

CARREFOUR GROUP CLIMATE PLAN

Summary – Carrefour Group Climate Plan

1. Carrefour Group climate strategy
2. Helping to achieve net zero through integrated stores by 2040 (Scopes 1 & 2)
3. Helping to achieve net zero through e-commerce by 2030 (Scopes 1 & 2)
4. 29% reduction in indirect emissions compared with 2019 (Scope 3)
5. Adapting to climate change
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APPENDIX – History of Group commitments



Summary – Carrefour Group Climate Plan

The Carrefour Group has put in place a dedicated climate change strategy – based on an assessment of CO₂ emissions – and structured through an approach enabling **climate change mitigation** and **adaptation to climate change**.

The Group refers to the best available standards for analysing climate change risks, building action plans and reporting on them. The Group operates on the basis of a continuous improvement approach. This is in relation to the definition of its targets (which are regularly raised) and its reporting, the coverage rate and accuracy of which are regularly increased.

The climate plan involves all levels of the Group. It involves the Group Executive Committee, responsible for defining the strategy, the Board that validates it, and the Board's CSR Committee. Each year, this Committee examines performance and the climate strategy. It also involves the CEO of each country tasked with implementing the strategy, together with the technical teams and the asset teams, alongside the merchandising department and other key ones responsible for implementing the roadmaps. A number of special teams are also involved, with the International Climate Committee, the Director of Engagement (Executive Committee member) and the CSR team.

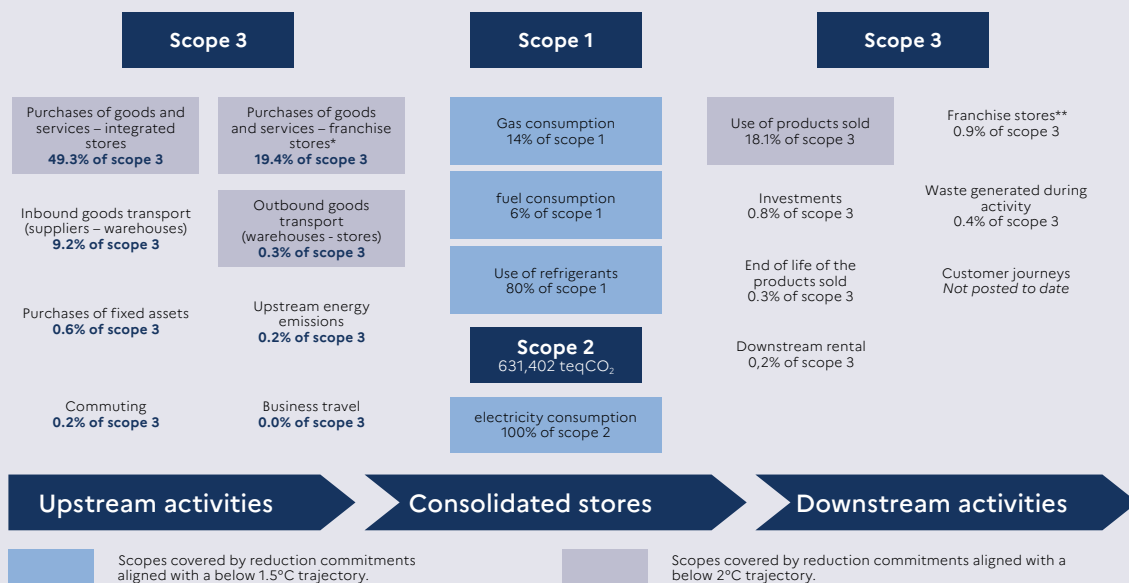
Tackling climate change plays an essential role in assessing the company's performance via the CSR and food transition index. This is a tool used to track targets, assess CSR performance, mobilise teams and manage various business lines. It is a criterion in the CEO's compensation package (to the tune of 20%), as well as those of members of the country and Group executive committees, Group entity employees (10%), people eligible for the long-term remuneration plan (25%), and all employees in France eligible for variable remuneration, i.e. around 10,000 people (around 10%).

Group's CO₂ emissions:

The Group's total greenhouse gas emissions across all scopes stood at an estimated 97 million tonnes of CO₂ equivalent in 2022 (scopes 1, 2 and 3). The Group's scope 1 and 2 emissions are from its integrated stores. They account for less than 2% of the Group's emissions. Scope 3 emissions are from the Group's upstream and downstream activities. They account for more than 98% of the Group's emissions.

The Group uses the GHG Protocol methodology, and relies on the emission factors of ADEME, Agribalyse, DEFRA and IEA. It measures its CO₂ emissions for scopes 1, 2 and 3.

CARREFOUR GROUP 2022 CARBON ASSESSMENT CONDUCTED FOR THE APPLICABLE CATEGORIES OF SCOPES 1, 2 AND 3 USING THE GHG PROTOCOL METHODOLOGY



* includes emissions linked to the franchise stores in the eight countries where the Group operates directly

** includes scope 1 and 2 emissions linked to the franchise stores in the eight countries where the Group operates directly and with the franchise stores of international partners.

Climate change mitigation:

In 2020, the Group committed to reducing its CO₂ emissions to *well below 2°C* for scopes 1, 2 and 3, targets that were validated by the Science Based Targets Initiative (SBTi).

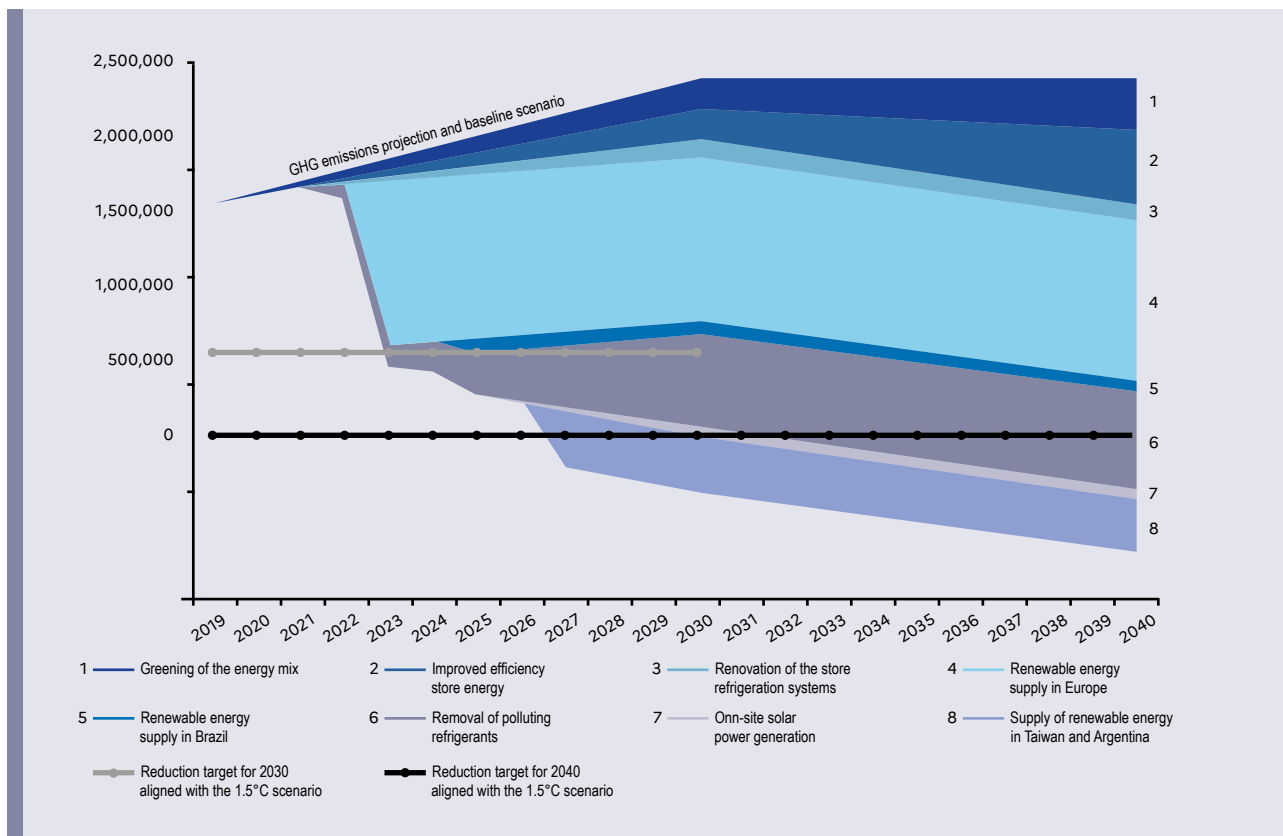
Scope 1 and Scope 2:

In 2021, Carrefour raised its target for its integrated stores (scopes 1 and 2) by aligning itself with a 1.5°C trajectory. Carrefour has set itself the target of helping to bring about net zero for scopes 1 and 2 by 2040, reducing its scope 1 and scope 2 CO₂ emissions by 30% by 2025, by 50% by 2030 and by 70% by 2040 (compared with 2019 value). Carrefour is also committed to helping to achieve net zero through e-commerce by 2030.

These targets will be achieved through the three following commitments:

- Using 100% renewable electricity by 2030
- Reducing its energy consumption by 27.5% by 2030 (vs 2019)
- Reducing refrigerant use emissions by 50% by 2030 and 80% by 2040 (vs 2019)

In 2021, the Group defined the target scenario for achieving its objective of reducing its integrated stores' greenhouse gas emissions, involving reduced consumption of energy and refrigerants (scopes 1 and 2).



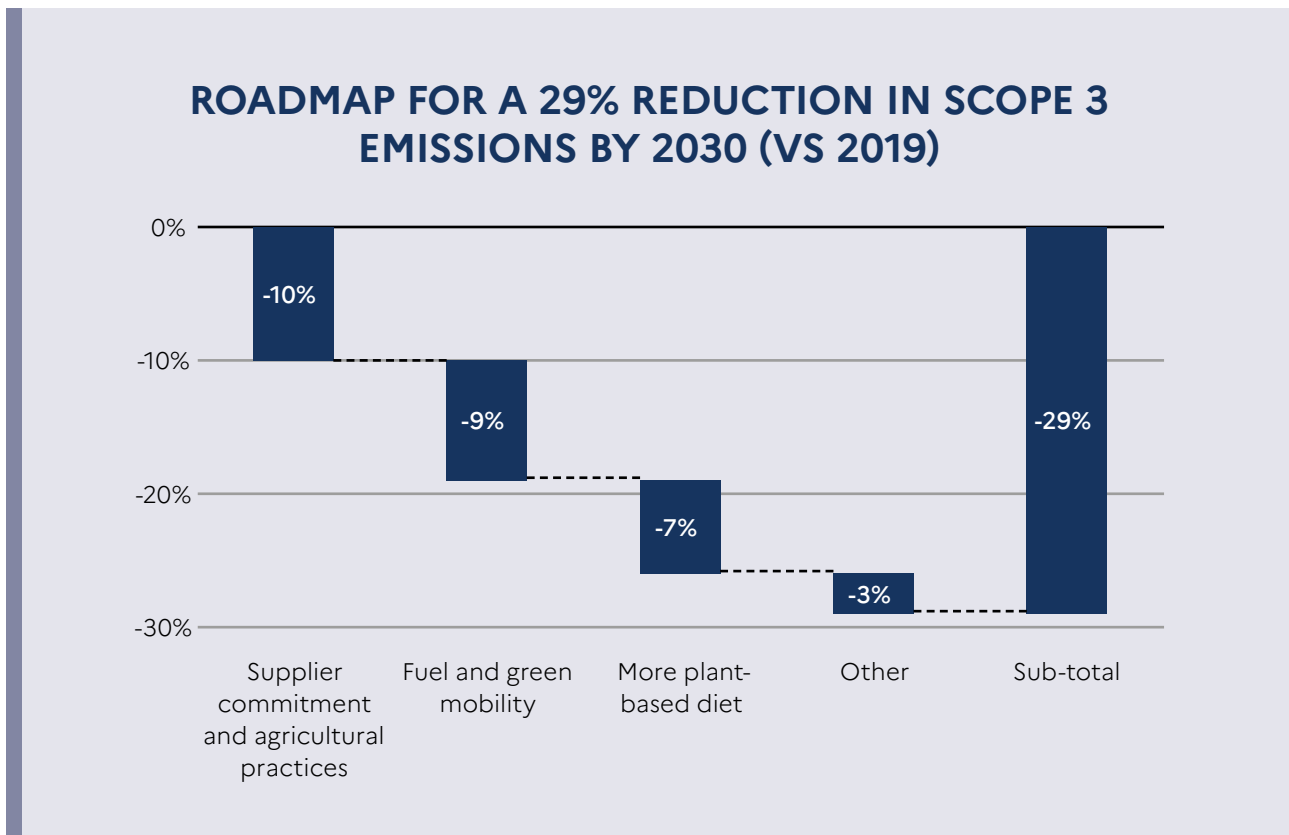
Scope 3:

Carrefour has set the target of reducing GHG emissions resulting from the main aspects of its scope 3 activities by 29% by 2030, compared with 2019. The Group’s targets have been approved by the Science Based Targets initiative for its alignment with a below 2°C trajectory. More specifically, the Group has made commitments in relation to the three main perimeters covering more than 90% of its scope 3 emissions, with the following targets:

- Reduce emissions linked to purchases of goods and services by 30% by 2030 (vs 2019)
- Reduce emissions linked to product usage by 27.5% by 2030 (vs 2019)
- Reduce downstream emissions linked to out-bound transport by 20% by 2030 (vs 2019)

Carrefour is working to raise its aim so it can announce a target aligned with a 1.5°C trajectory by 2050. In 2021, Carrefour committed to the Race to Zero initiative, an international commitment to the SBTi to embark on a 1.5°C trajectory. Carrefour is, for the moment, the only French retailer to have made this commitment.

The following levers have been identified as ways to achieve the scope 3 emission reduction targets:



The actions implemented and the commitments associated with each of the categories are as follows:

Priority scope	Contribution 2030 vs 2019	Actions implemented	Commitments contributing to achieving the target
Supplier commitment and agricultural practices	-10%	Encourage suppliers to reduce their GHG emissions by committing to SBTi trajectories.	Top 100 suppliers committed to a trajectory of 1.5°C by 2026 under threat of being delisted
		Work with suppliers – large and small – to implement the food transition and promote low-carbon consumption patterns.	500 suppliers committed to the Food Transition pact and 20 megatonnes saved by 2030
		Develop partnerships with producers to facilitate the transition to low-carbon practices.	50,000 partner producers by 2026
		Promote eco-labels (Bio, FSC, PEFC, etc).	€8 billion in sales of certified sustainable products by 2026
		Tackle deforestation and develop alternatives to soy for animal feed.	100% of forest-sensitive production to be covered by a risk mitigation plan by 2030
		Develop regenerative agriculture and agro-ecology across Carrefour Quality Lines.	All Carrefour Quality Line products to be committed to an agroecological approach by 2025
Fuel and green mobility	-9%	Increase volumes of biofuels. Encourage soft modes of transport and the use of electric vehicles.	27.5% reduction in GHG emissions linked to the use of products sold by 2030 (vs 2019) Installation of 2000 electric charging stations in France by 2023
		Commit our stakeholders to the transition to a more plant-based diet (commercial operations, food transition pact). Foster innovation and develop a comprehensive offering.	Increase sales of plant proteins in Europe to €500 million by 2026 (65% increase compared with 2022)
More plant-based diet	-7%		
Other actions	-3%	Improve the efficiency of outbound transport. Modernise the fleet and develop a fleet of vehicles powered by biomethane.	Reduce GHG emissions linked to outbound transport by 20% by 2030 (vs 2019)
		Reduce waste generation, guarantee sorting of materials for recycling and zero landfill.	All waste to be recovered by 2025
		Take action at all levels to reduce food waste across the value chain, in stores and among consumers.	50% reduction in food waste by 2025
		Reduce the amount of packaging placed on the market, promote reuse and recycling.	100% of Carrefour brand packaging to be reusable, recyclable or compostable by 2025; 20,000 tonnes of packaging saved (including 15,000 tonnes of plastic packaging) by 2025 (total since 2017); €150 billion worth of sales of loose products and reuse by 2026 (a fivefold increase compared with 2022)
TOTAL	-29%		

Adapting to climate change:

In an effort to improve the resilience of its activities, the Group has carried out risk and opportunity analyses regarding climate change, notably on the basis of the TCFD expectations and the IPCC scenarios. Carrefour has conducted studies to identify the sites most exposed to future climate hazards (RCP scenarios 4.5, 2.6 and 8.5) in all countries where the Group operates.

Carrefour has identified 4 main risks, namely regulatory, market, raw material supply, and physical risks for stores (including acute and chronic risks). The Group has supplemented the studies with a more comprehensive review in accordance with the TCFD's expectations. To address these risks, the Group has implemented three primary adaptation initiatives:

1. Adapting Carrefour stores to climate change.
2. Securing the supply chain, monitoring raw materials the supply of which is at risk and deploying a risk-based procurement strategy
3. Providing the Group's supplier farmers with support so as to secure the partnership approach in the long term.

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APPENDIX – History of Group commitments

1. Carrefour Group climate strategy

1.1. Background and challenges

The IPCC's 2021 science report¹ detailed some of the irreversible consequences of climate change, such as rising sea levels. Nonetheless, there are solutions to global warming, such as curbing rising temperatures, transitioning away from fossil fuels, increasing the use of renewable energies, and modifying our energy models.

In 2015, the COP21 Paris climate agreement set goals for limiting global warming, advocating reorientation of the world economy toward a low-carbon model and the phase-out of fossil fuels. At COP26 in Glasgow, countries acknowledged the climate emergency and committed to stepping up their actions to tackle climate change.

Tackling climate change is one of the major challenges facing us in the 21st century, and consumption and food play an essential role. Carrefour has therefore chosen to be a major player in the fight against global warming and has made a number of powerful commitments regarding climate. These commitments respond to growing demand from citizens and consumers for a transition over to a sustainable model.

In fact, it means a change in consumption patterns. A study conducted by HelloFresh published in December 2022 found that 28% of people in France are mindful of food waste; 32% pay attention to excessive packaging used with food products, and 52% of them are interested in local products because of transparency and their origins².

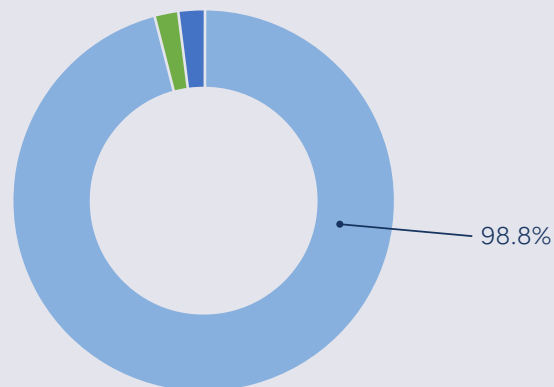
Presentation of the Group's emissions

The Group's total greenhouse gas emissions across all scopes stood at an estimated 97 million tonnes of CO₂ equivalent in 2022 (scopes 1, 2 and 3). The Group's scope 1 and 2 emissions are from its integrated stores. They account for less than 2% of the Group's emissions. Scope 3 emissions are from the Group's upstream and downstream activities. They account for more than 98% of the Group's emissions. Carrefour's impacts on climate and biodiversity are therefore mainly indirect. Scope 3 emissions in the retail sector and particularly food are still above 95%, unlike other industries.

BREAKDOWN OF THE CARREFOUR GROUP'S GHG EMISSIONS IN 2022

RÉPARTITION DES ÉMISSIONS DE GES DU GROUPE CARREFOUR EN 2022

- Scope 1 GHG emission
- Scope 2 GHG emissions
- Scope 3 GHG emissions



¹ IPCC, Generalised and rapid climate change that is growing in intensity, PR, 9/08/2021: https://www.ipcc.ch/site/assets/uploads/2021/08/IPCC_WGI-AR6-Press-Release_fr.pdf

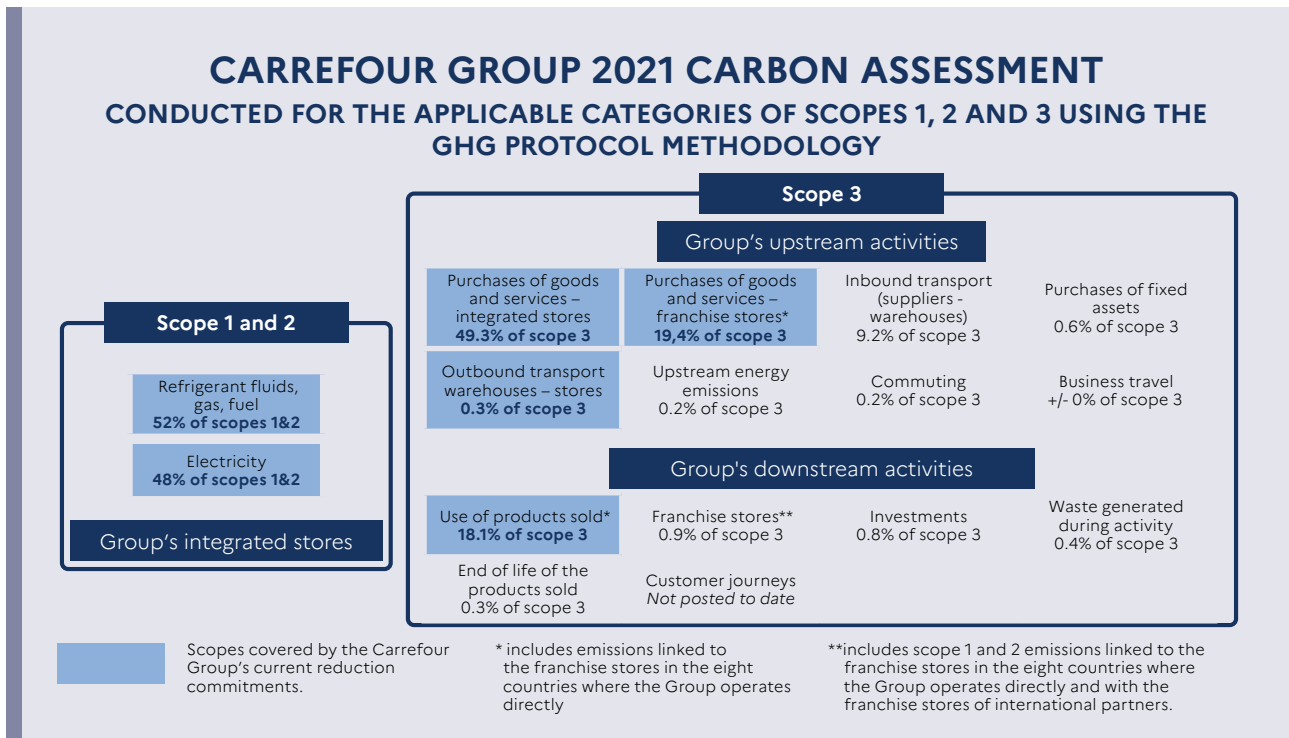
² HelloFresh x NellyRodi unveil food trends for 2025, December 2022: <https://d1c35e6d994yha.cloudfront.net/articles/63993/dossier-presse-hellofresh-tendances-food-horizon-2025-1okok.pdf>

2019 - 2022 carbon footprint of the Carrefour Group's scopes 1, 2 and 3 emissions

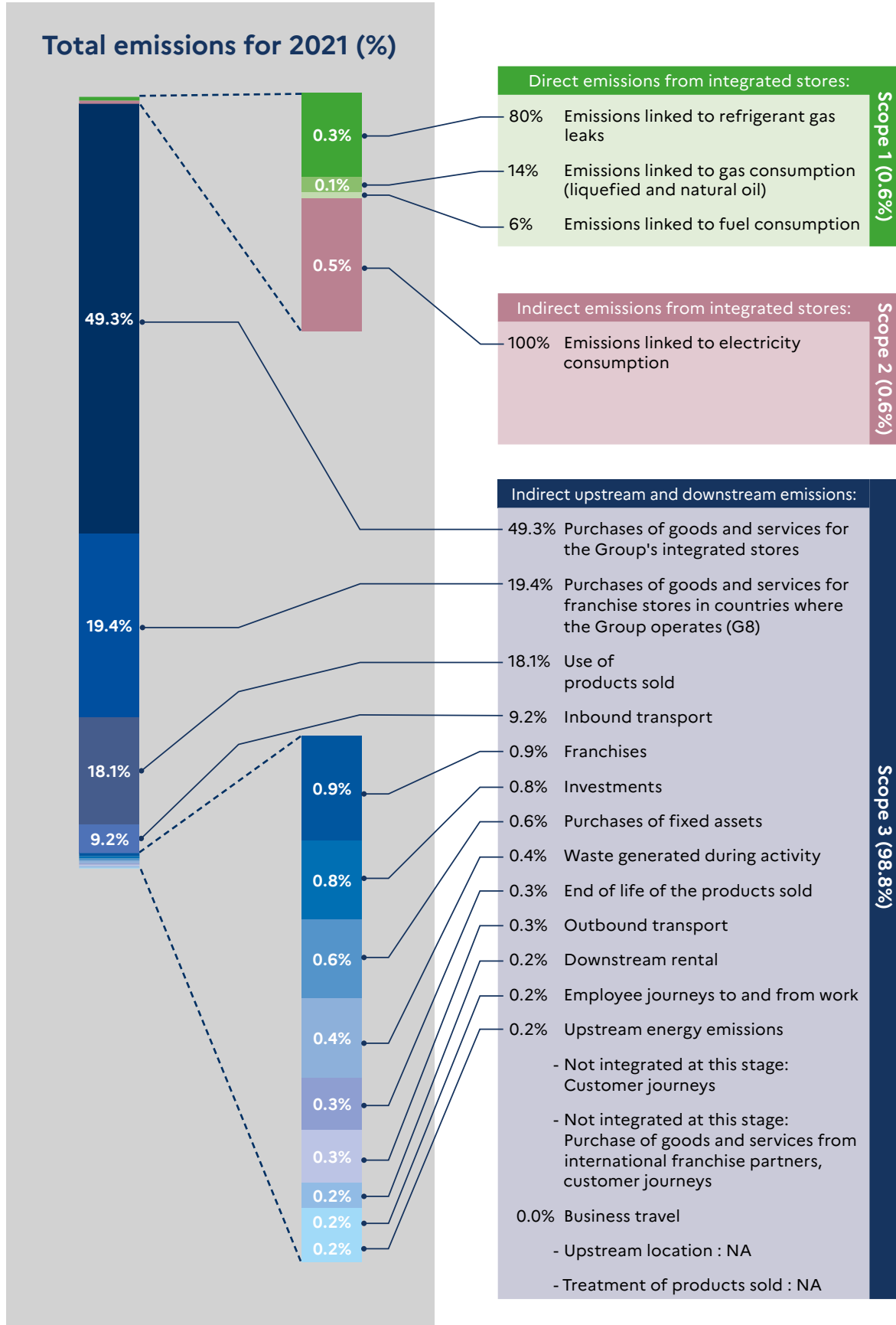
Indicator	Unit	2022 vs 2021	2022 vs 2019	2022	2021	2020	2019
Scope 1 GHG emissions	t CO ₂	1%	-27%	581,593	575,376	666,965	794,649
Scope 2 GHG emissions	t CO ₂	-10%	-31%	631,402	701,123	794,276	916,917
Scope 3 GHG emissions	t CO ₂	3%	3%	96,221,746	93,127,603	94,623,340	93,720,243
Total Scope 1&2 GHG emissions	-	-5%	-29%	1,212,995	1,276,499	1,461,240	1,711,565
Total Scope 1&2&3 GHG emissions	-	3%	2%	97,434,741	94 404 102	96 084 581	95,431,808
GHG emission intensity Scopes 1&2&3	gCO ₂ / € per year	-4%	-6%	10..6	11.1	11.6	11.2

The Carrefour Group's 2022 carbon footprint for the applicable items of the 2022 carbon footprint for scopes 1, 2 and 3, based on the GHG Protocol methodology.

The Group uses the GHG Protocol methodology, and relies on the emission factors of ADEME, Agribalyse, DE-FRA and IEA. It measures its CO₂ emissions for scopes 1, 2 and 3.



In 2021, the Group's greenhouse gas emissions were broken down as follows:



Franchise store emissions: Franchise stores are part of our indirect perimeter (scope 3). Franchise stores account for 75% of the total store base, 41% of total sales area under group banners and 24% of the Group's consolidated turnover. Franchise stores are mostly small formats.

We distinguish two types of franchisees:

- franchise stores in the 8 countries in which the Group operates directly: 8800 stores account for 27% of total sales area under group banners.
- our international partners' franchise stores (Carrefour Partenariat International): 1900 stores accounting for 14% of total sales area under group banners.

As regards emissions from energy consumption and the use of refrigerants for all franchise stores (scopes 1 and 2 of franchise stores), these account for 33% of the total emissions (scopes 1 and 2) of Carrefour stores worldwide and less than 1% of the Group's scope 3 emissions. This scope is not included in our commitments to date, since it is not among the most material scope 3 emission categories for the Group.

Carrefour has committed to a 30% reduction in emissions linked to purchases of goods and services by 2030 (69% of the Group's scope 3 emissions). This target takes into account purchases of goods and services for all stores under banners, integrated stores and franchises across the 8 countries in which the Group operates directly. These sales are taken into account in our scope 3 estimates and across the scope of our targets.

1.2. Risks and opportunities linked to climate change

The main risks are identified in the Group's risk analysis

Carrefour is committed to fighting climate change by reducing the Group's GHG emissions and minimising the climate risks to which its business is subject. The climate change risks for Carrefour are integrated into the company's risk management process. The subject has been identified as a major risk for the Group and is reflected as follows:

- **Regulatory risk:** The Group is subject to significant regulatory pressures, notably regarding the enforcement of the F-Gas regulation on refrigeration systems used in stores, the "tertiary" law and the new legislation on tackling waste and promoting the circular economy laws (AGEC).
- **Market risk:** The Group is exposed to risk regarding new consumption habits, which are to a greater or lesser degree related to climate change: reducing non-electric car use, local consumption, low-consumption products, reducing animal protein consumption, etc. All of these trends have a profound impact on the purchasing behaviour of Carrefour Group customers;
- **Sourcing supplies of raw materials and energy:** the Group has identified certain sensitive raw materials that contribute to climate change or that are highly sensitive to the consequences of climate change (e.g.: drought). Carrefour may therefore be exposed to a risk of its raw material supplies being disrupted or to increases in their prices. Energy supplies are also sensitive to climate change. Significant increases in energy prices could therefore affect the Group, and there might be supply disruptions.
- **Physical risk for stores:** In the countries in which it operates, the Group may be exposed to natural disasters and uncertain weather conditions, with direct or indirect on its activities, assets, customers and employees, all of which might result in consequences for its financial position. Variations in temperature can create challenges in terms making adjustments to our opening hours or even investments for our cooling and heating installations.

Risk management mapping table:

Risk categories	Main mitigation actions and associated adaptation measures	Reference in this report
Regulatory risk	Use of natural fluids for commercial refrigeration plants (F-Gas regulations).	2. Help to achieve net zero through integrated stores by 2040 (Scopes 1 & 2)
	Reduction of energy consumption and participation in the national effort (example of the EcoWatt Charter in France).	2. Help to achieve net zero through integrated stores by 2040 (Scopes 1 & 2)
	Reduction of food waste and participation in the circular economy (AGEC law).	4. 29% reduction in indirect emissions compared with 2019 (Scope 3)
Market risk	Development of a range of low-carbon products, particularly in connection with packaging or a more plant-based diet.	4. 29% reduction in indirect emissions compared with 2019 (Scope 3)
	Development of partnerships with producers and more sustainable agriculture (bio, agro-ecology, local and ultra-local).	4. 29% reduction in indirect emissions compared with 2019 (Scope 3) 5. Adapting to climate change
	Encourage the use of biofuel, including through the methanisation of organic waste. Installation of electric charging stations.	4. 29% reduction in indirect emissions compared with 2019 (Scope 3)
Sourcing supplies of raw materials	Monitoring at-risk raw materials and deploying a procurement strategy appropriate for the risk. For example: Develop alternatives to soy and zero deforestation sourcing options.	4. 29% reduction in indirect emissions compared with 2019 (Scope 3) 5. Adapting to climate change
	Support for the Group's supplier farmers so as to secure the partnership approach in the long term.	5. Adapting to climate change
Physical risk for stores	Adapting Carrefour stores to climate change.	5. Adapting to climate change

Detailed analysis of risks and opportunities based on Task Force for Climate Disclosure (TCFD) criteria

Acknowledging the risk that climate change poses to its business, as well as the potential opportunities that it could present, Carrefour assessed climate risks and opportunities in 2021, in line with the TCFD's recommendations.

All of the identified risks and opportunities commonly considered and related to climate within the framework of the TCFD have been reviewed to select those applicable to the Group's business over a given time horizon. Physical risks include acute and chronic risks related to climate change and cover both our operations and our supply chain. Transition risks include political and legal risks, reputational, technology and market risks to our operations and, where applicable, risks to our supply chain.

The analysis of climate risks and opportunities has been structured around the identification, assessment, prioritisation and drawing of conclusions in relation to each risk and opportunity, in accordance with six criteria:

- The financial impact (low for a local reputational risk if below €10M, medium for a regional reputational risk if between €10M and €50M, high for a national reputational risk if between €50M and €100M, and very high for an international reputational risk if above €100M);
- The time horizon considered (short-term if between 2 and 5 years, medium-term if between 5 and 10 years, long-term if over 10 years);
- The probability (very uncertain if less than 30% chance of occurrence, rather uncertain if between 30% and 50% chance of occurrence, rather probable if between 50% and 80%, and very likely if more than 80%);
- The level of Carrefour control (low if controlled every 10 years, medium if partially controlled and mitigated, high if fully controlled and mitigated);
- Criticality level (acceptable if not critical, moderate if moderately critical, high if critical, strong if highly critical);
- The level of opportunity (fully realised if the opportunity is already fully leveraged, largely realised if the opportunity can still be completed, moderately realised if the opportunity still needs to be investigated, under leveraged if the opportunity has not yet been addressed).

Risks and opportunities have been categorised as follows. They are ranked based on their impact, probability and level of control, using risk definitions aligned with Carrefour’s risk management processes.

Opportunities:

Details	Time horizon	Financial impact
Resource efficiency		
Recycling	Short-term	Average
Reduction in water use and consumption	Short-term	Weak
Use of more efficient modes of transport	Medium-term	Average
Use of more efficient production and distribution processes	Short-term	High
Adoption of more efficient buildings	Medium-term	Average
Energy sources		
Use of low-emission energy sources	Short-term	High
Use of new technologies	Short-term	Very high
Shift to decentralised energy production	Short-term	Average
Use of favourable political incentives	Short-term	Weak
Products and services		
Development of new products or services through R&D and innovation	Short-term	Very high
Ability to diversify business activities	Short-term	High
Change in consumer preferences	Long-term	High
Development and/or expansion of low-emission goods and services	Medium-term	Average
Markets		
Access to new markets	Long-term	Very high
Access to new assets and sites requiring insurance coverage	Long-term	Very high
Resilience		
Participation in renewable energy programmes and adoption of energy efficiency measures	Short-term	Very high
Resource substitutes/diversification	Medium-term	Average

Risks:

Type of risk for the activity	Details	Time horizon	Financial impact
Transition risks			
Market	Increase in raw material costs	Short-term	Very high
Market	Uncertainty of market signals	Short-term	Very high
Technology	Transition to cleaner technologies	Medium-term	Average
Current and emerging regulations	Mandates and regulation of existing products and services	Short-term	Average
Technology	Unsuccessful investments in new technologies	Short-term	Very high
Reputation	Increased stakeholder concern or negative feedback	Medium-term	High
Current and emerging regulations	Carbon pricing mechanisms	Medium-term	High
Technology	Replacing existing products and services with cleaner options	Medium-term	Average
Current and emerging regulations	Strengthening emission reporting obligations	Short-term	Weak
Market	Changing customer behaviour	Medium-term	Very high
Competition law	Exposure to litigation	Medium-term	Average
Reputation	Changes in consumer preferences	Medium-term	Average
Physical risks			
Acute	Increased severity of extreme weather events such as cyclones and floods	Long-term	Very high
Chronic	Changes in precipitation patterns and extreme variability in climate patterns	Medium-term	High
Chronic	Increase in average temperatures	Short-term	High
Chronic	Sea level rises	Long-term	Very high
Acute	Increased probability and severity of forest fires	Long-term	High

To identify risks and opportunities, Carrefour has covered social, technological, economic, environmental and political dimensions. To analyse them, Carrefour used the International Energy Agency's *Net Zero Emissions* and *Stated Policies* scenarios. These scenarios were supplemented by vulnerability and impact analyses, including on energy and carbon pricing markets, and in relation to physical risks (floods, power outages and water restrictions, extreme heat, droughts and reduced agricultural production) in the regions where the Group operates.

Risk management options are analysed for all prioritised risks in order to determine appropriate mitigation measures. We are also assessing priority opportunities to identify action plans to be put in place as part of Carrefour's adaptation strategy. Key risks and opportunities are quantified.

Issues clearly identified by our stakeholders

Carrefour updated its materiality analysis in 2021. The Group engaged 110 stakeholders (clients, investors, unions, suppliers, employees and institutions) to assess the importance of forty issues in relation to the food transition. The questionnaire was put together on the basis of the seven pillars making the ISO 26 000 standard (Biodiversity, Climate, Social Engagement, Labour Relations and Conditions, Good Business Practices, Consumer Issues, Human Rights). An additional analysis was conducted to assess the contribution of the various issues to achieving the Sustainable Development Goals.

Within each pillar, various issues were identified and described. For example, regarding Biodiversity, the “Eco-design of the product and the packaging and the circular economy” pillar was defined, together with the following description: “Promoting re-use (reusable packaging products, option for the customer to bring their own container or bag, etc.) and loose produce, in physical stores and e-commerce. A total of 39 issues were identified. Each was weighted by the responding stakeholders.

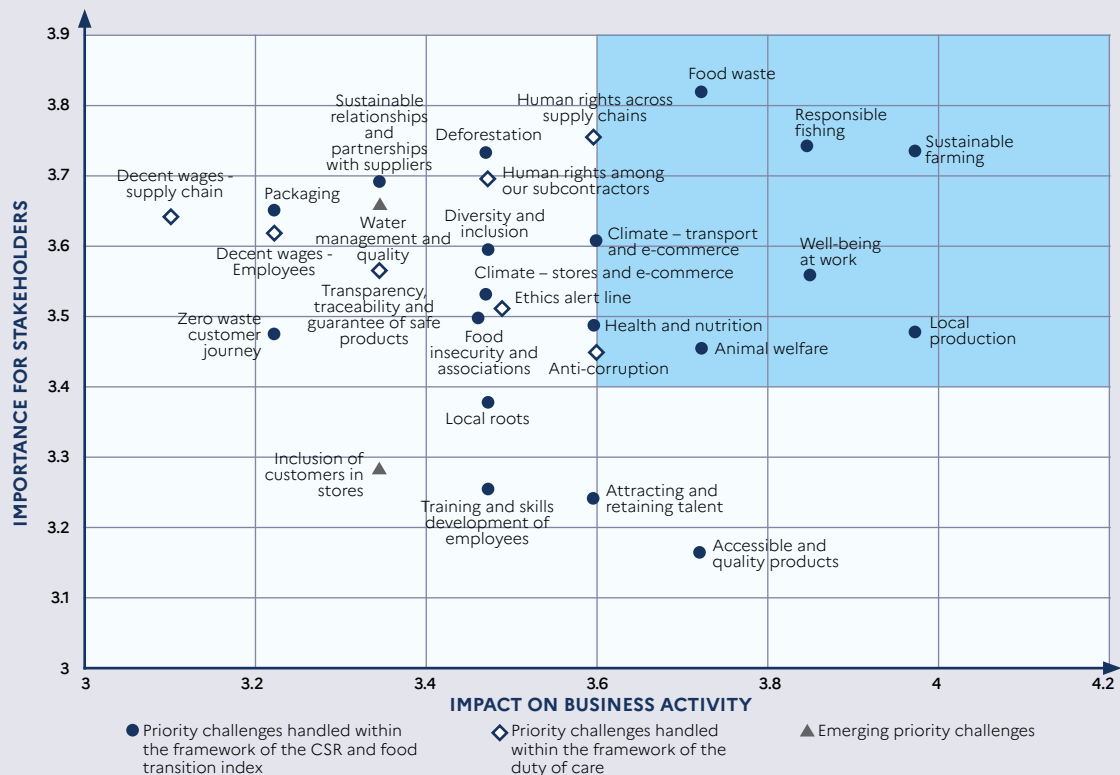
This materiality analysis enables Carrefour to identify the priority challenges associated with the food transition for all – which has been the Group’s raison d’être since 2019 – and to confirm the importance of the action plans undertaken. Many priority issues have been identified over several years, tracked and measured by Carrefour through its CSR and food transition index and/or due diligence (e.g. food waste, responsible fishing, sustainable agriculture, human rights across supply chains, well-being at work).

Of the ten priority issues, three climate-related ones are identified as “major” by stakeholders in the Group’s food transition strategy:

- combatting food waste (ranked in third position)
- defining the assortment which favours the national and regional productions in which we operate (ranked in fourth position)
- reducing atmospheric emissions linked to transport and e-commerce (ranked in seventh position).

Finally, customer expectations are particularly high in relation to the following three issues: “Eco-design of products and packaging, and the circular economy”, “Combating food waste” and “Offering a customer experience and a store/online route that facilitates zero waste purchases, zero plastics for organic products, healthier products”.

MATERIALITY MATRIX



1.3. Carrefour Group aims and objectives

History of commitments

In June 2015, Carrefour announced an ambitious emissions reduction target at its Shareholders' Meeting, in line with the 2°C scenario developed by the IPCC. By 2019, Carrefour had achieved a 39% reduction in its greenhouse gas (GHG) emissions (its target is a 40% reduction by 2025) for Scopes 1 and 2. In light of this performance, the Group updated its climate plan for 2020, raising its aims for Scope 1 and Scope 2 emissions, and stepping up its commitments for Scope 3 emissions. In fact, 98% of the Group's GHG emissions are indirect, the main sources being products and packaging sold in stores (65%), the use of products sold (27%) and upstream transport of goods (3.5%).

At its Shareholders' Meeting on May 29, 2020, Carrefour announced a set of new objectives, approved by the Science Based Target initiative (SBTi) led by the CDP, the Global compact, the World Resources Institute (WRI) and the WWF®. Through these initiatives, Carrefour is committed to keeping global warming below the 2°C threshold by 2100 (compared with temperatures during the preindustrial period). This commitment takes into account for the first time the Group's indirect emissions (scope 3) with a target of reducing them by 29% by 2030.

Carrefour bolstered its ambition once again in 2021 at COP26. Carrefour has announced a target to reduce GHG emissions from store operations by 30% by 2025, 50% by 2030 (vs. 2019) and 70% by 2040 (vs. 2019) – a target aligned with the 1.5°C warming scenario. The Group is committed to contributing to helping to achieve net zero through its stores by 2040 and e-commerce by 2030. The Group's action plan to help achieve net zero aims to minimise its emissions and offset residual emissions.

Finally, Carrefour signed the Race To Zero initiative at COP26. Consequently, the Group is committed to defining commitments and putting in place action plans to help achieve zero across all scopes (1, 2 and 3) by 2050 at the latest, with an emissions reduction trajectory aligned with a 1.5°C warming scenario. Carrefour is also committed to having its future Net Zero targets approved by the Science Based Target initiative.

Helping to achieve net zero through integrated stores and e-commerce by 2040 (Direct and indirect emissions from operations – Scopes 1 & 2)

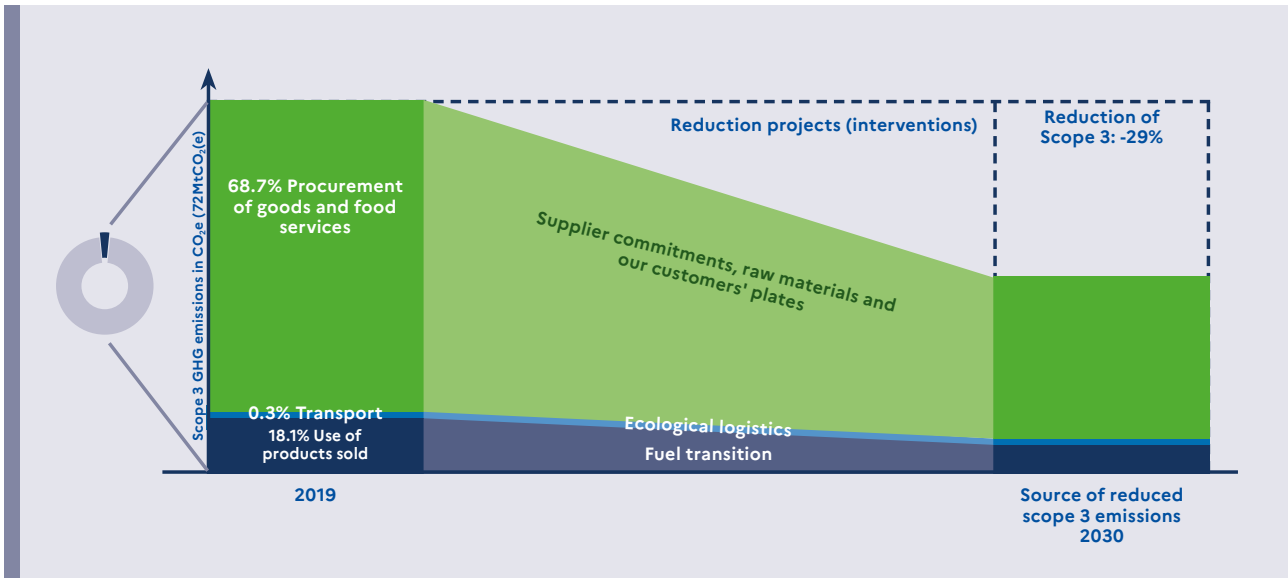
Under the Group's action plan, it aims to reduce emissions resulting from its direct activities by 30% by 2025 (vs. 2019), 50% by 2030 (vs. 2019) and 70% by 2040 (vs. 2019) – aligned with the 1.5°C scenario. The Group is committed to contributing to helping to achieve net zero through its integrated stores by 2040 and e-commerce by 2030.

To achieve this, Carrefour is doing the following for its stores:

- **Using 100% renewable electricity by 2030.** To be able to do this, the Group will give priority to on-site production – producing electricity for its own use or injecting it into the grid –, and will then enter into PPAs (Power Purchase Agreements).
- **Reducing energy consumption by 27.5% by 2030 (compared with 2019 levels)** – that's equivalent to more than 1 million MWh per year and a 240,000 tonne reduction in CO₂ equivalent.
- **Reducing emissions linked to using refrigerants by 50% by 2030 and then by 80% by 2040.** In particular, this will involve replacing fluorinated refrigerants with new facilities that use CO₂, in compliance with the European F-Gas regulation.
- Finally, in the long term, to reduce the impact of emissions that cannot be reduced, the Group will help tackle climate change via a compensation strategy, prioritising certain projects in its supply chains.

Reducing indirect emissions linked to its own upstream and downstream activities (Scope 3)

Carrefour has set itself the target of reducing its indirect GHG emissions (scope 3) by 29% by 2030 compared with 2019. The Group's targets have been approved by the Science Based Targets initiative for its alignment with a below 2°C trajectory. In view of the main indirect emissions, Carrefour has structured its scope-3 climate action plan around three types of emissions, which account for more than 90% of scope 3:



- **purchase of products and services:** reduce emissions linked to purchases of goods and services by 30 % by 2030 compared with 2019 levels (well below the 2°C scenario);
- **product use:** cut emissions resulting from the way in which products are used – fuels and electronic products – by 27.5% between now and 2030, compared with 2019 (2°C scenario);
- **outbound transport:** reduce outbound transport CO₂ emissions by 20% by 2030 compared with 2019 (2°C scenario).

Carrefour is working to raise its aim so it can announce a target aligned with a 1.5°C trajectory by 2050. In 2021, Carrefour committed to the Race to Zero initiative, an international commitment to the SBTi to embark on a 1.5°C trajectory. Carrefour is, for the moment, the only French retailer to have made this commitment.

Scope: The Carrefour Group's commitments apply to its eight integrated countries: France, Spain, Italy, Belgium, Poland, Romania, Argentina and Brazil. For the "Purchases of goods and services" category, the franchise stores in the eight countries in which the Group operates directly are integrated, this category being the most material.

	Scope 1		Scope 2		Scope 3	
Group commitment	70% reduction by 2040 (vs 2019) Net zero by 2040				29% reduction by 2030 (vs 2019)	
Trajectory	1.5 °C		1.5 °C		Below 2°C	
Coverage of the commitment (% total emissions in 2021)	100%		100%		87.1%	
Categories covered by Group commitments (and percentage distribution of emissions categories across the scope in 2021)	Direct emissions from integrated stores:	%	Indirect emissions from integrated stores:	%	Indirect emissions:	%
	Emissions linked to refrigerant gas leaks	80	Emissions linked to electricity consumption	100	Procurement of goods and services	68.7
	Emissions linked to gas consumption (liquefied and natural oil)	14			Use of products sold	18.1
	Emissions linked to fuel consumption for stores	6			Outbound transport	0.3

E-commerce is specifically monitored. See section 3 for details of emissions tracked to date.

1.4. Coalitions and partnerships

To maintain its leadership role on climate issues and achieve its aims, Carrefour has joined a number of international coalitions at Group level, mainly:

- **Business Ambition for 1.5°** is an urgent call to action launched by a global coalition of UN agencies, business leaders and manufacturers, in partnership with Race to Zero. The initiative, which has more than 900 signatories, calls on companies to commit to setting ambitious emissions-reduction targets by setting a net-zero target in line with a 1.5°C trajectory to limit the impact of climate change.
- **Race To Zero** is a global campaign to rally businesses, cities, regions and investors for a healthy, resilient, zero-carbon recovery that prevents future threats, creates decent jobs, and enables inclusive and sustainable growth. By joining the initiative, Carrefour is committed at the highest level of its organisation to achieving net zero scope 1, 2 and 3 greenhouse gas emissions as soon as possible, and no later than mid-century, in line with global efforts to limit warming to 1.5°C.
- **The European Climate Pact** is an EU-wide initiative inviting individuals, communities and businesses to take part in climate action and build a greener Europe. Signatories are invited to share and report on their climate commitments through the CDP questionnaire.
- **Science Based Target Initiative (SBTi):** The Science Based Targets initiative is a coalition made up of the Carbon Disclosure Project (CDP), United Nations Global Compact, the World Resources Institute and the World Wildlife Fund (WWF) for Nature. It develops methods and criteria that commit companies to setting science-based targets that are appropriate for the impact that they have in order to tackle global warming. These targets cover scopes 1 and 2, and 3. The Group's objectives were approved in 2020 by the Science-Based Targets (SBTi) initiative to align with a trajectory that helps limit global temperature increases to well below 2°C by the end of the century.
- **Consumer Goods Forum (CGF) Network:** The Consumer Goods Forum is an organisation that brings together retailers and manufacturers of consumer goods worldwide. It is made up of CEOs and senior executives from more than 400 distribution, manufacturing and service delivery companies, as well as other stakeholders from more than 70 countries. Across the CGF, companies are working pre-competitively in a number of key areas to find solutions, implement actions, bring about positive change and generate shared commercial value. Several areas are directly associated with tackling global warming: food waste, plastic waste, and the Forest Positive Coalition. Carrefour has aligned some of its objectives with those of the Consumer Goods Forum, particularly with respect to refrigerants and tackling food waste.
- **French Business Climate Pledge:** The French Business Climate Pledge is a voluntary commitment by companies based in France which are engaged in concrete initiatives to successfully transition to a low-carbon economy, catalyse innovation and develop low-carbon solutions, technologies, products and services.
- **Food Transition Pact:** launched in 2019 with five founding members (Nestlé, Bonduelle, Barilla, Pepsico and Colgate-Palmolive), the Food Transition Pact is a reciprocal commitment between Carrefour and its partner suppliers committed to the food transition for all, to profoundly transform the food system, and thus offer customers healthy, affordable products that are environmentally friendly. The Pact focuses on five priority issues (packaging, biodiversity, healthier choices, healthier products, climate) to help achieve the United Nations Sustainable Development Goals.

For more information, visit: <https://www.carrefour.com/fr/rse/engagements/pacte-transition-alimentaire>

1.5 Our organisational structure

Governance and management

Carrefour announced its new Carrefour 2026 strategic plan in late 2022. To meet the expectations of its customers, and because global warming is a major concern, Carrefour has renewed and accelerated its commitments to tackling climate transition as part of its strategic plan. Carrefour has reaffirmed its commitment to tackling change, combatting all forms of food waste, combatting deforestation and safeguarding the planet's biodiversity.

In order to achieve its ambitions, the Group has put in place a system of governance specific to managing the Group's commitments on tackling climate change. Governance of climate issues is shared between the various departments involved in the process, from risk definition to implementing action plans and measuring their effectiveness and performance.

Governance of the Group's climate plan is structured as follows:

Strategic planning:

Body	Party responsible	2022 report
The Group Executive Committee defines strategy, policies and objectives, and measures performance.	The Director of Engagement, Carine Kraus , is a member of the Group's Executive Committee and is responsible for all functions relating to the Group's corporate social responsibility. She is the deputy CEO of the Carrefour Foundation. The Engagement Department is responsible for the Group's climate strategy, and puts the Group's social and environmental commitments into action.	In 2022, Executive Committee met 12 times. Five presentations related to the Group's climate and energy policy were made during the year, including on the integration of climate issues into investment policy, energy purchases, energy recovery from real estate assets and new climate commitments.
Carrefour's Board of Directors approves the strategy drawn up by the Group Executive Committee and evaluates its implementation. The Board of Directors' CSR committee reviews the Group's performance and climate strategy annually.	The CSR Committee is made up of five members, and it is chaired by Aurore Domont. In 2022, training was given to members of the CSR Committee on the challenges of global warming.	As of 31 December 2022, the CSR Committee had met four times. In 2022, the CSR Committee adopted the Group's aims and objectives on tackling global warming within the framework of the so-called "Say on Climate" resolution approved by the General Assembly on 3 June 2022. The CSR Committee also reviews the Group's climate performance annually.

Implementation:

Body and roles	Manager(s)	2022 report
Each country's executive committee rolls the strategy out at local level; The country's climate strategy is integrated into each country's strategic plans.	The CEO of each country is responsible for implementing the climate strategy.	In 2022, action plans to achieve the objectives of the CSR index, particularly those to do with climate, were integrated into countries' strategic plans. As of 2023, the achievement of climate targets is integrated into the quarterly performance reviews of each country.
An international climate committee to: <ul style="list-style-type: none"> ● Share the Group's strategy and trajectory towards meeting its 2040 net zero commitment; ● Share the countries' strategies and trajectories for helping to achieve the Group's net zero targets; ● Share views and ideas on actions and technical issues about the net zero strategy. 	This committee is chaired by Bertrand Swiderski, the Carrefour Group's Chief Sustainability Officer. It is made up of operations teams, energy purchasing teams and CSR teams.	In 2022, this committee monitored the deployment of cold storage units that work using natural fluids following the update of the associated CAPEX roadmaps.

Financial planning:

In order to ensure that its climate aim is achieved, the Group has developed a CAPEX trajectory for implementing initiatives to reduce GHG emissions by 2030.

Body	Party responsible	2022 report
The Group's investment committee approves the Group's projects in terms of CAPEX. The Group has developed a CAPEX trajectory for implementing initiatives to reduce GHG emissions by 2030.	Chairman and CEO Alexandre Bompard, CFO Matthieu Malige and the CEO of Carrefour Property, Jérôme Nanty, are responsible for this committee.	This committee meets monthly and analyses investment projects against the criteria defined for implementing the climate plan. In March 2023, for example, the Committee approved a €39 million investment to install photovoltaic panels on the rooftops of stores in Spain.

In 2021, the Group revised its aims for helping to achieve net zero through its stores by 2040. **A roadmap has been developed** in collaboration with the finance department, the Group's CSR departments and those of the countries in which it operates, together with all their procurement and operations teams. In 2022, this roadmap enabled annual CAPEX and OPEX requirements to be projected, alongside associated increases up to 2030. This work, led by the **Group's investment committee**, is used for the financial aspects of the Carrefour climate plan. This roadmap has been used to allocate budgets for reducing energy consumption and CO₂ emissions for all countries.

The **Group's Investment Committee systematically analyses the climate impact of projects** by including climate criteria in the investment validation phase. A list of environmental criteria (e.g. low energy consumption, low GHG emissions, etc.) with which all new store projects must comply has been defined. These criteria were deployed in the second half of 2022 to allow Carrefour to prioritise new store projects that meet these criteria when making investment decisions. In addition, and to the extent that this is possible, projects that do not comply with these criteria will be encouraged to evolve so that they are more aligned with the Carrefour ESG criteria. This will help Carrefour boost investment in low-carbon projects.

Operational and management teams:

The Group's CSR team monitors the implementation of the action plan through quarterly reports and reports to senior management and countries on their performance via the CSR and food transition index every quarter.

The CSR teams in each country are responsible for reporting performance to the Group on a quarterly basis and monitoring the achievement of targets at national level.

The technical or asset management teams in each country are responsible for implementing the energy efficiency roadmap and gradually phasing out refrigerants with the support of the procurement teams. The non-retail procurement teams are responsible for implementing the roadmap for 100% renewable electricity with the support of the operations departments for on-site production.

The Group's and countries' commodity teams are responsible for the roadmap for reducing emissions linked to the procurement of goods and services. They define the priority areas of the climate scope 3 roadmap in collaboration with the CSR department, directly managing supplier relations and implementing action plans targeting product mixes.



Compensation criteria and performance analysis

CSR and Food Transition Index. Carrefour has implemented a CSR and Food Transition Index to monitor the achievement of its targets and assess performance, and motivate its in-house teams. Designed as a fully-fledged management tool for the various business lines, the CSR index is a means to report externally on deployment of the Group's strategies, particularly regarding biodiversity, climate, health and the commitment of partners and employees.

The Group's performance in achieving these objectives is integrated – to the tune of 20% – **into the remuneration of the CEO** and all members of the Group and country executive committee.

The index is also used to calculate **25% of managers' remuneration under the long-term investment incentive plan.** These are plans that involve the free allocation of shares, subject to presence and performance; the CSR and the food transition index account for 25% of this performance. The plan concerns the two highest levels of management and all talented people who make a major contribution to the Group's transformation. In 2021, nearly 700 people benefited from the plan, and nearly 80% of them were outside senior management. Starting in 2023, 20% of the collective share of the annual variable remuneration for employees in France is based on the "CSR and Food Transition" index. That's equivalent to between 4% and 12% of the bonus, depending on employee scope and level. This remuneration criterion now plays a part in determining the salaries of 10,000 people in France.

Those of the Group's managers who are eligible for variable remuneration have 10% of this variable based on Carrefour's performance, tracked using this CSR and food transition index. 626 managers therefore had a direct interest in this non-financial performance through this variable remuneration in 2022.

More than half of the objectives making up this CSR and food transition index are directly or indirectly linked to climate. Overall, 55% of the index score is linked to the Group's climate performance. The following objectives are directly linked to climate and are integrated into the CSR index:

Theme	Goals	Scope	Weight in the CSR index
Climate - Scopes 1 and 2	50% reduction in scope 1 and 2 GHG emissions by 2030, and 70% by 2040 (vs 2019)	Integrated stores in the Group's eight integrated countries.	6%
Climate Scope 3	20 megatonne reduction in CO ₂ emissions linked to products sold in stores by 2030 (compared with 2019)	GHG emissions linked to purchases of goods and services.	3%
	Top 100 suppliers committed to a trajectory of 1.5°C by 2026 under threat of being delisted	100 largest Carrefour suppliers.	3%
Total weight of these criteria in the CSR index			12%

The following objectives are indirectly linked to climate and are integrated into the CSR index: These objectives have an impact on the Group's climate footprint, particularly its scope footprint 3. The exact contribution of each of these objectives has so far not been quantified in terms of tonnes of CO₂ equivalent.

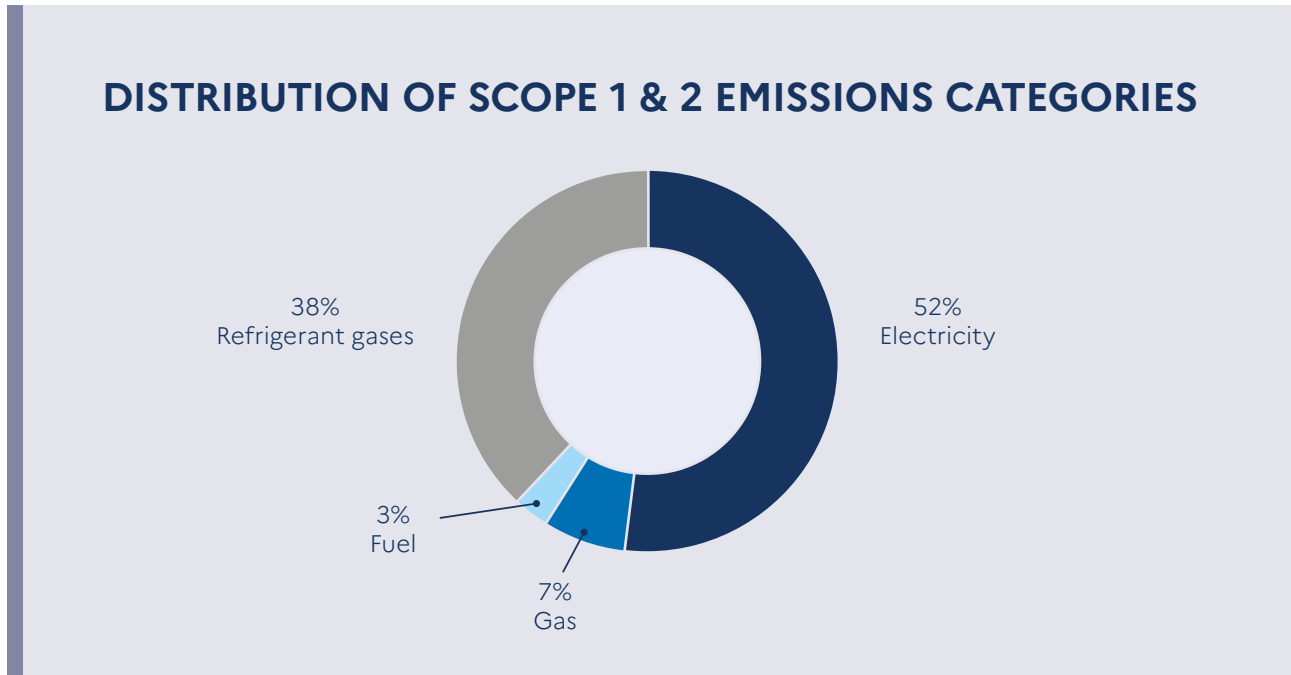
Theme	Goals	Scope	Weight in the CSR index
Food transition	€8 billion in sales of certified sustainable products by 2026	Sales under group banners in the Group's eight integrated countries.	5%
Plant-based nutrition	€500 million in vegetable protein sales by 2026	Sales under group banners in the Group's eight integrated countries.	5%
Raw materials	100% of forest-sensitive production, animal welfare, soil, marine resources and human rights to be covered by a risk mitigation plan by 2030	Implementation evaluated through procurement rules for the food transition. These rules apply to all products controlled by Carrefour and for national brands, depending on the individual case.	5%
Packaging	All packaging to be reusable, recyclable or compostable by 2025	Packaging for own-brand products.	5%
	20,000 tonnes of packaging to be saved by 2025 (total since 2017)	Sales under group banners in the Group's eight integrated countries.	
	€150 billion worth of sales of loose products and reuse by 2026 (a fivefold increase compared with 2022)	Sales under group banners in the Group's eight integrated countries.	
Supplier commitment	500 suppliers committed to the food transition pact by 2030	National brand providers in the Group's eight integrated countries.	6%
Food waste	Reduce food waste by 50% by 2025 (compared with 2016).	Integrated stores in the Group's eight integrated countries.	6%
Waste	Recover all waste by 2025	Integrated stores in the Group's eight integrated countries.	6%
Partner producers	50,000 partner producers by 2026	Partner producers in the Group's eight integrated countries.	5%
Total weight of these criteria in the CSR index			43%

2. Helping to achieve net zero through integrated stores by 2040 (Scopes 1 & 2)

2.1 Our emissions

The Group's scope 1 and 2 emissions are from its integrated stores. More specifically, scope 1 emissions are direct emissions linked to the use of gas, fuel and refrigerant gases from integrated stores. Scope 2 emissions are indirect emissions linked to the use of electricity from integrated stores.

The share of each category in the direct and indirect emissions of the stores (scopes 1 & 2) is detailed in the figure below:



2.2. Our performance

Direct emissions from stores (scopes 1 and 2)

Carrefour reduced its store emissions (scopes 1 and 2) by 29% in 2022 compared with 2019, and is targeting a 70% reduction by 2040 and a 50% reduction by 2030. Carrefour is ahead of its own target and is in line with its GHG emissions reduction trajectory of 1.5°C.

Indicators	Units	2019	2020	2021	2022	Change 2022 vs 2021	Target for 2022	Target for 2030	Target for 2040
Scope 1 emissions	tCO ₂ eq	794,649	666,965	575,376	581,593	1%	635,719	397,324	238,394
Scope 2 emissions	tCO ₂ eq	916,917	794,276	701,123	631,402	(10%)	733,534	458,458	275,075
Scope 1 & 2 emissions	tCO ₂ eq	1,711,565	1,461,240	1,276,499	1,212,995	(5%)	1,369,252	855,783	513,470
Reduction of scopes 1&2 (vs 2019)	%	-	(15)	(25)	(29)	-	(20)	(50)	(70)

In view of the Carrefour Taiwan divestiture agreement signed in July 2022, the data has been reprocessed. Data audited with reasonable assurance.

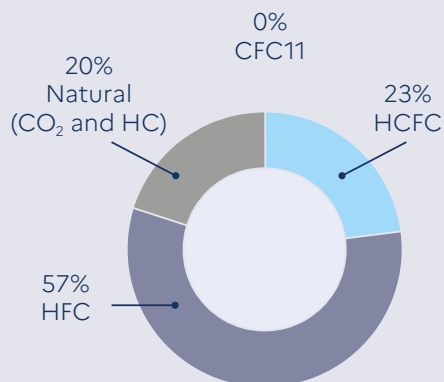
Use of refrigerant fluids for in-store cold storage systems:

Refrigerant fluid emissions increased slightly in 2022 due to leaks in some stores. The Group has continued to convert its commercial refrigeration systems into systems that operate using 100% natural or hybrid fluids (465 natural or hybrid stores in 2021, a figure which increased to 525 in 2022).

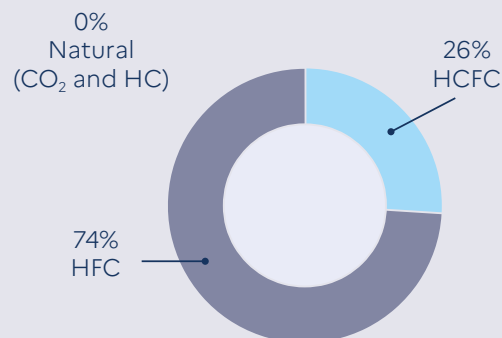
Indicators	Units	2020	2021	2022	Change 2022 vs 2021	Target
Emissions intensity due to refrigerants	kg CO ₂ /m ²	68	58	62	7%	
Intensity of refrigerant consumption	kg/1000 m ²	37	36	40	11%	
Leakage rate	%	19%	19%	20%	1 pt	
Percentage of stores with natural or hybrid refrigeration systems	%	18%	19%	20%	1 pt	
Number of stores equipped with natural refrigeration systems	Units	180	242	227	(6%)	
Number of stores equipped with hybrid refrigeration systems	Units	246	223	298	34%	
Total emissions from refrigerants	tCO ₂ eq	534,557	447,527	464,908	4%	
Reduction in emissions linked to refrigerant fluids (vs 2019)	%	(21)	(34)	(31)	3 pts	-50% in 2030

In view of the Carrefour Taiwan divestiture agreement signed in July 2022, the 2020 and 2021 data has been reprocessed. Data audited with reasonable assurance. Scope: Comparable BUs 2020, 2021, 2022. 77% of consolidated 2022 revenue, incl. VAT. Except Brazil Atacadao

DISTRIBUTION OF REFRIGERANT GASES USED



DISTRIBUTION OF CO₂ EMISSIONS LINKED TO THE REFRIGERANT GASES USED



Carrefour does not use CFC11 type refrigerant gases. In 2018, 2019, 2020, 2021 and 2022, the Group's consumption of CFC11 gases was 0 teq. CFC11.

Energy consumption and store energy efficiency:

Emissions from gas and electricity consumption at integrated stores decreased in 2022, with a 10% decrease in total energy emissions compared with 2021. Energy intensity (per square metre) remained stable compared with 2021.

Indicators	Units	2020	2021	2022	2022/2021 variation	Target
Emissions from gas consumption	tCO ₂ eq	99,001	93,968	80,487	(14%)	
Emissions from fuel oil consumption	tCO ₂ eq	33,407	33,881	36,198	7%	
Emissions from electricity consumption	tCO ₂ eq	794,276	701,123	631,402	(10%)	
Total emissions linked to energy consumption	tCO₂eq	926,684	828,973	748,087	(10%)	
Energy consumption	GWh					
Intensity of emissions linked to energy consumption	kg CO ₂ /m ²	97	86	84	(2%)	
Energy intensity (monetary) ³	Wh/€	86.36	84.72	70.05	(17%)	
CO ₂ Intensity (monetary) ⁴	gCO ₂ eq/€	17.37	15.89	12.82	(19%)	
Share of renewable electricity in electricity consumption	%	0.2%	0.4%	0.5%	0.1 pt	
Energy intensity	kWh/m ²	480	457	457	0%	
Reduction in energy intensity compared with 2019	% (kWh/m²)	(5)	(9)	(9)	0 pt	(27.5)% in 2030

In view of the Carrefour Taiwan divestiture agreement signed in July 2022, the 2020 and 2021 data has been reprocessed. Data audited with reasonable assurance.

Scopes: 2020 and 2021: 100% of consolidated 2022 revenue incl. VAT: excluding Brazil Supermarkets, 99.5% of consolidated 2022 revenue incl. VAT).

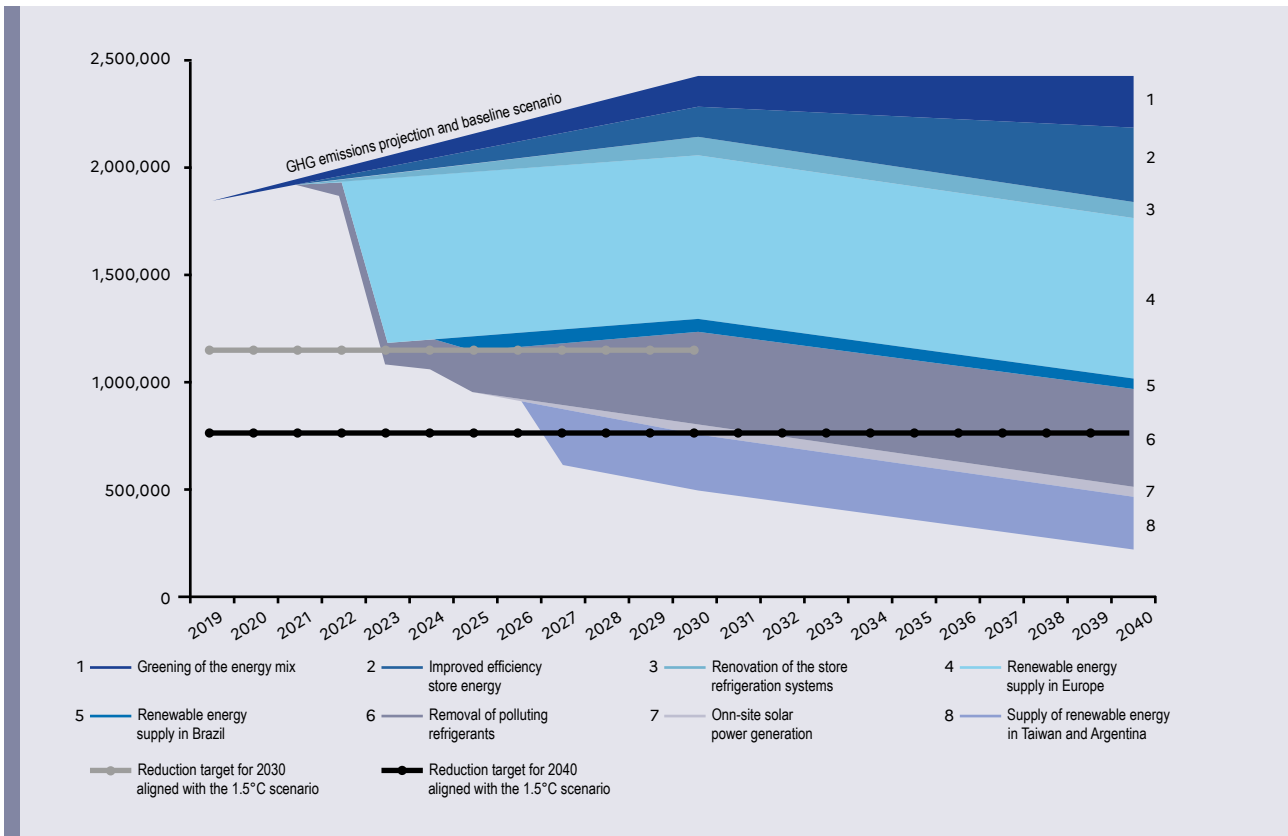
2.3. Our action plans

In 2021, the Group defined the target scenario for achieving its greenhouse gas emission reduction target for its stores. This scenario is based on forecasting the Group's emissions until 2040, based on current emissions and the Group's estimated growth up until that time (Business as Usual + Projected Growth). This scenario breaks down the various actions to be put in place in order to achieve net zero and the reduction in GHG emissions associated with each action.

³ Consolidation scope for scopes 1 and 2: energy consumption and turnover from significant integrated store formats in the eight countries in which the Group operates directly.

⁴ Scope 1 and 2 consolidation scope: GHG emissions in CO₂ equivalent and turnover of significant integrated store formats in the 8 countries where the Group operates directly.

Breakdown of the action plan to achieve net zero through stores by 2040



Help to achieve net zero through integrated stores by 2040 (Scopes 1 & 2)

Use of renewable electricity

The Group is stepping up the amount of electricity that it produces itself on site for its own consumption or for injection back into the grid as a priority. In France, the Carsol project, launched in 2020, has so far equipped seven hypermarkets with photovoltaic power plants. 10% of the consumption (21 GWh) of these stores is covered by this initiative. As of 2022, 18 hypermarkets worldwide were equipped with photovoltaic plants. Within the framework of the Carrefour 2026 plan, the Group plans to speed up development of photovoltaic energy production, with the installation and operation of 4.5 million solar panels on shade structures in its car parks in France, Spain and Brazil. These will account for nearly one TWh of theoretical electricity production per year in 2027. Atacadão in Brazil has also initiated a plan to develop solar panels with a store equipped in 2022 and several others are expected in 2023. In Europe, five shops are equipped with solar panels in Poland, four in Belgium and one in Italy.

In order to achieve its target of 100% renewable electricity by 2030, Carrefour will also enter into Power Purchase Agreements (PPA).

Reduction in energy consumption

Since 2013, Carrefour has been implementing a global strategic plan designed to encourage the whole Group to become more energy efficient. Group countries have been issued with a list of five priority in-store action and technology recommendations: phasing out high-impact HFC refrigerants for cooling systems, installing doors for cooling systems to limit coolant fluid leaks, using electronic speed controllers, low-power LED lighting and sub-metering systems. As part of the Carrefour 2026 strategic plan and in order to accelerate the Group's energy transition, Carrefour is doubling its investments in reducing its energy consumption to €200 million per year from 2023 to 2026. This will reduce its consumption by 20% by 2026 at Group level. And France will reach this 20% target by 2024.

In Europe, France, Italy and Belgium are ISO 50001 (Energy Management) certified for their integrated shops (hypermarkets and supermarkets), as well as for head offices and warehouses. This represents 35% of the total sales area of the Group's integrated hypermarkets and supermarkets.

Reducing emissions linked to the use of refrigerants

The Group has committed to replacing 'refrigeration' equipment with installations that use natural fluids (CO₂) and which generate significantly lower emissions by 2030 in Europe and by 2040 in other geographies.

The enforcement of the F-Gas regulation in Europe aims to phase out hydrofluorocarbon (HFC) refrigerant gases in order to replace them with lower-emitting alternatives. Each country has drawn up its own roadmap in this regard.

In France, in order to contribute to the supply of electricity to all, Carrefour is among the signatories of the EcoWatt Charter, a scheme that guides individuals, businesses and communities, helping them to adopt measures to reduce electricity consumption during periods of high demand. A warning system gives information about which times and days people should reduce or postpone their electricity consumption. That way outages can be avoided, or at least their duration can be reduced. Carrefour is the first retailer to sign up to such a scheme. The brand is committed to reducing its energy consumption during peak times. It might, for example, lower the lighting in its stores and reduce the heating – that would reduce power by between 2.1 MW and 10 MW. Or it could make its own production capabilities available, which are worth more than 60 MW of electrical power. And customers will be told when the scheme is triggered.

When a CO₂ power plant is replaced, additional energy savings are expected, thanks to the new, more modern power plants, with an estimated 8% reduction in electricity consumption for food refrigeration. Attention is also being paid to limiting refrigerant leakage through improved maintenance and more effective water tightness of installations in all countries.

Typical case of converting store refrigeration systems

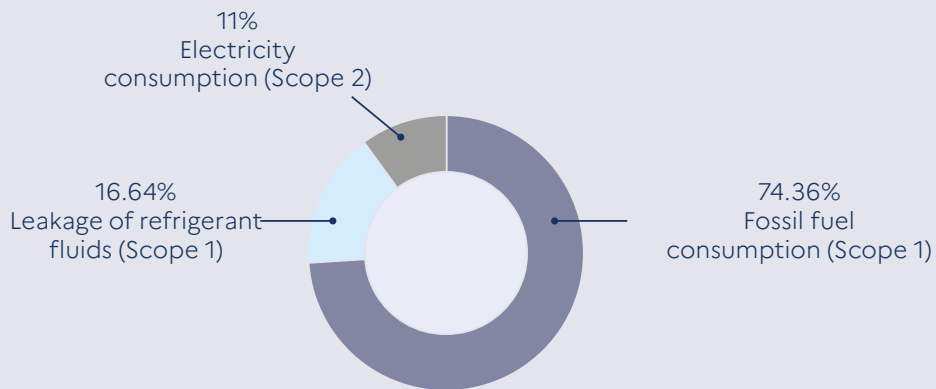
- Comparison between systems using CO₂ and systems using fluorinated refrigerants On average, 1 kg of fluorinated fluids is equivalent to 3000 kg of CO₂ (1 kg of CFC = 6500 kg of CO₂ / 1 kg of HCFC = 1700 kg of CO₂ / 1 kg of HFC = 2700 kg of CO₂).
- Energy savings: A CO₂-based refrigeration system can generate up to 20% savings on a store's annual electricity consumption. For a hypermarket, this represents average savings of 680 MWh per year, and 180 MWh for a supermarket.
- Leakage rate: The leakage rates for natural and fluorinated systems are the same, but the leakage rate is higher for an antiquated fluorinated system than for a new refrigeration system. The leakage of 1 kg of gas from a system using fluorinated fluids is equivalent to the leakage of 3000 kg of gas from a CO₂-based system.
- Efficiency in high temperature countries CO₂ operates at room temperature. In summer (35°C) it uses more energy than HFC and operates at high pressure. In some countries where the average temperature is higher – in Spain, for example – hybrid systems are used which use a mixture of natural and fluorinated fluids with lower emissions.

3. Helping to achieve net zero through e-commerce by 2030 (Scopes 1 & 2)

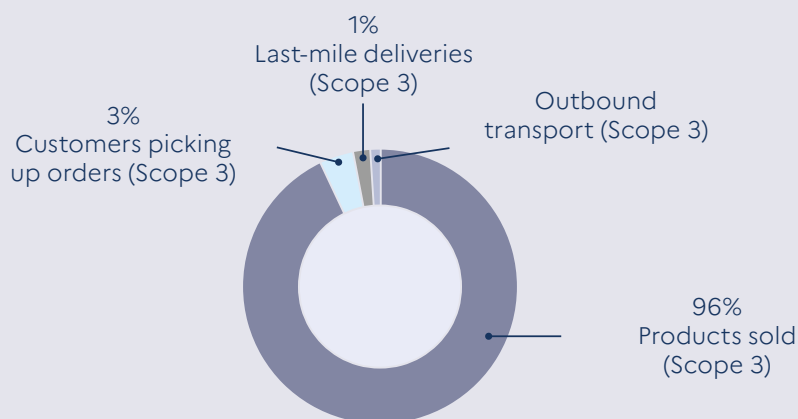
3.1 Our emissions

Carrefour carried out an initial analysis of emissions linked to food e-commerce in France in 2021. Following the mapping of all carbon emissions for e-commerce (from when the customer clicks on Carrefour.fr, right up until the order is picked up from a drive outlet or delivered), the Group has quantified the total CO₂ emissions resulting from all the Group's food e-commerce activities in France (scope 1, 2 and 3 partial-excluding products). Since 2022, Group-wide reporting has been structured for scope 1 and 2, as well as for part of scope 3 by including outbound transport and home delivery.

DISTRIBUTION OF THE CARREFOUR GROUP'S SCOPE 1 AND 2 E-COMMERCE EMISSION CATEGORIES (2022)



DISTRIBUTION OF THE CARREFOUR GROUP'S SCOPE 3 E-COMMERCE EMISSION CATEGORIES (2022)



Scopes 1 and 2 for e-commerce: the Group's direct emissions linked to e-commerce are to do with warehouse operation and stores involved in e-commerce (74.36% linked to fossil fuel consumption, 16.64% linked to refrigerant leakage and 11% linked to electricity consumption). Data from Group-wide reporting conducted on 2022 data.

Scope 3 e-commerce: the Group's indirect e-commerce emissions are as follows:

- 96% of scope 3 emissions are linked to products sold by our e-commerce services throughout the Group, based on an estimate calculated on the basis of 2021 sales.
- 3% of scope 3 emissions are linked to customers travelling to stores to pick up Drive orders, based on an estimate calculated on the basis of the number of Drive orders per format in France in 2021.
- 0.7% of scope 3 emissions are linked to last-mile transport for the purposes of delivering customer orders to their homes, based on data from Group-wide reporting on 2022 data.
- 0.5% of scope 3 emissions are linked to outbound transport for the supply of our e-commerce warehouses and stores, based on data from the Group-wide reporting on 2022 data.

3.2. Our performance

As part of its Digital Retail strategy, the Group is committed to helping to achieve net zero in its e-commerce activities by 2030. This commitment covers e-commerce emissions for scopes 1 and 2. It is part of the Group's overall scope 1 and scope 2 emissions reduction roadmap, with the aim of helping to achieve net zero by 2040 for integrated stores.

Direct emissions from warehouses and stores engaged in e-commerce (scopes 1 and 2)

Indicators	Units	2021	2022	2022/2021
Scope 1 emissions – emissions linked to refrigerants, gas and fuel consumption	tCO ₂ eq	104.489	223.401	114%
Scope 2 emissions - emissions linked to electricity consumption	tCO ₂ eq	26.310	26.457	1%
Share of renewable electricity	%	0.14 %	0.24 %	71%
Scope 1 & 2 emissions	tCO₂eq	126.112	249.858	98%

The increase in greenhouse gas emissions from e-commerce can be explained by the increase in online sales, and thus the weight of the share of emissions from stores involved in this activity. Indeed, growth in business is driven mainly by Brazil and Argentina, along with the greenhouse gas emissions generated. The Group's objective is to triple its e-commerce *Gross Merchandise Value* (GMV) by 2026 compared with 2021, to reach €10 billion.

3.3. Our action plans

The action plan for reducing direct emissions from our e-commerce activities for scopes 1 and 2 is differentiated on the basis of the order preparation logistics circuits:

- For e-commerce emissions generated by stores (supply, order preparation, making orders available), our action plan is that of physical stores insofar as the activity is shared between online and offline sales.
- For e-commerce emissions generated by warehouses (supply, order preparation, making orders available), the action plan covers the reduction of our energy consumption (electricity and fuel), the increase in the share of renewable electricity consumed – in line with the Group's commitments in this respect – and preventing leaks of refrigerants or replacing the refrigeration units with hybrid products or ones that use completely natural coolants.

The 'Responsible e-commerce' roadmap also helps to reduce indirect emissions linked to e-commerce. The action plan is differentiated according to the emissions categories:

- Emissions generated by e-commerce products: Carrefour informs customers about the environmental impact of products purchased and encourages them to purchase products with a reduced environmental impact. Since May 2022, Carrefour.fr has been selling "Mieux Manger" baskets (products can be substituted for others based on nutritional or sustainability criteria).
- Emissions generated by customers travelling to pick up their Drive order from stores: Carrefour informs customers of the environmental impact resulting from having their orders delivered or from them picking them up, so they can make an informed choice.
- Emissions from last-mile transport: Carrefour is increasing the numbers of biomethane and electric vehicles, as well as bikes used for last-mile deliveries. And it is encouraging customers to choose delivery slots with a reduced environmental impact (for example, green delivery slots have been available on Carrefour.fr since the beginning of 2023, and there are incentives for customers to choose certain delivery slots to increase the density of delivery routes and so optimise them).
- Emissions from outbound transport for supplying e-commerce sites: Carrefour is optimising the way in which lorries are loaded and its deliveries. And it is increasing the share of vehicles running on biomethane.

As regards offsetting the impact of e-commerce activities in 2030, the residual emissions from scope 1 and scope 2 e-commerce activities by 2030 will be offset by the financing of carbon sequestration projects in the agriculture and forestry sectors. Carrefour will prioritise compensation across the value chain (insetting).

4. 29% reduction in indirect emissions compared with 2019 (Scope 3)

4.1 Our emissions

In 2019, Carrefour conducted a diagnosis of its indirect emissions linked to the Group's activities. This diagnosis is updated annually so as to refine the way in which the impact is measured. These diagnoses show in 2022 that more than 98% of the Group's GHG emissions are indirect, the main sources being the production of products sold in stores (69%), the use of products sold (18%) and the transport of goods (9%). Since 2019, the Group has carried out a diagnosis of all Scope 3 emissions. This diagnostic has enabled the Group to identify priority emission sources and to assess changes in the Group's footprint in the light of changes in sales and product mix. Scope 3 emissions will increase slightly in 2022 compared with 2019 (+3%). This increase is mainly due to the Group's growth. A decrease of -5% in 2022 compared with 2019 in the intensity of Scope 3 emissions per euro of sales demonstrates a positive trajectory.

2023 diagnosis of indirect greenhouse gas emissions (scope 3)

Category	Part 2022	2022 vs 2021	2022 vs 2019	2022	2021	2020	2019
Total Scope 3 GHG emissions	100%	3%	3%	96 221 746	93 127 603	94 623 340	93 720 243
Scope 3 GHG emissions intensity (gCO2/€)	-	-4%	-5%	10,5	10,9	11,4	11,0
Purchases of goods and services	68,7%	4%	6%	66 101 437	63 642 943	66 271 541	62 378 357
<i>of which Purchases of goods and services - Integrated shops</i>	49,3%	4%	6%	47 460 832	45 695 633	47 582 967	44 787 660
<i>of which Purchases of goods and services - Franchised stores* (in thousands of euros)</i>	19,4%	4%	6%	18 640 605	17 947 310	18 688 575	17 590 697
Use of products sold	18,1%	1%	-8%	17 422 277	17 303 528	15 551 526	18 984 841

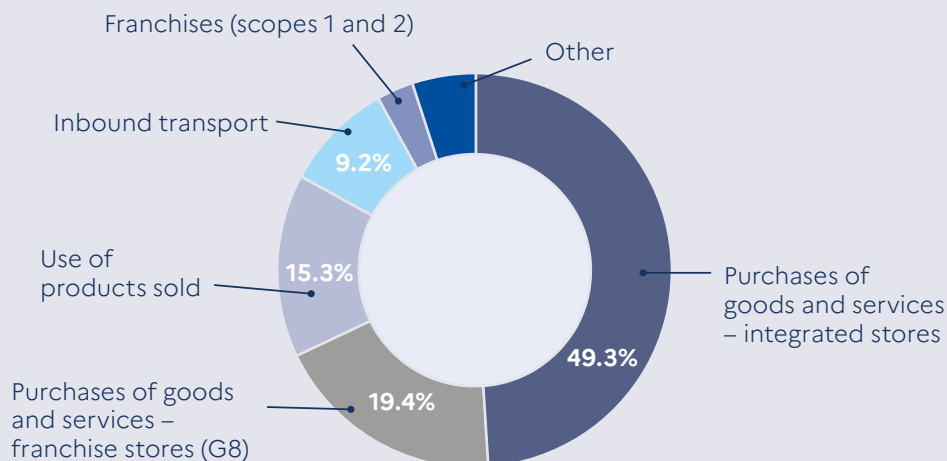
Category	Part 2022	2022 vs 2021	2022 vs 2019	2022	2021	2020	2019
<i>of which Use of products sold - Fuels</i>	15,3%	1%	-10%	14 679 629	15 088 180	13 051 535	16 321 586
<i>of which Use of products sold - Other</i>	2,9%	1%	3%	2 742 648	2 215 348	2 499 991	2 663 255
Inbound transport	9,2%	3%	7%	8 874 671	8 611 858	8 748 466	8 270 488
Franchises	0,9%	7%	-15%	849 512	796 022	1 051 919	998 995
Investments	0,8%	0%	0%	807 300	807 300	807 300	810 000
Purchases of fixed assets	0,6%	39%	-7%	621 000	446 760	585 360	669 960
Waste generated during the activity	0,4%	-8%	-4%	428 516	464 083	482 932	444 410
End of life of products sold	0,3%	27%	28%	308 826	243 588	250 736	240 736
Downstream transport	0,3%	-4%	-13%	294 193	306 872	332 531	337 095
Downstream rental	0,2%	13%	-17%	208 421	184 668	213 050	252 611
Commuting to and from work	0,2%	-3%	-3%	155 301	159 783	161 082	160 642
Upstream energy emissions	0,2%	-6%	-13%	144 801	154 548	161 200	166 427
Business travel	0,0%	-3%	-3%	5 492	5 650	5 696	5 681
Upstream rental	NA	-	-	0	0	0	0
Treatment of products sold	NA	-	-	0	0	0	0
Moving customers	Not yet integrated						
Purchases of goods and services from international franchise partners	Not yet integrated						

*excluding international franchises.

Details of scope: Following the agreement to sell the Taiwan BU in 2022, data has been excluded from the scope for all years since 2019. Following the acquisition of Grupo BIG in Brazil in 2022, the data has been restated for all significant scope 3 categories. Since 2019, the data has been restated to take into account the emissions associated with Grupo BIG's activity in the following categories: purchases of goods and services, inbound transport, use of products sold, end-of-life of products sold and purchases of fixed assets.

29% reduction in indirect emissions compared with 2019 (Scope 3)

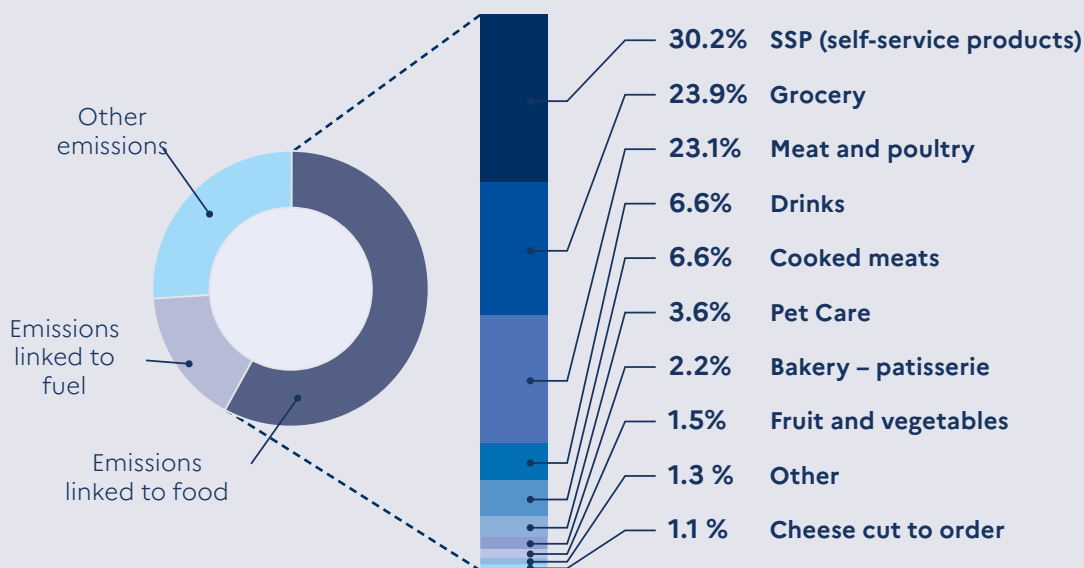
DISTRIBUTION OF SCOPE 3 EMISSIONS IN 2022



Scope 3 data for the Carrefour Group constitutes the best possible estimates, and is the result of currently available methodologies, in particular regarding the impact of products sold. Carrefour is continuously working with experts and suppliers on improving this reporting. The data available does not yet provide a detailed account of the actions implemented by the Group or by the suppliers (e.g.: tackling deforestation, agricultural practices, reducing packaging, etc). This data cannot therefore be used as a performance indicator, but it does provide a more accurate picture of the Group's footprint. The methodologies used to estimate GHG emissions are described in section 6.1.

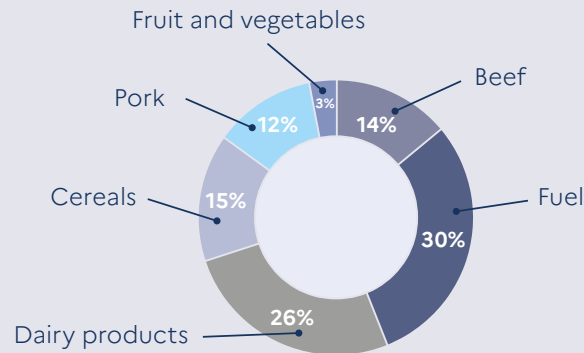
Purchases of food goods and services are the main source of emissions: 80% of emissions in 2021. Within this scope, the main categories are shown in the figure below.

DISTRIBUTION OF SCOPE 3 EMISSIONS IN 2022 AND FOCUS ON FOOD PRODUCTS



The Group identified six priority product categories responsible for 50% of Carrefour's scope 3 emissions. These categories will be the focus of specific action plans. The graph below shows the share of each of these six categories (for a total of 50% of the Group's scope 3 emissions).

PRIORITY PRODUCT CATEGORIES REPRESENTING 55% OF THE GROUP'S TOTAL SCOPE 3 EMISSIONS



The remaining 45% are subcategories, which are considered individually and are not significant for the Group. By way of example, this category comprises other emissions resulting from food products, other emissions linked to the use of products sold, emissions linked to investments by Carrefour Banque, upstream emissions from energy, etc.

4.2. Our performance

Emissions linked to products:

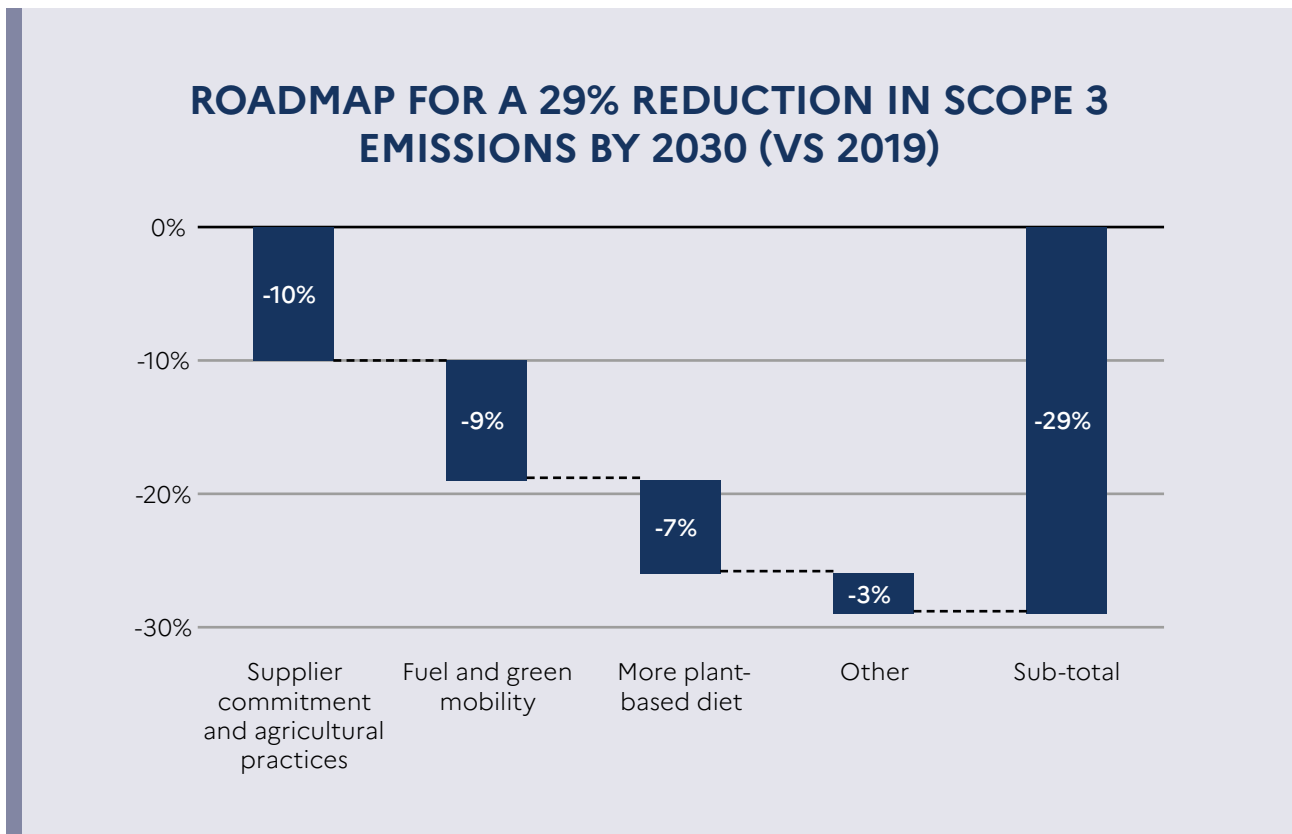
Indicators	2020	2021	2022	2022/2021	Target
Number of Food Transition Pact partner suppliers	26	114	204	79%	500 by 2030
Share of suppliers committed to a 1.5°C trajectory	-	New	34%	-	100% by 2026
Number of partner producers	36,277	38,580	37,758	(2)%	50,000 by 2026
Percentage of Carrefour Quality Line products engaged in an agroecological approach	-	<i>Reporting methodology currently being developed</i>	6.5%	-	100% by 2025
Percentage of sensitive raw materials covered by an action plan to tackle deforestation	New	55%	61%	6%	100% by 2025
Tonnes of packaging saved (total 2017)	6212	11,068	16,390	50%	20,000 by 2025
Percentage of reusable, recyclable or compostable packaging for Carrefour branded products	44%	46%	57%	11 pts	100% by 2025
Percentage of recycled plastics included in the packaging of Carrefour branded products	-	<i>Reporting methodology currently being developed</i>	7.7%	-	30% by 2025
Percentage reduction in food wastage (kg/m ²) compared with 2016	(28.7) %	(30.7) %	(40) %	+12pts	(50)% by 2025
Percentage of store waste recovery	66.2%	68.2%	74.5%	+6pts	100% by 2025

Emissions linked to outbound transport:

Indicators	Unit	2020	2021	2022	2022/2021 variation	Target
Emissions linked to outbound transport	tCO ₂ eq	332,531	306,872	294,193	(4%)	
Reduction in emissions linked to outbound transport compared with 2019	%	(1.35)	(8.97)	(12.73)	- 3.8 pts	(20)% in 2030 vs 2019
Emissions linked to outbound transport – Diesel	tCO ₂ eq	315,437	296,149	281,758	(5%)	
Emissions linked to outbound transport – electricity	tCO ₂ eq	-	1	1	(26%)	
Emissions linked to outbound transport – biofuel	tCO ₂ eq	17,094	10,340	12,197	18%	
Emissions linked to outbound transport – rail and boat	tCO ₂ eq	-	382	237	(38%)	
Emissions intensity per pallet transported	tCO ₂ eq/pallet	6,4	6.0	5.7	(4%)	
Distance travelled	km	420,283,393	409,202,428	410,072,990	0%	

4.3. Our action plans

The Group has a climate scope 3 action plan to reduce its main indirect emissions, mainly from the products it markets. The levers identified to contribute to the reduction of scope 3 emissions are as follows:



29% reduction in indirect emissions compared with 2019 (Scope 3)

The actions implemented and the commitments associated with each of the categories are as follows:

Priority scope	Contribution 2030 vs 2019	Actions implemented	Commitments contributing to achieving the target
Supplier commitment and agricultural practices	-10%	Encourage suppliers to reduce their GHG emissions by committing to SBTi trajectories.	Top 100 suppliers committed to a trajectory of 1.5°C by 2026 under threat of being delisted
		Work with suppliers – large and small – to implement the food transition and promote low-carbon consumption patterns.	500 suppliers committed to the Food Transition pact and 20 megatonnes saved by 2030
		Develop partnerships with producers to facilitate the transition to low-carbon practices.	50,000 partner producers by 2026
		Promote eco-labels (Bio, FSC, PEFC, etc).	€8 billion in sales of certified sustainable products by 2026
		Tackle deforestation and develop alternatives to soy for animal feed.	100% of forest-sensitive production to be covered by a risk mitigation plan by 2030
		Develop regenerative agriculture and agro-ecology across Carrefour Quality Lines.	All Carrefour Quality Line products to be committed to an agroecological approach by 2025
Fuel and green mobility	-9%	Increase volumes of biofuels. Encourage soft modes of transport and the use of electric vehicles.	27.5% reduction in GHG emissions linked to the use of products sold by 2030 (vs 2019) Installation of 2000 electric charging stations in France by 2023
		Commit our stakeholders to the transition to a more plant-based diet (commercial operations, food transition pact). Foster innovation and develop a comprehensive offering.	Increase sales of plant proteins in Europe to €500 million by 2026 (65% increase compared with 2022)
More plant-based diet	-7%		
Other actions	-3%	Improve the efficiency of outbound transport. Modernise the fleet and develop a fleet of vehicles powered by biomethane.	Reduce GHG emissions linked to outbound transport by 20% by 2030 (vs 2019)
		Reduce waste generation, guarantee sorting of materials for recycling and zero landfill.	All waste to be recovered by 2025
		Take action at all levels to reduce food waste across the value chain, in stores and among consumers.	50% reduction in food waste by 2025
		Reduce the amount of packaging placed on the market, promote reuse and recycling.	100% of Carrefour brand packaging reusable, recyclable or compostable by 2025; 20,000 tonnes of packaging saved including 15,000 tonnes of plastic packaging by 2025 (total since 2017); €150 million in bulk sales and reuse by 2026 (multiplied by 5 compared with 2022)
TOTAL	-29%		

29% reduction in indirect emissions compared with 2019 (Scope 3)

The action plan consists of:

Fuel and green mobility

To address GHG emissions from the combustion of traditional fuels, the Group encourages consumers to choose green-powered vehicles.

In 2022, Carrefour launched **Carrefour Énergies**, an electric charging service for all of its supermarkets and Carrefour Market stores in France. Carrefour is speeding up rollout of infrastructure for charging electric vehicles by gradually building charging stations next to all of its supermarkets and Carrefour Market supermarkets. Between now and 2025, it will build 5000 charging stations to make mobility easier for its customers. This is France's leading electric charging network with more than 700 stations and 5000 actual charging points, half of which are high-power ENEDIS ones. This comprehensive electromobility infrastructure ranges from 22kW to 300kW and has the following features:

- a 22 kW "comfort" charging service that is free for the first hour for customers with loyalty cards or Carrefour PASS cards. So for a period of one hour, customers with city cars can charge their battery for free to up to around 50%;
- a 50 kW to 300 kW ultra-fast charging service. These terminals will deliver a complete recharge in between 20 and 60 minutes, depending on the vehicle;
- a free service for charging soft mobility solutions, such as E-bikes and electric scooters.

A more plant-based diet

Foods of animal origin – particularly red meat, dairy products and farmed shrimp – are generally associated with the highest greenhouse gas emissions. In contrast, foods of plant origin have a lower greenhouse gas intensity⁵. This is why encouraging people to adopt a more plant-based diet is a major issue for Carrefour. This is consistent with a strong societal expectation which sits at the crossroads of major climate issues, the safeguarding of biodiversity, the sharing of resources at global level and major public health issues. This expectation is already reflected in a significant increase in demand that is impacting markets. Carrefour is committed to developing vegetarian ranges with a view to offering an alternative to the consumption of animal proteins. These products are intended for

Carrefour has teamed up with two leading partners to build and operate the electric vehicle charging infrastructure at its stores: ALLEGO for stations next to its supermarkets and DRIVECO for stations next to its Carrefour Market supermarkets.

The first Carrefour Énergies station will be available to customers in the car park of the Troyes - La Chapelle Saint-Luc supermarkets, starting on 8 April 2022. Each supermarket will get an average of ten electric charging spaces, while each supermarket will get five. Customers will be able to access the service via the Carrefour Énergies* mobile app. In 2021 for example, thanks to a partnership with Meridiam, Carrefour Property, the Carrefour Group's property management company, allowed the installation of charging stations in the parking lots of 211 of its supermarkets, worth total investment of €117 million.

All of these initiatives also enable the Group to get ahead when it comes to future regulations, such as the ban on thermal engines in new cars by 2035.

a wide variety of consumers: vegan, vegetarian, people concerned about animal welfare and flexitarian. Carrefour pays great attention to the quality and nutritional profile of these products. As the first French retailer to launch its own vegetarian range, Carrefour now has more than 115 products – the widest vegetarian range available in supermarkets and smaller retail outlets. Since 2021, Carrefour has been speeding up its growth in the imitation meat segment by launching more than 10 innovations to meet consumer demand for eating better and consuming more effectively. For each type of meat or dairy product, there is a plant alternative. These alternative products are available in all the European countries in which the Group operates, and in all formats.

⁵ United Nations, Climate action: Food and climate change: healthier eating for a healthier planet: <https://www.un.org/fr/climatechange/science/climate-issues/food>

Building on its rationale of supporting the food transition for all, Carrefour accelerated the development of its plant-based nutrition in 2022. In March, Carrefour kicked off its new international Plant-based Contest, aimed at the most innovative start-ups involved in producing plant-based food. Start-up companies from all over the world submitted their innovations in plant-based food. Once the contest was over, ten innovations were showcased on Carrefour supermarket and hypermarket shelves, (as well as its e-commerce websites), and consumers got to test them. In November 2022, as part of its Carrefour 2026 strategic plan, Carrefour announced a new ambitious target: increase sales of plant proteins in Europe to €500 million by 2026 (65% increase compared with 2022).

To convert consumers over to a more plant-based diet, Carrefour teamed up with Danone and the WWF for the "Lundi c'est veggie, mais aussi le mardi, mercredi... " campaign (Monday is vegetarian, as are Tuesday, Wednesday, etc.). The purpose of the initiative to promote the consumption of plant-based protein and to get us all onto a more vegetable-based diet. It is being implemented within the framework of the Food Transition Pact, a Carrefour initiative involving 38 international suppliers designed to run concrete projects in areas to do with the climate in particular. Initiatives to encourage more plant-based diets are also being run locally. In Belgium, for example, the product mix includes 179 vegetarian products, and every Thursday, customers can get a 20% discount on the whole vegetarian range at the refrigerated food counter.

Illustration: Encouraging innovation to support the food transition with the launch of the international Plant-Based Contest

Buoyed by its purpose – to facilitate the food transition for everyone – Carrefour has just announced the launch of its new international Plant-Based Contest, which will run from 31 March until 8 May. As part of the contest, start-ups from all over the world interested in showcasing their innovations to promote a plant-based diet will be able to register on a dedicated website. They will then be shortlisted by a panel made up of people committed to a more plant-based diet and will get to take part in the finals on 9 June.

The panel*, chaired by Carine Kraus, the Carrefour Group's Executive Director of Engagement, and Guillaume de Colonges, Executive Director of Merchandise, will include suppliers and partners such as the BEL Group, Unilever via The Vegetarian Butcher, Oatly, Proveg, Daphni Venture Capital, Beyond Animal, Capital V and Unovis.

Once the contest is over, five innovations will be showcased on Carrefour supermarket and hypermarket shells, (as well as its e-commerce websites), and consumers will get to test them.

During the contest, the panel will award prizes to selected start-ups in three categories. These innovations will be assessed on the basis of a set of criteria:

- Range of vegetable protein-based products
- Marketing concept
- Innovative service offering which encourages consumers to transition over to plant-based products.

Agricultural practices and regenerative agriculture

Carrefour has several levers to reduce the scope 3 carbon impact. Carrefour is supporting its organic and Carrefour Quality Lines in order to facilitate implementation of sustainable, environmentally friendly farming practices. In particular, the Group has set itself the target of having all of the products in its Carrefour Quality Lines produced using an agroecological approach by 2025. There are 844 CQL products throughout the world involving a total of 22,176 producers. They are fresh, core-market products that meet strict requirements in terms of traceability, quality and flavour

For more information on agroecology, CQLs and other environmentally friendly agricultural practices, consult the "Protecting biodiversity" report. It can be accessed at the CSR library at <https://www.carrefour.com/fr/bibliotheque-rse>

Supplier engagement: the “20 megatonnes” project and the Food Transition Pact

Special attention is paid to products sold by Carrefour and supplied by leading national brands. Indeed, Carrefour gives preference to the partnership approach for these products with the development of the Food Transition Pact. As of the end of 2022, more than 200 suppliers have signed up to the international pact and local pacts. The Group’s aim is to have 500 suppliers signed up by 2030.

In 2019, Carrefour launched the Food Transition Pact, a network of Carrefour suppliers committed to the food transition for all. The Pact offers a platform for engaging in discussion, sharing best practice, discovering new opportunities for collaboration with Carrefour and sharing progress with consumers. The Pact is structured around four pillars: packaging, biodiversity, climate, health / nutrition. Suppliers (of food or non-food products) wishing to join the Food Transition Pact must submit an ambitious action programme focusing on at least three of the four pillars making up the Pact. This programme is validated by a panel of internal experts, and suppliers are required to report regularly on their progress. Working groups meet throughout the year.

As far as climate is concerned, the 20 megatonnes project, launched in 2020, sets out to encourage suppliers to make commitments to reduce their emissions, measure their progress, involve consumers and suggest patterns of consumption that generate lower CO₂ emissions. In 2021, Carrefour launched a collaborative platform open to all its suppliers on a dedicated website. This platform enables the Carrefour Group to monitor the commitments and progress of its suppliers in tackling global warming and highlight their most innovative actions. It was developed as part of the Food Transition Pact Climate Working Group co-led by PepsiCo. The group is made up of Johnson & Johnson, Essity, Beiersdorf, Mars, Danone, Soufflet, Coca-Cola, Kimberly Clark, Heineken, Reckitt, Innocent, L’Oréal, Kellogg’s, ANDROS and Savenia. Each supplier is able to report its greenhouse gas emissions and reduction targets, as well as the progress it has made in reaching these targets year after year. The method used is aligned with industry benchmarks (Greenhouse Gas Protocol and Carbone Disclosure Project).

Supplier engagement: the commitment of the Group’s 100 largest suppliers

In November 2022, Alexandre Bompard announced Carrefour’s commitment to discontinuing products supplied by our 100 largest suppliers unless they are on a 1.5°C trajectory (as certified by an independent third party) and scheduled to achieve it by 2026. This promise has profound implications for our relationship with our largest suppliers. Carrefour’s 100 suppliers accounted for 11% of its scope 3 emissions and 28% of its total revenue in 2021. Achieving this target will enable it to reduce its scope 3 CO₂ emissions by about 6 megatonnes – that’s a 4.4% reduction in scope 3 emissions as a whole.

Focus on Carrefour & Bel

Innovative trade agreement

Through a business agreement entered into on 1 February 2023, the Bel Group and the Carrefour Group are renewing the foundations of the retailer-manufacturer relationship to enable everyone to enjoy a healthy and sustainable diet and help tackle climate change. The combined measures will form a comprehensive platform for consumers, while protecting the dairy sector and helping to keep global warming to within 1.5°C.

The agreement signed by the two groups covers several areas:

- A broad and diversified product portfolio that meets all consumer needs – in particular, a broader crop offering and formats that meet accessibility requirements across all distribution channels
- Support for the milk sector with an increase in the price of milk in line with the 2023 agreement between Bel and the Association des Producteurs de lait Bel Ouest
- A revision clause factoring in changes in the price of milk, in accordance with the “trickle-down” principle, and in accordance with the principles established by the EGALIM 2 Law
- Managing targets via business indicators, as well as lower carbon footprints for Bel products sold at Carrefour

Outbound transport. Carrefour is aiming for a 20% reduction in transport-related CO₂ emissions by 2030, compared with 2019, by optimising its logistics models and developing alternatives to diesel. All outbound transport logistics providers are committed to Carrefour's greenhouse gas emissions approach. In each country, supply chain teams work closely with carriers to improve truck filling, optimise distances travelled and promote alternative modes of transport, in accordance with the Group's policy. In France, Carrefour is modernising its fleet of 710 lorries (as of the end of 2022) which are now PIEK certified, run on biomethane and generate less pollution and noise (under 60 dB). Increasing numbers of such vehicles feature in the Group's fleet and the total share is expected to reach 24% by the end of 2025 and 30% by the end of 2030.

Carrefour has committed to using alternatives to diesel so that it can phase it out completely by 2030, particularly by expanding its fleet of vehicles running on biomethane – a fuel produced from non-consumable organic waste generated by its stores. Biomethane-powered vehicles eradicate fine particle emissions and cut CO₂ emissions by 75%, as well as reducing noise pollution by 50%.

Miscellaneous initiatives. This category of action, shown under "Other" in the graph above, includes various initiatives to combat the effects of global warming.

- **Challenges linked to deforestation.** Carrefour is implementing a series of action plans to reduce the climate impact of its own brand products. In 2022, the Group accelerated its commitment to responsible raw material sourcing and 61% of its action plans targeting sensitive raw materials have now been deployed (up 6% compared with 2021). This percentage includes the Group's priority raw materials for deforestation, namely palm oil, Brazilian beef, soybeans, cocoa and trader traceability. For more information about the Group's zero deforestation policy and the targets it has set itself, consult the related report on 'Tackling deforestation'. It is available in the Group's CSR library at <https://www.carrefour.com/fr/bibliotheque-rse>
- **Challenges linked to short supply chains and local seasonal products.** By 2026, the Group plans to double the quantities of fruit and vegetable that it sources via short supply chains in Europe (whereby the supplier is located less than 50 km from the store). In France, this nationwide system has gone hand-in-hand with the launch of a fresh local fruit and vegetable format known as 'Potager City'. These new city-centre stores feature highly specialised fresh produce, on sale at prices customers would expect to find at a general store. In Spain, Carrefour promotes seasonal products, while helping to create regional jobs and reduce greenhouse gases. To this end, Carrefour has maintained commercial relationships with more than 1000 Andalusian suppliers, worth some €1.5 billion. To expand its range of local and seasonal products, the Group is committed to entering into contracts in all countries where it operates with 50,000 partner producers by 2026.

In addition to biomethane and in order to completely phase out diesel by 2030, in 2022 Carrefour was involved in bringing France's first hydrogen-powered lorry into service. Supported by an investment plan from the ADEME and born from a consortium between GreenGT, Transports Chabas and Carrefour, this hydrogen-powered electric truck is refrigerated and is used to transport perishable foodstuffs. The target set with the Group is to make two 500-km loops between Salon-de-Provence and Nice every day.

Two other projects are underway designed to enable hydrogen to be used as a fuel: H2Haul, supported by the European Commission, and Hyammed, whose aims are to industrialise the production of heavy hydrogen vehicles and produce enough decarbonised hydrogen in a distribution network to be developed.

- **Issues linked to food wastage and waste recovery.** Carrefour shares the Consumer Goods Forum's goal of reducing food waste by 50% by 2025 (compared with 2016). Carrefour's overall food waste reduction policy is based on three pillars: in-store action, constructive collaboration with suppliers and raising customer awareness. In 2022, the Group's food waste rate stood at (40)% vs 2016 (vs (28)% in 2021) and the quantity of donations was equivalent to 45 million meals worldwide (+3.4% vs 2021). The Group's action plan to tackle food waste is implemented along the entire length of the product's life cycle. From when the store selects the product through to the end of its life – the Group implements solutions to recover foodstuffs. This includes reducing the amount of in-store markdown and making use of food products that do not get sold in stores (e.g. converting them into biomethane). For more information about the Group's initiatives to tackle food waste, see the report on 'Combating food waste'. It is available from the Group's CSR library at <https://www.carrefour.com/fr/bibliotheque-rse>.
- **Issues linked to recovering, reusing and recycling electrical and household products.** Manufacturing electrical and electronic equipment generates significant carbon emissions. For example, a laptop computer is responsible for 169 kg of CO₂ equivalent throughout its life cycle, or a 600 km journey by plane. In France, the Carrefour Group works alongside eco-organisations to collect neon lights and batteries from each integrated store. The Group's hypermarkets recover small and large appliances and, as of 2022, large furniture with no purchase obligation. To encourage consumers to bring their devices back, Carrefour launched television and sound bar recovery campaigns in October in exchange for vouchers. Carrefour is working with Cash Converter on setting up "second-hand" corners in its stores throughout France. So far, 27 second-hand corners have been introduced in hypermarkets with an average area of 100 m² (11 more than in 2021). These second-hand corners give a new lease of life to telephony equipment, small appliances and computer equipment, as well as books, DVDs, games, jewellery and leather goods.
- **Issues linked to promoting low-carbon products:** retail has an important role to play in raising consumer awareness of the importance of responsible eating. This is why in 2021, through a partnership with the WWF, Carrefour France promoted low-carbon vegetarian recipes every month in *Envie de vacances* magazine. These recipes are shared on the page all about [sustainable eating](#) on Carrefour.fr. And in all store formats, Carrefour has a calendar on display letting people know which fruit and vegetables are in season. An experiment is under way in Belgium to guide consumers towards products with low emissions: "Veggie Thursday", which promotes vegetarian products through a loyalty scheme. In France a special catalogue promotes these products. And Carrefour is taking action to steer consumers towards low-carbon alternatives by promoting products on display or on its websites. To promote low-carbon vegetarian products in stores and on the website, Carrefour has made changes to the hierarchy in which products are displayed on its website (it now highlights products that have been awarded an eco-score of A) and has implemented initiatives to flag up certain products visually in stores. The Group has also developed initiatives to promote the consumption of local products. Carrefour has launched the 0 km project, for example, which encourages stores to list and display a range of products made under 30 km away, as well as initiatives celebrating locally made products in all types of Carrefour stores in France: these involve promoting local products and expertise via in-store events and tastings.

5. Adapting to climate change

Carrefour has identified several types of risk associated with climate change, including physical risks affecting stores, regulatory risks, market risks and risks involved in securing raw material supplies (1.3. Risks and opportunities).

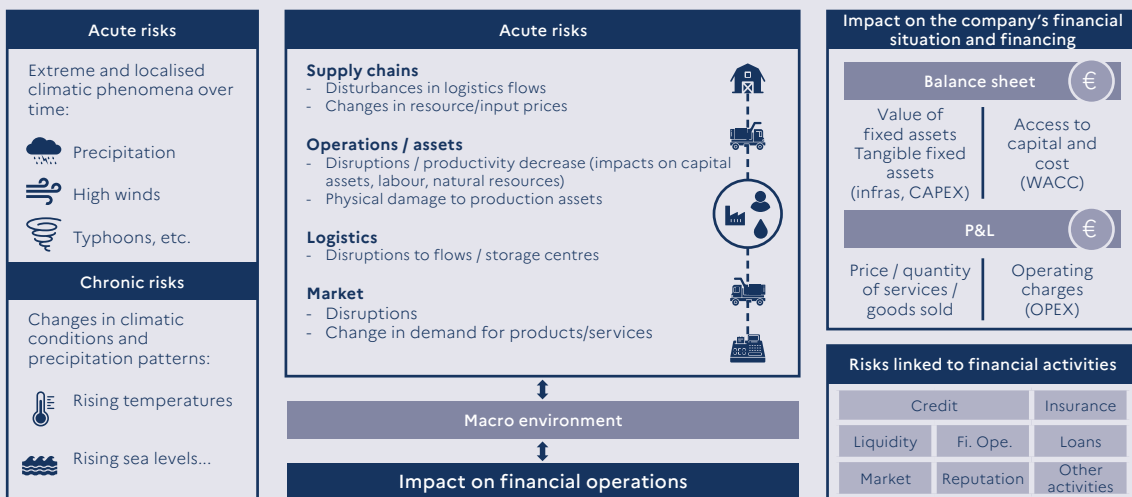
Adapting Carrefour stores to climate change

A study on emerging climate risks was conducted in 2021 and again in 2022 at sites under group banners, warehouses and head offices in the eight countries in which the Group operates directly. The findings of this study present the actual and prospective physical risks affecting Carrefour sites, i.e., the risks associated with weather events that could cause the destruction of buildings and/or disruption to business.

Focus on physical risks

Physical risks resulting from climate change may be linked to events (acute) or longer-term (chronic) changes in climate models. Physical risks can have financial implications for organisations, such as direct damage to assets and indirect impacts due to supply chain disruption. Financial performance may also be affected by changes in water availability, supply and quality, food security, and extreme temperature changes affecting the assets and operations of organisations, the supply chain, transportation needs and employee safety, etc.

In 2021, Carrefour conducted the first risk assessment of climate change on its assets. This study analyses the current exposure of its sites to natural disasters by country and the long-term risks in accordance with the IPCC SPC 4.5 climate scenario. The figure below details the risks and impacts analysed for more than 8000 sites across the Group's integrated countries.



Based on the analysis of current site exposure, river flooding is the predominant acute risk. The main conclusions are as follows:

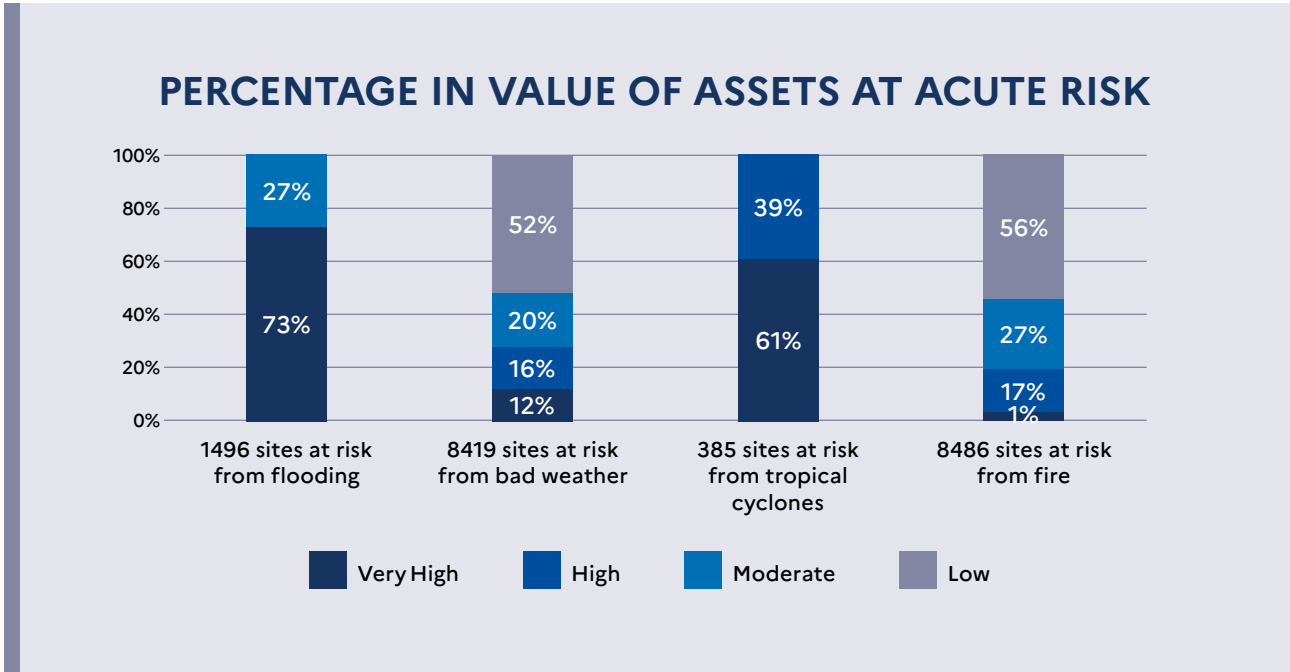
- **Fires:** Overall, Carrefour's current exposure to natural fire risks is relatively low. A few assets in specific countries are slightly more exposed than the rest of the portfolio (Spain in Europe, Argentina and Brazil in Latin America), but the risk is not a major priority for the Group at present.
- **Heat waves:** Similar to fire risks, the Carrefour portfolio's current exposure to heat wave risks is relatively low in Europe. By contrast, some stores in South America are already exposed (Brazil, Northern Argentina).
- **Precipitation and bad weather:** The risks associated with heavy rainfall and bad weather are relatively high for the Group's portfolio, particularly for stores in Taiwan and certain parts of Europe (south-eastern Europe, west coast of the Iberian Peninsula) and South America (northern Brazil, northern Argentina).
- **Rising waters:** the risks linked to rising sea levels and flooding are already high for Carrefour. Areas of northern France, Belgium, as well as the Atlantic coast in France, the Buenos Aires region in Brazil and Taiwan are exposed.

By 2100, river flooding will be the predominant acute risk. Significant chronic risks to Carrefour over the longer term are heat waves, droughts and rising sea levels (see section 4. Adapting to climate change

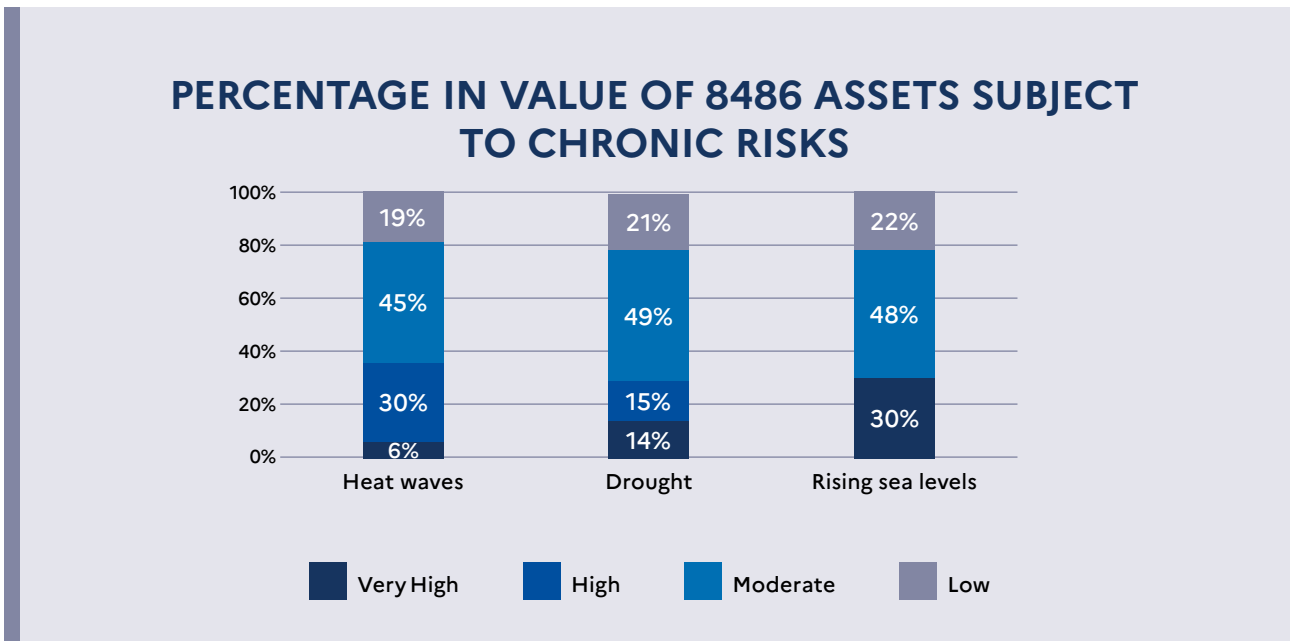
The study concludes with a look at prospective risks in accordance with climate projection scenarios RCP 2.6 - 8.5. By 2100, river flooding is the predominant acute risk in all Group countries, also linked to rising sea levels. Fire risks are low for the Group, while heat

waves are a significant risk for the South American portfolio that can impact employee productivity and store attendance, and lead to losses due to cold chain disruption, as well as air conditioning and refrigeration costs.

Number of sites at acute risk and distribution of risk level in 2100



Distribution of the level of risk for sites at risk of heat waves, drought or rising sea levels in 2100



Risk of heat waves

To tackle the risk of heat waves, Carrefour is investigating some adaptation initiatives to improve the wellbeing and health of its employees and customers,

while reducing the costs and emissions associated with air conditioning and refrigeration. For example, the retailer is thinking about anticipating orders of basic necessity products, modifying store opening hours during heatwaves, rotating employees during hot periods of the day and replacing refrigerants.

Risk of flooding and water shortages

Thanks to this study and a 2020 study analysing water stress and flood indicators (using the WRI's Aqueeduct tools) at Carrefour sites, Carrefour has a comprehensive overview of its sites in flood zones. All Carrefour sites have Business Continuity Plans (BCPs), a common emergency management framework for maintaining site supply in the event of an incident. In addition, Carrefour monitors water consumption in all countries.

Case studies:



Spain: An action plan has been launched to anticipate the consequences of regulations that might be introduced to combat future water shortages. This action plan has been rolled out in all hypermarkets and is currently being applied to supermarkets (297 sites, i.e. 51% of all Spanish sites).



Brazil: Carrefour Brazil conducts online monitoring of water consumption at all of its stores and has started work on upgrading its water supply lines to improve the management of water consumption under the current conditions of growing water scarcity in the country.

Monitoring at-risk raw materials and deploying a procurement strategy appropriate for the risk

The Group monitors raw materials exposed to social and environmental risks in consultation with stakeholder NGOs. The risk of contribution and/or sensitivity to global warming being one of the seven risks considered, together with deforestation, impact on biodiversity and land use, local water consumption and pollution (soil, air, water), human rights and working conditions, living wage and consumer health and safety. A materiality study for the Group is then used to define the raw materials to be prioritised. To date,

action plans have been produced for around ten raw materials exposed to environmental risks (see 3. Low-carbon consumption). This strategy involves co-developing action plans with suppliers, so that less impactful agri-environmental measures can be prioritised, and finding alternative raw materials that are less sensitive to these problems, while at the same time avoiding shifting supply pressures onto these raw materials.

Support for the Group's supplier farmers so as to secure the partnership approach in the long term

Carrefour contributes to the development of local economies and boosts the ecosystems and regions in which it engages in its activities. Each store has the independence necessary to adapt its product assortment portfolio of services to local needs and build close relationships with its customers. Carrefour has therefore set itself the target of having 50,000 regional and local partner producers by 2026 for organic farming and its Carrefour Quality Lines. Carrefour continues to strengthen its partnerships with local businesses around the world. In particular, the Group is committed to helping small and medium-sized companies expand by implementing specific SME plans. These plans are designed to strengthen the way in which Carrefour works with SMEs operating in all sectors, food and non-food. In addition, the Carrefour Group's financial services company Finifac has developed credit solutions for SMEs and farmers.

To develop business with SMEs, each country has implemented project discussions and specific contracts. In France, to facilitate these partnerships, the Group has launched a simplified two-page ultra-local contract template that can be used by all stores. The contracts with these partners guarantee fair prices. Partner producers enjoy special relationships with Carrefour, enshrined by specific multi-year contracts with commitments in relation to price and volume, simplified 48-hour listing terms and faster payments within seven days. In 2022 in France, the Group re-asserted its commitment by signing more than 4038 contracts with local and regional SMEs (representing 3264 suppliers). Carrefour has also made these multi-annual agreements permanent: in 2022, they accounted for 50% of all regional agreements in France. This three-year commitment provides all types of supplier with additional security.

Carrefour also offers financial support for various organic and/or agroecological projects. In 2019, the crowdfunding platform [JeParticipe.carrefour.com](https://www.jeparticipe.carrefour.com) was launched in partnership with MiiMOSA, to fund agricultural projects for the food transition. More than 230 projects had been funded through this platform by the end of 2022. 30 projects have been listed and about 20 events took place in Carrefour stores as part of the Zero Kilometre weeks (June and October 2022). A total of €6.5 million has been raised through this financing method.

Carrefour also invested €5 million in 2021 in the MiiMOSA crowdfunding platform to support the food transition. One year later, 29 projects had been funded through this platform and 52% of these projects are supported by Group suppliers. Through this platform, Carrefour has become the largest private investor in the fund, contributing 10% to all funded projects.

The Carrefour Foundation supports associations that promote agricultural practices such as agroecology, switching over to organic farming and urban agriculture. In 2022, 24 sustainable and community farming projects were funded by the Foundation for a total amount of €2,125,140 (41% of the overall budget). In Belgium, for example, the Carrefour Foundation helps advocate for and train Belgian agricultural stakeholders so as to promote regenerative agriculture alongside three associations (Farming for Climate, Renegacterre and Farm for Good). In Brazil, IDH supports veal producers that respect forest resources. The Carrefour Foundation helps ensure fair and regular remuneration for producers.

6. Detailed performance and correspondence tables

6.1 Methodology and performance evaluation

Performance evaluation Quarterly reporting is conducted in all of the Group's eight integrated countries to ensure that the situation is properly assessed with regard to the environmental issues identified. The Group's CSR teams regularly review the performance of the Group's countries in order to ensure that the objectives of the CSR index and food transition are properly implemented. Audits are conducted by an independent third-party organisation twice a year to confirm the reliability of the consolidated data for the Group.

Carrefour fills in questionnaires from rating agencies in order to assess its economic, social and governance performance. In 2022, the Group received an "A" rating from the Carbon Disclosure Project (CDP) for its commitment to combatting global warming.

Reporting methodology – Carbon assessment

Scope and Method

The group uses the GHG protocol methodology to calculate its carbon assessment for scopes 1, 2 and 3. The carbon assessment covers emissions associated with the Carrefour Group's activity over the entire calendar year from 1 January to 31 December.

The Group's activities include retail, financial and merchant services (Carrefour Banque and Carrefour Voyages), logistics and supply chain, as well as property. Due to the significance of their emissions for the Group, certain activities were not included in the scope when conducting the assessment. These are financial and merchant services, and particularly the activities of Carrefour Voyages and Carrefour Banque, as well as the activities of franchisees outside the Group's eight integrated countries. Operating operational expenses (e.g. delivery of services) were excluded from the perimeter.

Breakdown of emissions sources in compliance with the GHG Protocol methodology

Scope 1	<p>Direct emissions:</p> <ul style="list-style-type: none"> ● Emissions generated by the leakage of refrigerant gases in Carrefour stores: <ul style="list-style-type: none"> ■ Refrigerant refill data (for food cooling or store air conditioning)(kg fluid) ■ Emissions factors from the IPCC (Intergovernmental Panel on Climate Change) ● Emissions from liquefied petroleum gas (LPG) consumption: <ul style="list-style-type: none"> ■ Data about MWh of HHV consumed ■ Emissions factors from DEFRA (Department for Environment, Food & Rural Affairs - UK) ● Emissions from natural gas consumption: <ul style="list-style-type: none"> ■ Data about MWh consumed ■ Emissions factors from DEFRA (Department for Environment, Food & Rural Affairs - UK) ● Emissions generated by fuel consumption for stores: <ul style="list-style-type: none"> ■ Data about MWh consumed ■ Emissions factors from DEFRA (Department for Environment, Food & Rural Affairs - UK)
Scope 2	<p>Indirect emissions:</p> <ul style="list-style-type: none"> ● Emissions from electricity consumption: <ul style="list-style-type: none"> ■ Data about MWh consumed ■ Emission factors from: <ul style="list-style-type: none"> ○ The AIB for European residual mixes ○ The Ministry of Science, Technology and Innovation in Brazil ○ The transparency report on climate, based on CAMMESA data for Argentina

Scope 3

The following items have been taken into account:

- Purchases of goods and services: This item takes into account emissions linked to the purchase of goods and services for all shops under the Group's banners, both integrated and franchised, in the 8 countries in which the Group operates directly.
- Upstream energy emissions
- Upstream transport
- Waste generated during operations
- Employees commuting to and from work
- Business travel
- Downstream transport
- Use of products sold
- End of life of products sold
- Downstream rental
- Franchises: Scopes 1 and 2 for franchised shops, corresponding to emissions linked to energy consumption and the use of refrigerants. This figure takes into account consumption by franchised shops in the 8 countries in which the Group operates directly, as well as by franchised shops in partner countries.
- Capital expenditure
- Purchases of fixed assets

Upstream leasing and the processing of products sold have been excluded as they are not relevant to the Carrefour Group's business. Customer travel has not been included in the analysis at this stage due to a lack of data. Data concerning purchases of goods and services by franchised shops in partner countries are not included.

Scope 3 data (excluding downstream transport) has been calculated on the basis of operational activity data for France (e.g. units of products purchased for the main product categories) and Agribalyse emission factors relating to the "Transport" stage. For other countries, emissions have been extrapolated on the basis of data calculated for France and financial data.

E-commerce data reporting methodology

The reporting methodology used is based on the organisational logistics structure of the e-commerce site and differs depending on the order picking route. If all or part of a country's e-commerce orders are prepared in an e-commerce order preparation warehouse, we collect all data on energy consumption and refrigerant leakage from the warehouses concerned. If all or part of a country's e-commerce orders are prepared in stores, then we collect all data on energy consumption and refrigerant leakage from the stores concerned as a proportion of the share of e-commerce revenue generated by the stores. Data for downstream transport is calculated on a pro rata basis as a proportion of the country's share of e-commerce revenue. Finally, the transport data for last-mile deliveries are collected for each country on the basis of actual data (this transport being specific to e-commerce activity).

6.2 Scope 2 emissions categories and calculation methodology

Scope 3 emissions categories	Calculation methodology
Purchases of goods and services	<p>Food: The calculation of emissions begins with France. It has been possible to determine the tonnages of products within this perimeter, as well as the associated ex-cash sales excluding tax (€) for 53 food categories. Combined with this base, the use of Agribalyse Emission Factors (agricultural, processing and packaging stages) provides 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, readjusted using Purchasing Power Parity by country, is used to calculate the GHG footprint of all the countries in which the Group operates (Brazil, Spain, Belgium, Italy, Romania, Argentina and Poland).</p> <p>Non-food: The calculation of emissions begins with France. Within this perimeter, the data is provided in units sold associated with sales ex-case excluding tax (€) for 45 categories. Combined with this base, the use of Emission Factors from the Empreinte Base (ADEME, excluding transport) gives 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, readjusted using Purchasing Power Parity by country, is used to calculate the GHG footprint of all the countries in which the Group operates (Brazil, Spain, Belgium, Italy, Romania, Argentina and Poland).</p>
Purchases of fixed assets	Emissions are calculated using total operating investments associated with ADEME monetary emission factors.
Upstream energy emissions	Emissions are calculated on the basis of the Group's energy consumption combined with the upstream and downstream components of the ADEME energy emission factors.
Inbound transport	<p>Food: Emissions are calculated on the basis of data on purchases of goods and services associated with the "Upstream transport" part of the Agribalyse emission factors.</p> <p>Non-food: Emissions are calculated on the basis of data on purchases of goods and services associated with the "Inbound transport" part of the emission factors in the Empreinte database (ADEME).</p>
Waste generated during the activity	Emissions are calculated using data on waste generated during the activity at global level, combined with emission factors from the Empreinte database (ADEME) corresponding to the different types of waste and Ecoinvent 3.4 (other waste).
Commuting to and from work	Emissions are calculated using the number of Global employees combined with an ADEME emission factor for commuting.
Business travel	Emissions are reported by the agency responsible for business travel in France. These emissions are then extrapolated to the global level via sales.
Downstream transport	These data are calculated using operational reporting carried out in all the Group's countries. Downstream transport data has been calculated using operational data for the entire Group. Data on litres consumed (L) OR, failing this, data on distances travelled (km) x national emission factor or one provided by the transporter and, failing this, standard DEFRA (Department for Environment, Food & Rural Affairs - UK) emission factors.
Use of products sold - Fuels	The data is calculated for France using the volumes sold by fuel type combined with the ADEME EFs corresponding to the fuel type. Emissions are then extrapolated to global level using sales per country per fuel type.
Use of products sold - Other	<p>Travel agency: emissions are calculated using the Carrefour travel agency's sales in France combined with an ADEME monetary emission factor for air transport.</p> <p>Using EPCS: emissions have been calculated using sales data, excluding VAT, divided into 14 categories. Each category (e.g. camera, loudspeaker, refrigerator, etc.) 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 associated with ADEME emission factors relating to energy consumption.</p>

Scope 3 emissions categories	Calculation methodology
End of life of products sold	<p>Packaging and EPCS placed on the market: Emissions are first calculated for the France 2022 scope using the CITEO declaration, in which the quantities of packaging are associated with emission factors from the Empreinte database by corresponding type of packaging. These emissions are then extrapolated to the France perimeter via pre-tax sales in 2021, 2020 and 2019, and then to the global perimeter.</p> <p>Food waste: A quantity of food waste is calculated for France using data on purchases of goods and services combined with UN data on household food waste. These tonnes are then associated with an emission factor from the footprint database (putrescible waste) and then extrapolated to the global level based on pre-tax sales.</p>
Downstream rental	Emissions are calculated using the surface area leased by Carrefour, combined with the group's Scope 1 and 2 on the m2 occupied by the group.
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.
Investments	Emissions are calculated using Carrefour Life Insurance data combined with a monetary emissions factor from ADEME.

6.3 TCFD correspondence table

TCFD recommendations	TCFD subcategories	URD	This report	Other sources
Governance				
Disclose the organisation's governance around climate-related risks and opportunities.	a) Describe the board's oversight of climate-related risks and opportunities.	2.2.1 Governance and methodology of the vigilance plan and CSR 2.1.3.1 Summary of objectives	1.5. Our organisational structure	CDP Climate: C1.1a, C1.1.b
	Processes and frequency by which the board and/or board committees (e.g., audit, risk, or other committees) are informed about climate-related issues	2.1.1.1 CSR method	1.5. Our organisational structure	CDP Climate: C1.1.b
	Whether the board and/or board committees consider climate-related issues when: 1. Reviewing and guiding strategy: major plans of action, risk management policies, annual budgets, and business plans as well as 2. Setting the organisation's performance objectives, monitoring implementation and performance, and 3. Overseeing major capital expenditures, acquisitions, and divestitures	2.2.1.1 CSR governance	1.5. Our organisational structure	CDP Climate: C1.1.b
	How the board monitors and oversees progress against goals and targets for addressing climate-related issues	2.1.3.1 Summary of objectives	1.5. Our organisational structure	CDP Climate: C1.1a, C1.1.b
	b) Describe management's role in assessing and managing climate-related risks and opportunities.	1.3.1.4 Dialogue with our stakeholders 2.2.1 Governance and methodology of the vigilance plan and CSR	1.5. Our organisational structure	CDP Climate: C1.2, C1.2a
	Whether the organisation has assigned climate-related responsibilities to management-level positions or committees; If so, whether such management positions or committees report to the board or a committee of the board and whether those responsibilities include assessing and/or managing climate-related issues	2.2.1.1 CSR governance 2.2.1.4 Organisation within countries, business lines and stores	1.5. Our organisational structure	CDP Climate: C1.2, C1.2a
	Description of the associated organisational structure(s)	2.2.1.1 CSR governance 2.2.1.4 Organisation within countries, business lines and stores 2.2.1.5 Organisation of stakeholder dialogue and collective initiatives	1.5 Our organisational structure	CDP Climate: C1.2, C1.2a
	Processes by which management is informed about climate-related issues	2.2.1.1 CSR governance	1.5. Our organisational structure	CDP Climate: C1.2, C1.2a
	How management (through specific positions and/or management committees) monitors climate-related issues	1.3.1.4 Dialogue with our stakeholders	1.5. Our organisational structure	CDP Climate: C1.2, C1.2a

TCFD recommendations	TCFD subcategories	URD	This report	Other sources
Strategy				
Disclose the actual and potential impacts of climate-related risks and opportunities on the organisation's businesses, strategy, and financial planning where such information is material.	(a) Describe the climate-related risks and opportunities the organisation has identified over the short, medium, and long term.	1.3.1.4 Dialogue with our stakeholders 2.1.1.2 Content of the Group's CSR risk map 1.2.6 The need to preserve natural resources	1.2. Risks and opportunities linked to climate change 5. Adapting to climate change	CDP Climate: C2.1a, C2.1b, C2.2, C2.2a, C2.4a
	Description of what they consider to be the relevant short, medium, and long-term time horizons, taking into consideration the useful life of the organisation's assets or infrastructure and the fact that climate-related issues often manifest themselves over the medium and longer terms,	1.3.1.4 Dialogue with our stakeholders	1.2. Risks and opportunities linked to climate change 5. Adapting to climate change	CDP Climate: C2.1a
	Description of the specific climate-related issues for each time horizon (short, medium, and long term) that could have a material financial impact on the organisation	-	1.2. Risks and opportunities linked to climate change 5. Adapting to climate change	CDP Climate: C2.1b
	Description of the process(es) used to determine which risks and opportunities could have a material financial impact on the organisation.	1.3.1.4 Dialogue with our stakeholders 2.1.1.2.2 Group's CSR risk map	1.2. Risks and opportunities linked to climate change 5. Adapting to climate change	CDP Climate: C.2.2
	Organisations should consider providing a description of their risks and opportunities by sector and/or geography, as appropriate.	2.1.1.2.3 Definition of Group corporate risks and associated policies 1.2.6 The need to preserve natural resources	1.2. Risks and opportunities linked to climate change 5. Adapting to climate change	CDP Climate: C2.3a, C2.4a
	b) Describe the impact of climate related risks and opportunities on the organisation's businesses, strategy, and financial planning	1.3.2.3 The transformation of production and consumption patterns 2.1.3. Climate	1.2. Risks and opportunities linked to climate change 1.3. Carrefour Group aims and objectives 2. Commitment 1: Help to achieve net zero through integrated stores by 2040 (Scopes 1 & 2) 3. Commitment 2: Help to achieve net zero through e-commerce by 2030 (Scopes 1 & 2) 4. Commitment 3: 29% reduction in indirect emissions compared with 2019 (Scope 3) 5. Adapting to climate change	CDP Climate: C2.3a, C3.3, C3.4, C4.1, C4.3b, C12

TCFD recommendations	TCFD subcategories	URD	This report	Other sources
	Organisations should consider including the impact on their businesses and strategy in the following areas: <ul style="list-style-type: none"> _ Products and services; Supply chain and/or value chain; Adaptation and mitigation activities; Investment in research and development; _ Operations (including types of operations and location of facilities) _ Acquisitions or divestments _ Access to capital 	1.3.2.3 The transformation of production and consumption patterns 2.1.3. Climate	1.2. Risks and opportunities linked to climate change 2.3. Our action plans 3.3. Our action plans 4.3. Our action plans 5. Adapting to climate change	CDP Climate: C3.3
	Organisations should describe how climate-related issues serve as an input to their financial planning process, the time period(s) used, and how these risks and opportunities are prioritised. Organisations' disclosures should reflect a holistic picture of the interdependencies among the factors that affect their ability to create value over time.	-	1.2. Risks and opportunities linked to climate change 5. Adapting to climate change	CDP Climate: C3.4
	Organisations should describe the impact of climate-related issues on their financial performance (e.g., revenues, costs) and financial position (e.g., assets, liabilities) .If climate-related scenarios were used to inform the organisation's strategy and financial planning, such scenarios should be described.	-	1.2. Risks and opportunities linked to climate change 5. Adapting to climate change	CDP Climate: C3.4
	Organisations that have made GHG emissions reduction commitments, operate in jurisdictions that have made such commitments, or have agreed to meet investor expectations regarding GHG emissions reductions should describe their plans for transitioning to a low-carbon economy, which could include GHG emissions targets and specific activities intended to reduce GHG emissions in their operations and value chain or to otherwise support the transition.	2.1.3. Climate	1.3. Carrefour Group aims and objectives 2. Commitment 1: Help to achieve net zero through integrated stores by 2040 (Scopes 1 & 2) 3. Commitment 2: Help to achieve net zero through e-commerce by 2030 (Scopes 1 & 2) 4. Commitment 3: 29% reduction in indirect emissions compared with 2019 (Scope 3)	CDP Climate: C2.2, C4.1, C4.3b, C12
	c) Describe the resilience of the organisation's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	2.1.1.2.2 Group's CSR risk map 2.1.3. Climate 2.2.3.2 Risk prevention and mitigation measures	1.2. Risks and opportunities linked to climate change 1.3. Carrefour Group aims and objectives 2.3. Our action plans 5. Adapting to climate change	CDP Climate: C3.2a, C3.3, C3.4

TCFD recommendations	TCFD subcategories	URD	This report	Other sources
	Organisations should describe how resilient their strategies are to climate related risks and opportunities, taking into consideration a transition to a lower-carbon economy consistent with a 2°C or lower scenario and, where relevant to the organisation, scenarios consistent with increased physical climate-related risks.	2.1.3. Climate 2.2.3.2 Risk prevention and mitigation measures	1.3. Carrefour Group aims and objectives 2.3. Our action plans 5. Adapting to climate change	CDP Climate: C3.2a, C3.2b
	Organisations should consider discussing: (1) where they believe their strategies may be affected by climate-related risks and opportunities; (2) how their strategies might change to address such potential risks and opportunities; (3) the potential impact of climate-related issues on financial performance (e.g., revenues, costs) and financial position (e.g., assets, liabilities); and (4) the climate-related scenarios and associated time horizon(s) considered.	2.1.1.2.2 Group's CSR risk map 2.1.3.1 Summary of objectives	1.2. Risks and opportunities linked to climate change 5. Adapting to climate change	CDP Climate: C3.3, C3.4
Risk Management				
Disclose how the organisation identifies, assesses, and manages climate-related risks.	a) Describe the organisation's processes for identifying and assessing climate-related risks.	1.3.1.4 Dialogue with our stakeholders 2.1.1 CSR method, Risks and Non-Financial Performance 2.1.3.1 Summary of objectives 2.2.2.1 Identification and definition of risks linked to the environment, human rights, people's health and their safety	1. Carrefour Group climate strategy	CDP Climate: C2.1a, C2.1b, C2.2, C12.3a
	Organisations should describe their risk management processes for identifying and assessing climate-related risks. An important aspect of this description is how organisations determine the relative significance of climate-related risks in relation to other risks.	1.3.1.4 Dialogue with our stakeholders 2.2.2.1 Identification and definition of risks linked to the environment, human rights, people's health and their safety 2.1.1.2.1 Group's risk analysis methodology 2.1.1.2.3 Definition of Group corporate risks and associated policies	1.2. Risks and opportunities linked to climate change	CDP Climate: C2.1a, C2.1b, C2.2, C2.2a
	Organisations should describe whether they consider existing and emerging regulatory requirements related to climate change (e.g., limits on emissions) as well as other relevant factors considered.	2.1.3.1 Summary of objectives	1.2. Risks and opportunities linked to climate change	CDP Climate: C2.2a, C12.3a

TCFD recommendations	TCFD subcategories	URD	This report	Other sources
	Organisations should also consider disclosing the following: (1) processes for assessing the potential size and scope of identified climate related risks and (2) definitions of risk terminology used or references to existing risk classification frameworks used.	2.1.1.2.1 Group's risk analysis methodology	1.2. Risks and opportunities linked to climate change 1.3. Carrefour Group aims and objectives	CDP Climate: C2.1a, C2.1b, C2.2
	(b) Describe the organisation's processes for managing climate-related risks.	2.1.1.1 CSR method 2.1.1.2.2 Group's CSR risk map 2.1.3. Climate 2.2.3 Presentation of risk assessment, prevention and mitigation measures	1.2. Risks and opportunities linked to climate change 1.3. Carrefour Group aims and objectives 1.5. Our organisational structure	CDP Climate: C2.2, C2.2a
	Organisations should describe their processes for managing climate-related risks, including how they make decisions to mitigate, transfer, accept, or control those risks. In addition, organisations should describe their processes for prioritizing climate-related risks, including how materiality determinations are made within their organisations.	2.1.1.1 CSR method 2.1.1.2.2 Group's CSR risk map 2.1.3. Climate	1.2. Risks and opportunities linked to climate change 1.3. Carrefour Group aims and objectives 1.5. Our organisational structure	CDP Climate: C2.2, C2.2a
	c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organisation's overall risk management.	2.1.1.2 Content of the Group's CSR risk map 2.2.3 Presentation of risk assessment, prevention and mitigation measures	1.2. Risks and opportunities linked to climate change 1.3. Carrefour Group aims and objectives 1.5. Our organisational structure	CDP Climate: C2.2
	Organisations should describe how their processes for identifying, assessing, and managing climate-related risks are integrated into their overall risk management.	2.1.1.2 Content of the Group's CSR risk map 2.2.3 Presentation of risk assessment, prevention and mitigation measures	1.2. Risks and opportunities linked to climate change 1.3. Carrefour Group aims and objectives 1.5. Our organisational structure	CDP Climate: C2.2
Metrics and Targets				
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	(a) Disclose the metrics used by the organisation to assess climate-related risks and opportunities in line with its strategy and risk management process.	1.1.7 – Social Responsibility – Growth of commitments and results 1.5.5 Non-financial performance summary 2.1.3 Climate	1.3. Carrefour Group aims and objectives 1.5. Our organisational structure 6.1. Performance evaluation 6.2 Detailed data tables	CDP Climate: C4.1a, C4.3a, C4.3c, C8, C11.3a CDP Water: W8.
	Organisations should provide the key metrics used to measure and manage climate-related risks and opportunities as well as metrics consistent with the cross-industry, climate-related metric categories (GHG emissions, transition risks, physical risks, climate related opportunities, capital deployment, internal carbon prices, remuneration). Organisations should consider including metrics on climate-related risks associated with water, energy, land use, and waste management where relevant and applicable.	1.1.7 – Social Responsibility – Growth of commitments and results 1.5.5 Non-financial performance summary	1.3. Carrefour Group aims and objectives 1.5. Our organisational structure 6.2 Detailed data tables	CDP Climate: C4.1, C10.2a CDP Water: W8

TCFD recommendations	TCFD subcategories	URD	This report	Other sources
	Where climate-related issues are material, organisations should consider describing whether and how related performance metrics are incorporated into remuneration policies.	1.5.5 Non-financial performance summary	1.5. Our organisational structure	CDP Climate: C1.3
	Where relevant, organisations should provide their internal carbon prices as well as climate-related opportunity metrics such as revenue from products and services designed for a lower-carbon economy.	-	-	CDP Climate: C11.3
	Metrics should be provided for historical periods to allow for trend analysis. Where appropriate, organisations should consider providing forward-looking metrics for the cross-industry, climate-related metric categories (GHG emissions, transition risks, physical risks, climate related opportunities, capital deployment, internal carbon prices, remuneration) consistent with their business or strategic planning time horizons. In addition, where not apparent, organisations should provide a description of the methodologies used to calculate or estimate climate-related metrics.	2.1.3 Climate	1.5. Our organisational structure 6.1. Performance evaluation 6.2 Detailed data tables	-
	b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks	2.1.3 Climate 2.2.4.3 Summary of vigilance indicators 2.4 Reporting methodology and information verification	2.2 Our performance 3.2 Our performance 4.2 Our performance 6.1. Performance evaluation 6.2 Detailed data tables	CDP Climate: C4.1a, C5, C6, C7
	Organisations should provide their Scope 1 and Scope 2 GHG emissions independent of a materiality assessment, and, if appropriate, Scope 3 GHG emissions and the related risks. All organisations should consider disclosing Scope 3 GHG emissions.	2.1.3 Climate 2.2.4.3 Summary of vigilance indicators	2.2 Our performance 3.2 Our performance 4.2 Our performance 6.2 Detailed data tables	CDP Climate: C4.1a, C6, C7
	GHG emissions should be calculated in line with the GHG Protocol methodology to allow for aggregation and comparability across organisations and jurisdictions. As appropriate, organisations should consider providing related, generally accepted industry-specific GHG efficiency ratios.	2.4 Reporting methodology and information verification	6.1. Performance evaluation	CDP Climate: C5.2, C6.5
	GHG emissions and associated metrics should be provided for historical periods to allow for trend analysis. In addition, where not apparent, organisations should provide a description of the methodologies used to calculate or estimate the metrics	2.1.3 Climate	6.1. Performance evaluation 6.2 Detailed data tables	CDP Climate: C5.1

TCFD recommendations	TCFD subcategories	URD	This report	Other sources
	c) Describe the targets used by the organisation to manage climate-related risks and opportunities and performance against targets.	1.5.5 Non-financial performance summary 2.1.3 Climate 2.2.4.3 Summary of vigilance indicators 2.4 Reporting methodology and information verification	1.3. Carrefour Group aims and objectives 6.1. Performance evaluation 6.2. Detailed data tables	CDP Climate: C4.1a, C6.5, C7.2, C12 CDP Water: W8
	Organisations should describe their key climate-related targets such as those related to GHG emissions, water usage, energy usage, etc., in line with the cross-industry, climate-related metric categories (GHG emissions, transition risks, physical risks, climate related opportunities, capital deployment, internal carbon prices, remuneration) where relevant, and in line with anticipated regulatory requirements or market constraints or other goals. Other goals may include efficiency or financial goals, financial loss tolerances, avoided GHG emissions through the entire product life cycle, or net revenue goals for products and services designed for a low-carbon economy.	1.5.5 Non-financial performance summary 2.1.3 Climate 2.2.4.3 Summary of vigilance indicators	1.3. Carrefour Group aims and objectives 6.2. Detailed data tables	CDP Climate: C4.1a, C12.1a, C12.1b, C12.1d
	In describing their targets, organisations should consider including the following: – whether the target is absolute or intensity based; – time frames over which the target applies; – base year from which progress is measured; and – key performance indicators used to assess progress against target	1.5.5 Non-financial performance summary 2.1.3 Climate 2.2.4.3 Summary of vigilance indicators	1.3. Carrefour Group aims and objectives	CDP Climate: C4.1a CDP Water: W8
	Organisations disclosing medium-term or long-term targets should also disclose associated interim targets in aggregate or by business line, where available.	2.1.3 Climate	1.3. Carrefour Group aims and objectives 2.2 Our emissions	CDP Climate: C4.1a, C4.3a, C4.3b
	Where not apparent, organisations should provide a description of the methodologies used to calculate targets and measures.	2.4 Reporting methodology and information verification	6.1. Performance evaluation	CDP Climate: C5

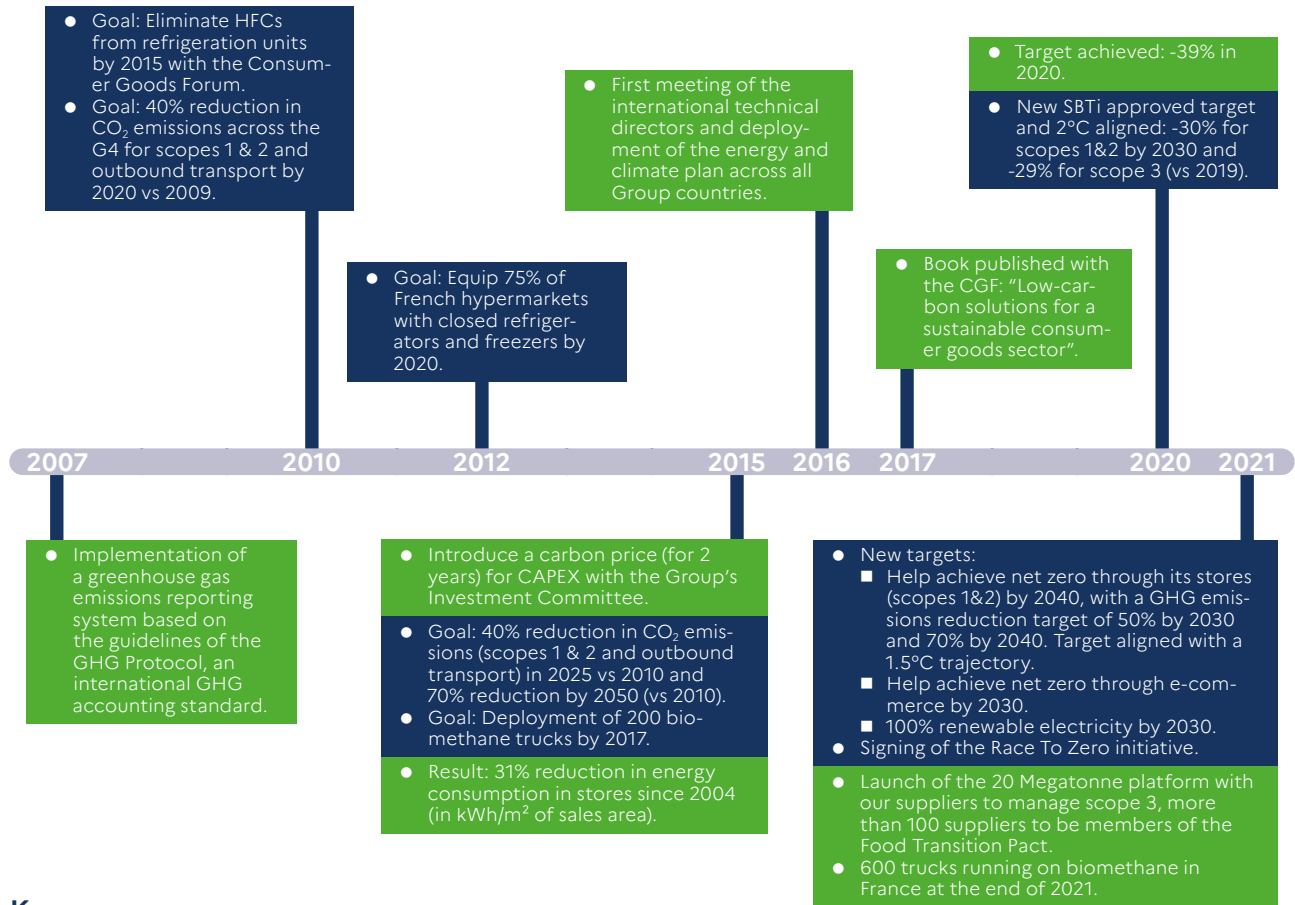
7. Find out more

[Carbon Disclosure project](#)

Other elements

- [Food Transition Pact with suppliers](#)
- [Food Transition Pact's 20 Megatonne Platform](#)
- [Plant-Based Contest](#)

APPENDIX – History of Group commitments

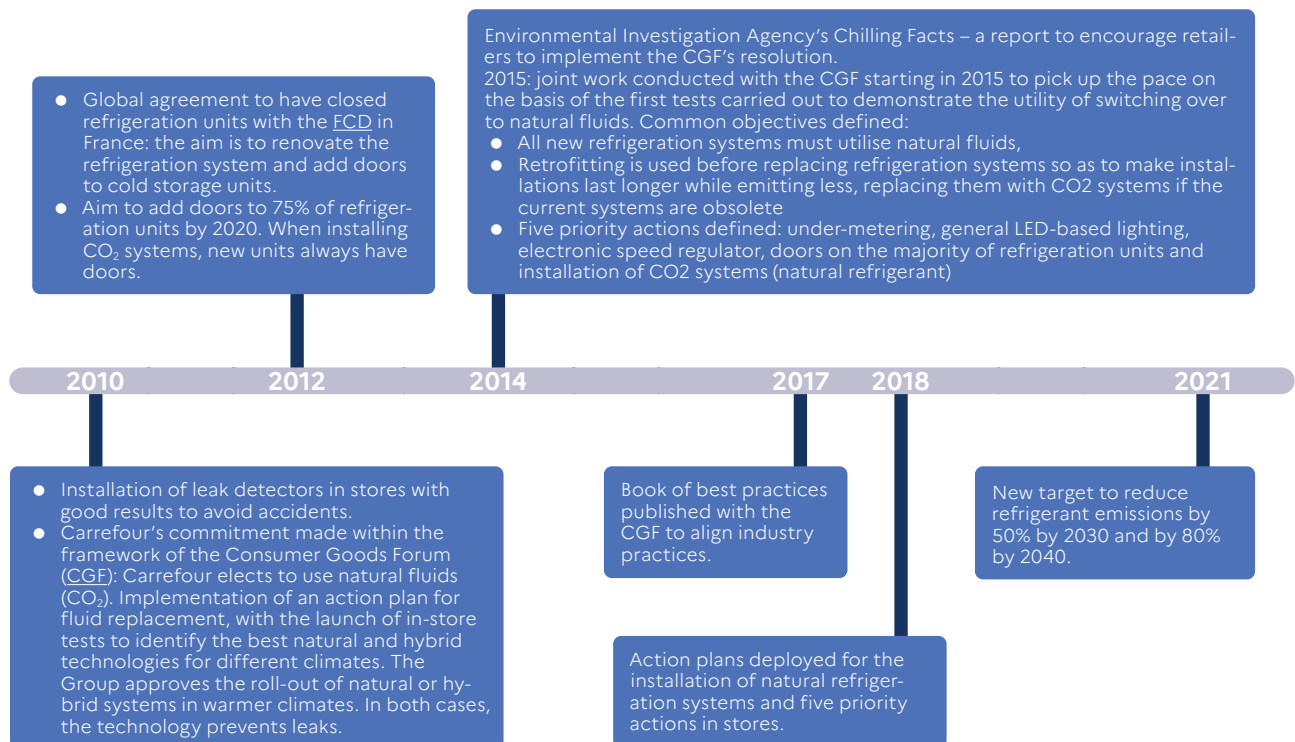


Key:

Target set

Key results / Action taken

History of Carrefour's commitments regarding refrigerants





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