: cocoa paste is sustainable if it is certified (see list of accepted certifications/labels below) or if its trader is evaluated by the Retailer Cocoa Collaboration (RCC) and scores more than 80% (the score is provided by the Group).

List of accepted certifications/labels with full traceability (at least segregated): Fairtrade – Max Havelaar (Sustainable); UTZ – Rainforest minima SG (Sustainable); Symbol of Peasant Producers (Sustainable); World Fair Trade Organization (Sustainable); Transparence Cacao (Sustainable); Cocoa Horizon (Sustainable); Fair for Life (Sustainable).

Brazilian beef: the percentage of geo-referenced Brazilian beef is calculated using the number of tier 2 geo-referenced suppliers. The tier 2 suppliers correspond to farms that supply the slaughterhouses.

Traders: a trader is an upstream player in Carrefour's value chain who negotiates the purchase and sale of agricultural raw materials.

Suppliers – Food Transition Pact: there is an international Food Transition Pact and national pacts. National pacts were launched in France, Spain, Belgium, Poland and Romania in 2021 and in Italy in 2022. A supplier may operate in several countries, for example through different subsidiaries. It may appear in several Pacts where separate partnerships are involved.

The Food Transition Pact is a reciprocal commitment between Carrefour and partner suppliers committed to the food transition for all.

Through this pact, suppliers undertake to take part in four webinars during the year, and also to participate in working groups (coalitions) created to accelerate the company's transformation. There are four of these coalitions. Their aim is to propose practical initiatives to be rolled out in stores and aimed at customers.

A supplier can only participate in one coalition, which meets approximately every six weeks.

Customer community: a customer community is a group of engaged consumers who can exchange ideas, share initiatives identified in-store (Carrefour and competitors), monitor food transition issues and within which we can communicate our initiatives, collect consumer expectations and feedback.

This community meets in several ways:

- weekly meetings to share information;
- monthly meetings with suppliers;
- physical events (twice a year);
- conversation thread on WhatsApp.

Animal welfare – slaughterhouse audits: animal welfare audits are performed in the case of lambs, cattle, hogs, calves and poultry. Slaughterhouse audits can be performed either (i) by Carrefour Quality managers trained in animal welfare issues, based on a Group checklist of animal welfare criteria, or (ii) by a third-party organisation, based on animal welfare certification standards or the Group checklist.

Transparency: number of species for which a system is in place to inform consumers about farming methods. The species concerned are veal, pork, beef (meat), beef (milk), eggs and chicken.

Packaging: Carrefour intends to reduce the amount of packaging it uses by 20,000 tonnes, including at least 15,000 tonnes of plastic, by 2025. For Carrefour, the elimination of plastic packaging is a priority when calculating this indicator. Carrefour is also committed to eliminating single-use plastics, as recommended by the EU's Directive on single-use plastics (<https://eur-lex.europa.eu/eli/dir/2019/904/oj>). The weight of packaging avoided is calculated based on the weight of plastic removed in the new packaging compared with the old packaging, or the difference between the weight before and after packaging for other materials.

Partner producers: this indicator shows the number of partner producers (or suppliers where producer traceability is not available) with which Carrefour has a specific contract. Carrefour lists its partner producers in Organic Farming, Carrefour Quality Lines, its regional partner producers, its local partner producers and partner producers from other collective initiatives. Several criteria must be met, depending on the type of partnership:

- Organic Farming partner producers: multi-year contract or with tacit renewal, commitment on volumes and purchase price reflecting production needs and constraints, specific support during the conversion period. At least one of these criteria must be met.
- Carrefour Quality Line partner producers: multi-year contract or with tacit renewal, commitment on volumes and purchase price reflecting production needs and constraints, price commitment guaranteeing fair remuneration for the producer. At least one of these criteria must be met.
- Regional partner producers: they must be located in the same administrative region as the place of sale of the product, and production must also take place in the same administrative region; delivery must be direct between the producer and the store or via a warehouse; the contract must guarantee a fair price to the producer; the region of origin must be visible and easily identifiable by the customer.
- Local partner producers: they must be geolocated within a short distance of the place where their products are sold. Referencing can be done directly by the store without going through the central purchasing unit. The contract with the local partner producer guarantees the producer a fair price, a simplified contract and short payment terms. Finally, the product is known locally and sold in a dedicated space in the store.
- Partner producers of other collective approaches: the partner must respect the specifications of a sustainable agricultural production method covered by an official quality label, a quality label covered by local legislation or possibly a private label whose specifications are public and controlled by an independent inspection body. It must also respect at least two of the following criteria: volume commitment, price commitment guaranteeing fair remuneration for the producer, or multi-year contract or tacit renewal.

Customer information

Customer research is carried out in all the Group's countries and formats by an internal Carrefour group research unit, present in all countries. These studies are carried out monthly on representative customer sample groups.

Act for Food: the indicator tracks the percentage of consumers answering yes to the following question: "Does Carrefour help you eat healthy and responsible food?" This question was updated in September 2023. Therefore, exceptionally in 2023, the results will cover four months (September to December) rather than a full year. Full-year results will be reported from 2024. The results come from a consumer panel survey. The results are averaged in proportion to the responses obtained on sales by format/country. In 2023 the scope corresponds to 99% of consolidated sales, excluding Supermarkets in Poland.

Nutrition: the indicator tracks the reduction of salt and sugar content in Carrefour-branded products. Reductions relating to a recipe reformulation are only recorded in the year Y in which the recipe was reformulated. This means that all volumes for year Y are taken into account when calculating the reduction for year Y, regardless of the date of reformulation. Savings recorded locally in salt and sugar thanks to products imported from France are deliberately reduced by approximately 40%.

Human resources information

Gender equality: Executive Directors are a new job category created in 2021 from among the Senior Directors and make up the Group's Top 200. This indicator tracks the percentage of women in the Group's Top 200.

Training: this indicator takes into account the average number of employees who have completed at least four hours of training during the year as a proportion of the average group workforce.

Disability: number of employees with a disability recognised in accordance with the legislation in force in each country, as a proportion of the total workforce.

Headcount at the end of the period: all Company personnel with an employment contract (excluding interns, international trainees, temporary workers and people on suspended contracts) on December 31.

Work-related accidents: since 2020, the frequency and severity rates are calculated by the number of hours actually worked (and no longer by theoretical hours).

Hiring: Belgium student contract hires are not taken into account.

Limitations linked to current legislation: the definition of certain indicators (work-related accidents and employees declared as disabled workers) is defined by the laws in effect in each country, which may cause discrepancies in the method used.

Methodology used for estimating Scope 3 emissions:

Scope 3 categories	Calculation methodology	Details of scope
	Food: emission calculations begin with France. Within this scope, it is possible to determine the tonnage of products as well as the corresponding sales figures excluding VAT (€) for 53 food categories. Combined with this base, the use of Agribalyse emission factors (agricultural, processing and packaging stages) gives the carbon footprint for France for these 53 product categories. These results are then used to determine monetary emission factors for the 53 food categories. This new base of emission factors, adjusted by country on the basis of purchasing power parity, makes it possible to calculate the carbon footprint of all of the Group's countries of operation (Brazil, Spain, Belgium, Italy, Romania, Argentina, Poland).	
	Non-food: emission calculations begin with France. For this scope, data is provided in units sold, linked to net sales (€), for 45 categories. Combined with this base, the use of emission factors from the ADEME carbon footprint database (excluding transport) makes it possible to obtain the carbon footprint for France for these 45 product categories. These results are then used to determine monetary emission factors for the 45 product categories. This new base of emission factors, adjusted by country on the basis of purchasing power parity, makes it possible to calculate the carbon footprint of all of the Group's countries of operation (Brazil, Spain, Belgium, Italy, Romania, Argentina, Poland).	
Purchases of goods and services		All products sold under a Group banner (integrated and franchised stores) in the eight countries where the Group operates are included in the Group's carbon footprint. This scope represents 83% of all sales areas under Group banners worldwide. Products sold by international partners are excluded, and represent 17% of sales areas under Group banners worldwide.

Scope 3 categories	Calculation methodology	Details of scope
Purchases of fixed assets	Emissions are calculated on the basis of total operational investments, associated with ADEME monetary emission factors.	Franchises not applicable.
Upstream energy emissions	Emissions are calculated on the basis of the Group's energy consumption associated with the upstream and line loss components of the ADEME energy emission factors.	Energy consumption only includes integrated stores in the eight countries where the Group operates. Integrated stores account for 66% of sales areas worldwide.
Inbound transport	Food: emissions are calculated on the basis of data covering purchases of goods and services (in volume where possible, otherwise in euros of sales) associated with the "Inbound Transport" part of the Agribalyse emission factors. Non-food: emissions are calculated on the basis of data covering purchases of goods and services (in units sold) associated with the "Inbound transport" part of the emission factors in the ADEME carbon footprint database.	All products sold under a Group banner (integrated and franchised stores) in the eight countries where the Group operates are included in the Group's carbon footprint. This scope represents 73% of all sales areas under Group banners worldwide. Products sold by international partners are excluded, and represent 17% of sales areas under Group banners worldwide.
Waste generated during operations	Emissions are calculated using data concerning waste generated during operations at the global level, associated with emission factors from the ADEME carbon footprint database corresponding to the different types of waste and Ecoinvent 3.4 (other waste).	Waste generated by the business only includes integrated stores in the eight countries where the Group operates. Integrated stores account for 66% of sales areas worldwide.
Employee commuting	Emissions are calculated using the number of employees worldwide combined with an ADEME emission factor for commuting.	Franchises not applicable.
Business travel	Emissions are provided by the agency responsible for business travel in France. These emissions are then extrapolated to the global scope via sales.	Business travel for franchise stores and international partners is not included.
Outbound transport	This data is calculated by means of operational reporting carried out in all of the Group's countries. Outbound transport data is calculated using operational data for the entire Group. Data on litres consumed (L) OR, failing that, data on distances travelled (km) x national emission factor or one provided by the transport supplier or, failing that, DEFRA (Department for Environment, Food & Rural Affairs – UK) standard emission factors.	All products sold under a Group banner (integrated and franchised stores) in the eight countries where the Group operates are included in the Group's carbon footprint. This scope represents 73% of all sales areas under Group banners worldwide. Products sold by international partners are excluded, and represent 17% of sales areas under Group banners worldwide.
Use of products sold – Fuels	Data is calculated for France by combining the volumes sold by fuel type with the ADEME emission factor corresponding to the fuel type. Emissions are then extrapolated to the global level via sales per country per fuel type.	All petrol stations operated under the Carrefour banner in the eight countries where the Group operates directly are included. This scope represents 73% of all sales areas under Group banners worldwide. It does not include the stations of international partners, which represent 17% of the total retail sales area worldwide.
Use of products sold – Other	Travel agency: emissions are calculated using Carrefour travel agency sales in France combined with an ADEME monetary emission factor for air travel. Use of home equipment: emissions are calculated using net sales, broken down into 14 categories. Each category (e.g., camera, speaker, refrigerator) is associated with an average lifespan in years and an average consumption, making it possible to calculate total consumption over the lifespan. This consumption is linked to ADEME emission factors for energy consumption.	All products sold under a Group banner (integrated and franchised stores) in the eight countries where the Group operates are included in the Group's carbon footprint. This scope represents 73% of all sales areas under Group banners worldwide. It does not include products sold by international partners, which represent 17% of sales areas under Group banners worldwide.

Scope 3 categories	Calculation methodology	Details of scope
End of life of products sold	Packaging and home equipment placed on the market: emissions are first calculated for the France 2022 scope using the CITEO declaration, for which packaging quantities are associated with emission factors from the ADEME carbon footprint database by packaging type. These emissions are then extrapolated to the French scope using net sales in 2021, 2020 and 2019, and then to the global scope. Food waste: a quantity of food waste is calculated for the French scope using data on purchases of goods and services combined with UN data on household food waste. These tonnages are then associated with an emission factor from the ADEME database (putrescible waste) and then extrapolated globally based on net sales.	All products sold under a Group banner (integrated and franchised stores) in the eight countries where the Group operates are included in the Group's carbon footprint. This scope represents 73% of all sales areas under Group banners worldwide. It does not include products sold by international partners, which represent 17% of sales areas under Group banners worldwide.
Downstream leasing	Emissions are calculated on the basis of the surface area leased by Carrefour combined with the group's Scopes 1 and 2 on the square metres occupied by the Group.	Franchises not applicable.
Franchises	Emissions are calculated by cross-referencing the franchised surface area, the non-franchised surface area and the Group's Scope 1 and 2 emissions.	Scope 1 and 2 emissions (energy and refrigerant consumption) are taken into account for all stores under a Group banner in the eight countries in which it operates. International partner stores are also included. 100% of all sales areas under Group banners worldwide are covered.
Investments	Emissions are calculated using Carrefour Life Insurance data combined with an ADEME monetary emissions factor.	Franchises not applicable.

Methods of data collection, consolidation and control

Reporting period

Reporting is conducted on a quarterly basis. Reporting is carried out once a year for the Universal Registration Document submitted to the Board of Directors for approval.

Starting in 2012, to meet the requirements of Article 225 of France's Grenelle II law, the indicators corresponding to stores, merchandise and logistics were calculated over a 12-month,

year-on-year period running from October to September. Since 2019, to ensure greater collaboration within the Group, all indicators corresponding to stores, merchandise and logistics are now calculated over a 12-month period running from January 1 to December 31.

In order to make reporting more efficient and precise, the environmental Key Performance Indicators integrated in the CSR and Food Transition Index have been calculated on a three-month basis (per trimester) since 2020.

The period used for annual reporting is the calendar year (January 1 to December 31), without modifying the data for previous years.

Data collection methods

The system in place is based on dual information reporting that allows for collection of qualitative and quantitative data from the various countries and banners. From a qualitative point of view, the best practices implemented in Group host countries are reported through personalised interviews (in person if possible, by videoconference if not), or by e-mail.

From a quantitative point of view, the reporting and consolidation of Key Performance Indicators has been carried out since 2014 using the BFC application. In 2022, the Group implemented a new EPM Cloud application for reporting environmental indicators. This application is used in conjunction with the one used by the Group for financial consolidation and reporting. Customer indicators are taken from the Group's consumer opinion review platform.

Key social performance indicators are reported through the Group's Human Resources reporting tool. Reporting liaisons identified in each country are responsible for coordinating environmental and social reporting for their respective countries.

Environmental data control methods

The EPM Cloud reporting application features automatic consistency checks to prevent data entry errors. It also allows users to insert explanatory comments, which makes auditing and internal control easier. Each reporting manager verifies the data

entered before it is consolidated at Group level, with the help of a checklist and control tips that are explained in the definition sheet for each indicator. The Group's CSR department carries out a second level of data control. Inconsistencies and errors that are found are reviewed together with the countries and corrected as needed.

Social data control methods

Social data are locally checked before being entered in the Group human resources tool. The Group's Human Resources department carries out a second level of data control. Inconsistencies and errors that are found are reviewed together with the countries and corrected as needed.

CSR and Food Transition Index

Composition of the CSR and Food Transition Index

The CSR and Food Transition index, introduced in 2018, assesses Carrefour's performance in implementing CSR commitments. It is monitored quarterly and published twice a year. This index covers four categories: (i) procurement and product design, (ii) site operations, (iii) customer involvement and satisfaction with the food transition and (iv) human resource management and employee engagement. Each of these categories is associated with several quantitative objectives and deadlines.

Topic	Indicators	Unit	Scope of the objectives
Products			
Certified sustainable products	8 billion euros in sales of certified sustainable products by 2026	In thousands of euros	Controlled and national-brand products. 8 integrated countries, sales generated under banners (integrated and franchised stores).
Food transition	500 million euros in sales of plant-based proteins by 2026	in thousands of euros	Controlled and national-brand food products Integrated countries in Europe, sales generated under banners (integrated and franchised stores).
Raw materials⁽¹⁾	100% of sensitive products with regard to forests, animal welfare, soils, marine resources and human rights covered by a risk mitigation plan by 2030	%	8 integrated countries, sales generated under banners (integrated and franchised stores).
Packaging	Three Carrefour targets on packaging reduction, bulk and reuse, and packaging recyclability implemented by 2026		
Packaging – 1	100% reusable, recyclable or compostable packaging in 2025	%	Carrefour-branded products. Excluding discount (Simpli), no-name products and own-brand Lighting products 8 integrated countries, sales generated under banners (integrated and franchised stores).
Packaging – 2	20,000 tonnes of packaging avoided, including 15,000 tonnes of plastic packaging by 2025 (cumulative since 2017)	Tonnes	Controlled products and national-brand products. Packaging of items sold at traditional counters/in-house (e.g., fruit and vegetable bags, deli containers, indirect purchases) 8 integrated countries, sales generated under banners (integrated and franchised stores).

Topic	Indicators	Unit	Scope of the objectives
Packaging – 3	150 million euros in bulk and reusable packaging sales in 2026 (five-fold increase vs. 2022)	In thousands of euros	Controlled products and national-brand products. 8 integrated countries, sales generated under banners (integrated and franchised stores).
Partner producers	50,000 partner producers by 2026	Number	CQL, organic, regional and local producers and other stakeholders supporting collective approaches. 8 integrated countries, sales generated under banners (integrated and franchised stores).
Stores			
Food waste	50% reduction in food waste (vs. 2016)	%	Integrated stores for major formats and warehouses. 8 integrated countries, integrated stores only.
Waste	100% of waste recovered from stores by 2025	%	Integrated stores for major formats and warehouses. 8 integrated countries, integrated stores only.
Climate (Scopes 1 and 2)	50% reduction in GHG emissions (Scopes 1 and 2) by 2030, and 70% reduction by 2040 (vs. 2019)	%	Integrated stores for major formats and e-commerce warehouses. 8 integrated countries, integrated stores only.
Climate (Scope 3)	Top 100 suppliers aligned with a 1.5°C trajectory by 2026 and 20 megatonnes avoided by 2030	Number	Suppliers of controlled products and national-brand products. 8 countries in which the Group operates.
Climate (Scope 3) – 1	20 megatonne reduction in CO ₂ emissions relating to products sold in-store by 2030 (vs. 2019)	Tonnes	
Climate (Scope 3) – 2	100% of the Top 100 suppliers to be committed to a 1.5°C trajectory by 2026	%	
Customers			
Nutrition and health	Elimination of 2,600 tonnes of sugar and 250 tonnes of salt from Carrefour-branded products by 2026 (vs. 2022)	Tonnes	Controlled products and own-brand Lighting products 8 integrated countries, sales generated under banners (integrated and franchised stores).
Customer community	An active community of consumers of healthy and sustainable products in each country	Number	8 countries in which the Group operates.
Supplier commitments	500 suppliers involved in the Food Transition Pact by 2030	Number	Suppliers of controlled products and national-brand products. 8 countries in which the Group operates.
Act for Food	Minimum score of 75/100 for the question “Does Carrefour help you eat better?”	Number	8 countries in which the Group operates.
Employees			
Employee engagement	Minimum employer recommendation score of 75/100 awarded annually to Carrefour by its employees	Number	8 integrated countries, integrated operations only.
Gender equality	35% women executives (Top 200) by 2025	%	8 integrated countries, integrated operations only.
Training	At least 50% of employees provided access to training every year	%	8 integrated countries, integrated operations only.
Disability	15,000 employees with a disability by 2026	Number	8 integrated countries, integrated operations only.

(1) This KPI is a set of three sub-KPIs (governance, employee training, supplier engagement). Further sub-KPIs may be added in 2024. Each sub-KPI has the same weight in the final calculation.

Methodology for calculating the CSR and Food Transition Index

The CSR and Food Transition Index calculates a final score that aggregates 17 objectives in four categories (products, stores, consumers, and human resources). The final score for each category is calculated as an unweighted average of the four categories. The score for each indicator is calculated as the ratio of the result to its target over the given reporting period, expressed as a percentage. The “employee commitment” indicator is an exception as its score uses the following rule: for each point of deviation from the target of 7.5/10 (i.e., 75/100, up or down), the index score varies by plus or minus 4 points. The data and related calculation are reviewed by external auditors.

External audit

Quantified data are produced, consolidated, analysed and published. Selected data are subject to verification by an outside third party.

External audit

The reporting procedures have been verified by the external Statutory Auditor, Deloitte, appointed as an independent third party. For the Key Performance Indicators and information considered most significant, substantive tests have been conducted on the data. Indicators identified with the symbol ✓ have been reviewed with reasonable assurance.