



Guaranteeing product quality, compliance and safety

Context

Consumers no longer tolerate, and will be less likely to tolerate in the future, a lack of assurances about the quality of what they eat. Customers are once again interested in the products that they buy. They want easier access to information and clear quality standards. Carrefour seeks to ensure the quality and safety of its own-brand products, from monitoring logistics to implementing product recall and withdrawal procedures where necessary, and complying with the highest in-store hygiene standards. These issues are crucial for the Group, as they can have a major impact on its reputation and financial performance, and potentially result in Carrefour being held liable.

In line with its *raison d'être*, Carrefour has set itself the aim of providing quality services, products and food that are accessible to all. Accordingly, as part of its mission to “become the leader of the food transition for everyone”, Carrefour wants to meet its customers' expectations in terms of quality and safety, and make healthy, high-quality food available to as many people as possible.

Our aim

Carrefour has put in place processes for ensuring the high quality, compliance and safety of its products, so as to meet three objectives:

- 1 Ensuring the quality and safety of Carrefour products** product quality and food safety right across the production and distribution chain is ensured by Carrefour's product specifications, quality control plans, in-store quality checks and alert and recall systems. Carrefour also seeks to get its customers involved in the continuous improvement of product and process quality (external focus groups, Consumer Service department, etc.).
- 2 Ensuring product transparency and traceability:** Carrefour has developed its use of blockchain technology for comprehensive traceability of food products. The digital traceability system is gradually becoming operational for consumers, who can access the database via a QR Code and consult the data tracked through an interface created by the Group. Blockchain technology ensures that the data contained in records is tamper-proof. This way, information about the line's products can be guaranteed over time. More broadly, Carrefour also uses third-party certifications to provide consumers with guarantees in relation to product quality and traceability. Finally, in a bid to go even further, the Group is testing new innovative traceability solutions, in collaboration with its supply chain stakeholders.
- 3 Eliminating substances considered controversial for people's health and the environment:** Carrefour monitors the situation on an ongoing basis to identify any controversial ingredients which may be in its products. Initiatives are under way in the Group's various countries to eliminate controversial substances, reduce the use of pesticides and exclude GMOs.

Our objectives and performance

Carrefour has implemented a series of requirements and procedures to guarantee the quality and compliance of the products it sells. All sites manufacturing Carrefour-brand products are either certified to international standards by intermediary bodies such as the International Featured Standard British Retail Consortium (83% in 2019), or by Carrefour (17% in 2009). Carrefour's control plans also include consumer panels and analyses of the freshness and origin of products in warehouses and stores.

In addition to guaranteeing high-quality standards, the Group promotes transparency and traceability by applying blockchain technology to its Carrefour Quality Line products. Carrefour is also working to identify and ban controversial substances from its own brands.

Finally, the Group is reducing the use of pesticides by supporting the development of organic farming, with a twofold objective by 2022: to achieve 4.8 billion euros in sales of organic products and to support 500 farmers in their conversion to organic farming. Carrefour is also aiming to increase the penetration rate of its Carrefour Quality Lines to 10% for fresh produce by 2022. See Carrefour.com & CSR Report: "Promoting and developing sustainable agriculture".

TARGETS:

- Have a quality audit carried out on 100% of the supplier base.
- Remove controversial substances from our Carrefour branded products.
- Apply blockchain technology to Carrefour's Quality Line products.
- Organic products: 4.8 billion euros in sales of organic products by 2022.
- Carrefour Quality Line products: 10% Carrefour Quality Lines products within Fresh Products by 2022; 100% of CQL products have a differentiating agri-ecological claim.

Indicators	2017	2018	2019	Change	Target
Number of suppliers – sites ⁽¹⁾	2516	2616	2606	-2.3%	
Number of inspections performed – analyses	49,208	53,451	45,815	-14%	
Number of inspections performed – external panels	4139	3048	3140	+3%	
% of IFS or BRC ⁽¹⁾ certified sites	80	90	83	+7%	100%
% of sites audited by Carrefour ⁽¹⁾ , of which:	20	10	17	+7%	100%
- % of audit scores between A and B ⁽¹⁾	94.3	95.4	95.2	-0.2%	
- % of audit scores between C and D ⁽¹⁾	5.7	4.6	4.8	+0.2%	
Number of products that use blockchain technology	0	6	28	+22	
Sales of organic products (in billions of euros) ⁽²⁾	1.3	1.8	2.3	+27.8%	4.8 in 2022
Penetration rate of Carrefour Quality Lines in fresh products (%)		5.3	6.6	+1.3%	10% in 2022

(1) Scope: Suppliers of Carrefour-brand products purchased by the European purchasing centre.

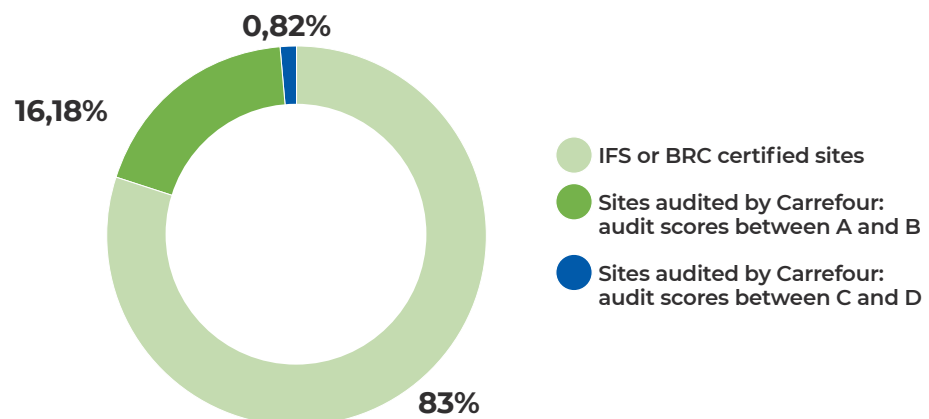
(2) Sales in the food, household and personal care sections.

28
products use blockchain technology
for total transparency

More than
45,000
analyses and 3000 external panels

QUALITY AUDITS OF CARREFOUR'S SUPPLIER BASE

Scope: Suppliers of Carrefour-brand products purchased by the European purchasing center.



Our action plans

The action plans to help us deliver on our aims and achieve our objectives are as follows:

- 1. ENSURE THE QUALITY AND SAFETY OF PRODUCTS**
 - 1.1. Quality procedures and policies
 - 1.2. Crisis management, alerts and product withdrawals
- 2. ENSURE PRODUCT TRANSPARENCY AND TRACEABILITY**
 - 2.1. Blockchain technology
 - 2.2. Certifications, labels and claims
- 3. REMOVE SUBSTANCES THAT ARE CONTROVERSIAL FOR PEOPLE'S HEALTH AND THE ENVIRONMENT**
 - 3.1. Remove controversial food additives from Carrefour-branded products
 - 3.2. Reduce pesticide use
 - 3.3. Exclude GMOs

1. ENSURE THE QUALITY AND SAFETY OF PRODUCTS

The Group's Quality Department has developed numerous standards and tools, including quality charters, which are deployed in all Group countries. The Country Quality Departments are networked through the Quality product line, with regular meetings and discussions held so as to promote the sharing of examples of best practice and ensure a unified approach. The Group also deploys a major training programme for employees and implements regular communication initiatives targeting consumers in relation to food safety

1.1. Quality procedures and policies:

Carrefour works constantly with stakeholders to ensure the quality and safety of its own-brand products, operating a five-part policy that covers the following: supplier compliance with product quality standards, product specifications, quality control plans and customer opinion surveys, in-house competence, and traceability and data tracking.

Five areas	Carrefour Process
<p>Supplier compliance with product quality standards</p>	<p>Inclusion on Carrefour's suppliers list requires a full assessment of compliance with quality, health and safety standards (IFS, BRC), and with Carrefour requirements; In high-risk countries, a specific social audit is carried out.</p> <p>After inclusion, regular audits are performed on the suppliers' premises. If any non-compliance is detected, corrective action plans are implemented, failing which, the supplier is delisted (depending on the type of the non-compliance and its severity).</p>
<p>Individual sets of specifications for each product</p>	<p>Carrefour own-brand products are made according to specifications drawn up by its Quality department. Specifications are shared with suppliers: they detail the origin of the raw material, the recipe, etc. The substances contained in products are monitored on an ongoing basis. Based on established scientific evidence, this monitoring results in detailed risk mapping on a per-category and per-level of criticality basis.</p> <p>Stakeholder input is taken into account: maintaining informal contact with independent scientific experts on certain subjects, monitoring the food industry, conducting interviews with administrations in high-risk countries, monitoring laboratory publications and communicating with health authorities.</p>
<p>Inspection plans and customers' opinions</p>	<p>Quality control plans include:</p> <ul style="list-style-type: none"> → audits of manufacturing sites: All sites manufacturing Carrefour-brand products are either certified to international standards by intermediary bodies such as the International Featured Standard British Retail Consortium (83% in 2019), or by Carrefour (17% in 2009); → products in stores and warehouses are checked for freshness, origin and category; → product analyses: nearly 45,000 analyses were carried out in 2019 across Carrefour's production sites (over 2600 in 2019). Quality data is recorded and processed by Carrefour technical experts; → processes for the withdrawal of non-compliant products. <p>To leverage consumer feedback and get customers on board, input, discussion and awareness-raising channels have been set up:</p> <ul style="list-style-type: none"> → external panels: more than 3100 external panels were conducted in 2019 to test recipes; → consumer service: each year, the consumer service department has an independent body check the quality of the way in which customer requests are handled and identifies any corrective actions needed; → information and awareness-raising campaigns on product quality and nutrition are made available online, on Carrefour product packaging and in guides on responsible consumption and recycling.
<p>In-house competence</p>	<p>Carrefour experts oversee and manage an effective quality approach (experts in health, nutrition, animal welfare, agriculture, packaging, etc.).</p> <p>Training in food safety and Carrefour quality procedures.</p> <p>In-house inspections to check that the quality policy is implemented and understood in each country.</p>
<p>Traceability and monitoring of product data</p>	<p>All data is recorded, processed and monitored using professional tools (TraceOne, quality dashboard, sales monitoring, logistics monitoring, etc.).</p> <p>Implementation of innovative traceability tools such as blockchain technology.</p>

Carrefour is attentive to stakeholder feedback and all other relevant input in its ongoing drive to improve product quality and safety at every stage of the product lifecycle and store operations. For example:

- producers and manufacturers: Carrefour supports its suppliers to meet production criteria in terms of quality, social practices, health and safety. In 2019, 67% of suppliers had been working with Carrefour for over five years and 85% for over two years; long-term, trust-based relationships are an important factor in ensuring Carrefour's effective cooperation with suppliers;
- experts, associations, scientific organisations, NGOs, consumer rights bodies, official services: Carrefour works with civil society to take its expectations into account. Carrefour is regularly informed or questioned on the latest scientific or regulatory advances in the food industry.

1.2. Crisis management, alerts and product withdrawals:

The quality system includes a procedure for rapidly withdrawing potentially dangerous products from stocks and shelves. This procedure is evolving to provide additional and automated solutions to further increase the level of security. In order to guarantee that a non-compliant product is no longer accessible to the end consumer, websites have been set up, for example, to make it easier for the manufacturers concerned to fill in the data needed for the product in question to be withdrawn. They can also target and warn any warehouses and stores likely to have received batches of non-compliant products so they can conscientiously withdraw them. The blocking of recalled products at the checkout is bolstered by EAN barcode identification.

Carrefour's AlertNet international alert system is used to notify all stores promptly about product withdrawals and recalls. The system is available online 24/7 and access is free for suppliers. In the event of an alert, Carrefour immediately withdraws the products concerned, confirms within 24 hours that the withdrawal has taken place and provides feedback as to the product quantities concerned within three working days of the withdrawal order.

Carrefour France has recently reviewed all relevant in-store processes to strengthen product withdrawal and recall procedures. Carrefour has modified certain procedures relating to the management of customer returns to stores, delays during deliveries to warehouses and stores and blocking at checkouts in the event of a withdrawal concerning all batches of a product.

2. ENSURING PRODUCT TRANSPARENCY AND TRACEABILITY

2.1. Blockchain technology:

Eating habits are changing, and customers are beginning to take back control over how they eat. They want clear quality standards and easy access to information throughout the value chain and production process. Traceability offers reassurance about product safety and quality. It also guarantees reliable information on the origin of products, and the farming and production practices. Carrefour is the first European retailer to implement blockchain technology in order to offer full traceability and transparency to its customers.

Blockchain technology ensures transparent, tamper-proof data storage and transmission, and operates without the need for a central control system. Carrefour's secure digital blockchain database provides all those involved in the value chain (in production, processing and retail) with reliable information on the traceability of any given product batch. It improves reliability across the entire production chain and makes product recall operations easier in crisis situations. Carrefour's blockchain programme was designed for sharing traceability information between the operator performing the action, the other partners in the line and Carrefour, but also the consumer – a first in Europe. As well as addressing the growing need for consumer-oriented transparency, it also highlights the work and know-how of livestock and crop farmers. By simply scanning the QR Code on the product label with a smartphone, the customer has instant access to information on the product and its journey from farm to store shelf.

Carrefour is developing the blockchain system within its lines and working to accelerate implementation of this technology around the world, in all lines and all countries. This involves both a Carrefour-specific programme and a wider collective commitment:

- to start with, Carrefour is rolling out blockchain technology across all the Carrefour Quality Lines. Carrefour France launched Europe's first food blockchain with Carrefour Quality Line

Auvergne farmhouse chickens in 2018, and has since extended it to several other lines. As of the end of 2019, blockchain technology been applied to 28 Carrefour Quality Line products in France, Italy, Spain, Brazil, China and Belgium – 22 more than at the end of 2018. The last line announced in December 2019 was an organic wine line in partnership with the Maison Johannes Boubée in France;

- Carrefour is also promoting food traceability worldwide as a member of the IBM Food Trust platform. The aim is to set up a world standard for food traceability covering all the links in the chain from the producer to the store shelf. The IBM Food Trust platform will also help to speed up implementation of blockchain technology in all of the countries in which Carrefour operates. In 2019, it helped to extend the scope of blockchain product traceability with manufacturers such as Nestlé and Unilever joining the programme. Blockchain technology was rolled out to two national brand products in collaboration with Nestlé: Mousline puree and Guigoz infant milk.

Via this collaborative network set up between manufacturers and distributors, essential product safety information can be shared, benefiting consumers:

- traceability on origin and quality;
- nutritional composition and potential presence of allergens and controversial substances;
- traceability shared across the whole supply chain in the event of a product recall, a health issue or non-compliance with specifications or a particular label.

2.2. Certifications, labels and claims:

To provide our consumers with guarantees regarding the quality of our products from an environmental and social point of view, Carrefour also uses third-party certifications. In particular, these certifications provide guarantees covering complex supply chains for which complete traceability of raw materials is not always possible. To be able to display the logo on its product, the manufacturer must meet a set of specifications defined by the label. These will be checked and approved by a third-party body before the certification can be awarded. Products that have been certified in this way are then guaranteed to be of superior quality, and consumers are informed about their differentiating characteristics.

Carrefour ensures that the certifications chosen are reliable, recognised and have been approved by its stakeholders – experts, NGOs, customers, etc. In some cases, the specifications drawn up by the label are not deemed rigorous enough in terms of Carrefour's supply policy. The Group will then make changes to them with its partners and / or set additional criteria.

Certification can be a means of reducing the environmental and social impacts associated with sourcing high-risk raw materials. However, it acknowledges that it does have limitations in terms of its ability to transform the market. This is why Carrefour is seeking to diversify the possible solutions for improving the traceability of raw materials.

→ Geomonitoring, regional surveillance

In order to ensure that its supplies of beef distributed in Brazil do not contribute to deforestation, Carrefour uses a geomonitoring tool. Satellite surveillance of plots of land used for livestock farming reduce the risk of the Amazonian forest being destroyed or of damage to the planet's biodiversity. It also prevents indigenous lands from being used. This country-wide surveillance means that beef supply lines sold in Brazil can be monitored. Carrefour is investigating the use of these tools for other types of commodity. In situations where certification gives rise to a posteriori guarantees, geo-monitoring checks compliance with the specifications drawn up by Carrefour in real time.

3. ELIMINATE THE USE OF SUBSTANCES THAT ARE CONTROVERSIAL FOR PEOPLE'S HEALTH AND THE ENVIRONMENT

3.1. Remove controversial food additives from Carrefour-branded products

Ahead of legislative and regulatory changes, Carrefour has embarked on a worldwide programme to eliminate controversial substances from its products. Carrefour teams work with stakeholders to adapt this programme locally.

In Belgium, Spain, France and Italy, food additives have been analysed in light of:

- whether or not they are authorised by the European Union;
- the opinions of national and international nutrition specialists;
- the Guide to Food Additives by Maria Denil and Paul Lannoye and the New Guide to Additives by Anne-Laure Denans of the La Nutrition collective;
- scientific and media monitoring of controversial substances.

This list of identified additives is constantly being updated. Substances are classified into four categories:

- black: a substance that is now absent from all Carrefour-branded product categories;
- red: substance authorised only in certain categories of products, such as certain dyes in alcohols ;
- orange: a substance that is authorised, but to be replaced if possible;
- green: a substance can be used with no restrictions.

For each black-rated additive, Carrefour analyses the product lines concerned and works with suppliers to find a replacement solution that will retain the same qualities of taste, appearance, preservation and consistency. For example, titanium dioxide (E171) was downgraded from orange to black in 2017 and removed from all Carrefour own-brand products in 2018. As doubts arose as to the safety of this additive, Carrefour anticipated regulatory changes by banning its use in its products. Carrefour has put in place an action plan to eliminate all controversial substances likely to be classified as «black» in the coming years by 2022.

If no replacement solutions are available for certain black-rated substances, Carrefour takes the short-term measure of reducing concentrations pending identification of a satisfactory solution. An example of this is nitrites, which are added to ham as bacteria inhibitors and preservatives. One of Carrefour's goals for 2019 is to find a satisfactory replacement solution for them. If it proves impossible to eliminate them altogether, Carrefour will reduce their concentration in its own-brand cooked meats to the levels specified for organic farming.

3.2. Reducing pesticide use

In order to promote a less pesticide-consuming form of agriculture and so protect consumers' health and safeguard the environment, Carrefour invests in both organic and integrated farming by implementing agro-ecological practices (see Sustainable Agriculture fact sheet).

Carrefour aims to achieve €4.8 billion in sales of organic farming products by 2022. For Carrefour, helping farmers convert to organic farming is a social responsibility characterised by a contractual commitment of 5 to 7 years. The brand wants to support hundreds of producers as they make this profound change in their production or livestock rearing methods. More than 1500 producers and breeders are already partners, including more than 215 new ones in 2018. By 2019, a total of 310 producers benefited from this contract.

Carrefour has also decided to cut out some of the chemical pesticides it uses by increasing use of agro-ecological methods in the manufacture of its Carrefour Quality Line and Reflets de France products. Carrefour has made a commitment with its partner producers: by 2025, 100% of its Carrefour Quality Lines products will be made using agro-ecological methods. In addition, Carrefour wants CQL products to account for 10% of its fresh produce. Concretely in stores: you can find CQL fruit and vegetables that have not undergone any post-harvest treatment (for example: CQL potatoes), strawberries that have not been treated with insecticides once they have flowered and insecticide-free frozen broccoli, as well as pasta and lentils.

3.3. Exclude GMOs

In 1998, Carrefour adopted a policy of excluding GMOs and their derivatives from its own-brand products and from the feed of livestock used in its Carrefour Quality Lines. All Carrefour own-brand products have been free of genetically modified ingredients since 1999. Since 2010, more than 350 own-brand and Carrefour Quality Line products of animal origin have been produced using animals fed without GMOs.

Carrefour supports the production of GMO-free soy. The Group developed an initial GMO-free animal feed soy line for Carrefour Quality Line products in Brazil in 2000, followed by a French line in 2017.

CASE STUDY

For a more responsible supply of alcohol

As part of its commitment to the Federation of Commerce and Distribution (FCD, federating 50 brands), Carrefour signed a Charter of Responsible Commitments on the sale of alcohol in April 2019 alongside the Interministerial Mission for Combating Drugs and Addictive Behaviours (MILDECA).

The purpose of this Charter of commitments is to ensure that alcohol is sold more responsibly by involving retail professionals and the government and enabling them to better inform their employees, raise customers' awareness, modernise the information on display and investigate ways of improving the checks made at store checkouts. These four areas of work, which have emerged from a consensus between the federations and their member brands, aim to:

- more effectively share information about new lower-risk consumption benchmarks:
 - commitment by distributors to relay, via their communications aids, the new low-risk consumption benchmarks: «To safeguard your health, you should have no more than two glasses of alcohol per day, and not every day»,
 - to make it easier to appropriate these new benchmarks while informing consumers about the quantities of alcohol that they are likely to absorb, retailers undertake to display information about the units of alcohol contained in a standard glass – depending on the type of beverage – on the containers of own-brand alcoholic beverages (1 unit = 10 g of pure alcohol);
- strengthen the protective ban on the sale of alcohol to minors:
 - Display on sales documentation (prospectuses, flyers, posters, point-of-sale advertising aids, etc.) relating to alcoholic products of a logo shared by all retailers: «Not for sale to people under 18»,
 - commitment to investigate the options to automatically prevent the sale of alcohol to a minor when payment is made by credit or debit card, loyalty card or any other means of payment;
- support store or web offerings:
 - to increase the efficacy of official communications, retailers undertake to relay current and future campaigns implemented by the state authorities about the risks of consuming alcohol and it being prohibited to sell it to minors via their own communications aids;
- bolster staff training:
 - review, update and standardise the contents of basic training for new recruits and information for existing staff, particularly checkout staff and staff working in beverage sections,
 - design and distribution of a best practice guide.

Our organisation



SCOPE

The Carrefour Group's quality, compliance and safety policies are applied in all the countries in which Carrefour operates:

- on all products tested for product specifications;
- in all integrated and franchised stores for applicable in-store policies and procedures (controls, withdrawals, etc.).



FOR FURTHER INFORMATION

- Carrefour.com & CSR Report: What about a healthier diet?
- Carrefour.com & CSR Report: Promoting sustainable agriculture.
- Blockchain technology:
 - Mousline Puree (Nestlé): <https://www.carrefour.com/fr/newsroom/blockchain-carrefour-nestle-la-technologie-au-service-de-la-transparence-alimentaire-avec>
 - Rocamadour: <https://www.carrefour.com/fr/newsroom/carrefour-deploie-sa-huitieme-blockchain-avec-le-rocamadour-premier-fromage-filiere>
 - Micro-filtered milk: <https://www.carrefour.com/fr/newsroom/carrefour-deploie-la-technologie-blockchain-au-lait-frais-entier-microfiltre-filiere>
- List of controversial substances banned from Carrefour products in France: <https://actforfood.carrefour.fr/files/Liste-des-100-substances-controversees-bannies-des-produits-Carrefour.pdf>
- MILDECA Charter: http://www.fcd.fr/media/filer_public/62/09/620940fc-c2e2-4f7b-97d1-28556b016168/charte_fcd_engagements_prevention_consommation_alcool.pdf