



REVIEW AND CHANGES IN ADDITIVE USE IN FRENCH PROCESSED FOOD PRODUCTS

Oqali



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SUMMARY

Methodological preamble

Since 2008, Oqali has been conducting studies to characterise the nutritional quality of processed food products on the French market, both in terms of the information available on the packaging and the nutritional composition of the products. Following on from the first study in 2012 on ingredients, this work, which was carried out on all French processed product sectors except confectionery¹, aimed to process the information available in the ingredient lists, in order to:

- **conduct a descriptive review of the presence frequencies of food additives** in processed food products, based on 30,125 products collected between 2008 and 2016;
- **monitor changes in the use of food additives**, in processed food products collected between 2008 and 2016 for which updated data are available.

Whenever an additive is used in a product, European regulations² require it to be included in the ingredient list, with the name of the functional class followed by either the EU identification code (beginning with the letter "E" and followed by a number) or the specific additive name. The ingredient lists of the products considered were used to identify ingredients as mentioned on the product packaging whose names corresponded to additives according to Regulation (EC) No 1333/2008³, without considering the regulatory authorisations for use in foods and conditions of use. Based on the information available in the ingredient lists, for the same ingredient wording it is sometimes difficult to determine whether the ingredient is used as an additive or a fortification substance (for example, ascorbic acid). For this report and these substances, it was decided, by (chosen) convention, to assume that all ingredient names corresponded to additive names whenever they did not specify their use as a vitamin or mineral, given that the functional class was not always mentioned. For example, the ingredient "vitamin C" was regarded as a vitamin and was not therefore listed as an additive in this study, whereas the ingredients "antioxidant: ascorbic acid", "antioxidant: vitamin C", "antioxidant: E300" or "ascorbic acid" without further clarification were regarded as additives. This implies a potential underestimation of the presence frequencies of ingredients corresponding to additive names that may also be used as vitamins or minerals for fortification.

¹ Note that confectionery sector products – which were undergoing analysis at the time of this study – have not been included, even though they contain additives such as colours.

² Regulation (EU) No 1169/2011 of the European Parliament and of the Council on the provision of food information to consumers. Official Journal of the European Union L304 of 22 November 2011.

³ Regulation (EC) No 1333/2008 of the European Parliament and of the Council on food additives. Official Journal of the European Union L354 of 31 December 2008.

1. Use of additives in processed food products

Ingredients defined as additives according to the method presented above were identified from the ingredient lists of the products considered. These additives were studied at the most detailed level, according to the labelled information, without being grouped together⁴.

1.1. Assessment of additive presence frequencies

Of the 30,125 products studied (comprising data relating to the 30 sectors currently monitored by Oqali), **the majority (53% of products) contained fewer than three additives. 22% of products were additive-free, while 18% and 13% contained one and two additives respectively.** 285 different additive designations were found in the processed food products considered. However, the **use rates of each of them were low:** among these 285 additive designations, only 42 had a presence frequency of 2% or more, while eight of these had a presence frequency of 10% or more. The most frequently mentioned additive was citric acid (E330 in 23% of products; multiple roles including acidity regulator), followed by modified starches⁵ (in 22% of products; used mainly as thickeners), lecithins (E322 in 17% of products; used mainly for their emulsifying properties) then mono- and diglycerides of fatty acids (E471 in 15% of products; used mainly as emulsifiers or gelling agents).

In accordance with European regulations⁶, additive use is restricted to certain types of products.

By type of brands and excluding specialised retailer brands⁷, which are only present in six of the 30 sectors considered, **national brands⁸ had the most products without additives (27%), followed by retailer brands⁹ (21%), then budget products, which had the fewest additive-free products** (20% of products from entry-level retailer brands¹⁰ and 19% of products from hard discount store brands¹¹).

In addition, 22 of the 30 sectors studied contained products using 10 or more additives. However, the associated presence frequencies were below 10%, with the exception of Frozen pastries and desserts (16%), Fresh delicatessen products (15%) and Ice creams and sorbets (12%).

⁴ For example, "E140" was dealt with independently of "E140(i)", except for the few cases identified in the "Method" section (2.1) of this report.

⁵ This concerns all modified starches, without further clarification, as authorised in the regulations (example: "modified wheat starch").

⁶ Regulation (EC) No 1333/2008 of the European Parliament and of the Council on food additives. Official Journal of the European Union L354 of 31 December 2008

⁷ Defined as frozen products sold in freezer centres and by home delivery suppliers.

⁸ Corresponds to branded products.

⁹ Corresponds to the products carrying the brand of the retailer rather than the producer and sold only in their own supermarket chain

¹⁰ Corresponds to first-price retailer brand products: their plain packaging often reveals this positioning

¹¹ Defined as products sold at prices below the typical market value, with a focus on price rather than service, display or a wide range of choices.

1.2. Changes in additive presence frequencies

Within the 20 sectors for which updated data are available among the 30 currently monitored by Oqali, **a significant +5 point increase in products without additives was observed between the baseline (13.7%) and follow-up (18.3%) studies.** In addition, **the number of different additives within the same product fell:** the proportion of additive-free products increased significantly, mainly producing a reduction in the proportion of products with four, five, eight, nine and 10 or more additives (significant declines, ranging from -0.4 to -1 point, between the first and second follow-ups). **Among the 263 additive designations found in the ingredient lists of the first and second follow-ups, only 46 had a presence frequency of 2% or more on the first and/or second follow-ups.** The presence frequency of 29 of these 46 additive designations fell significantly between the two collection periods, especially among those with the highest presence frequencies. Of these 46 additive designations, **four saw a statistically significant increase in their use rate: carotenoids (E160A: +2 points; colours), pectins (E440: +0.4 point; used mainly as gelling agents), anthocyanins (E163: +0.3 point; colours) and sodium carbonates (E500: +1 point; used mainly as raising agents).**

For all the studied types of brands, the frequency of products with additives decreased significantly between the first and second follow-ups: -7 points for national brands, -4 points for retailer brands, -3 points for entry-level retailer brands and hard discount store brands products.

The proportion of additive-free products increased significantly for 10 of the 20 categories studied, while significant reductions were observed for most products with several different additives. Additive presences nevertheless increased significantly for Fruit purees, compotes and desserts (+10 points for products with additives).

These results may reflect a move by industry to limit additive use in foodstuffs.

2. Use of additives of interest

Certain additives were selected from the ingredient lists, mainly according to criteria relating to exceeded acceptable daily intakes (ADIs), ADIs set without a maximum quantity of incorporation being defined (*quantum satis*), and lower ADIs following a re-evaluation by EFSA¹². The results presented below complement those of the previous section, because some of the studied additives of interest have been grouped together when they belong to the same family and a single ADI has been defined for the whole family.

2.1. Assessment of presence frequencies of additives of interest

Within the 30,125 products considered, distributed among the 30 sectors currently monitored by Oqali, **43% mentioned one or more of the 45 additives or additive groups of interest.** Among these 45 additives and additive groups, carrageenans (E407 found mainly in 34% of products in the Fresh dairy products and similar sector, 33% of Dessert mixes, 33% of Frozen pastries and desserts and 31% of Ice creams and sorbets; used mainly as gelling agents) and nitrites (E249 and E250 found mainly in 71% of Delicatessen meats and 40% of Frozen

¹² The method used for selecting these additives is described in the "Method" section of this report (2.4). The ANSES Working Group on "Assessment of substances and procedures subject to authorisation in human food" (ESPA WG) was consulted on the list of additives of interest.

snacking products; used mainly as preservatives) were the most frequently found (10% of products considered).

As mentioned in the previous section (1.1), additive use **depends on the foodstuff**, which is largely the result of European regulations¹³.

2.2. Changes in presence frequencies of additives of interest

Within the 20 sectors for which updated data are available, **the presence frequency of at least one of the 45 additives or additive groups of interest decreased significantly by 7 points between the first (52.7%) and second (45.4%) follow-ups**. Among these 45 additives and additive groups considered, the presence frequency of 17 of them decreased significantly (from -0.1 to -3 points). Two additives saw a statistically significant increase in their presence frequencies: the sweeteners steviol glycosides (E690) (+0.3 point) and sucralose (E955) (+1 point). It should be noted that steviol glycosides have only been authorised as additives since December 2011¹⁴, which partly explains the significant increase observed. Most of these additives and additive groups of interest (32 out of 45) were found in only 1% or less of the products studied.

All the results of the study are detailed in this report *Review and changes in additive use in French processed food products – Oqali – 2019 Edition*.

¹³ Regulation (EC) No 1333/2008 of the European Parliament and of the Council on food additives. Official Journal of the European Union L354 of 31 December 2008.

¹⁴ Commission Regulation (EU) No 1131/2011 of 11 November 2011, amending Annex II of Regulation (EC) No 1333/2008 of the European Parliament and Council with regard to steviol glycosides. Official Journal of the European Union L295 of 11 November 2011.

1. INTRODUCTION

Since 2008, Oqali has been conducting sectoral studies to characterise the nutritional quality of the French food supply, both in terms of the nutritional information available on the packaging and the nutritional composition of the products. Almost all French processed food products (excluding out-of-home catering) are now covered. Changes in the nutritional quality of processed food products over time are also monitored (Goglia *et al.* 2010, Menard *et al.* 2012). Socio-economic parameters such as market share and the different type of brands (national brands, retailer brands, entry-level retailer brands, hard discount store brands products, organic and non-organic specialised retailer brands) are taken into account (Menard *et al.* 2011). For example, the labelling parameters and the labelled nutritional values of the products resulting from the reviews have been studied according to type of brands (Perrin *et al.* 2017, Perrin *et al.* 2018). Studies have also been conducted on the details of the ingredient lists. One of these concerned allergen labelling in processed food products on the French market (Battisti *et al.* 2017), and presented a descriptive review of the presence frequencies of 14 allergen categories in the ingredient lists and in precautionary labelling according to type of brands. Another study conducted an initial descriptive review of the use rates of certain ingredients such as vegetable fats, intense sweeteners and certain additives of interest (Oqali 2012). This report is therefore a follow-up to this first study on additives and aims to provide a new assessment of use rates and changes regarding food additives in processed food products.

Food additives are substances added intentionally to foods at the time of their manufacture, processing, preparation, treatment, packaging, transport or storage, for technological purposes. In Europe, their use in food is governed by Regulation (EC) No 1333/2008 (European Parliament and the Council of the European Union 2008, modified). This Regulation lays down a positive list of additives authorised for use and specifies for each one the food categories in which it may be used and the conditions of use (mainly the maximum authorised quantities). It defines 27 functional classes of food additives (including preservatives, colours, acids, emulsifiers) and specifically indicates for two of these 27 functional classes (sweeteners and colours) a closed list of related additives (as the other additives may belong to more than one functional class). Substances may be added to this positive list according to an authorisation procedure defined in Regulation (EC) No 1331/2008 (European Parliament and the Council of the European Union 2008). Requests to add a substance as a food additive must demonstrate the safety and technological merit of using this new component. Additives are assessed by the European Food Safety Authority (EFSA), which is currently re-evaluating additives that were authorised before 20 January 2009. All food additives are due to be re-evaluated by 2020 (European Commission 2010).

The authorised additives are either:

- associated with quantified maximum levels of use, set by the regulations for each food category; they correspond to the highest level of an additive authorised in foodstuffs to achieve the desired technological effect (Commission of the European Communities 2001);
- or used according to the *quantum satis* principle, which means that the use of this additive is in accordance with good manufacturing practice and that the dose used does not exceed the amount necessary to achieve the desired effect without misleading the consumer (Commission of the European Communities 2001).

In addition, a quantified Acceptable Daily Intake (ADI) may be established for certain authorised additives. The ADI is the amount (expressed as mg/kg body weight) of a food additive that can be absorbed daily over a lifetime without presenting a risk to health (Efsa1). Where the data do not allow an ADI to be established, a margin of safety is calculated in order to determine whether the actual exposure of consumers under different consumption scenarios could constitute a public health concern (Efsa2).

Following the publication of new scientific data and finalisation of the first additive re-evaluations, EFSA modified the ADIs of certain substances, by increasing (Efsa 2014) or decreasing (Efsa 2009) the values, or by withdrawing certain ADIs (Efsa 2015). More than 300 food additives are currently authorised on the European market (European Parliament and the Council of the European Union 2008, modified). Additive consumption and use are monitored at Member State level, and Member States communicate their findings to the Commission regarding any possible risks of over-consumption of these additives. This Oqali report contributes to the monitoring of additive use in France. The results of this study will be forwarded to EFSA, for use in the European authority's risk assessments.

The use of certain additives is controversial. For example, a French study from 2018 (Fiolet *et al.* 2018) suggested a possible link between consumption of ultra-processed foods (which may contain additives) and an increased risk of cancer: a 10% increase in the consumption of "ultra-processed" products may be associated with an increase of more than 10% in the risk of developing cancer. Several hypotheses have been put forward to explain this result, including the presence of additives in ultra-processed food products (Fiolet *et al.* 2018). A previous study (Lerner et Matthias 2015) had already hypothesised that frequent use of additives in processed foods may disrupt intestinal permeability, leading to dysfunction of the intestinal epithelial barrier and triggering the development of autoimmune diseases. Concerning the re-evaluation of titanium dioxide (E171), EFSA concluded that oral ingestion did not raise a genotoxic concern *in vivo*, based on the available data (Efsa 2016). In 2017, the National Institute for Agricultural Research (INRA) conducted a study in rats on oral exposure to titanium dioxide, some of which was in nanoscale form (Bettini *et al.* 2017). This study showed that consumption of this additive may induce precancerous colorectal lesions, but these results cannot be extrapolated to humans. Following this study, the French Agency for Food, Environmental and Occupational Health & Safety (ANSES) issued an opinion on dietary exposure to titanium dioxide nanoparticles in which it stated that the study carried out by INRA (Bettini *et al.* 2017) provided new information without, however, calling into question EFSA's 2016 assessment (Anses 2017). EFSA and ANSES recommended carrying out additional studies to document the hazard characterisation of titanium dioxide (Anses 2019, Efsa 2019, Younes *et al.* 2018, Anses 2017).

Dietary exposure to an additive can be estimated using various more or less conservative methods. One is based on the specified maximum quantities per authorised additive in each food category. These quantities are defined in Annex II to European Regulation (EC) No 1333/2008 (European Parliament and the Council of the European Union 2008, modified). This is a particularly conservative approach because it has been shown that additives authorised within a product category may only be used in a limited number of products (Gilsenan, Lambe, et Gibney 2002, Diouf *et al.* 2014). For this reason, determining additive presence or absence frequencies in products, as presented in this report, enables exposures to be quantified at a more realistic level (Connolly *et al.* 2010, Tennant et Bruyninckx 2018). These frequencies only reflect the presence in the food of the additive or additive group studied, and do not give an indication of the quantity actually used. However, this applies only to additives with a specified

maximum quantity. For those complying with the *quantum satis* principle, no maximum quantified amount is defined.

In most studies, the databases used to calculate additive presence frequencies have been established following food surveys or analysis campaigns over defined periods of time (Cressey et Jones 2009, Gilsenan, Lambe, et Gibney 2002, Diouf *et al.* 2014). However, a previous Oqali study showed that there is very often considerable renewal of the food supply, with products withdrawn or reformulated, or innovations introduced (Oqali 2016). This means that the databases used must be regularly updated. In addition, European Regulations (EC) No 1333/2008 on food additives (European Parliament and the Council of the European Union 2008, modified) and (EU) No 1169/2011 on the provision of food information to consumers (European Parliament and the Council of the European Union 2011) make it mandatory to mention the additives used in the ingredient list. The regulations stipulate that this statement should include the name of the functional class followed by either the EU identification code (beginning with the letter "E" and followed by a number) or the specific additive name. The Oqali database therefore provides information on the use frequencies of food additives in processed food products available on the French market, and for certain sectors, it also provides updated data.

Following the first Oqali study on ingredients (Oqali 2012), which characterised the use of certain food additives of interest, **this current work had the following objectives:**

- **conduct a descriptive review of the presence frequencies of food additives in French processed food products, using the latest data available** (30 sectors monitored by Oqali), by identifying the most frequently found additives and reviewing the use rates of additives and additive groups of interest;
- **carry out an initial assessment of the changes in the use of food additives**, by characterising changes in the most frequently used additives and in the additives and additive groups of interest (this updated study focused on a sub-section of the sectors currently monitored by Oqali for which updated data are available: 20 sectors out of 30).

2. METHOD

2.1 Identification of additive ingredients

The ingredient lists of the products included in this study were used to identify ingredients as labelled on the product packaging whose names corresponded to additives according to Regulation (EC) No 1333/2008 (European Parliament and the Council of the European Union 2008, modified), without considering their regulatory authorisations for use in foods and conditions of use. They were then classified in order to group together all the different ways of labelling the same additive, since European regulations allow additives to be labelled in two different ways: using the functional class followed by either the full additive name or the EU identification code (the letter "E" together with a number) (European Parliament and the Council of the European Union 2008, modified). For example, the ingredients "emulsifier: E322" and "emulsifier: lecithins" were both considered to be E322.

Based on the information available in the ingredient lists, for the same ingredient wording it is sometimes difficult to determine whether the ingredient is used as an additive or a fortification substance (for example, ascorbic acid). For this report and for these substances, it was decided, by chosen convention, to assume that all ingredient names corresponded to additive names whenever they did not specify their use as a vitamin or mineral. For example, the substance ascorbic acid labelled "vitamin C" or "vitamin: ascorbic acid" was regarded as a vitamin and therefore excluded from the scope of the study, whereas the ingredients "antioxidant: ascorbic acid", "antioxidant: vitamin C", "antioxidant: E300" or "ascorbic acid" without further clarification were regarded as additives. This implies a potential underestimation from a risk assessment perspective of the presence frequencies of ingredients corresponding to additive names that may also be used as vitamins or minerals (e.g. ascorbic acid or calcium carbonate).

In the particular case of additives that are also found to be allergens, such as sulphites, these were taken into account in this study only when they appeared in the ingredient list or were mentioned at the end of the list preceded by words such as "contains" or "presence of". This means that they were not considered in this study if they were mentioned by precautionary labelling (notions of adventitious presence and traces), or preceded by words such as "may contain traces of", "traces of" or "possible presence of".

It should be noted that a small number of products (n=67 for the baseline) only indicated the functional class (mainly "colours" or "glazing agents") without further clarification of the additive used, preventing any precise definition of the additive used (absence of the name or EU code). These ingredients were not considered in this study. On the other hand, some ingredients not included in the Additive Regulation were nevertheless taken into account because their names suggest that they are additives (e.g. anti-caking agent: E572).

In addition, modified starch ingredients without further clarification of the nature of the modification, such as "modified corn starch", were grouped together in this study under the designation "E1404_E1410_E1412_E1413_E1414_E1420_E1422_E1440_E1442_E1450_E1451_E1452_MODIFIED STARCHES". Similarly, if the labelling mentioned "emulsifying salts" without specifying the additives used, these ingredients were grouped under the designation "E325_E326_E327_E331_E332_E333_E334_E335_E336_E337_E338_E339_E340_E341_E343_E380_E450_E451_E452_EMULSIFYING SALTS". Following a change in the numbering of additives in the carotenoid group in 2012 (European Commission 2012, modified), the additive

ingredients beta-carotene, mixed carotenes and plant carotenes have been grouped under the designation "E160A(I)_E160A(II)_BETA_CAROTENE_MIXED_CAROTENES_PLANT_CAROTENES". It should be noted that for the first two cases (modified starches and emulsifying salts), when the additives were mentioned in their specific form (e.g. E1404), they were then counted independently (E1404, oxidised starch).

As a reminder, whenever an additive is used in a product, the regulations require it to be included in the ingredient list, with either the name of the functional class followed by the EU identification code (beginning with the letter "E" and followed by a number) or the functional class followed by the specific additive name. According to the information available in the ingredient lists, it should be noted that the functional class of the additives is not always mentioned. This study also considered products with wording in their ingredient lists corresponding to additive names that were not preceded by their functional class (unless the product was listed as a vitamin or mineral). In addition, European regulations have defined a positive list of authorised additives (European Parliament and the Council of the European Union 2008, modified). As this may vary according to the ongoing re-evaluations carried out by EFSA, some of the additives studied may have been authorised when Oqali carried out its product collection and then subsequently prohibited. It is therefore possible to find non-zero presence frequencies for these additives, identified in products collected before the date of application of the amendment to the Regulation in force. This is for example the case with E160f (ethyl ester of beta-apo-8'-carotenic acid), which was removed from the positive list of additives in December 2011 (European Commission 2011). It should also be noted that the additive E558 (bentonite) is no longer authorised since June 2013 and that the additives E556 (calcium aluminium silicate) and E559 (kaolin) are no longer authorised since February 2014 (European Commission 2012).

2.2 Data analysis

This study looked at the presence frequencies of the most commonly used additives and those of a group of additives of interest. Each of these sections includes a review for the 30 sectors currently monitored by Oqali, as well as updated study for 20 of these 30 sectors.

A statistical chi-square test was carried out to analyse these changes. By convention, the term "significant" has been used to mean that the observed change is statistically significant (p-value less than 0.05).

The results presented below correspond to presence frequencies and therefore only reflect the presence or absence in the food of the additive ingredient studied, and not the amount of the additive. In this report, the terms "presence frequency", "use frequency" and "use rate" are used interchangeably.

2.3 Presence frequencies of the most commonly used additives

The identified additives were studied at the most detailed level, according to the labelled information, without being grouped together¹⁵. Indeed, Regulation (EC) No 1333/2008 (European Parliament and the Council of the European Union 2008, modified) authorises the

¹⁵ Except for the few cases identified in the previous "Method" section (2.1).

use of more specific names and EU identification codes, as set out in Regulation (EU) No 231/2012 (European Commission 2012, modified). Thus "E140" was dealt with independently of "E140(i)", and the presence frequency of E140 does not include the presence frequency of E140(i). Similarly, the sum of the presence frequencies of these two additives cannot be used to identify the presence frequency of E140, since the same foodstuff may include the words E140 and E140(i) in its ingredient list.

2.4 Presence frequencies of the additives of interest

In 2001, the European Commission (Commission of the European Communities 2001) published a report setting out a methodology to encourage Member States to identify additives to be monitored. In keeping with this approach and for the purposes of this study, a list of criteria was developed as follows:

- An Acceptable Daily Intake (ADI) exceeded by a proportion of consumers;
- An ADI set without a maximum quantity of incorporation being defined: the *quantum satis* principle;
- An ADI that was lower following a re-evaluation by EFSA (between 2011 and 2015);
- The existence of one or more proven and recognised nanoscale dimensions (see paragraph below) within the meaning of Regulation (EU) 2015/2283 (European Parliament and the Council of the European Union 2015).

A few further additives were also included, in consultation with the Oqali Steering Committee. These criteria and the list of additives thus selected were validated by the ANSES Working Group on "Assessment of substances and processes subject to authorisation in human food" (ESPA WG), in order to constitute a list of additives of interest.

Regarding the criterion of the presence of one or more nanoscale dimensions, current European regulations, and in particular Regulation (EU) No 1169/2011 (known as INCO), have defined the labelling of nanomaterials used as ingredients (European Parliament and the Council of the European Union 2011). For example, since December 2014, if an ingredient is used in nanoscale form, the ingredient list must state "[nano]" after the ingredient name. However, data on several sectors had already been collected for some years prior to the application of these regulations. Therefore, and by convention, in this study, ingredient lists including additives for which the presence of one or more nanoscale dimensions is possible were therefore taken into account whenever they mentioned the additive considered, whether or not they specified its state in nanoscale form. This study therefore indicates the presence frequency of the additive, in both nanoscale and non-nanoscale forms combined.

Where additives belong to the same group and a single ADI has been defined for all the substances grouped together, these additives were considered together without distinction. This was particularly the case with phosphates.

Table 1 presents the 122 additives monitored and their distribution into 45 groups of interest.

Table 1: Additives and additive groups of interest

Group name	Grouped codes
ACESULFAME K	E950
BENZOIC ACID AND BENZOATES	E210_E211_E212_E213
PHOSPHORIC ACID AND PHOSPHATES	E338_E339_E339(I)_E339(II)_E339(III)_E340_E340(I)_E340(II)_E340(III)_E341_E341(I)_E341(II)_E341(III)_E343_E343(I)_E343(II)_E343(III)_E450_E450(I)_E450(II)_E450(III)_E450(V)_E450(VI)_E450(VII)_E451_E451(I)_E451(II)_E452_E452(I)_E452(II)_E452(III)_E452(IV)
TARTARIC ACID AND TARTRATES	E334_E335_E335(I)_E335(II)_E336_E336(I)_E336(II)_E337_E354
BETA_APO_8_CAROTENAL_C30	E160E
SILVER	E174
BENTONITE	E558
BETA_CAROTENE_MIXED_CAROTENES_PLANT_CAROTENES	E160A(I)_E160A(II)
BUTYLATED HYDROXYTOLUENE (BHT)	E321
CARAMELS	E150A_E150B_E150C_E150D
CALCIUM CARBONATE	E170
CARRAGEENAN	E407
MICROCRYSTALLINE CELLULOSE	E460(I)
TRIETHYL CITRATE	E1505
COPPER COMPLEXES OF CHLOROPHYLLS AND CHLOROPHYLLINS	E141_E141(I)_E141(II)
CURCUMIN	E100
SILICON DIOXIDE	E551
TITANIUM DIOXIDE	E171
ETHYL ESTER OF BETA-APO-8-CAROTENOIC ACID (C30)	E160F
MONO- AND DIACETYL TARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS	E472E
POLYGLYCEROL ESTERS OF FATTY ACIDS	E475
ETHYL LAUROYL ARGINATE	E243
FERROCYANIDES	E535_E536_E538
GLUTAMATES	E620_E621_E622_E623_E624_E625
STEVIOLE GLYCOSIDES	E960
QUINOLINE YELLOW	E104
LITHOLRUBINE BK	E180
LUTEIN	E161B
SORBITAN MONOLAURATE AND MONOOLEATE	E493_E494
POLYOXYETHYLENE SORBITAN MONOLAURATE_MONOOLEATE_MONOPALMITATE_MONOSTEARATE_TRISTEARATE	E432_E433_E434_E435_E436
SORBITAN MONOSTEARATE_TRISTEARATE_MONOPALMITATE	E491_E492_E495
NITRITES	E249_E250
IRON OXIDES AND HYDROXIDES	E172
SODIUM ALUMINIUM PHOSPHATE ACIDIC	E541
PONCEAU 4R COCHINEAL RED A	E124
ANNATTO_BIXIN_NORBIXIN	E160B
ALLURA RED AC	E129
ALUMINIUM SILICATES	E554_E555_E556_E559
SODIUM AND CALCIUM STEAROYL_2_LACTYLATES	E481_E482
SUCRALOSE	E955
SUCROSE ESTERS OF FATTY ACIDS AND SUCROGLYCERIDES	E473_E474
ALUMINIUM SULPHATES	E520_E521_E522_E523
SULPHITES	E220_E221_E222_E223_E224_E226_E227_E228
SUNSET YELLOW FCF ORANGE YELLOW S	E110
STEARYL TARTRATE	E483

3. REVIEW OF ADDITIVE PRESENCE FREQUENCIES

3.1 Presentation of the data used

Table 2 lists the 30 sectors studied and the number of products taken into account in the review of additive presence frequencies. The most recent data available for each sector was collected between 2008 and 2016. Since the regulations concerning authorised additives have changed over time, this dispersion of collection periods needs to be taken into account when interpreting the results.

Market coverage rates¹⁶ for products collected by Oqali varied depending on the sector, from 28% for Ready-to-eat fresh meals to 89% for Infant milks (Kantar Worldpanel data¹⁷). However, the market coverage rates presented are underestimated due to the fact that some products found on the market could not be assigned precisely to a line in the database communicated by Kantar Worldpanel and that, conversely, some products in the Kantar Worldpanel database were not found among the products collected by Oqali.

In comparison with the sector studies published by Oqali, some products were not considered in this study, such as:

- products from out-of-home catering, central purchasing agencies, specialist organic retailer brands and pharmacies, as these could not be collected for all sectors;
- products for which ingredient lists were not available. It should be noted that in the case of the Cheeses sector, where the regulations authorise the omission of an ingredient list on the packaging (European Parliament and the Council of the European Union 2011) when they do not contain any ingredients other than milk products, food enzymes, micro-organisms and salt, products were included in the study on the assumption that they were additive-free.

It should be noted that the Confectionery sector, which was undergoing analysis at the time this study was carried out, has not been included, even though the products included in this sector contain additives such as colours.

Thus, 30,125 products were included in this part on the review of additive presence frequencies. They have been broken down into 30 sectors, representing almost all the processed food sectors available on the French market (data collected between 2008 and 2016) and from five type of brands (specialised distributor brands¹⁸, national brands¹⁹, retailer brands²⁰, entry-level retailer brands²¹ and hard discount store brands²²). It is also important to specify that the results by type of brands should be put into perspective because:

¹⁶ Ratio of product volumes identified by Oqali to the total market volume characterised by Kantar Worldpanel.

¹⁷ Kantar Worldpanel: purchasing data from households representative of the French population.

¹⁸ Defined as frozen products sold in freezer centres and by home delivery suppliers.

¹⁹ Corresponds to branded products.

²⁰ Corresponds to the products carrying the brand of the retailer rather than the producer and sold only in their own supermarket chain

²¹ Corresponds to first-price retailer brand products: their plain packaging often reveals this positioning.

²² Defined as products sold at prices below the typical market value, with a focus on price rather than service, display or a wide range of choices.

- on the one hand, not all type of brands are present in all sectors. For example, specialised distributor brands are only present in six sectors: Baby food, Ice creams and sorbets, Ready-to-eat frozen meals, Processed potato products, Frozen snacking products and Frozen pastries and desserts;
- on the other hand, the product offer by segment – and therefore the numbers of products – differs from one sector to another.

Annex 1 presents the numbers of products considered by sector and type of brands. It should be noted that the results presented in this section may differ from those of studies already published by Oqali. Indeed, when corrections were made to the Oqali database, the scope of the studies or any information studied in the Oqali reports may have been modified or corrected. This part of the study was carried out using corrected updated data.

For the results presented in the remainder of this section, it should be stressed that the sum of the presence frequencies of several additives cannot be used to identify the presence frequency of their group, since the same foodstuff may contain several additives.

Table 2: List of the 30 sectors currently monitored by Oqali and the numbers of products concerned (most recent data available per sector)

Sector	Year(s) of data collection	Number of products taken into account in the study of the latest data available	market coverage rate*
Baby food	2012	976	88%
Crackers	2013	1080	59%
Cereal bars	2016	179	82%
Cakes and biscuits	2011	2292	65%
Soft drinks	2013	1421	86%
Soups and broths	2011	560	77%
Breakfast cereals	2011	447	75%
Delicatessen meats	2013	1722	64%
Chocolate products	2012	1041	74%
Fruit purees, compotes and desserts	2010	635	78%
Jams	2010	466	70%
Canned fruits	2010	217	65%
Cheeses	2015	1991	74%
Ice creams and sorbets	2015	1953	87%
Fruit juices and nectars	2013	1557	83%
Infant milks	2012	129	89%
Margarines	2016	108	86%
Bread products	2012	1023	76%
Ready-to-eat canned meals	2010	793	52%
Ready-to-eat fresh meals	2008-2009-2010-2011-2012	779	28%
Ready-to-eat frozen meals	2016	2164	65%
Dessert mixes	2013-2014	329	76%
Fresh dairy products and similar	2011	2411	80%
Fresh delicatessen products	2015	2269	58%
Processed potato products	2011	683	76%
Hot sauces	2010	293	77%
Cold sauces	2016	623	80%
Syrups	2009-2010	304	69%
Frozen snacking products	2015	1109	80%
Frozen pastries and desserts	2015	571	72%
Total	2008-2016	30125	73%¹

* Ratio of product volumes identified by Oqali to the total market volume characterised by Kantar Worldpanel

¹ Average estimated market cover per sector

3.2 Most commonly used additives

This section details the study of the presence frequencies of all the additives found in the ingredient lists of the products considered, based on the most recent data available among the 30 sectors currently monitored by Oqali.

3.2.1 Presence frequencies per additive

As stated in the "Method" section (2.3), Oqali considers as additives ingredients with an EU identification code and/or a name taken from the exhaustive list of additives in Regulation (EC) No 1333/2008 (European Parliament and the Council of the European Union 2008, modified).

➤ *All sectors combined*

Among the 30,125 products studied within the 30 sectors currently monitored by Oqali, **22% (n=6,540) did not mention any additives (as considered by Oqali) in their ingredient list while 78% (n=23,585) mentioned one or more.**

Table 3 presents detailed results for additives with a presence frequency of 2% or more, all sectors combined. The results for additives with a presence frequency below 2% are presented in Annex 2.

For this part of the study, **285 additive designations were found** within the products in the 30 sectors studied. **42 of them were identified with a presence frequency of 2% or more.**

The additive most frequently found in the ingredient lists studied (n=6,891; 23%) was citric acid (E330). Authorised in many sectors, it is used mainly as an acidity regulator. Seven other additive designations were found in 10% or more of products (Table 3):

- modified starches (corresponding to all modified starches, without further clarification, as authorised in the regulations; used mainly as thickeners; 22%),
- lecithins (E322; used mainly for their emulsifying properties; 17%),
- mono- and diglycerides of fatty acids (E471; can for example be used as emulsifiers or gelling agents; 15%),
- ascorbic acid (E300; used mainly as an antioxidant; 13%),
- xanthan gum (E415; used mainly for its thickening properties; 13%),
- guar gum (E412; used mainly as a thickener; 12%),
- carrageenans (E407; used mainly for their gelling properties; 10%),

It should be noted that the most frequently found additive with a colouring function (n=1,798; 6%) was paprika extract, capsanthin and capsorubin (E160c), used to give food a red colour. One sweetener was also found in products with a lower presence frequency (2%): acesulfame K (E950; n=529) (Table 3).

A 2002 study (Gilsenan, Lambe, et Gibney 2002) assessing patterns of additive use in 5,684 processed food products on the Irish market between 1995 and 1997 indicated that 67% of the products studied contained at least one additive. The additives investigated were those covered

by the regulations in force in 2002 and may differ to those of the regulations currently applicable (European Parliament and the Council of the European Union 2008, modified). Despite a data collection that predated those carried out by Oqali, the 2002 Irish study (Gilsenan, Lambe, et Gibney 2002) also indicated that citric acid (E330) was the most commonly used additive among the products studied. In general, the additives found most frequently in this Irish study corresponded to those in Table 3. It should be noted, however, that the presence frequencies varied between the two studies. The 2002 study indicated that the most commonly used colour was carotenoids (E160a), while for Oqali this colour was the second most frequently found after paprika extract, capsanthin and capsorubin (E160c). In the case of sweeteners, the results were different: aspartame (E951) then saccharins (E954) were the sweeteners most frequently found in the 2002 study, while they were in fourth and ninth place respectively for Oqali. In addition, the 2002 study found only five sweeteners compared to 15 for Oqali. These disparities can be partly explained by differences in the collection years and the scope of the products considered between the two studies, as well as by the foods available on the market, which may differ between the two countries being compared.

Table 3: Numbers and proportions of products containing at least the additive considered with a presence frequency of 2% or more, all sectors combined and among the 30,125 products studied

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Products containing at least the additive considered, all sectors combined (among the 30 sectors currently monitored by Oqali)	
		Number	Proportion
At least 1 additive	-	23,585	78%
E330_CITRIC ACID	OTHERS	6891	23%
E1404_E1410_E1412_E1413_E1414_E1420_E1422_E1440_E1442_E1450_E1451_E1452_MODIFIED STARCHES*	OTHERS	6650	22%
E322_LECITHINS	OTHERS	5008	17%
E471_MONO AND DIGLYCERIDES OF FATTY ACIDS	OTHERS	4500	15%
E300_ASCORBIC ACID	OTHERS	3863	13%
E415_XANTHAN GUM	OTHERS	3792	13%
E412_GUAR GUM	OTHERS	3554	12%
E407_CARRAGEENAN	OTHERS	2909	10%
E250_SODIUM NITRITE	OTHERS	2852	9%
E500(II)_SODIUM HYDROGEN CARBONATE	OTHERS	2580	9%
E410_LOCUST BEAN GUM	OTHERS	2304	8%
E202_POTASSIUM SORBATE	OTHERS	2024	7%
E160C_PAPRIKA EXTRACT_CAPSANTHIN_CAPSORUBIN	COLOUR	1798	6%
E440(I)_PECTIN	OTHERS	1563	5%
E450(I)_DISODIUM DIPHOSPHATE	OTHERS	1560	5%
E450_DIPHOSPHATES	OTHERS	1401	5%
E331_SODIUM CITRATES	OTHERS	1362	5%
E316_SODIUM ERYTHORBATE	OTHERS	1360	5%
E160A_CAROTENOIDS	COLOUR	1268	4%
E503(II)_AMMONIUM HYDROGEN CARBONATE	OTHERS	1257	4%
E301_SODIUM ASCORBATE	OTHERS	1221	4%
E100_CURCUMIN	COLOUR	1002	3%
E160A(I)_E160A(II)_BETA_CAROTENE_MIXED_CAROTENES_PLANT_CAROTENES	COLOUR	993	3%
SULPHITES	OTHERS	984	3%
E120_COCHINEAL_CARMINIC ACID_CARMINES	COLOUR	979	3%
E150A_PLAIN CARAMEL	COLOUR	972	3%
E160B_ANNATTO_BIXIN_NORBIXIN	COLOUR	959	3%
E621_MONOSODIUM GLUTAMATE	OTHERS	905	3%
E451_TRIPHOSPHATES	OTHERS	846	3%
E440_PECTINS	OTHERS	841	3%
E270_LACTIC ACID	OTHERS	689	2%
E252_POTASSIUM NITRATE	OTHERS	660	2%
E161B_LUTEIN	COLOUR	645	2%
E500_SODIUM CARBONATES	OTHERS	627	2%
E422_GLYCEROL	OTHERS	614	2%
E452_POLYPHOSPHATES	OTHERS	578	2%
E224_POTASSIUM METABISULPHITE	OTHERS	558	2%
E950_ACESULFAME-K	SWEETENER	529	2%
E401_SODIUM ALGINATE	OTHERS	516	2%
E282_CALCIIUM PROPIONATE	OTHERS	508	2%
E472E_MONO- AND DIACETYL TARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS	OTHERS	501	2%
E163_ANTHOCYANINS	COLOUR	475	2%

* This concerns all modified starches, without further clarification, as authorised in the regulations.

➤ *By sector*

All the results by additive and sector are available in Excel format on the Oqali website: https://www.oqali.fr/oqali_eng/Communication.

The presence frequencies per additive varied greatly depending on the sectors studied, which can be explained by the European regulations defining positive lists of food categories in which each additive is authorised (European Parliament and the Council of the European Union 2008, modified). Moreover, not all products systematically contain the additive(s) that are nevertheless authorised in their product categories.

Among the additives most frequently found on the ingredient lists (see previous section "All sectors combined"):

- Citric acid (E330), with multiple properties including that of acidity regulator, was found in the 30 sectors studied and in proportions ranging from 2% (n=29) for Delicatessen meats to 75% (n=162) for products in the Canned fruits sector (Table 4);
- Modified starches²³, used mainly as thickeners, were used in 24 of the 30 sectors studied and in particular in 75% (n=220) of products in the Hot sauces sector (Table 4);
- Lecithins (E322), used mainly for their emulsifying properties, were found in 25 of the 30 sectors studied and in particular in 94% (n=980) of products in the Chocolate products sector (Table 4);
- Mono- and diglycerides of fatty acids (E471), which can for example be used as emulsifiers or gelling agents, were found in 24 of the 30 sectors studied and in particular in 77% (n=1496) of products in the Ice creams and sorbets sector (Table 4).

²³ This concerns all modified starches, without further clarification, as authorised in the regulations.

Table 4: Extract of the presence frequencies by sector, for modified starches²⁴, lecithins (E322), citric acid (E330) and mono- and diglycerides of fatty acids (E471)

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Sector	Products containing at least the additive considered, by sector (among the 30 sectors currently monitored by Oqali)	
			Number	Proportion
E330, CITRIC ACID	OTHERS	Baby food	33	3%
		Crackers	235	22%
		Cereal bars	29	16%
		Cakes and biscuits	674	29%
		Soft drinks	974	69%
		Soups and broths	59	11%
		Breakfast cereals	22	5%
		Delicatessen meats	29	2%
		Chocolate products	34	3%
		Fruit purees, compotes and desserts	152	24%
		Jams	312	67%
		Canned fruits	162	75%
		Cheeses	108	5%
		Ice-creams and sorbets	515	26%
		Fruit juices and nectars	151	10%
		Infant milks	12	10%
		Margarines	76	70%
		Bread products	58	6%
		Ready-to-eat canned meals	149	19%
		Ready-to-eat fresh meals	256	33%
		Ready-to-eat frozen meals	405	19%
		Dessert mixes	13	4%
		Fresh dairy products and similar	353	15%
		Fresh delicatessen products	761	34%
		Processed potato products	118	17%
		Hot sauces	61	21%
		Cold sauces	296	48%
		Syrups	222	73%
		Frozen snacking products	402	36%
		Frozen pastries and desserts	219	38%
		Baby food	275	28%
		Crackers	96	9%
		Cereal bars	1	1%
Cakes and biscuits	58	3%		
Soft drinks	21	1%		
Soups and broths	239	43%		
Breakfast cereals	7	1%		
Delicatessen meats	16	1%		
Chocolate products	13	1%		
Fruit purees, compotes and desserts	0	0%		
Jams	0	0%		
Canned fruits	0	0%		
Cheeses	45	2%		
Ice-creams and sorbets	244	12%		
Fruit juices and nectars	0	0%		
Infant milks	0	0%		
Margarines	5	5%		
Bread products	47	5%		
Ready-to-eat canned meals	508	64%		
Ready-to-eat fresh meals	385	49%		
Ready-to-eat frozen meals	1177	54%		
Dessert mixes	30	9%		
Fresh dairy products and similar	1159	48%		
Fresh delicatessen products	881	39%		
Processed potato products	39	6%		
Hot sauces	220	75%		
Cold sauces	430	69%		
Syrups	0	0%		
Frozen snacking products	575	52%		
Frozen pastries and desserts	181	32%		
Baby food	89	9%		
Crackers	71	7%		
Cereal bars	151	84%		
Cakes and biscuits	1360	59%		
Soft drinks	3	0.2%		
Soups and broths	3	1%		
Breakfast cereals	180	40%		
Delicatessen meats	0	0%		
Chocolate products	980	94%		
Fruit purees, compotes and desserts	1	0.2%		
Jams	2	0.4%		
Canned fruits	0	0%		
Cheeses	1	0.1%		
Ice-creams and sorbets	1033	53%		
Fruit juices and nectars	0	0%		
Infant milks	114	88%		
Margarines	64	59%		
Bread products	197	19%		
Ready-to-eat canned meals	8	1%		
Ready-to-eat fresh meals	41	5%		
Ready-to-eat frozen meals	30	1%		
Dessert mixes	65	20%		
Fresh dairy products and similar	199	8%		
Fresh delicatessen products	70	3%		
Processed potato products	10	1%		
Hot sauces	1	0.3%		
Cold sauces	0	0%		
Syrups	0	0%		
Frozen snacking products	34	3%		
Frozen pastries and desserts	301	53%		
Baby food	14	1%		
Crackers	156	14%		
Cereal bars	29	16%		
Cakes and biscuits	350	15%		
Soft drinks	4	0.3%		
Soups and broths	45	8%		
Breakfast cereals	1111	25%		
Delicatessen meats	0	0%		
Chocolate products	17	2%		
Fruit purees, compotes and desserts	1	0.2%		
Jams	1	0.2%		
Canned fruits	0	0%		
Cheeses	0	0%		
Ice-creams and sorbets	1496	77%		
Fruit juices and nectars	0	0%		
Infant milks	16	12%		
Margarines	76	70%		
Bread products	549	54%		
Ready-to-eat canned meals	29	4%		
Ready-to-eat fresh meals	136	17%		
Ready-to-eat frozen meals	194	9%		
Dessert mixes	38	12%		
Fresh dairy products and similar	171	7%		
Fresh delicatessen products	499	22%		
Processed potato products	93	14%		
Hot sauces	7	2%		
Cold sauces	0	0%		
Syrups	0	0%		
Frozen snacking products	323	29%		
Frozen pastries and desserts	145	25%		

²⁴ This concerns all modified starches, without further clarification, as authorised in the regulations.

3.2.2 Combinations of additives

Regulation (EC) No 1333/2008 (European Parliament and the Council of the European Union 2008, modified) authorises the use of several additives in the same product if the conditions of use laid down in the regulations are complied with. The number of different additives (as considered by Oqali) found in the ingredient list of the same product was therefore studied, all sectors combined and for each sector, among the 30 sectors currently considered by Oqali.

➤ *All sectors combined*

The majority of products (53% of them) contained fewer than three additives: 22% of products were additive-free, while 18% and 13% contained one and two additives respectively (Figure 1, Annex 3). Few products had 10 or more different additives within the same ingredient list (4% of all products considered).

Figure 1 also illustrates that **the greater the number of different additives found in the same ingredient list, the fewer the number of products concerned.**

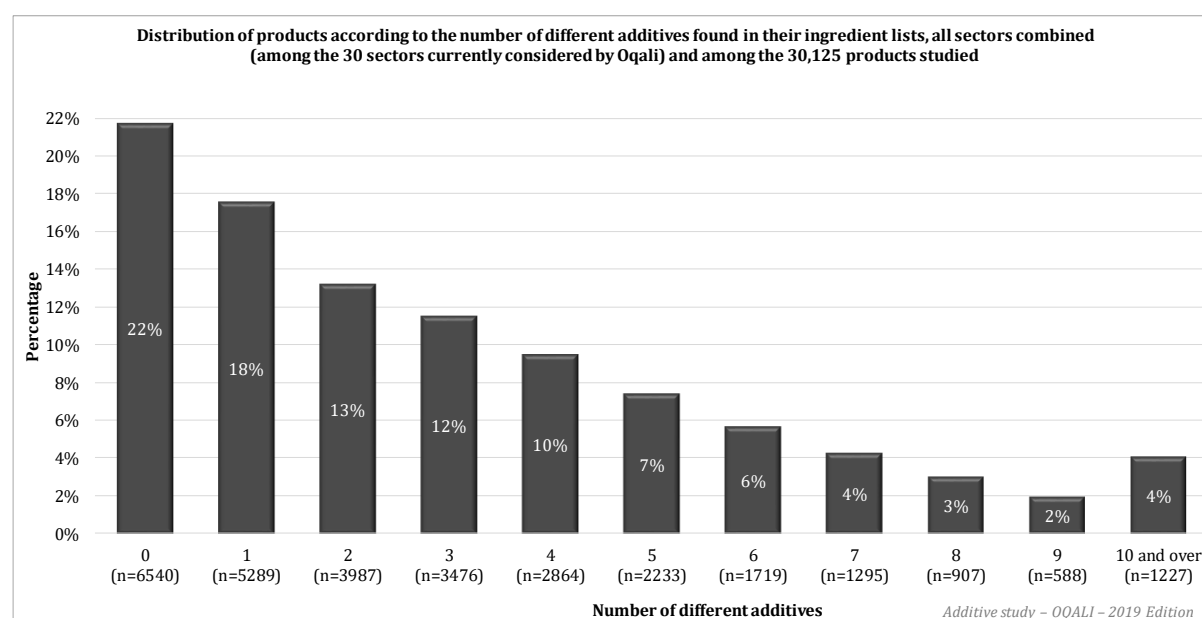


Figure 1: Distribution of products according to the number of different additives found in their ingredient lists (products containing 10 or more additives grouped together), all sectors combined and within the 30,125 products studied

➤ *By sector*

Table 5 details the distribution of products according to the number of different additives found within the same ingredient list, by sector.

Due to European regulations governing additive use (European Parliament and the Council of the European Union 2008, modified), each additive is only authorised in certain product categories. The distribution of the number of different additives found in the ingredient lists therefore depends on the foodstuff. Moreover, not all products systematically contain the additive(s) authorised in the food category to which they belong.

As was observed for all sectors combined (Figure 1), it was also found that, **for the majority of sectors, the greater the number of different additives found in the same ingredient list, the fewer the number of products concerned** (Table 5).

Among the 30 sectors studied:

- **17 had a majority of products without additives or containing one or two different additives.** These concerned the following sectors: Fruit juices and nectars (99% of products), Fruit purees, compotes and desserts (98%), Canned fruits (93%), Baby food (90%), Chocolate products (88%), Jams (88%), Cheeses (86%), Breakfast cereals (82%), Soups and broths (77%), Hot sauces (73%), Processed potato products (67%), Syrups (67%), Ready-to-eat frozen meals (57%), Crackers (57%), Infant milks (54%), Delicatessen meats (52%) and Dessert mixes (51%) (Table 5);
- **four had a majority of products without additives or containing up to three different additives:** Soft drinks (62% of products), Bread products (55%), Fresh dairy products and similar (55%) and Frozen snacking products (51%) (Table 5);
- **three had a majority of products without additives or containing up to four different additives:** Ready-to-eat canned meals (62% of products), Ready-to-eat fresh meals (60%) and Cold sauces (58%). It should be noted that for the latter sector, products containing five, six or seven different additives were also observed in proportions of 10% or more (Table 5);
- **three had products with intermediate presence frequencies:** for Cakes and biscuits, 53% of products had between two and four different additives (Table 5). For this sector, products containing five different additives were also found in proportions of 10% or more (Table 5). For Cereal bars, the majority of products (66%) indicated between three and five different additives. It should be noted that for this sector, products containing six different additives were also found in proportions of 10% or more (Table 5). For most of the products in the Margarines sector (68%), four or five different additives were observed (Table 5). It should be noted that by definition, the products in this sector are characterised by water-in-oil type emulsions, which need to be stabilised mainly with the use of additives with emulsifying properties (which explains why there is no additive-free product for this sector).
- **in three sectors, more than 10% of the products used 10 or more additives:** Frozen pastries and desserts (16%), Fresh delicatessen products (15%), and Ice creams and sorbets (12%) (Table 5).

Table 5: Distribution of products according to the number of different additives found in their ingredient lists (products containing 10 or more additives grouped together), by sector

Sector	Distribution of products according to the number of different additives found in their ingredient lists, by sector (in the 30 sectors currently considered by Oqali)																					
	0		1		2		3		4		5		6		7		8		9		10 and over	
	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
All sectors combined (n=30,125)	6540	22%	5289	18%	3987	13%	3476	12%	2864	10%	2233	7%	1719	6%	1295	4%	907	3%	588	2%	1227	4%
Baby food (n=976)	483	49%	301	31%	98	10%	50	5%	20	2%	19	2%	2	0.2%	1	0.1%	2	0.2%	0	0%	0	0%
Crackers (n=1080)	357	33%	141	13%	121	11%	152	14%	89	8%	74	7%	44	4%	33	3%	20	2%	24	2%	25	2%
Cereal bars (n=179)	4	2%	9	5%	13	7%	56	31%	34	19%	29	16%	19	11%	7	4%	7	4%	0	0%	1	1%
Cakes and biscuits (n=2292)	52	2%	161	7%	277	12%	425	19%	502	22%	274	12%	181	8%	125	5%	141	6%	55	2%	99	4%
Soft drinks (n=1421)	166	12%	233	16%	190	13%	299	21%	195	14%	160	11%	65	5%	53	4%	31	2%	16	1%	13	1%
Soups and broths (n=560)	146	26%	174	31%	113	20%	47	8%	37	7%	17	3%	11	2%	7	1%	3	1%	3	1%	2	0.4%
Breakfast cereals (n=447)	121	27%	182	41%	61	14%	47	11%	8	2%	16	4%	6	1%	3	1%	3	1%	0	0%	0	0%
Delicatessen meats (n=1722)	152	9%	312	18%	431	25%	358	21%	219	13%	96	6%	75	4%	34	2%	24	1%	9	1%	12	1%
Chocolate products (n=1041)	51	5%	701	67%	164	16%	50	5%	24	2%	16	2%	13	1%	7	1%	3	0.3%	3	0.3%	9	1%
Fruit purees, compotes and desserts (n=635)	113	18%	361	57%	147	23%	12	2%	1	0.2%	0	0%	0	0%	1	0.2%	0	0%	0	0%	0	0%
Jams (n=466)	14	3%	119	26%	274	59%	55	12%	3	1%	1	0.2%	0	0%	0	0%	0	0%	0	0%	0	0%
Canned fruits (n=217)	38	18%	99	46%	62	29%	18	8%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
Cheeses (n=1991)	1245	63%	346	17%	124	6%	126	6%	61	3%	30	2%	25	1%	14	1%	11	1%	2	0.1%	7	0.4%
Ice creams and sorbets (n=1953)	7	0.4%	53	3%	62	3%	117	6%	209	11%	303	16%	330	17%	290	15%	191	10%	149	8%	242	12%
Fruit juices and nectars (n=1557)	1268	81%	196	13%	77	5%	11	1%	4	0.3%	1	0.1%	0	0%	0	0%	0	0%	0	0%	0	0%
Infant milks (n=129)	2	2%	21	16%	47	36%	31	24%	6	5%	3	2%	0	0%	2	2%	3	2%	3	2%	11	9%
Margarines (n=108)	0	0%	7	6%	2	2%	9	8%	27	25%	46	43%	8	7%	7	6%	2	2%	0	0%	0	0%
Bread products (n=1023)	139	14%	260	25%	64	6%	106	10%	125	12%	145	14%	70	7%	61	6%	19	2%	23	2%	11	1%
Ready-to-eat canned meals (n=793)	77	10%	123	16%	81	10%	96	12%	112	14%	71	9%	67	8%	64	8%	45	6%	34	4%	23	3%
Ready-to-eat fresh meals (n=779)	97	12%	97	12%	103	13%	85	11%	97	12%	72	9%	71	9%	52	7%	33	4%	22	3%	50	6%
Ready-to-eat frozen meals (n=2164)	418	19%	453	21%	378	17%	334	15%	204	9%	140	6%	97	4%	50	2%	48	2%	20	1%	22	1%
Dessert mixes (n=329)	34	10%	26	8%	109	33%	57	17%	24	7%	23	7%	29	9%	17	5%	3	1%	5	2%	2	1%
Fresh dairy products and similar (n=2411)	613	25%	212	9%	231	10%	267	11%	261	11%	222	9%	167	7%	139	6%	90	4%	58	2%	151	6%
Fresh delicatessen products (n=2269)	374	16%	176	8%	240	11%	239	11%	219	10%	193	9%	195	9%	134	6%	86	4%	81	4%	332	15%
Processed potato products (n=683)	275	40%	134	20%	46	7%	74	11%	76	11%	31	5%	25	4%	14	2%	8	1%	0	0%	0	0%
Hot sauces (n=293)	39	13%	76	26%	99	34%	20	7%	26	9%	14	5%	11	4%	4	1%	1	0.3%	2	1%	1	0.3%
Cold sauces (n=623)	42	7%	78	13%	76	12%	87	14%	77	12%	71	11%	70	11%	73	12%	31	5%	10	2%	8	1%
Syrups (n=304)	38	13%	90	30%	72	24%	34	11%	19	6%	14	5%	5	2%	4	1%	16	5%	4	1%	8	3%
Frozen snacking products (n=1109)	163	15%	97	9%	142	13%	150	14%	99	9%	99	9%	87	8%	74	7%	50	5%	43	4%	105	9%
Frozen pastries and desserts (n=571)	12	2%	51	9%	83	15%	64	11%	86	15%	53	9%	46	8%	25	4%	36	6%	22	4%	93	16%

n=total numbers all sectors combined or by sector
In green: presence frequencies equal to or greater than 10%

➤ *By type of brands*

For all additives and sectors combined, products from specialised retailer brands had the lowest proportion of additive-free products (n=241; 10% of the segment's products) (Table 6). However, this result should be put into perspective since specialised retailer brands are only present in six sectors (Baby food, Ice creams and sorbets, Ready-to-eat frozen meals, Processed potato products, Frozen snacking products and Frozen pastries and desserts) out of the 30 currently monitored by Oqali (Annex 1).

Excluding specialised retailer brands, **national brands had the most products without additives (27%), followed by retailer brands (21%), then budget products, which had the fewest additive-free products (20% of entry-level retailer brand products and 19% of products from hard discount store brands)** (Table 6).

Table 6: Distribution of products according to the number of different additives found in their ingredient lists (products containing 10 or more additives grouped together), by type of brands

Product containing the number of additives considered per type of brands and all sectors combined (in the 30 sectors currently considered by Oqali) Number of different additives found within the same product	Specialised retailer brands (6 sectors out of the 30 studied) ¹		National brands (30 sectors out of the 30 studied)		Retailer brands (30 sectors out of the 30 studied)		Entry-level retailer brands (27 sectors out of the 30 studied)		Hard discount store brands (30 sectors out of the 30 studied)	
	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
0	241	10%	2255	27%	2893	21%	266	20%	885	19%
1	293	12%	1533	18%	2437	18%	245	18%	781	17%
2	281	12%	1152	14%	1761	13%	177	13%	616	13%
3	313	13%	916	11%	1549	11%	149	11%	549	12%
4	290	12%	622	8%	1319	10%	169	12%	464	10%
5	231	10%	559	7%	950	7%	113	8%	380	8%
6	208	9%	378	5%	765	6%	91	7%	277	6%
7	158	7%	265	3%	598	4%	65	5%	209	5%
8	111	5%	183	2%	432	3%	29	2%	152	3%
9	73	3%	132	2%	268	2%	23	2%	92	2%
10 and over	153	7%	296	4%	542	4%	35	3%	201	4%

In green: presence frequencies equal to or greater than 10%

¹ Because specialised retailer brands are only present in 6 sectors out of the 30 studied, it is difficult to compare them to the other type of brands

➤ *By type of brands and sector*

As mentioned in the sections above, **additive use varies** due to European regulations defining restrictive lists of food categories in which each additive is authorised (European Parliament and the Council of the European Union 2008, modified). Moreover, not all products systematically contain the additive(s) authorised in their product categories.

All the results showing the number of different additives found within the same product by sector and type of brands are provided in Annex 4.

3.3 Study of additives of interest

This section details the study of the presence frequencies of a selected number of additives. It covers ingredient lists of products based on the most recent data available from the 30 sectors currently considered by Oqali. The results presented below complement those of the previous section, because some of the additives studied have been grouped together when they belong to the same family and a single ADI has been defined for the whole family.

3.3.1 Presence frequencies all sectors combined

Among the 30,125 products studied and all sectors combined (within the 30 sectors currently monitored by Oqali), **43% (n=12,998) mentioned at least one of the 45 additives or additive groups of interest. Thus, 57% (n=17,127) of the ingredient lists studied did not mention any of the 45 additives and additive groups considered.**

Table 7 details the presence frequencies by additive group of interest.

Among the additives and additive groups considered and for all 30 Oqali sectors monitored, those with the highest presence frequencies were:

- carrageenans (E407; used mainly as gelling agents): 10% (n=2,909);
- nitrites (E249, E250; used mainly as preservatives): 10% (n=2,867);
- phosphoric acid and phosphates (E338, E339, E339(I), E339(II), E339(III), E340, E340(I), E340(II), E340(III), E341, E341(I), E341(II), E341(III), E343, E343(I), E343(II), E450, E450(I), E450(II), E450(III), E450(V), E450(VI), E450(VII), E451, E451(I), E451(II), E452, E452(I), E452(II), E452(III), E452(IV); multiple roles including as an acid): 9% (n=2,586);
- sulphites (E220, E221, E222, E223, E224, E226, E227, E228; used mainly as preservatives): 7% (n=2,078).

Conversely, the six additives and groups with presence frequencies of zero were bentonite (E558), ethyl lauroyl arginate (E243), sorbitan monolaurate and sorbitan monooleate (E493, E494), acidic sodium aluminium phosphate (E541), aluminium sulphates (E520, E521, E522, E523) and stearyl tartrate (E483).

Concerning the presence frequency of the colour titanium dioxide (E171) (n=157; 1%), it should be noted that this additive is mainly found in Confectionery products (Anses 2017), which were not studied in this report.

Table 7: By additive and additive group of interest, numbers and percentages of products containing the additive or additive group considered, all sectors combined and among the 30,125 products studied

Group of additives of interest	Products containing at least the additive group considered, all sectors combined (among the 30 sectors currently monitored by Oqali)	
	Number	Proportion
At least 1 of the 45 groups	12,998	43%
CARRAGEENAN (E407)	2909	10%
NITRITES (E249_E250)	2867	10%
PHOSPHORIC ACID AND PHOSPHATES (E338_E339_E339(I)_E339(II)_E339(III)_E340_E340(I)_E340(II)_E340(III)_E341_E341(I)_E341(II)_E341(III)_E343_E343(I)_E343(II)_E450_E450(I)_E450(II)_E450(III)_E450(V)_E450(VI)_E450(VII)_E451_E451(I)_E451(II)_E452_E452(I)_E452(II)_E452(III)_E452(IV))	2586	9%
SULPHITES (E220_E221_E222_E223_E224_E226_E227_E228)	2078	7%
CARAMELS (E150A_E150B_E150C_E150D)	1612	5%
CURCUMIN (E100)	1002	3%
BETA_CAROTENE_MIXED_CAROTENES_PLANT_CAROTENES (E160A(I)_E160A(II))	993	3%
ANNATTO_BIXIN_NORBIXIN (E160B)	959	3%
GLUTAMATES (E620_E621_E622_E623_E624_E625)	910	3%
LUTEIN (E161B)	645	2%
ACESULFAME-K (E950)	529	2%
MONO- AND DIACETYLTARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS (E472E)	501	2%
SUCRALOSE (E955)	335	1%
SODIUM AND CALCIUM STEAROYL_2_LACTYLATES (E481_E482)	330	1%
TARTARIC ACID AND TARTRATES (E334_E335_E335(I)_E335(II)_E336_E336(I)_E336(II)_E337_E354)	264	1%
COPPER COMPLEXES OF CHLOROPHYLLS AND CHLOROPHYLLINS (E141_E141(I)_E141(II))	230	1%
BENZOIC ACID AND BENZOATES (E210_E211_E212_E213)	203	1%
CALCIUM CARBONATE (E170)	195	1%
TITANIUM DIOXIDE (E171)	157	1%
IRON OXIDES AND HYDROXIDES (E172)	132	0.4%
POLYGLYCEROL ESTERS OF FATTY ACIDS (E475)	110	0.4%
SUCROSE ESTERS OF FATTY ACIDS AND SUCROGLYCERIDES (E473_E474)	96	0.3%
STEVIOL GLYCOSIDES (E960)	78	0.3%
SILICON DIOXIDE (E551)	53	0.2%
TRIETHYL CITRATE (E1505)	50	0.2%
PONCEAU 4R COCHINEAL RED A (E124)	36	0.1%
BETA_APO_8_CAROTENAL_C30 (E160E)	24	0.1%
POLYOXYETHYLENE SORBITAN MONOLAURATE_MONOLEATE_MONOPALMITATE_MONOSTEARATE_TRISTEARATE (E432_E433_E434_E435_E436)	19	0.1%
SORBITAN MONOSTEARATE_TRISTEARATE_MONOPALMITATE (E491_E492_E495)	19	0.1%
MICROCRYSTALLINE CELLULOSE (E460(I))	17	0.1%
SUNSET YELLOW FCF ORANGE YELLOW S (E110)	14	0.05%
ALLURA RED AC (E129)	13	0.04%
ALUMINIUM SILICATES (E554_E555_E556_E559)	12	0.04%
QUINOLINE YELLOW (E104)	9	0.03%
FERROCYANIDES (E535_E536_E538)	5	0.02%
LITHOLRUBINE BK (E180)	4	0.01%
SILVER (E174)	2	0.01%
BUTYLATED HYDROXYTOLUENE (BHT) (E321)	1	0.003%
ETHYL ESTER OF BETA-APO-8-CAROTENOIC ACID (C30) (E160F)	1	0.003%
BENTONITE (E558)	0	0%
ETHYL LAUROYL ARGINATE (E243)	0	0%
SORBITAN MONOLAURATE AND MONOLEATE (E493_E494)	0	0%
SODIUM ALUMINIUM PHOSPHATE ACIDIC (E541)	0	0%
ALUMINIUM SULPHATES (E520_E521_E522_E523)	0	0%
STEARYL TARTRATE (E483)	0	0%

3.3.2 Presence frequencies by sector

Detailed results by additive and additive group of interest and by sector are presented in Annex 5.

Due to European regulations governing additive use (European Parliament and the Council of the European Union 2008, modified), each additive is only authorised in certain product categories. The distribution of the additives and additive groups of interest therefore depends on the foodstuff. Moreover, not all products systematically contain the additive(s) authorised in the food category to which they belong. As a result, use rates were generally low or even zero for many sectors.

The presence frequency of at least one of the 45 additives or additive groups of interest varied from 74% for the Delicatessen meats sector (mainly due to the presence of nitrites in 71% of Delicatessen meat products) **to 1% for the Fruit purees, compotes and desserts sector.**

Concerning the additives or additive groups with the highest presence frequencies in all sectors combined:

- carrageenans (E407), extracted from seaweed and used for their gelling properties, were found in 22 of the 30 sectors studied and more specifically in eight sectors where their presence frequencies were above 10% (Fresh dairy products and similar: 34%; Dessert mixes: 33%; Frozen pastries and desserts: 33%; Ice creams and sorbets: 31%; Ready-to-eat canned meals: 18%; Ready-to-eat fresh meals: 17%; Frozen snacking products: 15%; Fresh delicatessen products: 14%);
- nitrites (E249, E250) were found in 10 of the 30 sectors studied, mainly those concerning cured meat, in which they are used as preservatives: Delicatessen meats (71%), Frozen snacking products (40%), Fresh delicatessen products (27%), Ready-to-eat canned meals (23%), Ready-to-eat fresh meals (18%) and Ready-to-eat frozen meals (11%).

Note also the 55% use rate for phosphoric acid and phosphates²⁵ in Cakes and biscuits, in which they act as raising agents.

By way of comparison, a 2014 German study (Diouf *et al.* 2014) estimated children's consumption of five food colours in products collected in 2001/2002 and 2006. Among the five colours studied, four corresponded to additives of interest: sunset yellow FCF, also known as orange yellow S (E110), ponceau 4R and cochineal red A (E124), allura red AC (E129) and annatto, bixin, norbixin (E160b). The German study indicated that with the exception of annatto, bixin, norbixin (E160b), the other three colours were most often found in products in the confectionery, flavoured drinks and desserts sector. Considering the 30 sectors currently monitored by Oqali – therefore excluding the Confectionery sector – these three colours were also found in the same types of products (mainly in the Syrups and Canned fruits sectors). It should be noted that they were found in less than half of the Oqali sectors and most often their presence frequencies were below 1%, with the exception of ponceau 4R and cochineal red in the

²⁵ E338, E339, E339(I), E339(II), E339(III), E340, E340(I), E340(II), E340(III), E341, E341(I), E341(II), E341(III), E343, E343(I), E343(II), E450, E450(I), E450(II), E450(III), E450(V), E450(VI), E450(VII), E451, E451(I), E451(II), E452, E452(I), E452(II), E452(III), E452(IV); multiple roles including as an acidifying agent.

Canned fruits (2%), Ready-to-eat fresh meals (1%) and Syrups (3%) sectors, and of allura red AC in the Syrups (1%) sector. For annatto, bixin, norbixin (E160b), the highest presence frequencies corresponded to products in the same categories (cheeses and desserts). It is important to note that since the product categories in the two studies were not defined in the same way, the presence frequencies cannot be compared in any further detail. In addition, the German study focused on products consumed by children, whereas the Oqali database collects all the products found on the French market.

3.4 Conclusion on the review of additive presence frequencies

Among the 30,125 products studied within the 30 sectors currently monitored by Oqali, **22% (n=6,540) did not mention any additives (as considered by Oqali) in their ingredient list while 78% (n=23,585) mentioned one or more.** More specifically, among the 285 additive designations found, 42 had a presence frequency of 2% or more, including eight with a presence frequency of 10% or more. The most frequently mentioned additive was citric acid (E330 in 23% of products) followed by modified starches²⁶ (22% of products) and lecithins (E322 in 17% of products). **Additive use depends on the foodstuff. The majority of products (53% of them) contained fewer than three additives: 22% of products were additive-free, while 18% and 13% contained one and two additives respectively. By sector, 17 of the 30 sectors studied had a majority of products without additives, or with one or two different ones.** In addition, 22 of the 30 sectors studied contained products using 10 or more additives. However, the associated presence frequencies were below 10%, with the exception of Frozen pastries and desserts (16%), Fresh delicatessen products (15%) and Ice creams and sorbets (12%). **By type of brands, and excluding specialised retailer brands, which are only present in six of the 30 sectors considered, national brands had the most products without additives (27%), followed by retailer brands (21%), then budget products, which had the fewest additive-free products (20% of entry-level retailer brand products and 19% of products from hard discount store brands).**

43% of the 30,125 products considered mentioned at least one of the 45 additives or additive groups of interest. Thus 57% of the ingredient lists studied did not mention any of the 45 additives or groups considered. At the sector level, the presence frequency of at least one of the 45 additives or additive groups of interest varied from 74% for the Delicatessen meats sector (mainly due to the presence of nitrites in 71% of Delicatessen meat products) to 1% for the Fruit purees, compotes and desserts sector. As additive use is regulated according to the categories of foodstuffs (European Parliament and the Council of the European Union 2008, modified), certain use rates may be high for specific sector/additive or additive group pairs while still complying with the conditions of use laid down in the regulations.

To conclude, a wide variety of additives was found in the processed food products studied but the presence frequency of each of them was generally low, with uses targeted on specific product categories. The use of each additive was largely related to the product type, as defined by the European regulations (European Parliament and the Council of the European Union 2008, modified). It should be noted that certain additives may be found at a high frequency, but for very specific sectors.

²⁶ This concerns all modified starches, without further clarification, as authorised in the regulations.

4. CHANGES IN ADDITIVE PRESENCE FREQUENCIES

4.1 Presentation of the data used

This section focuses on the 20 sectors for which updated data are available among the 30 sectors currently studied by Oqali. Each of them was therefore the subject of an initial characterisation, described as "baseline" in this section, as well as an initial study to monitor changes a few years later, described below as "follow-up".

The 20 sectors studied in the remainder of this report are Crackers, Cereal bars, Cakes and biscuits, Soft drinks, Breakfast cereals, Delicatessen meats, Chocolate products, Fruit purees, compotes and desserts, Jams, Canned fruits, Ice creams and sorbets, Fruit juices and nectars, Margarines, Bread products, Frozen pizzas, Ready-to-eat frozen meals, Dessert mixes, Fresh dairy products and similar, Fresh delicatessen products, and Cold sauces.

Thus, the remainder of this report covers a total of 37,128 products, divided into 14,799 products for the baselines and 22,329 for the follow-ups of the changes, broken down into 20 sectors (Table 8) and taken from five type of brands (specialised retailer brands²⁷, national brands²⁸, retailer brands²⁹, entry-level retailer brands³⁰ and hard discount store brands³¹). It is important to state that the results per type of brands need to be put into perspective because of the product offer per segment (the numbers of products differ from one sector to another) and the fact that not all type of brands are present in all sectors (e.g. specialised distributor brands). Annex 6 presents the numbers of products considered for this part of the study by type of brands and by sector.

Table 8: List of the 20 Oqali sectors included in this part of the study and the number of products concerned

Sector	Year(s) of data collection		Number of products taken into account in the trend study		Market coverage rate*	
	Baseline	Follow-up	Baseline	Follow-up	Baseline	Follow-up
Crackers	2009	2013	551	1080	53%	59%
Cereal bars	2010-2011	2016	169	179	79%	82%
Cakes and biscuits	2008	2011	1692	2292	70%	65%
Soft drinks	2009-2010	2013	843	1421	78%	86%
Breakfast cereals	2008	2011	335	447	75%	75%
Delicatessen meats	2009-2010	2013	1161	1722	65%	64%
Chocolate products	2009	2012	750	1041	68%	74%
Fruit purees, compotes and desserts	2009	2010	440	635	68%	78%
Jams	2009	2010	339	466	58%	70%
Canned fruits	2009	2010	184	217	49%	65%
Ice creams and sorbets	2010-2011	2015	1416	1953	67%	87%
Fruit juices and nectars	2009-2010	2013	772	1557	56%	83%
Margarines	2011	2016	95	108	82%	86%
Bread products	2009	2012	578	1023	55%	76%
Frozen pizzas	2010	2015	214	392	63%	86%
Ready-to-eat frozen meals	2012	2016	1863	2164	60%	65%
Dessert mixes	2009	2013-2014	160	329	61%	76%
Fresh dairy products and similar	2008-2009	2011	1552	2411	66%	80%
Fresh delicatessen products	2008-2009-2010-2011	2015	1141	2269	42%	58%
Cold sauces	2011	2016	544	623	78%	80%
Total	2008-2012	2010-2016	14,799	22,329	65%[†]	75%[†]

* Ratio of product volumes identified by Oqali to the total market volume characterised by Kantar Worldpanel

[†] Average estimated market cover per sector

Depending on the sector, the product collection years ranged from 2008 to 2012 for the baselines and from 2010 to 2016 for the follow-ups. This dispersion within the baselines and follow-ups, as well as the fact that some sectors had the same follow-up years as the baselines of other sectors, should be taken into account when comparing sectors. Differences in the time

²⁷ Defined as frozen products sold in freezer centres and by home delivery suppliers.

²⁸ Corresponds to branded products.

²⁹ Corresponds to the products carrying the brand of the retailer rather than the producer and sold only in their own supermarket chain.

³⁰ Corresponds to first-price retailer brand products: their plain packaging often reveals this positioning.

³¹ Defined as products sold at prices below the typical market value, with a focus on price rather than service, display or a wide range of choices.

interval between baseline and follow-up should also be taken into account when interpreting the results. For half of the sectors, three to four years separated the baseline from the follow-up. The Fruit purees, compotes and desserts, Jams and Canned fruits sectors were distinguished by an interval of only one year, making it more difficult to identify the changes concerning them. For the other sectors of Cereal bars, Margarines, Frozen pizzas, Fresh delicatessen products and Cold sauces, five to six years separated the baselines from the follow-ups.

Market coverage rates³² for products collected by Oqali differed depending on the sectors and collection periods. For the baselines, they varied from 42% for Fresh delicatessen products to 82% for Margarines, and for the follow-ups, from 58% for Fresh delicatessen products to 87% for Ice creams and sorbets (Kantar Worldpanel data³³). Overall, market coverage rates increased between baselines and follow-ups (except for Cakes and biscuits, Breakfast cereals and Delicatessen meats). This reflects an improvement in the collection of products by Oqali over time and should also be taken into account when interpreting the results. However, the market coverages presented are underestimated due to the fact that some products found on the market could not be assigned precisely to a line in the database communicated by Kantar Worldpanel and that, conversely, some products in the Kantar Worldpanel database were not found among the products collected by Oqali.

Product numbers also increased between the baselines and the follow-ups.

As in the previous section (section 3 of this report), in comparison with the sector studies published by Oqali, some products were not considered in this part of the study. This concerned the following products:

- those from out-of-home catering, central purchasing agencies, specialist organic retailer brands and pharmacies, as these could not be collected for all sectors;
- those for which ingredient lists were not available. It should be noted that in the case of the Cheeses sector, where the regulations authorise the omission of an ingredient list on the packaging (European Parliament and the Council of the European Union 2011) when they do not contain any ingredients other than milk products, food enzymes, micro-organisms and salt, products were included in the study on the assumption that they were additive-free.

It should also be noted that the results of this report may differ slightly from those of previous studies published by Oqali. Indeed, when corrections were made to the Oqali database, the scope of the studies or any information studied in the Oqali reports may have been modified or corrected. The study reported in this section was carried out using corrected updated data.

For the results presented in the remainder of this section, it should be stressed that the sum of the presence frequencies of several additives cannot be used to identify the presence frequency of their group, since the same foodstuff may contain several additives.

³² Ratio of product volumes identified by Oqali to the total market volume characterised by Kantar Worldpanel.

³³ Kantar Worldpanel: purchasing data from households representative of the French population.

4.2 Changes in the most commonly used additives

This section details the changes in the presence frequencies of all the additives found in the ingredient lists of the products considered, based on the 20 sectors for which updated data are available among the 30 sectors currently studied by Oqali.

4.2.1 Changes in presence frequencies by additive

As stated in the "Method" section (2.3), Oqali considers as additives ingredients with an EU identification code and/or a name taken from the exhaustive list of additives in Regulation (EC) No 1333/2008 (European Parliament and the Council of the European Union 2008, modified).

➤ *All sectors combined*

Among the products studied and all sectors combined (20 sectors for which updated data are available out of the 30 sectors currently studied by Oqali), **the proportion of additive-free products increased significantly by +5 points** (13.7% at baselines and 18.3% at follow-ups).

For this part of the study relating to the changes in additive presence frequencies, **263 different additive designations were found within the products at baseline and follow-up among the 20 sectors studied. 46 of them were identified with a presence frequency of 2% or more at baseline and/or follow-up.**

Table 9 presents detailed results for additives with a presence frequency of 2% or more in at least one of the two collection years, all sectors combined. The results of additives with a presence frequency below 2% for at least one of the two collection years are presented in Annex 7.

Among these 46 additive designations with a presence frequency of 2% or more in the ingredient lists studied, 29 saw a significant decrease in their presence frequencies between baselines and follow-ups (ranging from -0.3 to -3 points) (Table 9). Thus, citric acid (E330), which was the additive most frequently found at baselines (26% of products studied) as well as at follow-ups (24%), saw a significant -2 point decrease. Similarly, the most frequent colour in the ingredient lists studied at baseline (7%) and follow-up (6%) was paprika extract, capsanthin and capsorubin (E160c), for which a significant decrease of -1 point was observed. Lastly, the two sweeteners most often found in the ingredient lists were acesulfame K (E950) and sorbitol (E420(i)): 3% for both at baseline and 2% for both at follow-up. There was also a significant decrease in the presence frequency of these two sweeteners (-0.3 and -1 point respectively).

Of these 46 additive designations, only carotenoids (E160a: +2 points; colours), pectins (E440: +0.4 point; used mainly as gelling agents), anthocyanins (E163: +0.3 point; colours) and sodium carbonates (E500: +1 point; used mainly as raising agents) saw a significant increase in their use rates between the baselines and follow-ups (3% at the baselines and 5% at the follow-ups for carotenoids, 3% for pectins, and 2% for anthocyanins at both baseline and follow-up, as well as 1% at baseline and 2% at follow-up for sodium carbonates).

Table 9: Changes in the presence frequencies of additives with a presence frequency of 2% or more over at least one of the two collection years, all sectors combined

Ingredient considered by Oqali to be an additive <i>(n=number of products containing at least one ingredient considered to be an additive)</i>	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Products containing at least the additive considered, all sectors combined (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
At least 1 additive (Baseline: n=12777; Follow-up: n=18241)	-	86.3%	81.7%	-5***
E330_CITRIC ACID (Baseline: n=3847; Follow-up: n=5292)	OTHERS	26%	24%	-2***
E1404_E1410_E1412_E1413_E1414_E1420_E1422_E1440_E1442_E1450_E1451_E1452_MODIFIED STARCHES* (Baseline: n=3259; Follow-up: n=4289)	OTHERS	22%	19%	-3***
E322_LECITHINS (Baseline: n=3101; Follow-up: n=4421)	OTHERS	21%	20%	-1**
E471_MONO AND DIGLYCERIDES OF FATTY ACIDS (Baseline: n=2728; Follow-up: n=3702)	OTHERS	18%	17%	-2***
E412_GUAR GUM (Baseline: n=2307; Follow-up: n=3037)	OTHERS	16%	14%	-2***
E415_XANTHAN GUM (Baseline: n=2164; Follow-up: n=2891)	OTHERS	15%	13%	-2***
E300_ASCORBIC ACID (Baseline: n=1951; Follow-up: n=3067)	OTHERS	13%	14%	+1
E407_CARRAGEENAN (Baseline: n=1862; Follow-up: n=2181)	OTHERS	13%	10%	-3***
E500(II)_SODIUM HYDROGEN CARBONATE (Baseline: n=1678; Follow-up: n=2383)	OTHERS	11%	11%	-1*
E250_SODIUM NITRITE (Baseline: n=1647; Follow-up: n=2223)	OTHERS	11%	10%	-1***
E410_LOCUST BEAN GUM (Baseline: n=1423; Follow-up: n=1987)	OTHERS	10%	9%	-1*
E202_POTASSIUM SORBATE (Baseline: n=1317; Follow-up: n=1773)	OTHERS	9%	8%	-1**
E440(I)_PECTIN (Baseline: n=1122; Follow-up: n=1429)	OTHERS	8%	6%	-1***
E160C_PAPRIKA EXTRACT_CAPSANTHIN_CAPSORUBIN (Baseline: n=1067; Follow-up: n=1392)	COLOUR	7%	6%	-1***
E450(I)_DISODIUM DIPHOSPHATE (Baseline: n=1026; Follow-up: n=1291)	OTHERS	7%	6%	-1***
E160A(I)_E160A(II)_BETA_CAROTENE_MIXED_CAROTENES_PLANT_CAROTENES (Baseline: n=965; Follow-up: n=828)	COLOUR	7%	4%	-3***
E316_SODIUM ERYTHORBATE (Baseline: n=913; Follow-up: n=1080)	OTHERS	6%	5%	-1***
E331_SODIUM CITRATES (Baseline: n=780; Follow-up: n=1092)	OTHERS	5%	5%	-0.4
E503(II)_AMMONIUM HYDROGEN CARBONATE (Baseline: n=774; Follow-up: n=1212)	OTHERS	5%	5%	+0.2
E100_CURCUMIN (Baseline: n=735; Follow-up: n=813)	COLOUR	5%	4%	-1***
E301_SODIUM ASCORBATE (Baseline: n=732; Follow-up: n=907)	OTHERS	5%	4%	-1***
E120_COCHINEAL_CARMINIC ACID_CARMINES (Baseline: n=579; Follow-up: n=844)	COLOUR	4%	4%	-0.1
E160B_ANNATTO_BIXIN_NORBIXIN (Baseline: n=578; Follow-up: n=671)	COLOUR	4%	3%	-1***
E161B_LUTEIN (Baseline: n=561; Follow-up: n=570)	COLOUR	4%	3%	-1***
SULPHITES (Baseline: n=514; Follow-up: n=673)	OTHERS	3%	3%	-0.5*
E150A_PLAIN CARAMEL (Baseline: n=512; Follow-up: n=776)	COLOUR	3%	3%	+0.02
E450_DIPHOSPHATES (Baseline: n=507; Follow-up: n=784)	OTHERS	3%	4%	+0.1
E224_POTASSIUM METABISULPHITE (Baseline: n=458; Follow-up: n=485)	OTHERS	3%	2%	-1***
E160A_CAROTENOIDES (Baseline: n=437; Follow-up: n=1039)	COLOUR	3%	5%	+2***
E252_POTASSIUM NITRATE (Baseline: n=422; Follow-up: n=598)	OTHERS	3%	3%	-0.2
E440_PECTINS (Baseline: n=419; Follow-up: n=732)	OTHERS	3%	3%	+0.4*
E422_GLYCEROL (Baseline: n=403; Follow-up: n=576)	OTHERS	3%	3%	-0.1
E401_SODIUM ALGINATE (Baseline: n=389; Follow-up: n=364)	OTHERS	3%	2%	-1***
E451_TRIPHOSPHATES (Baseline: n=379; Follow-up: n=534)	OTHERS	3%	2%	-0.2
E270_LACTIC ACID (Baseline: n=379; Follow-up: n=517)	OTHERS	3%	2%	-0.2
E950_ACESULFAME K (Baseline: n=379; Follow-up: n=496)	SWEETENER	3%	2%	-0.3*
E420(I)_SORBITOL (Baseline: n=374; Follow-up: n=362)	SWEETENER	3%	2%	-1***
E621_MONOSODIUM GLUTAMATE (Baseline: n=372; Follow-up: n=404)	OTHERS	3%	2%	-1***
E282_CALCIUM PROPIONATE (Baseline: n=337; Follow-up: n=488)	OTHERS	2%	2%	-0.1
E951_ASPARTAME (Baseline: n=326; Follow-up: n=267)	SWEETENER	2%	1%	-1***
E476_POLYGLYCEROL POLYRICINOLEATE (Baseline: n=311; Follow-up: n=434)	OTHERS	2%	2%	-0.2
E452_POLYPHOSPHATES (Baseline: n=307; Follow-up: n=329)	OTHERS	2%	1%	-1***
E472E_MONO- AND DIACETYL TARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS (Baseline: n=262; Follow-up: n=369)	OTHERS	2%	2%	-0.1
E163_ANTHOCYANINS (Baseline: n=252; Follow-up: n=457)	COLOUR	2%	2%	+0.3*
E481_SODIUM STEAROYL-2-LACTYLATE (Baseline: n=224; Follow-up: n=266)	OTHERS	2%	1%	-0.3**
E500_SODIUM CARBONATES (Baseline: n=123; Follow-up: n=392)	OTHERS	1%	2%	+1***

* This concerns all modified starches, without further clarification, as authorised in the regulations
 Purple cells: significant decrease in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Orange cells: significant increase in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Statistical test performed: chi-square test

➤ *By sector*

All of the results on changes by additive and sector are available in Excel format on the Oqali website: https://www.oqali.fr/oqali_eng/Communication.

The proportion of products with citric acid (E330; multiple properties including that of acidity regulator), the additive found most frequently in the ingredient lists all sectors combined, fell significantly for six sectors (Fresh delicatessen products: -19 points; Frozen pizzas: -11 points; Soft drinks: -5 points; Bread products: -5 points; Ready-to-eat frozen meals: -5 points; Chocolate products: -2 points) and increased for one sector (Fresh dairy products and similar: +4 points) (Table 10).

For the four additives with significantly increased presence frequencies:

- Carotenoids (E160a; colours): the proportion of products with this additive fell significantly for the Ready-to-eat frozen meals sector (-1 point) while it increased significantly for three sectors (+66 points for Margarines, +14 points for Ice creams and sorbets and +6 points for Cold sauces) (Table 10). It should be noted that for these three sectors, this increase was accompanied by a significant decrease in the presence frequency of the additive group beta-carotene, mixed carotenes and plant carotenes (E160a(i) and E160a(ii); colour) (-54 points for Margarines, -10 points for Ice creams and sorbets and -4 points for Cold sauces) (Table 11);
- Pectins (E440; used mainly as gelling agents): significant changes in opposite directions were observed, with a significant decrease for the Cakes and biscuits (-1 point) and Fresh dairy products and similar (-2 points) sectors and a significant +10 point increase for the Ice creams and sorbets sector (Table 10). It should be noted that the increase recorded for the Ice creams and sorbets sector was offset by a significant -8 point decrease for pectin (E440(i)) (Table 12);
- Anthocyanins (E163; colour): the presence frequency increased significantly in two sectors (+1 point for Cakes and biscuits and +2 points for Soft drinks) (Table 10);
- Sodium carbonates (E500; used mainly as raising agents): the proportion of products with this additive fell significantly for the Cakes and biscuits sector (-1 point) while it increased significantly for three sectors (+4 points for Fresh delicatessen products, +3 points for Ice creams and sorbets and +2 points for Ready-to-eat frozen meals) (Table 10). Moreover, this significant increase was accompanied by a significant decrease in the presence frequency of sodium hydrogen carbonate (E500(ii)) for the Ready-to-eat frozen meals (-2 points) and Fresh delicatessen products (-1 point) sectors (Table 13). It should also be noted that the presence frequency of sodium carbonate (E500(i)) decreased significantly for Fresh delicatessen products (-2 points) (Table 13).

Table 10: Extract of the changes in presence frequencies by sector, showing a significant change between the baseline and follow-up for carotenoids (E160a), anthocyanins (E163), citric acid (E330), pectins (E440) and sodium carbonates (E500)

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Sector (n=number of products containing at least the additive considered)	Products containing at least the additive considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
			Baseline	Follow-up	Change in proportions (point)
E330_CITRIC ACID	OTHERS	Soft drinks (Baseline: n=624; Follow-up: n=974)	74%	69%	-5**
		Fresh delicatessen products (Baseline: n=605; Follow-up: n=761)	53%	34%	-19***
		Ready-to-eat frozen meals (Baseline: n=449; Follow-up: n=405)	24%	19%	-5***
		Frozen pizzas (Baseline: n=46; Follow-up: n=41)	21%	10%	-11***
		Fresh dairy products and similar (Baseline: n=168; Follow-up: n=353)	11%	15%	+4***
		Bread products (Baseline: n=61; Follow-up: n=58)	11%	6%	-5***
		Chocolate products (Baseline: n=39; Follow-up: n=34)	5%	3%	-2*
E160A_CAROTENOIDS	COLOUR	Ice creams and sorbets (Baseline: n=132; Follow-up: n=450)	9%	23%	+14***
		Ready-to-eat frozen meals (Baseline: n=22; Follow-up: n=11)	1%	1%	-1*
		Cold sauces (Baseline: n=3; Follow-up: n=43)	1%	7%	+6***
		Margarines (Baseline: n=0; Follow-up: n=71)	0%	66%	+66***
E440_PECTINS	OTHERS	Fresh dairy products and similar (Baseline: n=177; Follow-up: n=216)	11%	9%	-2*
		Ice creams and sorbets (Baseline: n=91; Follow-up: n=326)	6%	17%	+10***
		Cakes and biscuits (Baseline: n=95; Follow-up: n=97)	6%	4%	-1*
E163_ANTHOCYANINS	COLOUR	Soft drinks (Baseline: n=18; Follow-up: n=64)	2%	5%	+2**
		Cakes and biscuits (Baseline: n=18; Follow-up: n=58)	1%	3%	+1***
		Cakes and biscuits (Baseline: n=46; Follow-up: n=34)	3%	1%	-1**
E500_SODIUM CARBONATES	OTHERS	Ice creams and sorbets (Baseline: n=18; Follow-up: n=75)	1%	4%	+3***
		Fresh delicatessen products (Baseline: n=13; Follow-up: n=124)	1%	5%	+4***
		Ready-to-eat frozen meals (Baseline: n=6; Follow-up: n=52)	0.3%	2%	+2***

Purple cells: significant decrease in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Orange cells: significant increase in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Statistical test performed: chi-square test

Table 11: Extract of the changes in presence frequencies by sector, for the beta-carotene, mixed carotenes and plant carotenes group (E160a(i) and E160a(ii)), showing a significant change between the baseline and follow-up for the Margarines, Cold sauces and Ice creams and sorbets sectors

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Sector (n=number of products containing at least the additive considered)	Products containing at least the additive considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
			Baseline	Follow-up	Change in proportions (point)
E160A(I)_E160A(II)_ BETA_CAROTENE_MIXED_CAROTENES_PLANT_CAROTENES	COLOUR	Margarines (Baseline: n=74; Follow-up: n=26)	78%	24%	-54***
		Cold sauces (Baseline: n=85; Follow-up: n=72)	16%	12%	-4*
		Ice creams and sorbets (Baseline: n=187; Follow-up: n=67)	13%	3%	-10***

Purple cells: significant decrease in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Orange cells: significant increase in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Statistical test performed: chi-square test

Table 12: Extract of the changes in presence frequencies by sector for pectin (E440(i)), showing a significant change between the baseline and follow-up for the Ice creams and sorbets sector

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Sector (n=number of products containing at least the additive considered)	Products containing at least the additive considered, for the sector considered (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
			Baseline	Follow-up	Change in proportions (point)
E440(I)_PECTIN	OTHERS	Ice creams and sorbets (Etat des lieux: n=314; Suivi: n=276)	22%	14%	-8***

Purple cells: significant decrease in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Orange cells: significant increase in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Statistical test performed: chi-square test

Table 13: Extract of the changes in presence frequencies by sector for sodium carbonate (E500(i)) and sodium hydrogen carbonate (E500(ii)), showing a significant change between the baseline and follow-up for the Fresh delicatessen products and Ready-to-eat frozen meals sectors

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Sector (n=number of products containing at least the additive considered)	Products containing at least the additive considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
			Baseline	Follow-up	Change in proportions (point)
E500(I)_SODIUM CARBONATE	OTHERS	Fresh delicatessen products (Baseline: n=41 ; Follow-up: n=25)	4%	1%	-2***
E500(II)_SODIUM HYDROGEN CARBONATE	OTHERS	Ready-to-eat frozen meals (Baseline: n=61 ; Follow-up: n=38)	3%	2%	-2**
E500(II)_SODIUM HYDROGEN CARBONATE	OTHERS	Fresh delicatessen products (Baseline: n=41 ; Follow-up: n=54)	4%	2%	-1*

Purple cells: significant decrease in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Orange cells: significant increase in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Statistical test performed: chi-square test

4.2.2 Changes in additive combinations

As the regulations authorise the use of several additives in the same product, while complying with the imposed conditions of use (European Parliament and the Council of the European Union 2008, modified), this part studied the changes in the number of different additives found in the ingredient list of the same product, all sectors combined and by sector (20 sectors considered among the 30 sectors currently monitored by Oqali).

➤ All sectors combined

The proportion of additive-free products increased significantly by +5 points, mainly producing a reduction in the proportion of products with four, five, eight, nine and 10 or more additives (significant declines, ranging from -0.4 to -1 point, between the baseline and follow-up) (Figure 2, Annex 8).

A decrease in the number of different additives used in the processed food products studied was therefore observed.

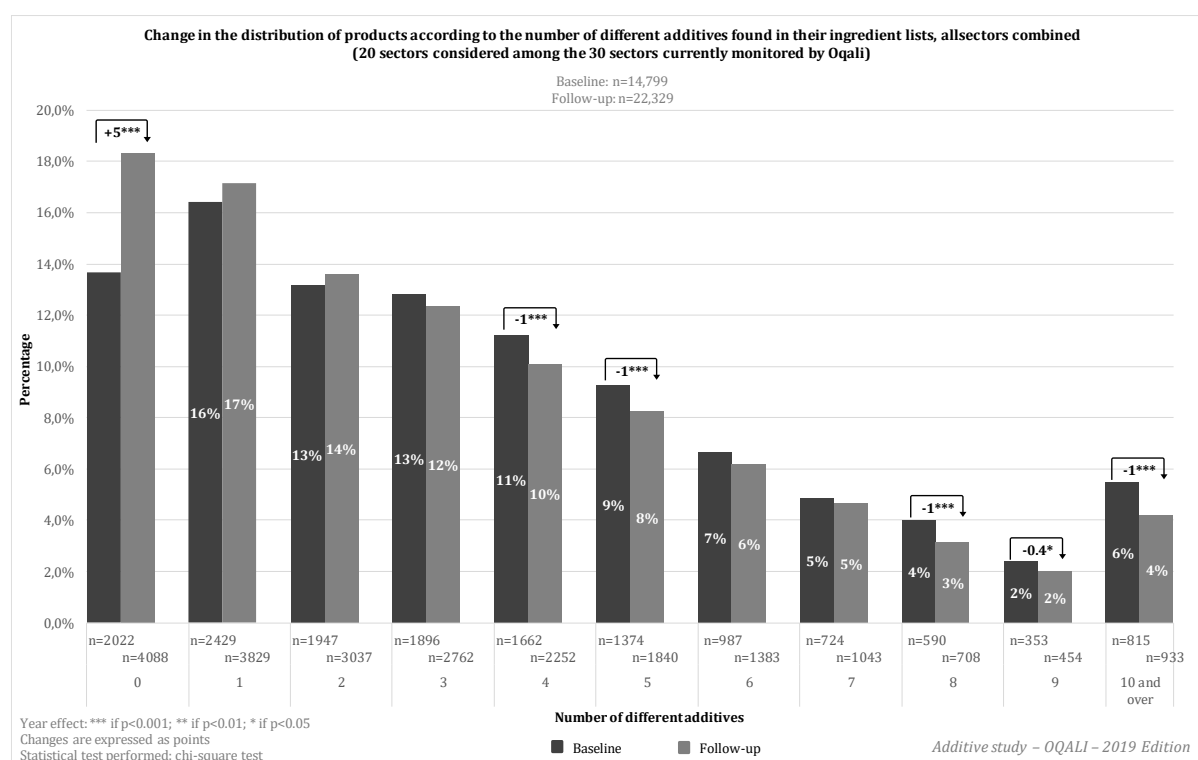


Figure 2: Change in the distribution of products according to the number of different additives found in their ingredient lists (products containing 10 or more additives grouped together), all sectors combined

➤ *By sector*

Table 14 details the change in the distribution of the number of different additives found within the same ingredient list, by sector.

As with all sectors combined, a decrease in the number of different additives used in processed food products was observed for most of the sectors considered.

Thus, the proportion of additive-free products increased significantly for 10 of the 20 sectors studied (from +3 to +13 points): Crackers (+5 points), Soft drinks (+3 points), Delicatessen meats (+5 points), Bread products (+4 points), Frozen pizzas (+9 points), Ready-to-eat frozen meals (+5 points), Dessert mixes (+9 points), Fresh dairy products and similar (+4 points), Fresh delicatessen products (+13 points) and Cold sauces (+3 points).

In the Fruit purees, compotes and desserts sector, the proportion of additive-free products decreased significantly by -10 points while the proportion of products with two different additives increased significantly by +5 points (Table 14). This can be explained by the significant +10 point increase in the proportion of products with ascorbic acid³⁴ in their ingredient list (Annex 9).

For the Cereal bars sector, the significant changes concerned the proportions of products containing one or two different additives (-7 points for both) (Table 14).

For the Chocolate products sector, the only significant change concerned the decrease in the proportion of products with four different additives (-2 points). Similarly, for the Ice creams and sorbets sector, the only significant development concerned a decrease in the proportion of products with eight different additives (-3 points) (Table 14).

³⁴ As a reminder, all products mentioning the use of ascorbic acid (E300) in their ingredient lists were taken into account, except those indicating the use of ascorbic acid as a vitamin (see section 2.1).

Table 14: Change in the distribution, of products according to the number of different additives found in their ingredient lists (products containing 10 or more additives grouped together), by sector

Sector	Change in the distribution of products according to the number of different additives found in their ingredient lists, by sector (20 sectors considered among the 30 sectors currently monitored by Oqali)																																
	0 additive			1 additive			2 additives			3 additives			4 additives			5 additives			6 additives			7 additives			8 additives			9 additives			10 or more additives		
	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)
All sectors combined (Baseline: n=1479; Follow-up: n=2329)	13.7%	18.3%	+5***	16%	17%	+1	13%	14%	+0.4	13%	12%	-0.4	11%	10%	-1***	9%	8%	-1***	7%	6%	-0.5	5%	5%	-0.2	4%	3%	-1***	2%	2%	-0.4*	6%	4%	-1***
Crackers (Baseline: n=551; Follow-up: n=1080)	28%	33%	+5*	11%	13%	+3	7%	11%	+4*	15%	14%	-0.4	12%	8%	-3*	10%	7%	-3*	6%	4%	-2	3%	3%	+0.2	3%	2%	-1	4%	2%	-1	3%	2%	-1
Cereal bars (Baseline: n=169; Follow-up: n=179)	1%	2%	+1	12%	5%	-7*	14%	7%	-7*	25%	31%	+6	24%	19%	-5	11%	16%	+5	7%	11%	+4	3%	4%	+1	2%	4%	+2	1%	0%	-1	0%	1%	+1
Cakes and biscuits (Baseline: n=1692; Follow-up: n=2292)	3%	2%	-0.3	6%	7%	+1	11%	12%	+1	18%	19%	+1	23%	22%	-1	13%	12%	-1	6%	8%	+1	5%	5%	+0.3	6%	6%	+0.1	3%	2%	-1	5%	4%	-1
Soft drinks (Baseline: n=843; Follow-up: n=1421)	9%	12%	+3*	14%	16%	+2	12%	13%	+1	20%	21%	+1	12%	14%	+1	14%	11%	-3	7%	5%	-2*	5%	4%	-1	4%	2%	-2*	1%	1%	+0.1	1%	1%	-0.2
Breakfast cereals (Baseline: n=335; Follow-up: n=447)	30%	27%	-3	44%	41%	-4	11%	14%	+3	8%	11%	+2	2%	2%	-0.3	2%	4%	+2	1%	1%	+0.4	1%	1%	+0.1	1%	1%	+0.1	0%	0%	+0	0%	0%	+0
Delicatessen meats (Baseline: n=1161; Follow-up: n=1722)	3%	9%	+5***	17%	18%	+1	27%	25%	-2	22%	21%	-2	14%	13%	-1	6%	6%	-0.4	6%	4%	-2*	2%	2%	+0.2	1%	1%	-0.1	1%	1%	+0.01	0.3%	1%	+0.4
Chocolate products (Baseline: n=750; Follow-up: n=1041)	4%	5%	+1	65%	67%	+2	16%	16%	-0.1	4%	5%	+1	4%	2%	-2*	2%	2%	-1	1%	1%	-0.1	1%	1%	-0.1	1%	0.3%	-0.2	0.1%	0.3%	+0.2	1%	1%	-0.2
Fruit purees, compotes and desserts (Baseline: n=440; Follow-up: n=635)	28%	18%	-10***	53%	57%	+4	18%	23%	+5*	2%	2%	+0.3	0.2%	0.2%	-0.1	0%	0%	+0	0%	0%	+0	0.2%	0.2%	-0.1	0%	0%	+0	0%	0%	+0	0%	0%	+0
Jams (Baseline: n=339; Follow-up: n=466)	3%	3%	-0.2	29%	26%	-3	58%	59%	+0.4	9%	12%	+3	1%	1%	+0.1	1%	0.2%	-0.4	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
Canned fruits (Baseline: n=184; Follow-up: n=217)	22%	18%	-4	44%	46%	+2	24%	29%	+5	10%	8%	-1	1%	0%	-1	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
Ice creams and sorbets (Baseline: n=1416; Follow-up: n=1953)	1%	0.4%	-0.4	2%	3%	+0.2	3%	3%	+0.5	6%	6%	+0.1	9%	11%	+2	14%	16%	+2	15%	17%	+2	15%	15%	-0.3	13%	10%	-3**	8%	8%	-1	14%	12%	-2
Fruit juices and nectars (Baseline: n=772; Follow-up: n=1557)	81%	81%	+0.2	12%	13%	+0.3	6%	5%	-1	0.4%	1%	+0.3	0%	0.3%	+0.3	0.3%	0.1%	-0.2	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
Margarines (Baseline: n=95; Follow-up: n=108)	0%	0%	0	5%	6%	+1	1%	2%	+1	6%	8%	+2	18%	25%	+7	49%	43%	-7	12%	7%	-4	8%	6%	-2	0%	2%	+2	0%	0%	+0	0%	0%	+0
Bread products (Baseline: n=578; Follow-up: n=1023)	10%	14%	+4*	22%	25%	+3	10%	6%	-4**	11%	10%	-1	11%	12%	+1	13%	14%	+1	7%	7%	-0.4	7%	6%	-1	3%	2%	-1	2%	2%	-0.001	3%	1%	-2**
Frozen pizzas (Baseline: n=214; Follow-up: n=392)	23%	32%	+9*	9%	13%	+3	26%	15%	-11***	10%	16%	+6*	10%	7%	-3	8%	8%	-1	4%	4%	-0.2	2%	2%	-0.04	1%	2%	+1	1%	0.3%	-1	6%	2%	-5**
Ready-to-eat frozen meals (Baseline: n=1863; Follow-up: n=2164)	15%	19%	+5***	16%	21%	+5***	15%	17%	+2*	19%	15%	-4**	11%	9%	-1	8%	6%	-2*	7%	4%	-3***	4%	2%	-2**	2%	2%	+0.3	1%	1%	-0.4	2%	1%	-1**
Dessert mixes (Baseline: n=160; Follow-up: n=329)	1%	10%	+9***	8%	8%	+0.4	20%	33%	+13**	22%	17%	-5	6%	7%	+1	17%	7%	-10***	11%	9%	-2	8%	5%	-2	4%	1%	-3	1%	2%	+0.3	3%	1%	-2
Fresh dairy products and similar (Baseline: n=1552; Follow-up: n=2411)	21%	25%	+4**	10%	9%	-1	10%	10%	-0.4	12%	11%	-1	13%	11%	-2*	10%	9%	-1	7%	7%	-0.5	5%	6%	+1	4%	4%	+0.1	3%	2%	-0.1	6%	6%	+1
Fresh delicatessen products (Baseline: n=1141; Follow-up: n=2269)	3%	16%	+13***	4%	8%	+4***	5%	11%	+5***	9%	11%	+2	13%	10%	-3**	11%	9%	-2*	8%	9%	+1	6%	6%	-1	8%	4%	-4***	5%	4%	-1	28%	15%	-14***
Cold sauces (Baseline: n=544; Follow-up: n=623)	4%	7%	+3*	17%	13%	-5*	13%	12%	-1	14%	14%	+0.2	13%	12%	-1	14%	11%	-2	9%	11%	+2	7%	12%	+5**	6%	5%	-1	1%	2%	+0.1	2%	1%	-0.4

Purple cells: significant decrease in the presence frequencies of at least the number of different additives found within the same product between the baselines and the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Orange cells: significant increase in the presence frequencies of at least the number of different additives found within the same product between the baselines and the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
 Statistical test performed: chi-square test

➤ *By type of brands*

It is important to reiterate that the results for the specialised retailer brands need to be put into perspective, as they only have products in three sectors (Ice creams and sorbets, Frozen pizzas and Ready-to-eat frozen meals) out of the 20 studied (Annex 6).

Taking all additives and all sectors combined (20 sectors for which updated data are available out of the 30 sectors currently studied by Oqali), **the proportion of additive-free products increased significantly for all type of brands studied: +7 points for national brands, +4 points for retailer brands, +3 points for entry-level retailer brands, specialist retailer and hard discount store brand products** (Table 15).

These increases in the frequency of additive-free products were accompanied by **significant reductions observed for proportions of products containing four or more different additives across all type of brands** (from -1 to -2 points). In particular, all type of brands except hard discount store brands had a significantly decreasing proportion of products containing 10 or more different additives (-2 points for retailer brands, entry-level retailer brands and specialised retailer brands; -1 point for national brands) (Table 15). It should be noted that for national brands, a significant decrease was also observed for the proportion of products with nine different additives (-1 point). Hard discount store brand products saw a significant decrease in the proportion of products containing four and five additives (-2 points). Retailer brands saw significant reductions for the largest number of additive combinations (with significant changes ranging from -1 to -2 points) (Table 15).

It should be noted that a significant increase in the proportion of products containing a single additive was observed for retailer brands (+1 point) (Table 15).

Table 15: Change in the distribution of products according to the number of different additives found in their ingredient lists (products containing 10 or more additives grouped together), by type of brands

Number of different additives found within the same product	Type of brands														
	Specialised retailer brands (3 sectors out of the 20 studied) ¹			National brands (20 sectors out of the 20 studied)			Retailer brands (20 sectors out of the 20 studied)			Entry-level retailer brands (19 sectors out of the 20 studied)			Hard discount store brands (20 sectors out of the 20 studied)		
	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)
0	7%	10%	+3**	16%	23%	+7***	14%	18%	+4***	13%	16%	+3*	13%	16%	+3***
1	12%	14%	+2	20%	18%	-1	16%	17%	+1*	17%	19%	+2	16%	16%	+1
2	11%	12%	+0.3	14%	14%	-0.03	13%	14%	+1	12%	12%	-1	14%	14%	+0.2
3	17%	14%	-3	12%	11%	-1	13%	13%	-0.2	12%	12%	+0.1	12%	13%	+0.2
4	11%	12%	+1	10%	8%	-1	11%	10%	-1*	16%	14%	-2	13%	11%	-2*
5	9%	10%	+1	9%	8%	-1	9%	8%	-2***	8%	9%	+1	11%	9%	-2*
6	10%	8%	-2	6%	5%	-1	6%	6%	-0.3	7%	7%	+0.3	7%	7%	-0.3
7	8%	7%	-1	4%	4%	-0.4	5%	5%	+0.02	5%	4%	-1	5%	5%	+0.002
8	6%	5%	-2	3%	3%	-0.2	5%	3%	-1***	3%	2%	-1	4%	4%	-0.2
9	3%	3%	+0.5	2%	2%	-1*	3%	2%	-0.5	2%	2%	-1	2%	2%	-0.02
10 and over	6%	4%	-2*	5%	4%	-1**	6%	4%	-2***	5%	3%	-2*	4%	4%	-0.1

¹ Because specialised retailer brands are only present in 3 sectors out of the 20 studied, it is difficult to compare them to the other type of brands

Purple cells: significant reduction in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)

Orange cells: significant increase in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)

Statistical test performed: chi-square test

➤ *By type of brands and sector*

As mentioned above, additive use is subject to European regulations defining restrictive lists of food categories in which each additive is authorised (European Parliament and the Council of the European Union 2008, modified). Moreover, not all products systematically contain the additive(s) authorised in their product categories.

All of the changes by sector and type of brands according to the number of different additives found in the same product (products containing 10 or more additives grouped together) are provided in Annex 10.

4.3 Changes in additives of interest

Based on the ingredient lists of the products considered, this section details the changes in the presence frequencies of a selected number of additives. The study covers 20 sectors for which updated data are available out of the 30 sectors currently studied by Oqali. The results presented below complement those of the previous section, because some of the additives studied have been grouped together when they belong to the same family and a single ADI has been defined for the whole family.

As a reminder, because the same product may contain several different additives or additive groups of interest, it is not possible to add the proportions together.

4.3.1 Changes in presence frequencies for all sectors combined

Among the products studied and all sectors combined (20 sectors for which updated data are available among the 30 sectors currently studied by Oqali), **a significant -7 point decrease in the presence frequency of at least one of the 45 additives or additive groups of interest was observed between the baseline (52.7%) and follow-up studies (45.4%).**

Table 16 details the change in presence frequencies by additive or additive group of interest.

17 of the 45 additives and additive groups of interest saw a significant decrease in the number of products using them (from -0.1 to -3 points). Conversely, two additives (sweeteners) saw a significant increase in their presence frequencies: steviol glycosides (E690) (+0.3 point) and sucralose (E955) (+1 point). It should be noted that steviol glycosides have only been authorised as additives since December 2011, which explains the significant increase observed (European Commission 2011).

Seven additives and additive groups of interest were not found in any of the products at baseline or follow-up: bentonite (E558), ethyl lauroyl arginate (E243), litholrubine BK (E180), sorbitan monolaurate and sorbitan monooleate (E493, E494), acidic sodium aluminium phosphate (E541), aluminium sulphates (E520, E521, E522, E523) and stearyl tartrate (E483).

It should be noted that among the 45 additives of interest, carrageenans (E407; used mainly as gelling agents) and nitrites (E249, E250; used mainly as preservatives) were the most frequently found (10% or more of the products considered in both the baseline and follow-up). Moreover, most of these additives of interest (32 out of 45) were found in only 1% or less of the products studied. The appearance of silver (E174) and butylhydroxytoluene (BHT - E321) was observed in two and one follow-up products respectively, whereas they were not found in the baseline products, but this observation should be put into perspective due to the very small number of products concerned.

Concerning the four colours previously studied in the section on the review of the presence frequencies of additives of interest (3.3.1), sunset yellow FCF, also known as orange yellow S (E110), ponceau 4R and cochineal red A (E124), allura red AC (E129) and annatto, bixin, norbixin (E160b) saw a significant decrease in all sectors combined (ranging from -0.3 to -1 point). Except for annatto, bixin, norbixin (E160b), the presence frequencies of the other three colours were less than 1% at follow-up.

Table 16: Changes in the presence frequencies of additives or additive groups of interest, all sectors combined

Group of additives of interest <i>n</i> =number of products containing at least one group	Products containing at least the additive group considered, all sectors combined (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
	Baseline	Follow-up	Change in proportions (point)
At least 1 of the 45 groups (Baseline: n=7806; Follow-up: n=10,131)	52.7%	45.4%	-7***
CARRAGEENAN (E407) (Baseline: n=1862; Follow-up: n=2181)	13%	10%	-3***
NITRITES (E249, E250) (Baseline: n=1651; Follow-up: n=2235)	11%	10%	-1***
PHOSPHORIC ACID AND PHOSPHATES (E338, E339(I), E339(II), E340, E340(I), E340(II), E341, E341(I), E341(II), E341(III), E343, E343(I), E343(II), E343(III), E450, E450(I), E450(II), E450(III), E450(V), E450(VI), E451, E451(I), E451(II), E452, E452(I), E452(II), E452(III), E452(V)) (Baseline: n=1579; Follow-up: n=2062)	11%	9%	-1***
SULPHITES (E220, E221, E222, E223, E224, E226, E227, E228) (Baseline: n=1295; Follow-up: n=1475)	9%	7%	-2***
BETA-CAROTENE, MIXED-CAROTENES, PLANT-CAROTENES (E160A(I), E160A(II)) (Baseline: n=965; Follow-up: n=828)	7%	4%	-3***
CARAMELS (E150A, E150B, E150C, E150D) (Baseline: n=944; Follow-up: n=1320)	6%	6%	-0.5
CURCUMIN (E100) (Baseline: n=735; Follow-up: n=813)	5%	4%	-1***
ANNATTO, BIKIN, NORBIKIN (E160B) (Baseline: n=578; Follow-up: n=671)	4%	3%	-1***
LUTEIN (E161B) (Baseline: n=563; Follow-up: n=570)	4%	3%	-1***
ACESULFAME K (E950) (Baseline: n=379; Follow-up: n=496)	3%	2%	-0.3*
GLUTAMATES (E620, E621, E622, E623, E624, E625) (Baseline: n=372; Follow-up: n=408)	3%	2%	-1***
MONO- AND DIACETYL TARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS (E472E) (Baseline: n=262; Follow-up: n=369)	2%	2%	-0.1
SODIUM AND CALCIUM STEAROYL-2-LACTYLATES (E481, E482) (Baseline: n=257; Follow-up: n=302)	2%	1%	-0.4**
BENZOIC ACID AND BENZOATES (E210, E211, E212, E213) (Baseline: n=134; Follow-up: n=169)	1%	1%	-0.1
TARTARIC ACID AND TARTRATES (E334, E335, E335(I), E335(II), E336, E336(I), E336(II), E337, E354) (Baseline: n=131; Follow-up: n=203)	1%	1%	+0.02
CALCIUM CARBONATE (E170) (Baseline: n=122; Follow-up: n=170)	1%	1%	-0.1
COPPER COMPLEXES OF CHLOROPHYLLS AND CHLOROPHYLLINS (E141, E141(I), E141(II)) (Baseline: n=121; Follow-up: n=196)	1%	1%	+0.1
SUNSET YELLOW FCF ORANGE YELLOW S (E110) (Baseline: n=112; Follow-up: n=8)	1%	0.04%	-1***
PONCEAU 4R COCHINEAL RED A (E124) (Baseline: n=101; Follow-up: n=18)	1%	0.1%	-1***
SUCROSE ESTERS OF FATTY ACIDS AND SUCROGLYCERIDES (E473, E474) (Baseline: n=92; Follow-up: n=90)	1%	0.4%	-0.2**
SUCRALOSE (E955) (Baseline: n=91; Follow-up: n=302)	1%	1%	+1***
TITANIUM DIOXIDE (E171) (Baseline: n=90; Follow-up: n=105)	1%	0.5%	-0.1
IRON OXIDES AND HYDROXIDES (E172) (Baseline: n=66; Follow-up: n=96)	0.4%	0.4%	-0.02
POLYGLYCEROL ESTERS OF FATTY ACIDS (E475) (Baseline: n=56; Follow-up: n=89)	0.4%	0.4%	+0.02
ALLURA RED AC (E129) (Baseline: n=54; Follow-up: n=8)	0.4%	0.04%	-0.3***
SILICON DIOXIDE (E551) (Baseline: n=48; Follow-up: n=39)	0.3%	0.2%	-0.1**
QUINOLINE YELLOW (E104) (Baseline: n=33; Follow-up: n=2)	0.2%	0.01%	-0.2***
POLYOXYETHYLENE SORBITAN MONOLAURATE, MONOLEATE, MONOPALMITATE, MONOSTEARATE, TRISTEARATE (E432, E433, E434, E435, E436) (Baseline: n=17; Follow-up: n=16)	0.1%	0.1%	-0.04
SORBITAN MONOSTEARATE, TRISTEARATE, MONOPALMITATE (E491, E492, E495) (Baseline: n=15; Follow-up: n=17)	0.1%	0.1%	-0.03
TRIETHYL CITRATE (E1505) (Baseline: n=14; Follow-up: n=12)	0.1%	0.1%	-0.04
BETA-AP0-8-CAROTENAL, C30 (E160E) (Baseline: n=11; Follow-up: n=23)	0.1%	0.1%	+0.03
MICROCRYSTALLINE CELLULOSE (E460(I)) (Baseline: n=9; Follow-up: n=15)	0.1%	0.1%	+0.01
ALUMINIUM SILICATES (E554, E555, E556, E559) (Baseline: n=6; Follow-up: n=4)	0.04%	0.02%	-0.02
STEVOL GLYCOSIDES (E960) (Baseline: n=5; Follow-up: n=78)	0.03%	0.3%	+0.3***
FERROCYNANIDES (E535, E536, E538) (Baseline: n=1; Follow-up: n=4)	0.01%	0.02%	+0.01
ETHYL ESTER OF BETA-AP0-8-CAROTENOIC ACID (C30) (E160F) (Baseline: n=1; Follow-up: n=1)	0.01%	0.004%	-0.002
SILVER (E174) (Baseline: n=0; Follow-up: n=2)	0%	0.01%	+0.01
BUTYLATED HYDROXYTOLUENE (BHT) (E321) (Baseline: n=0; Follow-up: n=1)	0%	0.004%	+0.004
BENTONITE (E558) (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
ETHYL LAUROYL ARGINATE (E243) (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
LITHOLUBINE BK (E180) (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
SORBITAN MONOLAURATE AND MONOLEATE (E493, E494) (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
SODIUM ALUMINIUM PHOSPHATE ACIDIC (E541) (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
ALUMINIUM SULPHATES (E520, E521, E522, E523) (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
STEARYL TARTRATE (E483) (Baseline: n=0; Follow-up: n=0)	0%	0%	+0

Purple cells: significant decrease in the presence frequencies of at least one selected additive group between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
Orange cells: significant increase in the presence frequencies of at least one selected additive group between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
Statistical test performed: chi-square test

4.3.2 Changes in presence frequencies by sector

Details of changes in presence frequencies by additive or additive group of interest and by sector within the 20 sectors studied (out of the 30 sectors currently studied by Oqali) are presented in Annex 11.

Significant changes by additive or additive group of interest and by sector remain limited. The significant changes concerning all sectors and observed for certain additives or groups were therefore due to a few significant changes within certain sectors. This can be explained mainly by the fact that not all of these additives or additive groups were found in each of the sectors studied. In particular, European Regulation (EC) No 1333/2008 (European Parliament and the Council of the European Union 2008, modified) defines for each authorised additive the food categories in which it may be used.

Among the 17 additives and additive groups of interest for which the presence frequencies decreased significantly in all sectors combined between the baselines and follow-ups (Table 16), most of the decreases can be explained by significant reductions in one or more sectors (Annex 11). For four of the 17 additives and additive groups (phosphoric acid and phosphates, beta-carotene and/or mixed carotenes and/or plant carotenes, carrageenans and lutein)³⁵, significant changes in opposite directions were observed within the sectors.

The two significant increases observed, all sectors combined, for steviol glycosides (E960) and sucralose (E955) were mainly attributable to the Soft drinks sector (significant increases in presence frequency of +4 and +10 points respectively) (Annex 11). It should be noted that steviol glycosides have only been authorised in foodstuffs since December 2011 (European Commission 2011) and that the first data collection in the Soft drinks sector was prior to the date of application of the Regulation, which explains the significant increase observed.

On the other hand, six additives³⁶ and additive groups that did not experience significant changes for all sectors combined, saw significant changes per sector. This can be explained by changes in opposite directions or by changes driven by sectors that do not carry enough weight to bring about a significant change at the scale of all sectors.

³⁵ Phosphoric acid and phosphates (E338, E339, E339(I), E339(II), E339(III), E340, E340(I), E340(II), E340(III), E341, E341(I), E341(II), E341(III), E343, E343(I), E343(II), E450, E450(I), E450(II), E450(III), E450(V), E450(VI), E450(VII), E451, E451(I), E451(II), E452, E452(I), E452(II), E452(III), E452(IV)); beta-carotene and/or mixed carotenes and/or plant carotenes (E160A(I), E160A(II)); carrageenans (E407); lutein (E161b).

³⁶ Benzoic acid and benzoates (E210, E211, E212, E213); tartaric acid and tartrates (E334, E335, E335(I), E335(II), E336, E336(I), E336(II), E337, E354); caramels (E150A, E150B, E150C, E150D); triethyl citrate (E1505); mono- and diacetyltartaric acid esters of mono- and diglycerides of fatty acids (E472E); polyglycerol esters of fatty acids (E475).

4.4 Conclusion on the changes in additive presence frequencies

Within the 20 sectors for which changes could be studied (out of the 30 currently monitored by Oqali), additive use in processed food products is on the whole tending to decrease.

A significant +5 point increase in products without additives (as recorded by Oqali) was thus observed between the first (13.7%) and second (18.3%) follow-ups, all sectors combined among the 20 sectors for which updated data are available. Among the 263 additive designations found in the ingredient lists of the first and second follow-ups, only 46 had a presence frequency of 2% or more on the first and/or second follow-ups. The presence frequency of 29 of these 46 additive designations fell significantly between the two collection periods, especially among those with the highest presence frequencies. Of these 46 additive designations, **four saw a significant increase in their use rate: carotenoids (E160a), pectins (E440), anthocyanins (E163) and sodium carbonates (E500).** Significant changes were observed for particular additive/sector pairs and partly explained the changes observed for all sectors combined. In addition, **the number of different additives within the same product is tending to fall:** the proportion of additive-free products increased significantly by +5 points, mainly producing a reduction in the proportion of products with four, five, eight, nine and 10 or more additives (significant declines, ranging from -0.4 to -1 point, between the first and second follow-ups). This result was also observed by sector. **Thus, the proportion of additive-free products increased significantly for 10 of the 20 sectors studied – up to +13 points for the Fresh delicatessen products sector – while significant reductions were observed for most products with several different additives.** Additive presences nevertheless increased significantly for Fruit purees, compotes and desserts (+10 points for products with additives). **The frequency of products with additives decreased significantly for all the type of brands studied:** -7 points for national brands, -4 points for retailer brands, -3 points for entry-level retailer brands, specialist retailer brands and hard discount store brand products.

Concerning the presence frequency of at least one of the 45 additives or additive groups of interest, a significant -7 point decrease was observed between the first (52.7%) and second (45.4%) follow-ups, all sectors combined, among the 20 sectors studied. Among these 45 additives, carrageenans (E407; used mainly as gelling agents) and nitrites (E249, E250; used mainly as preservatives) were the most frequently found (10% or more of the products considered in the first and second follow-ups). Of the 45 additives and additive groups considered, the presence frequency of 17 of them decreased significantly (from -0.1 to -3 points). Two additives saw a significant increase in their presence frequencies: the sweeteners steviol glycosides (E690) (+0.3 point) and sucralose (E955) (+1 point). It should be noted that steviol glycosides have only been authorised as additives since December 2011 (European Commission 2011), which explains the significant increase observed in the Soft drinks sector. Significant changes by sector were limited, as the use of each additive is largely linked to the product type as defined by European regulations (European Parliament and the Council of the European Union 2008, modified). Most of these additives of interest (32 out of 45) were found in only 1% or less of the products studied.

It would appear that current trends regarding the search for a healthier diet and consumer fears about additives have prompted manufacturers to revise the ingredient lists of their products, by reducing additive use. At present, this is a voluntary approach on the part of industry (*Asioli et*

al. 2017). One study showed that 56% of respondents would consider switching to a product without additives rather than a product containing them (Ingredion 2014). Moreover, while additives are perceived as artificial substances to be treated with caution, their natural counterparts such as natural colours or flavours are generally better perceived (Ingredion 2014). Although regulated additives may be extracted from natural elements or manufactured synthetically, their name and coding remain identical (for example, E300 ascorbic acid corresponding to vitamin C).

To conclude, within the 20 sectors studied (out of the 30 currently monitored by Oqali), additive use in processed food products is tending to decrease overall.

5. OUTLOOK

This study updates and supplements the review conducted in the 2012 ingredient study (Oqali 2012). Nearly 11 new sectors have been added in this study compared to the previous one, and for 14 of the 20 sectors already monitored in 2012, more recent data have been used.

In addition, this study examines for the first time changes concerning additives in 20 of the 30 sectors currently monitored by Oqali. With presence frequencies decreasing overall, the study results may reflect the implementation of an approach by industry to limit additive use in foodstuffs.

All these data could therefore be useful in gaining a better understanding of the actual presence frequencies of additives. The use of data on food consumption and presence frequencies resulting from this report could help refine and update dietary exposure for these additives. The data will also enable a better characterisation of additive exposure in dietary epidemiological cohorts.

At a later stage, it would be interesting to confirm these results for the other sectors that are not yet monitored and to include the Confectionery sector, whose products contain additives (mainly colours). Lastly, it would also be interesting to know how industry is eliminating additive use in its products: use of new technological treatments, reduction in product shelf life, and/or replacement by other substances.

Annex 1: Numbers of products by sector and type of brands, for the 30 sectors currently monitored by Oqali (most recent data available by sector)

Sector	Number of products by type of brands				
	Specialised retailer brands <i>(6 sectors out of the 30 studied)</i>	National brands <i>(30 sectors out of the 30 studied)</i>	Retailer brands <i>(30 sectors out of the 30 studied)</i>	Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>	Hard discount store brands <i>(30 sectors out of the 30 studied)</i>
Baby food	17	724	187	-	48
Crackers	-	247	563	60	210
Cereal bars	-	47	88	13	31
Cakes and biscuits	-	497	1133	134	528
Soft drinks	-	540	623	59	199
Soups and broths	-	295	170	17	78
Breakfast cereals	-	78	237	37	95
Delicatessen meats	-	359	881	141	341
Chocolate products	-	427	379	55	180
Fruit purees, compotes and desserts	-	222	320	21	72
Jams	-	115	272	21	58
Canned fruits	-	54	87	39	37
Cheeses	-	519	1044	100	328
Ice creams and sorbets	642	434	659	39	179
Fruit juices and nectars	-	507	730	89	231
Infant milks	-	110	14	-	5
Margarines	-	44	41	7	16
Bread products	-	309	455	72	187
Ready-to-eat canned meals	-	212	366	70	145
Ready-to-eat fresh meals	-	219	478	27	55
Ready-to-eat frozen meals	914	258	687	47	258
Dessert mixes	-	233	66	-	30
Fresh dairy products and similar	-	664	1152	103	492
Fresh delicatessen products	-	443	1378	91	357
Processed potato products	70	160	319	39	95
Hot sauces	-	80	157	10	46
Cold sauces	-	215	313	25	70
Syrups	-	74	168	21	41
Frozen snacking products	399	160	390	22	138
Frozen pastries and desserts	310	45	157	3	56
Total	2352	8291	13,514	1362	4606

The dashes indicate that no product was collected for the sector/type of brand pair considered

Annex 2: Numbers and proportions of products containing at least the additive considered with a presence frequency below 2%, all sectors combined and among the 30,125 products studied

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Products containing at least the additive considered, all sectors combined (among the 30 sectors currently monitored by Oqali)	
		Number	Proportion
E476_POLYGLYCEROL POLYRICINOLEATE	OTHERS	435	1%
E223_SODIUM METABISULPHITE	OTHERS	432	1%
E420(I)_SORBITOL	SWEETENER	383	1%
E392_EXTRACTS OF ROSEMARY	OTHERS	370	1%
E414_GUM ARABIC OR ACACIA GUM	OTHERS	356	1%
E150D_SULPHITE AMMONIA CARAMEL	COLOUR	340	1%
E472B_LACTIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS	OTHERS	335	1%
E955_SUCRALOSE	SWEETENER	335	1%
E306_TOCOPHEROL RICH EXTRACT	OTHERS	331	1%
E162_BEETROOT RED_BETANIN	COLOUR	317	1%
E341(I)_MONOCALCIUM PHOSPHATE	OTHERS	300	1%
E481_SODIUM STEAROYL-2-LACTYLATE	OTHERS	293	1%
E951_ASPARTAME	SWEETENER	287	1%
E461_METHYL CELLULOSE	OTHERS	280	1%
E407A_PROCESSED EUCHEUMA SEAWEED	OTHERS	278	1%
E339_SODIUM PHOSPHATES	OTHERS	272	1%
E341_CALCIIUM PHOSPHATES	OTHERS	264	1%
E627_DISODIUM GUANYLATE	OTHERS	259	1%
E631_DISODIUM INOSINATE	OTHERS	257	1%
E509_CALCIIUM CHLORIDE	OTHERS	254	1%
E445_GLYCEROL ESTERS OF WOOD ROSINS	OTHERS	253	1%
E220_SULPHUR DIOXIDE	OTHERS	239	1%
E296_MALIC ACID	OTHERS	235	1%
E326_POTASSIUM LACTATE	OTHERS	234	1%
E503(I)_AMMONIUM CARBONATE	OTHERS	229	1%
E150C_AMMONIA CARAMEL	COLOUR	228	1%
E262(I)_SODIUM ACETATE	OTHERS	225	1%
E466_SODIUM CARBOXY METHYL CELLULOSE OR CELLULOSE GUM	OTHERS	205	1%
E420(II)_SORBITOL SYRUP	SWEETENER	200	1%
E1105_LYSOZYME	OTHERS	197	1%
E170_CALCIIUM CARBONATE	COLOUR	195	1%
E211_SODIUM BENZOATE	OTHERS	191	1%
E920_L_CYSTEINE	OTHERS	191	1%
E420_SORBITOLS	SWEETENER	187	1%
E524_SODIUM HYDROXIDE	OTHERS	187	1%
E325_SODIUM LACTATE	OTHERS	182	1%
E508_POTASSIUM CHLORIDE	OTHERS	177	1%
E575_GLUCONO_DELTA_LACTONE	OTHERS	177	1%
E235_NATAMYCIN	OTHERS	170	1%
E472C_CITRIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS	OTHERS	169	1%
E333_CALCIIUM CITRATES	OTHERS	167	1%
E417_TARA GUM	OTHERS	165	1%
E338_PHOSPHORIC ACID	OTHERS	163	1%
E500(I)_SODIUM CARBONATE	OTHERS	161	1%
E334_TARTARIC ACID L(+)	OTHERS	159	1%
E304(I)_ASCORBYL PALMITATE	OTHERS	158	1%
E171_TITANIUM DIOXIDE	COLOUR	157	1%
E331(III)_TRISODIUM CITRATE	OTHERS	156	1%
E260_ACETIC ACID	OTHERS	151	1%
E579_FERROUS GLUCONATE	OTHERS	142	0.5%
E262_SODIUM ACETATES	OTHERS	133	0.4%
E172_IRON OXIDES AND HYDROXIDES	COLOUR	132	0.4%
E200_SORBIC ACID	OTHERS	128	0.4%
E307_ALPHA_TOCOPHEROL	OTHERS	125	0.4%
E451(I)_PENTASODIUM TRIPHOSPHATE	OTHERS	123	0.4%
E904_SHELLAC	OTHERS	122	0.4%
E150B_CAUSTIC SULPHITE CARAMEL	COLOUR	121	0.4%
E141_COPPER COMPLEXES OF CHLOROPHYLLS AND CHLOROPHYLLINS	COLOUR	118	0.4%
E101_RIBOFLAVINS	COLOUR	116	0.4%
E222_SODIUM HYDROGEN SULPHITE	OTHERS	115	0.4%
E327_CALCIIUM LACTATE	OTHERS	115	0.4%
E475_POLYGLYCEROL ESTERS OF FATTY ACIDS	OTHERS	110	0.4%
E1422_ACETYLATED DISTARCH ADIPATE	OTHERS	107	0.4%
E406_AGAR	OTHERS	107	0.4%
E101(I)_RIBOFLAVIN	COLOUR	105	0.3%
E452(I)_SODIUM POLYPHOSPHATE	OTHERS	104	0.3%
E153_VEGETABLE CARBON	COLOUR	103	0.3%
E332_POTASSIUM CITRATES	OTHERS	98	0.3%
E442_AMMONIUM PHOSPHATIDES	OTHERS	98	0.3%
E504(I)_MAGNESIUM CARBONATE	OTHERS	97	0.3%
E473_SUCROSE ESTERS OF FATTY ACIDS	OTHERS	96	0.3%
E251_SODIUM NITRATE	OTHERS	93	0.3%
E460_CELLULOSE	OTHERS	93	0.3%
E1442_HYDROXY PROPYL DISTARCH PHOSPHATE	OTHERS	91	0.3%
E304_FATTY ACID ESTERS OF ASCORBIC ACID	OTHERS	91	0.3%

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Products containing at least the additive considered, all sectors combined (among the 30 sectors currently monitored by Oqali)	
		Number	Proportion
E336_POTASSIUM TARTRATES	OTHERS	89	0.3%
E1200_POLYDEXTROSE	OTHERS	87	0.3%
E141(II)_COPPER COMPLEXES OF CHLOROPHYLLINS	COLOUR	84	0.3%
E440(II)_AMIDATED PECTIN	OTHERS	84	0.3%
E503_AMMONIUM CARBONATES	OTHERS	83	0.3%
E960_STEVIOL GLYCOSIDES	SWEETENER	78	0.3%
E320_BUTYLATED HYDROXYANISOLE (BHA)	OTHERS	75	0.2%
E450(III)_TETRASODIUM DIPHOSPHATE	OTHERS	71	0.2%
E127_ERYTHROSINE	COLOUR	64	0.2%
E952_CYCLAMATES	SWEETENER	63	0.2%
E341(III)_TRICALCIUM PHOSPHATE	OTHERS	62	0.2%
E903_CARNAUBA WAX	OTHERS	58	0.2%
E102_TARTRAZINE	COLOUR	55	0.2%
E262(II)_SODIUM DIACETATE	OTHERS	55	0.2%
E133_BRILLIANT BLUE FCF	COLOUR	53	0.2%
E551_SILICON DIOXYDE	OTHERS	53	0.2%
E901_BEESWAX	OTHERS	51	0.2%
E1505_TRIETHYL CITRATE	OTHERS	50	0.2%
E635_DISODIUM 5-RIBONUCLEOTIDE	OTHERS	50	0.2%
E306_E307_E308_E309_TOCOPHEROLS	OTHERS	49	0.2%
E472A_ACETIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS	OTHERS	47	0.2%
E385_CALCIIUM DISODIUM ETHYLENE DIAMINE TETRA ACETATE (CALCIUM DISODIUM EDTA)	OTHERS	46	0.2%
E131_PATENT BLUE V	COLOUR	42	0.1%
E525_POTASSIUM HYDROXYDE	OTHERS	38	0.1%
E482_CALCIIUM STEAROYL 2 LACTYLATE	OTHERS	37	0.1%
E553B_TALC	OTHERS	37	0.1%
E954_SACCHARIN AND ITS SALTS	SWEETENER	37	0.1%
E965(I)_MALTITOL	SWEETENER	37	0.1%
E124_PONCEAU 4R COCHINEAL RED A	COLOUR	36	0.1%
E339(II)_DISODIUM PHOSPHATE	OTHERS	36	0.1%
E464_HYDROXYPROPYL METHYL CELLULOSE	OTHERS	34	0.1%
E477_PROPANE 1_2_DIOL ESTERS OF FATTY ACIDS	OTHERS	34	0.1%
E340_POTASSIUM PHOSPHATES	OTHERS	33	0.1%
E141(I)_COPPER COMPLEXES OF CHLOROPHYLLS	COLOUR	31	0.1%
E339(I)_MONOSODIUM PHOSPHATE	OTHERS	31	0.1%
E203_CALCIIUM SORBATE	OTHERS	30	0.1%
E242_DIMETHYL DICARBONATE	OTHERS	29	0.1%
E504_MAGNESIUM CARBONATES	OTHERS	29	0.1%
E444_SUCROSE ACETATE ISOBUTYRATE	OTHERS	27	0.1%
E501(I)_POTASSIUM CARBONATE	OTHERS	27	0.1%
E333(III)_TRICALCIUM CITRATE	OTHERS	25	0.1%
E142_GREEN S	COLOUR	24	0.1%
E160E_BETA_APO_8_CAROTENAL_C30	COLOUR	24	0.1%
E516_CALCIIUM SULPHATE	OTHERS	24	0.1%
E140(I)_CHLOROPHYLLS	COLOUR	23	0.1%
E339_E340_E341_E343_PHOSPHATES	OTHERS	23	0.1%
E261_POTASSIUM ACETATES	OTHERS	21	0.1%
E530_MAGNESIUM OXIDE	OTHERS	21	0.1%
E336(I)_MONOPOTASSIUM TARTRATE	OTHERS	20	0.1%
E261(II)_POTASSIUM ACETATE	OTHERS	19	0.1%
E492_SORBITAN TRISTEARATE	OTHERS	18	0.1%
E249_POTASSIUM NITRITE	OTHERS	17	0.1%
E460(I)_MICROCRYSTALLINE CELLULOSE	OTHERS	17	0.1%
E310_PROPYL GALLATE	OTHERS	16	0.1%
E501(II)_POTASSIUM HYDROGEN CARBONATE	OTHERS	16	0.1%
E511_MAGNESIUM CHLORIDE	OTHERS	16	0.1%
E1414_ACETYLATED DISTARCH PHOSPHATE	OTHERS	15	0.05%
E221_SODIUM SULPHITE	OTHERS	15	0.05%
E418_GELLAN GUM	OTHERS	15	0.05%
E110_SUNSET YELLOW FCF_ORANGE YELLOW S	COLOUR	14	0.05%
E315_ERYTHORBIC ACID	OTHERS	14	0.05%
E433_POLYOXYETHYLENE SORBITAN MONOOLEATE (POLYSORBATE 80)	OTHERS	14	0.05%
E129_ALLURA RED AC	COLOUR	13	0.04%
E1412_DISTARCH PHOSPHATE	OTHERS	13	0.04%
E460(II)_POWDERED CELLULOSE	OTHERS	13	0.04%
E526_CALCIIUM HYDROXIDE	OTHERS	13	0.04%
E101(II)_RIBOFLAVIN 5_PHOSPHATE	COLOUR	11	0.04%
E234_NISIN	OTHERS	11	0.04%
E470A_SODIUM POTASSIUM AND CALCIUM SALTS OF FATTY ACIDS	OTHERS	11	0.04%
E140_CHLOROPHYLLS AND CHLOROPHYLLINS	COLOUR	10	0.03%
E151_BRILLIANT BLACK PN	COLOUR	10	0.03%
E332(II)_TRIPOTASSIUM CITRATE	OTHERS	10	0.03%
E470B_MAGNESIUM SALTS OF FATTY ACIDS	OTHERS	10	0.03%
E104_QUINOLINE YELLOW	COLOUR	9	0.03%
E1103_INVERTASE	OTHERS	9	0.03%
E122_AZORUBINE_CARMOISINE	COLOUR	9	0.03%
E339(III)_TRISODIUM PHOSPHATE	OTHERS	9	0.03%
E340(II)_DIPOTASSIUM PHOSPHATE	OTHERS	9	0.03%
E472_ESTERS OF FOOD FATTY ACIDS	OTHERS	9	0.03%
E555_POTASSIUM ALUMINIUM SILICATE	OTHERS	9	0.03%
E630_INOSINIC ACID	OTHERS	9	0.03%
E160	COLOUR	8	0.03%
E228_POTASSIUM HYDROGEN SULPHITE	OTHERS	8	0.03%
E341(II)_DICALCIUM PHOSPHATE	OTHERS	8	0.03%

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Products containing at least the additive considered, all sectors combined (among the 30 sectors currently monitored by Oqali)	
		Number	Proportion
E404 CALCIUM ALGINATE	OTHERS	8	0.03%
E504(II)_MAGNESIUM HYDROXIDE CARBONATE	OTHERS	8	0.03%
E959_NEOHESPERIDINE DC	SWEETENER	8	0.03%
E1420_ACETYLATED STARCH	OTHERS	7	0.02%
E210_BENZOIC ACID	OTHERS	7	0.02%
E331(I)_MONOSODIUM CITRATE	OTHERS	7	0.02%
E402_POTASSIUM ALGINATE	OTHERS	7	0.02%
NITRITE SALT	OTHERS	7	0.02%
E1520_PROPAPE_1,2_DIOL (PROPYLENE GLYCOL)	OTHERS	6	0.02%
E263_CALCIUM ACETATE	OTHERS	6	0.02%
E281_SODIUM PROPIONATE	OTHERS	6	0.02%
E441_HYDROGENATED SUPER GLYCERINATED RAPESEED OIL	OTHERS	6	0.02%
E450(V)_TETRAPOTASSIUM DIPHOSPHATE	OTHERS	6	0.02%
E501_POTASSIUM CARBONATES	OTHERS	6	0.02%
E585_FERROUS LACTATE	OTHERS	6	0.02%
E640_GLYCINE AND ITS SODIUM SALT	OTHERS	6	0.02%
E966_LACTITOL	SWEETENER	6	0.02%
E150_CARAMEL	COLOUR	5	0.02%
E212_POTASSIUM BENZOATE	OTHERS	5	0.02%
E302_CALCIUM ASCORBATE	OTHERS	5	0.02%
E331(II)_DISODIUM CITRATE	OTHERS	5	0.02%
E405_PROPAPE_1,2_DIOL ALGINATE	OTHERS	5	0.02%
E535_SODIUM FERROCYANIDE	OTHERS	5	0.02%
E536_POTASSIUM FERROCYANIDE	OTHERS	5	0.02%
E620_GLUTAMIC ACID	OTHERS	5	0.02%
E941_NITROGEN	OTHERS	5	0.02%
E132_INDIGOTINE_INDIGO CARMINE	COLOUR	4	0.01%
E1450_STARCH SODIUM OCTENYL SUCCINATE	OTHERS	4	0.01%
E175_GOLD	COLOUR	4	0.01%
E180_LITHOLRUBINE BK	COLOUR	4	0.01%
E280_PROPIONIC ACID	OTHERS	4	0.01%
E290_CARBON DIOXIDE	OTHERS	4	0.01%
E363_SUCCINIC ACID	OTHERS	4	0.01%
E450(II)_TRISODIUM DIPHOSPHATE	OTHERS	4	0.01%
E578_CALCIUM GLUCONATE	OTHERS	4	0.01%
E953_ISOMALT	SWEETENER	4	0.01%
E140(HI)_CHLOROPHYLLINS	COLOUR	3	0.01%
E325_E326_E327_E331_E332_E333_E334_E335_E336_E337_E338_E339_E340_E341_E343_E380_E450_E451_E452_EMULSIFYING SALTS	OTHERS	3	0.01%
E333_CALCIUM CITRATES OR E341(HI)_TRICALCIUM PHOSPHATE	OTHERS	3	0.01%
E413_TRAGACANTH	OTHERS	3	0.01%
E479B_THERMALLY OXIDISED SOYA BEAN OIL INTERACTED WITH MONO- AND DIGLYCERIDES OF FATTY ACIDS	OTHERS	3	0.01%
E921	OTHERS	3	0.01%
E1518_GLYCERYL TRIACETATE (TRIACETIN)	OTHERS	2	0.01%
E174_SILVER	COLOUR	2	0.01%
E309_DELTA_TOCOPHEROL	OTHERS	2	0.01%
E335_SODIUM TARTRATES	OTHERS	2	0.01%
E340(I)_MONOPOTASSIUM PHOSPHATE	OTHERS	2	0.01%
E432_E433_E434_E435_E436_POLYSORBATES	OTHERS	2	0.01%
E435_POLYOXYETHYLENE SORBITAN MONOSTEARATE (POLYSORBATE 60)	OTHERS	2	0.01%
E451(II)_PENTAPOTASSIUM TRIPHOSPHATE	OTHERS	2	0.01%
E472D_TARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS	OTHERS	2	0.01%
E514_SODIUM SULPHATES	OTHERS	2	0.01%
E528_MAGNESIUM HYDROXIDE	OTHERS	2	0.01%
E554_SODIUM ALUMINIUM SILICATE	OTHERS	2	0.01%
E900_DIMETHYL POLYSILOXANE	OTHERS	2	0.01%
E957_THAUMATIN	SWEETENER	2	0.01%
E999_QUILLAIA EXTRACT	OTHERS	2	0.01%
E1404_OXIDISED STARCH	OTHERS	1	0.003%
E1440_HYDROXY PROPYL STARCH	OTHERS	1	0.003%
E160A(HI)_BETA_CAROTENE FROM BLAKESLEA TRISPORA	COLOUR	1	0.003%
E160A(IV)_ALGAL CAROTENES	COLOUR	1	0.003%
E160D_LYCOPENE	COLOUR	1	0.003%
E160F_ETHYL ESTER OF BETA-APO-8-CAROTENOIC ACID (C30)	COLOUR	1	0.003%
E201_SODIUM SORBATE	OTHERS	1	0.003%
E239_HEXAMETHYLENE TETRAMINE	OTHERS	1	0.003%
E321_BUTYLATED HYDROXYTOLUENE (BHT)	OTHERS	1	0.003%
E343_MAGNESIUM PHOSPHATES	OTHERS	1	0.003%
E351_POTASSIUM MALATE	OTHERS	1	0.003%
E352(I)_CALCIUM MALATE	OTHERS	1	0.003%
E381_AMMONIUM FERRIC CITRATE	OTHERS	1	0.003%
E425_KONJAC	OTHERS	1	0.003%
E431_POLYOXYETHYLENE (40) STEARATE	OTHERS	1	0.003%
E432_POLYOXYETHYLENE SORBITAN MONOLAURATE (POLYSORBATE 20)	OTHERS	1	0.003%
E452(II)_POTASSIUM POLYPHOSPHATE	OTHERS	1	0.003%
E452(IV)_CALCIUM POLYPHOSPHATE	OTHERS	1	0.003%
E462_ETHYL CELLULOSE	OTHERS	1	0.003%
E463_HYDROXYPROPYL CELLULOSE	OTHERS	1	0.003%
E470_SALTS OF FATTY ACIDS	OTHERS	1	0.003%
E491_SORBITAN MONOSTEARATE	OTHERS	1	0.003%
E515(I)_POTASSIUM SULPHATE	OTHERS	1	0.003%
E559_ALUMINIUM SILICATE (KAOLIN)	OTHERS	1	0.003%
E570_FATTY ACIDS	OTHERS	1	0.003%
E622_MONOPOTASSIUM GLUTAMATE	OTHERS	1	0.003%
E967_XYLITOL	SWEETENER	1	0.003%

Annex 3: Numbers and proportions of products according to the number of different additives found in the same product, all sectors combined and among the 30,125 products studied

Number of different additives found within the same product	Products containing the number of additives considered, all sectors combined (among the 30 sectors currently monitored by Oqali)	
	Number	Proportion
0	6540	22%
1	5289	18%
2	3987	13%
3	3476	12%
4	2864	10%
5	2233	7%
6	1719	6%
7	1295	4%
8	907	3%
9	588	2%
10	396	1%
11	269	1%
12	197	1%
13	127	0.4%
14	108	0.4%
15	57	0.2%
16	38	0.1%
17	16	0.1%
18	7	0.02%
19	6	0.02%
20	3	0.01%
21	2	0.01%
22	1	0.003%

Annex 4: Numbers and proportions of products distributed according to the number of different additives found in the same product (products containing 10 or more additives grouped together), by sector and by type of brands

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands <i>(6 sectors out of the 30 studied)¹</i>		National brands <i>(30 sectors out of the 30 studied)</i>		Retailers' own brands <i>(30 sectors out of the 30 studied)</i>		Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>		Hard discount brands <i>(30 sectors out of the 30 studied)</i>	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Baby food	0	17	100%	409	56%	30	16%	-	-	27	56%
	1	0	0%	145	20%	136	73%	-	-	20	42%
	2	0	0%	83	11%	14	7%	-	-	1	2%
	3	0	0%	48	7%	2	1%	-	-	0	0%
	4	0	0%	17	2%	3	2%	-	-	0	0%
	5	0	0%	18	2%	1	1%	-	-	0	0%
	6	0	0%	2	0.3%	0	0%	-	-	0	0%
	7	0	0%	0	0%	1	1%	-	-	0	0%
	8	0	0%	2	0.3%	0	0%	-	-	0	0%
	9	0	0%	0	0%	0	0%	-	-	0	0%
10 and over	0	0%	0	0%	0	0%	-	-	0	0%	
Crackers	0	-	-	91	37%	180	32%	22	37%	64	30%
	1	-	-	25	10%	74	13%	8	13%	34	16%
	2	-	-	20	8%	62	11%	5	8%	34	16%
	3	-	-	37	15%	81	14%	8	13%	26	12%
	4	-	-	25	10%	46	8%	5	8%	13	6%
	5	-	-	18	7%	38	7%	6	10%	12	6%
	6	-	-	12	5%	20	4%	1	2%	11	5%
	7	-	-	5	2%	18	3%	2	3%	8	4%
	8	-	-	5	2%	12	2%	2	3%	1	0.5%
	9	-	-	5	2%	16	3%	1	2%	2	1%
10 and over	-	-	4	2%	16	3%	0	0%	5	2%	
Cereal bars	0	-	-	2	4%	2	2%	0	0%	0	0%
	1	-	-	2	4%	5	6%	2	15%	0	0%
	2	-	-	4	9%	6	7%	0	0%	3	10%
	3	-	-	2	4%	31	35%	6	46%	17	55%
	4	-	-	11	23%	14	16%	4	31%	5	16%
	5	-	-	10	21%	15	17%	1	8%	3	10%
	6	-	-	11	23%	7	8%	0	0%	1	3%
	7	-	-	1	2%	5	6%	0	0%	1	3%
	8	-	-	3	6%	3	3%	0	0%	1	3%
	9	-	-	0	0%	0	0%	0	0%	0	0%
10 and over	-	-	1	2%	0	0%	0	0%	0	0%	

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands <i>(6 sectors out of the 30 studied)¹</i>		National brands <i>(30 sectors out of the 30 studied)</i>		Retailers' own brands <i>(30 sectors out of the 30 studied)</i>		Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>		Hard discount brands <i>(30 sectors out of the 30 studied)</i>	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Cakes and biscuits	0	-	-	16	3%	27	2%	0	0%	9	2%
	1	-	-	33	7%	87	8%	6	4%	35	7%
	2	-	-	74	15%	142	13%	10	7%	51	10%
	3	-	-	82	16%	223	20%	34	25%	86	16%
	4	-	-	79	16%	256	23%	44	33%	123	23%
	5	-	-	77	15%	108	10%	9	7%	80	15%
	6	-	-	43	9%	80	7%	20	15%	38	7%
	7	-	-	26	5%	68	6%	3	2%	28	5%
	8	-	-	15	3%	77	7%	8	6%	41	8%
	9	-	-	16	3%	26	2%	0	0%	13	2%
10 and over	-	-	36	7%	39	3%	0	0%	24	5%	
Soft drinks	0	-	-	95	18%	54	9%	0	0%	17	9%
	1	-	-	71	13%	135	22%	2	3%	25	13%
	2	-	-	81	15%	73	12%	3	5%	33	17%
	3	-	-	86	16%	164	26%	5	8%	44	22%
	4	-	-	56	10%	93	15%	15	25%	31	16%
	5	-	-	49	9%	67	11%	18	31%	26	13%
	6	-	-	32	6%	16	3%	8	14%	9	5%
	7	-	-	29	5%	15	2%	5	8%	4	2%
	8	-	-	20	4%	3	0.5%	2	3%	6	3%
	9	-	-	11	2%	2	0.3%	1	2%	2	1%
10 and over	-	-	10	2%	1	0.2%	0	0%	2	1%	
Soups and broths	0	-	-	85	29%	47	28%	3	18%	11	14%
	1	-	-	90	31%	60	35%	4	24%	20	26%
	2	-	-	58	20%	38	22%	4	24%	13	17%
	3	-	-	20	7%	15	9%	1	6%	11	14%
	4	-	-	23	8%	5	3%	3	18%	6	8%
	5	-	-	7	2%	4	2%	0	0%	6	8%
	6	-	-	5	2%	1	1%	2	12%	3	4%
	7	-	-	5	2%	0	0%	0	0%	2	3%
	8	-	-	2	1%	0	0%	0	0%	1	1%
	9	-	-	0	0%	0	0%	0	0%	3	4%
10 and over	-	-	0	0%	0	0%	0	0%	2	3%	

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands <i>(6 sectors out of the 30 studied)</i> ¹		National brands <i>(30 sectors out of the 30 studied)</i>		Retailers' own brands <i>(30 sectors out of the 30 studied)</i>		Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>		Hard discount brands <i>(30 sectors out of the 30 studied)</i>	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Breakfast cereals	0	-	-	14	18%	67	28%	19	51%	21	22%
	1	-	-	19	24%	102	43%	15	41%	46	48%
	2	-	-	5	6%	33	14%	3	8%	20	21%
	3	-	-	13	17%	27	11%	0	0%	7	7%
	4	-	-	6	8%	1	0.4%	0	0%	1	1%
	5	-	-	10	13%	6	3%	0	0%	0	0%
	6	-	-	6	8%	0	0%	0	0%	0	0%
	7	-	-	2	3%	1	0.4%	0	0%	0	0%
	8	-	-	3	4%	0	0%	0	0%	0	0%
9	-	-	0	0%	0	0%	0	0%	0	0%	
10 and over	-	-	0	0%	0	0%	0	0%	0	0%	
Delicatessen meats	0	-	-	44	12%	71	8%	5	4%	32	9%
	1	-	-	75	21%	155	18%	30	21%	52	15%
	2	-	-	92	26%	233	26%	20	14%	86	25%
	3	-	-	57	16%	190	22%	30	21%	81	24%
	4	-	-	43	12%	128	15%	20	14%	28	8%
	5	-	-	16	4%	41	5%	9	6%	30	9%
	6	-	-	6	2%	36	4%	13	9%	20	6%
	7	-	-	9	3%	10	1%	8	6%	7	2%
	8	-	-	7	2%	11	1%	2	1%	4	1%
9	-	-	3	1%	4	0.5%	1	1%	1	0.3%	
10 and over	-	-	7	2%	2	0.2%	3	2%	0	0%	
Chocolate products	0	-	-	34	8%	13	3%	2	4%	2	1%
	1	-	-	247	58%	293	77%	26	47%	135	75%
	2	-	-	62	15%	46	12%	25	45%	31	17%
	3	-	-	35	8%	7	2%	2	4%	6	3%
	4	-	-	13	3%	8	2%	0	0%	3	2%
	5	-	-	13	3%	3	1%	0	0%	0	0%
	6	-	-	12	3%	1	0.3%	0	0%	0	0%
	7	-	-	4	1%	3	1%	0	0%	0	0%
	8	-	-	3	1%	0	0%	0	0%	0	0%
9	-	-	1	0.2%	1	0.3%	0	0%	1	1%	
10 and over	-	-	3	1%	4	1%	0	0%	2	1%	

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands <i>(6 sectors out of the 30 studied) ¹</i>		National brands <i>(30 sectors out of the 30 studied)</i>		Retailers' own brands <i>(30 sectors out of the 30 studied)</i>		Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>		Hard discount brands <i>(30 sectors out of the 30 studied)</i>	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Fruit purees, compotes and desserts	0	-	-	49	22%	43	13%	7	33%	14	19%
	1	-	-	147	66%	179	56%	8	38%	27	38%
	2	-	-	23	10%	87	27%	6	29%	31	43%
	3	-	-	3	1%	9	3%	0	0%	0	0%
	4	-	-	0	0%	1	0.3%	0	0%	0	0%
	5	-	-	0	0%	0	0%	0	0%	0	0%
	6	-	-	0	0%	0	0%	0	0%	0	0%
	7	-	-	0	0%	1	0.3%	0	0%	0	0%
	8	-	-	0	0%	0	0%	0	0%	0	0%
	9	-	-	0	0%	0	0%	0	0%	0	0%
10 and over	-	-	0	0%	0	0%	0	0%	0	0%	
Jams	0	-	-	6	5%	5	2%	0	0%	3	5%
	1	-	-	62	54%	47	17%	0	0%	10	17%
	2	-	-	30	26%	181	67%	21	100%	42	72%
	3	-	-	14	12%	38	14%	0	0%	3	5%
	4	-	-	3	3%	0	0%	0	0%	0	0%
	5	-	-	0	0%	1	0.4%	0	0%	0	0%
	6	-	-	0	0%	0	0%	0	0%	0	0%
	7	-	-	0	0%	0	0%	0	0%	0	0%
	8	-	-	0	0%	0	0%	0	0%	0	0%
	9	-	-	0	0%	0	0%	0	0%	0	0%
10 and over	-	-	0	0%	0	0%	0	0%	0	0%	
Canned fruits	0	-	-	7	13%	18	21%	6	15%	7	19%
	1	-	-	24	44%	35	40%	26	67%	14	38%
	2	-	-	19	35%	26	30%	5	13%	12	32%
	3	-	-	4	7%	8	9%	2	5%	4	11%
	4	-	-	0	0%	0	0%	0	0%	0	0%
	5	-	-	0	0%	0	0%	0	0%	0	0%
	6	-	-	0	0%	0	0%	0	0%	0	0%
	7	-	-	0	0%	0	0%	0	0%	0	0%
	8	-	-	0	0%	0	0%	0	0%	0	0%
	9	-	-	0	0%	0	0%	0	0%	0	0%
10 and over	-	-	0	0%	0	0%	0	0%	0	0%	

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands <i>(6 sectors out of the 30 studied) ¹</i>		National brands <i>(30 sectors out of the 30 studied)</i>		Retailers' own brands <i>(30 sectors out of the 30 studied)</i>		Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>		Hard discount brands <i>(30 sectors out of the 30 studied)</i>	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Cheeses	0	-	-	302	58%	679	65%	68	68%	196	60%
	1	-	-	68	13%	203	19%	9	9%	66	20%
	2	-	-	39	8%	59	6%	8	8%	18	5%
	3	-	-	56	11%	42	4%	5	5%	23	7%
	4	-	-	15	3%	34	3%	2	2%	10	3%
	5	-	-	16	3%	8	1%	0	0%	6	2%
	6	-	-	13	3%	7	1%	3	3%	2	1%
	7	-	-	3	1%	6	1%	2	2%	3	1%
	8	-	-	2	0.4%	5	0.5%	2	2%	2	1%
	9	-	-	2	0.4%	0	0%	0	0%	0	0%
10 and over	-	-	3	1%	1	0.1%	1	1%	2	1%	
Ice creams and sorbets	0	0	0%	6	1%	0	0%	0	0%	1	1%
	1	21	3%	29	7%	3	0.5%	0	0%	0	0%
	2	22	3%	32	7%	4	1%	0	0%	4	2%
	3	57	9%	28	6%	23	3%	2	5%	7	4%
	4	91	14%	28	6%	56	8%	8	21%	26	15%
	5	96	15%	71	16%	95	14%	13	33%	28	16%
	6	108	17%	61	14%	123	19%	4	10%	34	19%
	7	85	13%	50	12%	116	18%	10	26%	29	16%
	8	54	8%	37	9%	80	12%	1	3%	19	11%
	9	42	7%	27	6%	64	10%	1	3%	15	8%
10 and over	66	10%	65	15%	95	14%	0	0%	16	9%	
Fruit juices and nectars	0	-	-	447	88%	596	82%	51	57%	174	75%
	1	-	-	36	7%	98	13%	23	26%	39	17%
	2	-	-	19	4%	33	5%	8	9%	17	7%
	3	-	-	2	0.4%	2	0.3%	6	7%	1	0.4%
	4	-	-	3	1%	0	0%	1	1%	0	0%
	5	-	-	0	0%	1	0.1%	0	0%	0	0%
	6	-	-	0	0%	0	0%	0	0%	0	0%
	7	-	-	0	0%	0	0%	0	0%	0	0%
	8	-	-	0	0%	0	0%	0	0%	0	0%
	9	-	-	0	0%	0	0%	0	0%	0	0%
10 and over	-	-	0	0%	0	0%	0	0%	0	0%	

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands <i>(6 sectors out of the 30 studied) ¹</i>		National brands <i>(30 sectors out of the 30 studied)</i>		Retailers' own brands <i>(30 sectors out of the 30 studied)</i>		Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>		Hard discount brands <i>(30 sectors out of the 30 studied)</i>	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Infant milks	0	-	-	2	2%	0	0%	-	-	0	0%
	1	-	-	18	16%	3	21%	-	-	0	0%
	2	-	-	35	32%	8	57%	-	-	4	80%
	3	-	-	29	26%	2	14%	-	-	0	0%
	4	-	-	4	4%	1	7%	-	-	1	20%
	5	-	-	3	3%	0	0%	-	-	0	0%
	6	-	-	0	0%	0	0%	-	-	0	0%
	7	-	-	2	2%	0	0%	-	-	0	0%
	8	-	-	3	3%	0	0%	-	-	0	0%
	9	-	-	3	3%	0	0%	-	-	0	0%
10 and over	-	-	11	10%	0	0%	-	-	0	0%	
Margarines	0	-	-	0	0%	0	0%	0	0%	0	0%
	1	-	-	5	11%	2	5%	0	0%	0	0%
	2	-	-	2	5%	0	0%	0	0%	0	0%
	3	-	-	5	11%	3	7%	0	0%	1	6%
	4	-	-	7	16%	15	37%	2	29%	3	19%
	5	-	-	16	36%	14	34%	5	71%	11	69%
	6	-	-	4	9%	3	7%	0	0%	1	6%
	7	-	-	4	9%	3	7%	0	0%	0	0%
	8	-	-	1	2%	1	2%	0	0%	0	0%
	9	-	-	0	0%	0	0%	0	0%	0	0%
10 and over	-	-	0	0%	0	0%	0	0%	0	0%	
Bread products	0	-	-	76	25%	43	9%	0	0%	20	11%
	1	-	-	53	17%	132	29%	26	36%	49	26%
	2	-	-	35	11%	20	4%	0	0%	9	5%
	3	-	-	38	12%	39	9%	8	11%	21	11%
	4	-	-	38	12%	57	13%	11	15%	19	10%
	5	-	-	29	9%	79	17%	9	13%	28	15%
	6	-	-	15	5%	29	6%	7	10%	19	10%
	7	-	-	16	5%	31	7%	4	6%	10	5%
	8	-	-	3	1%	8	2%	1	1%	7	4%
	9	-	-	4	1%	14	3%	4	6%	1	1%
10 and over	-	-	2	1%	3	1%	2	3%	4	2%	

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands <i>(6 sectors out of the 30 studied) ¹</i>		National brands <i>(30 sectors out of the 30 studied)</i>		Retailers' own brands <i>(30 sectors out of the 30 studied)</i>		Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>		Hard discount brands <i>(30 sectors out of the 30 studied)</i>	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Ready-to-eat canned meals	0	-	-	20	9%	44	12%	2	3%	11	8%
	1	-	-	31	15%	59	16%	12	17%	21	14%
	2	-	-	17	8%	37	10%	14	20%	13	9%
	3	-	-	22	10%	43	12%	10	14%	21	14%
	4	-	-	26	12%	52	14%	8	11%	26	18%
	5	-	-	25	12%	30	8%	6	9%	10	7%
	6	-	-	21	10%	32	9%	1	1%	13	9%
	7	-	-	17	8%	22	6%	13	19%	12	8%
	8	-	-	10	5%	24	7%	3	4%	8	6%
9	-	-	12	6%	12	3%	1	1%	9	6%	
10 and over	-	-	11	5%	11	3%	0	0%	1	1%	
Ready-to-eat fresh meals	0	-	-	28	13%	61	13%	5	19%	3	5%
	1	-	-	56	26%	38	8%	1	4%	2	4%
	2	-	-	54	25%	37	8%	2	7%	10	18%
	3	-	-	28	13%	49	10%	2	7%	6	11%
	4	-	-	13	6%	71	15%	8	30%	5	9%
	5	-	-	10	5%	49	10%	4	15%	9	16%
	6	-	-	15	7%	49	10%	3	11%	4	7%
	7	-	-	2	1%	46	10%	1	4%	3	5%
	8	-	-	3	1%	28	6%	0	0%	2	4%
9	-	-	4	2%	15	3%	0	0%	3	5%	
10 and over	-	-	6	3%	35	7%	1	4%	8	15%	
Ready-to-eat frozen meals	0	142	16%	106	41%	117	17%	9	19%	44	17%
	1	199	22%	61	24%	141	21%	6	13%	46	18%
	2	157	17%	33	13%	136	20%	6	13%	46	18%
	3	153	17%	21	8%	116	17%	7	15%	37	14%
	4	103	11%	12	5%	60	9%	5	11%	24	9%
	5	70	8%	11	4%	39	6%	4	9%	16	6%
	6	28	3%	2	1%	43	6%	7	15%	17	7%
	7	23	3%	4	2%	10	1%	1	2%	12	5%
	8	22	2%	5	2%	15	2%	2	4%	4	2%
9	10	1%	0	0%	5	1%	0	0%	5	2%	
10 and over	7	1%	3	1%	5	1%	0	0%	7	3%	

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands <i>(6 sectors out of the 30 studied)¹</i>		National brands <i>(30 sectors out of the 30 studied)</i>		Retailers' own brands <i>(30 sectors out of the 30 studied)</i>		Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>		Hard discount brands <i>(30 sectors out of the 30 studied)</i>	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Dessert mixes	0	-	-	33	14%	1	2%	-	-	0	0%
	1	-	-	19	8%	5	8%	-	-	2	7%
	2	-	-	92	39%	12	18%	-	-	5	17%
	3	-	-	38	16%	13	20%	-	-	6	20%
	4	-	-	18	8%	4	6%	-	-	2	7%
	5	-	-	13	6%	7	11%	-	-	3	10%
	6	-	-	13	6%	11	17%	-	-	5	17%
	7	-	-	2	1%	9	14%	-	-	6	20%
	8	-	-	2	1%	0	0%	-	-	1	3%
9	-	-	2	1%	3	5%	-	-	0	0%	
10 and over	-	-	1	0.4%	1	2%	-	-	0	0%	
Fresh dairy products and similar	0	-	-	172	26%	281	24%	31	30%	129	26%
	1	-	-	58	9%	101	9%	5	5%	48	10%
	2	-	-	68	10%	109	9%	6	6%	48	10%
	3	-	-	102	15%	93	8%	13	13%	59	12%
	4	-	-	67	10%	130	11%	12	12%	52	11%
	5	-	-	56	8%	121	11%	9	9%	36	7%
	6	-	-	39	6%	86	7%	7	7%	35	7%
	7	-	-	33	5%	69	6%	8	8%	29	6%
	8	-	-	23	3%	48	4%	2	2%	17	3%
9	-	-	20	3%	28	2%	1	1%	9	2%	
10 and over	-	-	26	4%	86	7%	9	9%	30	6%	
Fresh delicatessen products	0	-	-	83	19%	249	18%	11	12%	31	9%
	1	-	-	46	10%	97	7%	8	9%	25	7%
	2	-	-	45	10%	170	12%	6	7%	19	5%
	3	-	-	38	9%	153	11%	7	8%	41	11%
	4	-	-	38	9%	121	9%	14	15%	46	13%
	5	-	-	43	10%	98	7%	12	13%	40	11%
	6	-	-	27	6%	130	9%	4	4%	34	10%
	7	-	-	24	5%	83	6%	4	4%	23	6%
	8	-	-	17	4%	53	4%	1	1%	15	4%
9	-	-	9	2%	49	4%	7	8%	16	4%	
10 and over	-	-	73	16%	175	13%	17	19%	67	19%	

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands <i>(6 sectors out of the 30 studied) ¹</i>		National brands <i>(30 sectors out of the 30 studied)</i>		Retailers' own brands <i>(30 sectors out of the 30 studied)</i>		Entry-level retailer brands <i>(27 sectors out of the 30 studied)</i>		Hard discount brands <i>(30 sectors out of the 30 studied)</i>	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Processed potato products	0	40	57%	59	37%	125	39%	17	44%	34	36%
	1	14	20%	28	18%	59	18%	12	31%	21	22%
	2	2	3%	14	9%	18	6%	2	5%	10	11%
	3	6	9%	30	19%	31	10%	0	0%	7	7%
	4	2	3%	20	13%	44	14%	2	5%	8	8%
	5	2	3%	4	3%	14	4%	6	15%	5	5%
	6	0	0%	4	3%	14	4%	0	0%	7	7%
	7	4	6%	1	1%	8	3%	0	0%	1	1%
	8	0	0%	0	0%	6	2%	0	0%	2	2%
	9	0	0%	0	0%	0	0%	0	0%	0	0%
10 and over	0	0%	0	0%	0	0%	0	0%	0	0%	
Hot sauces	0	-	-	20	25%	14	9%	2	20%	3	7%
	1	-	-	18	23%	43	27%	1	10%	14	30%
	2	-	-	17	21%	54	34%	7	70%	21	46%
	3	-	-	8	10%	7	4%	0	0%	5	11%
	4	-	-	6	8%	18	11%	0	0%	2	4%
	5	-	-	2	3%	11	7%	0	0%	1	2%
	6	-	-	4	5%	7	4%	0	0%	0	0%
	7	-	-	2	3%	2	1%	0	0%	0	0%
	8	-	-	1	1%	0	0%	0	0%	0	0%
	9	-	-	1	1%	1	1%	0	0%	0	0%
10 and over	-	-	1	1%	0	0%	0	0%	0	0%	
Cold sauces	0	-	-	22	10%	17	5%	0	0%	3	4%
	1	-	-	24	11%	39	12%	9	36%	6	9%
	2	-	-	45	21%	27	9%	0	0%	4	6%
	3	-	-	46	21%	38	12%	0	0%	3	4%
	4	-	-	30	14%	36	12%	4	16%	7	10%
	5	-	-	21	10%	41	13%	1	4%	8	11%
	6	-	-	14	7%	35	11%	7	28%	14	20%
	7	-	-	10	5%	45	14%	2	8%	16	23%
	8	-	-	1	0.5%	21	7%	1	4%	8	11%
	9	-	-	1	0.5%	8	3%	1	4%	0	0%
10 and over	-	-	1	0.5%	6	2%	0	0%	1	1%	

Sector	Number of different additives found within the same product	Type of brands									
		Specialised retailer brands (6 sectors out of the 30 studied) ¹		National brands (30 sectors out of the 30 studied)		Retailers' own brands (30 sectors out of the 30 studied)		Entry-level retailer brands (27 sectors out of the 30 studied)		Hard discount brands (30 sectors out of the 30 studied)	
		Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion
Syrups	0	-	-	11	15%	24	14%	1	5%	2	5%
	1	-	-	22	30%	51	30%	4	19%	13	32%
	2	-	-	17	23%	32	19%	14	67%	9	22%
	3	-	-	5	7%	22	13%	1	5%	6	15%
	4	-	-	3	4%	11	7%	1	5%	4	10%
	5	-	-	1	1%	9	5%	0	0%	4	10%
	6	-	-	0	0%	5	3%	0	0%	0	0%
	7	-	-	1	1%	1	1%	0	0%	2	5%
	8	-	-	7	9%	9	5%	0	0%	0	0%
	9	-	-	2	3%	2	1%	0	0%	0	0%
10 and over	-	-	5	7%	2	1%	0	0%	1	2%	
Frozen snacking products	0	34	9%	14	9%	83	21%	5	23%	27	20%
	1	34	9%	19	12%	36	9%	2	9%	6	4%
	2	56	14%	29	18%	43	11%	2	9%	12	9%
	3	62	16%	11	7%	62	16%	0	0%	15	11%
	4	46	12%	13	8%	30	8%	0	0%	10	7%
	5	39	10%	18	11%	29	7%	1	5%	12	9%
	6	44	11%	12	8%	18	5%	4	18%	9	7%
	7	30	8%	11	7%	19	5%	2	9%	12	9%
	8	14	4%	6	4%	20	5%	1	5%	9	7%
	9	12	3%	7	4%	13	3%	3	14%	8	6%
10 and over	28	7%	20	13%	37	9%	2	9%	18	13%	
Frozen pastries and desserts	0	8	3%	2	4%	2	1%	0	0%	0	0%
	1	25	8%	2	4%	19	12%	0	0%	5	9%
	2	44	14%	8	18%	21	13%	0	0%	10	18%
	3	35	11%	8	18%	16	10%	0	0%	5	9%
	4	48	15%	5	11%	24	15%	0	0%	9	16%
	5	24	8%	2	4%	21	13%	0	0%	6	11%
	6	28	9%	5	11%	12	8%	0	0%	1	2%
	7	16	5%	2	4%	6	4%	0	0%	1	2%
	8	21	7%	2	4%	8	5%	1	33%	4	7%
	9	9	3%	2	4%	5	3%	2	67%	4	7%
10 and over	52	17%	7	16%	23	15%	0	0%	11	20%	

¹ Because specialised retailer brands are only present in 6 sectors out of the 30 studied, it is difficult to compare them to the other type of brands
The dashes indicate that no product was collected for the sector/type of brands pair considered
In green: presence frequencies equal to or greater than 10%

Annex 5: Presence frequencies of additives and additive groups of interest, all sectors combined and by sector

Group of additives of interest		All sectors combined (n=30,125)	Product containing at least the group of additives of interest considered														
Group name	Grouped codes		Baby food (n=976)	Crackers (n=1080)	Cereal bars (n=179)	Cakes and biscuits (n=2292)	Soft drinks (n=1421)	Soups and broths (n=560)	Breakfast cereals (n=447)	Delicatessen meats (n=1722)	Chocolate products (n=1041)	Fruit purees, compotes and desserts (n=635)	Jams (n=466)	Canned fruits (n=217)	Cheeses (n=1991)	Ice creams and sorbets (n=1953)	Fruit juices and nectars (n=1557)
At least 1 of the 45 groups		43%	3%	48%	56%	66%	50%	35%	24%	74%	8%	1%	2%	10%	63%	2%	
ACESULFAME-K	E950	2%	0%	0%	0%	0%	22%	0%	0%	0%	0.5%	0%	0%	0%	0%	0%	
BENZOIC ACID AND BENZOATES	E210,E211,E212,E213	1%	0%	0.2%	0%	0.04%	6%	0%	0%	0.2%	0%	0%	0%	0%	0%	0%	
PHOSPHORIC ACID AND PHOSPHATES	E338,E339,E339(I),E339(II),E340,E340(I),E340(II),E341,E341(I),E341(II),E341(III),E343,E343(I),E343(II),E450,E450(I),E450(II),E450(III),E450(IV),E450(V),E451,E451(I),E451(II),E452,E452(I),E452(II),E452(III),E452(IV)	9%	1%	9%	4%	55%	12%	1%	5%	1%	2%	0%	0%	4%	2%	0%	
TARTARIC ACID AND TARTRATES	E334,E335,E335(I),E335(II),E336,E336(I),E336(II),E337,E354	1%	1%	0.3%	0%	4%	1%	0%	0%	0.2%	0.1%	0%	0%	0%	0%	0%	
BETA_APO_8_CAROTENAL_C30	E160E	0.1%	0%	0%	0%	0%	1%	0%	0%	0%	0.4%	0%	0%	0%	0%	0%	
SILVER	E174	0.01%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
BETA_CAROTENE_MIXED_CAROTENES_PLANT_CAROTENES	E160A(I),E160A(II)	3%	0%	0.4%	1%	9%	7%	3%	1%	0%	1%	0%	0%	1%	3%	0.1%	
BUTYLATED HYDROXYTOLUENE (BHT)	E321	0.003%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CARAMELS	E150A,E150B,E150C,E150D	5%	0%	3%	0%	5%	16%	2%	5%	7%	1%	0%	0%	1%	17%	0%	
CALCIUM CARBONATE	E170	1%	1%	0%	11%	1%	0.1%	0%	9%	2%	1%	0.2%	0%	0%	0.3%	0%	
CARRAGEENAN	E407	10%	0.3%	0%	2%	0.2%	2%	2%	2%	5%	1%	0%	0%	4%	31%	0%	
MICROCRYSTALLINE CELLULOSE	E460(I)	0.1%	0%	0%	0%	0%	0.3%	0%	0%	0%	0%	0%	0%	0%	0.4%	0%	
TRIETHYL CITRATE	E1505	0.2%	0%	0%	0%	0.3%	0%	0%	0%	0%	0%	0%	0%	0%	0.1%	0%	
COPPER COMPLEXES OF CHLOROPHYLLS AND CHLOROPHYLLINS	E141,E141(I),E141(II)	1%	0%	1%	0%	0.04%	1%	0%	0%	0%	0.5%	0%	0%	0.1%	7%	0%	
CURCUMIN	E100	3%	0%	8%	0%	1%	0.1%	0%	0%	0.1%	2%	0%	0%	0.1%	20%	0%	
SILICON DIOXIDE	E551	0.2%	0%	3%	0%	0.04%	0.1%	1%	1%	0%	0.3%	0%	0%	0.1%	0%	0%	
TITANIUM DIOXIDE	E171	1%	0%	0.2%	0%	0.3%	0.1%	0%	0%	0.1%	2%	0%	0%	0%	3%	0%	
ETHYL ESTER OF BETA-APO-8-CAROTENOIC ACID (C30)	E160F	0.003%	0%	0%	0%	0.04%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
MONO- AND DIACETYLTARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS	E472E	2%	0%	1%	0%	3%	0%	0%	0.2%	0%	0%	0%	0%	0%	0%	0%	
POLYGLYCEROL ESTERS OF FATTY ACIDS	E475	0.4%	0%	0%	0%	2%	0%	0%	0%	0%	0.2%	0%	0%	0%	0.4%	0%	
FERROCYANIDES	E535,E536,E538	0.02%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
GLUTAMATES	E620,E621,E622,E623,E624,E625	3%	0%	21%	0%	0%	0.1%	29%	0%	4%	0%	0%	0%	1%	0%	0%	
STEVIOL GLYCOSIDES	E960	0.3%	0%	0%	0%	0%	4%	0%	0%	0%	0.1%	0%	0%	0%	0.2%	0.4%	
QUINOLINE YELLOW	E104	0.03%	0%	0%	0%	0.04%	0.1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
LITHOLUBINE BK	E180	0.01%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.2%	0%	0%	
LUTEIN	E161B	2%	0%	0%	0%	3%	5%	0%	0.2%	1%	0.1%	0%	0%	0%	2%	0%	
POLYOXYETHYLENE SORBITAN MONOLAURATE, MONOLEATE, MONOPALMITATE, MONOSTEARATE, TRISTEARATE	E432,E433,E434,E435,E436	0.1%	0%	0%	0%	0%	0%	0%	0%	0%	0.2%	0%	0%	0%	0.2%	0%	
SORBITAN MONOSTEARATE, TRISTEARATE, MONOPALMITATE	E491,E492,E495	0.1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0.2%	0%	
NITRITES	E249,E250	10%	0%	1%	0%	0%	0%	1%	0%	71%	0%	0%	0%	0.3%	0%	0%	
IRON OXIDES AND HYDROXIDES	E172	0%	0%	0%	0%	0.3%	0%	0%	0%	1%	0%	0%	0%	0.1%	4%	0%	
PONCEAU 4R COCHINEAL RED A	E124	0.1%	0%	0.1%	0%	0.2%	0%	0%	0%	0.1%	0.1%	0%	2%	0%	0%	0%	
ANNATTO, BIXIN, NORBIXIN	E160B	3%	0%	9%	0%	0.3%	0%	0%	3%	0.3%	0%	0%	0%	11%	16%	0%	
ALLURA RED AC	E129	0.04%	0%	0.3%	0%	0.04%	0.2%	0%	0%	0%	0%	0%	0.5%	0%	0%	0%	
ALUMINIUM SILICATES	E554,E555,E556,E559	0.04%	0%	0%	0%	0%	0%	0%	0%	0.1%	0%	0%	0%	0%	0.1%	0%	
SODIUM AND CALCIUM STEAROYL_2_LACTYLATES	E481,E482	1%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
SUCRALOSE	E955	1%	0%	0.1%	0%	0%	16%	0%	1%	0%	0%	0%	0%	0%	0%	1%	
SUCROSE ESTERS OF FATTY ACIDS AND SUCROGLYCERIDES	E473,E474	0.3%	0%	1%	33%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0.1%	0%	
SULPHITES	E220,E221,E222,E223,E224,E226,E227,E228	7%	0%	14%	16%	6%	0.3%	4%	3%	0.2%	1%	0.2%	1%	0%	2%	0%	
SUNSET YELLOW FCF ORANGE YELLOW S	E110	0.05%	0%	0.1%	0%	0%	0.3%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
BENTONITE	E558	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
ETHYL LAUROYL ARGINATE	E243	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
SORBITAN MONOLAURATE AND MONOLEATE	E493,E494	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
SODIUM ALUMINIUM PHOSPHATE ACIDIC	E541	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
ALUMINIUM SULPHATES	E520,E521,E522,E523	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
STEARYL TARTRATE	E483	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

Group of additives of interest		All sectors combined (n=30,125)	Product containing at least the group of additives of interest considered															
Group name	Grouped codes		Infant milks (n=129)	Margarines (n=108)	Bread products (n=1023)	Ready-to-eat canned meals (n=793)	Ready-to-eat fresh meals (n=779)	Ready-to-eat frozen meals (n=2164)	Dessert mixes (n=329)	Fresh dairy products and similar (n=2411)	Fresh delicatessen products (n=2269)	Processed potato products (n=683)	Hot sauces (n=293)	Cold sauces (n=623)	Syrups (n=304)	Frozen snacking products (n=1109)	Frozen pastries and desserts (n=571)	
At least 1 of the 45 groups			43%	29%	26%	45%	60%	54%	39%	71%	49%	53%	42%	24%	62%	38%	62%	
ACESULFAME-K	E950	2%	0%	0%	0%	0%	0%	0%	0%	6%	0%	0%	0%	0%	0%	0%	0%	
BENZOIC ACID AND BENZOATES	E210, E211, E212, E213	1%	0%	0%	0%	1%	0.1%	0.05%	0%	0.1%	0%	0%	3%	7%	1%	0%		
PHOSPHORIC ACID AND PHOSPHATES	E338, E339, E399(I), E399(II), E399(III), E340, E340(I), E340(II), E340(III), E341, E341(I), E341(II), E341(III), E342, E343(I), E343(II), E343(III), E343(IV), E450(I), E450(II), E450(III), E450(IV), E451, E451(I), E451(II), E452, E452(I), E452(II), E452(III), E452(IV)	9%	29%	0%	1%	10%	8%	4%	22%	6%	3%	14%	0.3%	0%	0%	8%	17%	
TARTARIC ACID AND TARTRATES	E334, E335, E335(I), E336, E336(I), E336(II), E337, E354	1%	0%	0%	0.1%	0.3%	1%	0.1%	6%	0.4%	1%	0.3%	0%	0%	0%	0.5%	8%	
BETA_APO_9_CAROTENAL_C30	E160E	0.1%	0%	0%	0%	0%	0%	0%	0%	0%	0.4%	0%	0.3%	0%	0%	0%	0%	
SILVER	E174	0.01%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
BETA_CAROTENE_MIXED_CAROTENES_PLANT_CAROTENES	E160A(I), E160A(II)	3%	0%	24%	15%	1%	5%	1%	5%	4%	2%	0.3%	1%	12%	3%	4%	7%	
BUTYLATED DIHYDROXYTOLUENE (BHT)	E321	0.003%	0%	0%	0%	0%	0%	0.05%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
CARAMELS	E150A, E150B, E150C, E150D	5%	0%	0%	0.2%	5%	11%	5%	2%	7%	4%	2%	8%	10%	6%	3%	8%	
CALCIUM CARBONATE	E170	1%	5%	0%	2%	0%	0%	0.2%	0%	0.2%	0.1%	0%	0%	0%	0%	1%	1%	
CARRAGEENAN	E407	10%	0%	0%	1%	18%	17%	7%	33%	34%	14%	1%	6%	2%	0%	15%	33%	
MICROCRYSTALLINE CELLULOSE	E460(I)	0.1%	0%	0%	0%	0%	0.1%	0%	0%	0.2%	0%	0%	0%	0%	0%	0.1%	0%	
TRIETHYL CITRATE	E1505	0.2%	0%	0%	0%	0%	0%	0.05%	0.3%	0%	0.1%	0%	0%	0%	0%	1%	6%	
COPPER COMPLEXES OF CHLOROPHYLLS AND CHLOROPHYLLINS	E141, E141(I), E141(II)	1%	0%	0%	0%	0%	0%	0.1%	0%	1%	0.2%	1%	0%	0.3%	0%	1%	4%	
CURCUMIN	E100	3%	0%	0%	0%	5%	6%	4%	0.3%	8%	1%	4%	1%	1%	1%	1%	10%	
SILICON DIOXIDE	E551	0.2%	0%	0%	0%	0.1%	0.4%	0.05%	0%	0%	0%	1%	0.3%	0.2%	0%	0%	0%	
TITANIUM DIOXIDE	E171	1%	0%	0%	0%	1%	0%	0.1%	0%	0.1%	0.04%	0%	0%	1%	0%	0.2%	8%	
ETHYL ESTER OF BETA-APO-8-CAROTENOIC ACID (C30)	E160F	0.003%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
MONO- AND DIACETYL TARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS	E472E	2%	0%	0%	20%	4%	1%	0.1%	1%	0%	3%	0.1%	3%	0%	0%	5%	6%	
POLYGLYCEROL ESTERS OF FATTY ACIDS	E475	0.4%	0%	0%	4%	0%	0%	0%	0.3%	0%	0.2%	0%	0%	0%	0%	0.1%	4%	
FERROCYANIDES	E535, E536, E538	0.02%	0%	0%	0%	0%	0.1%	0%	0%	0%	0.2%	0%	0%	0%	0%	0%	0%	
GLUTAMATES	E620, E621, E622, E623, E624, E625	3%	0%	0%	0%	18%	6%	2%	1%	0%	3%	18%	6%	1%	0%	1%	0%	
STEVOL GLYCOSIDES	E960	0.3%	0%	0%	0%	0%	0%	0%	0%	0.4%	0%	0%	0.5%	0%	0%	0%	0%	
QUINOLINE YELLOW	E104	0.03%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	0%	
LITHOLUBINE BK	E180	0.01%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
LUTEIN	E161B	2%	0%	2%	4%	0.1%	1%	2%	0.3%	6%	3%	0%	2%	16%	14%	1%	2%	
POLYOXYETHYLENE SORBITAN MONOLAURATE, MONOLEATE, MONOPALMITATE, MONOSTEARATE, TRISTEARATE	E432, E433, E434, E435, E436	0.1%	0%	0%	0.5%	0%	0%	0.3%	0.05%	0%	0.2%	0%	0%	0.3%	0%	0%	0%	
SORBITAN MONOSTEARATE, TRISTEARATE, MONOPALMITATE	E491, E492, E495	0.1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0.4%	
NITRATES	E249, E250	10%	0%	0%	0%	23%	18%	11%	0%	0%	27%	0%	0.3%	0%	0%	40%	0%	
IRON OXIDES AND HYDROXIDES	E172	0.4%	0%	0%	0%	0%	0%	0.05%	0%	0%	0.3%	0%	0%	0%	0%	0.2%	6%	
PONCEAU 4R COCHINEAL RED A	E124	0.1%	0%	0%	0%	0%	1%	0%	0.3%	0.2%	0%	0%	0%	0%	3%	0.1%	0%	
ANNATTO, BIXIN, NORBIXIN	E160B	3%	0%	0%	0.1%	0%	1%	1%	12%	5%	2%	1%	0%	0%	0%	5%	2%	
ALLURA RED AC	E129	0.04%	0%	0%	0%	0%	0.1%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	
ALUMINIUM SILICATES	E554, E555, E556, E559	0.04%	0%	0%	0%	0%	0%	0.3%	0.05%	0%	0%	0%	0%	0%	0%	0%	0.1%	1%
SODIUM AND CALCIUM STEAROYL_2_LACTYLATES	E481, E482	1%	0%	0%	25%	0%	0%	0.1%	1%	0%	1%	0%	0%	0%	0%	2%	1%	
SUCRALOSE	E955	1%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	11%	0%	0%	0%	
SUCROSE ESTERS OF FATTY ACIDS AND SUCROGLYCERIDES	E473, E474	0.3%	0%	0%	0.2%	0.3%	0%	0.3%	0%	0%	0.04%	0%	0%	0%	0%	0%	0.1%	1%
SULPHITES	E220, E221, E222, E223, E224, E226, E227, E228	7%	0%	0%	0.3%	21%	19%	16%	1%	0.2%	21%	9%	11%	37%	1%	13%	3%	
SUNSET YELLOW FCF ORANGE YELLOW S	E110	0.05%	0%	0%	0%	0%	0.4%	0%	0.3%	0.04%	0.04%	0%	0%	1%	0%	0%	0%	
BENTONITE	E558	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
ETHYL LAUROYL ARGINATE	E243	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
SORBITAN MONOLAURATE AND MONOLEATE	E493, E494	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
SODIUM ALUMINIUM PHOSPHATE ACIDIC	E541	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
ALUMINIUM SULPHATES	E520, E521, E522, E523	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
STEARYL TARTRATE	E483	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	

n: total number of products all sectors combined or by sector
In green: presence frequencies equal to or greater than 10%

Annex 6: Numbers of products by sector and type of brands, for the 20 sectors currently monitored by Oqali (updated data)

Sector	Number of products by type of brands									
	Specialised retailer brands <i>(3 sectors out of the 20 studied)</i>		National brands <i>(20 sectors out of the 20 studied)</i>		Retailer brands <i>(20 sectors out of the 20 studied)</i>		Entry-level retailer brands <i>(19 sectors out of the 20 studied)</i>		Hard discount store brands <i>(20 sectors out of the 20 studied)</i>	
	Baseline	Follow-up	Baseline	Follow-up	Baseline	Follow-up	Baseline	Follow-up	Baseline	Follow-up
Crackers	-	-	101	247	259	563	55	60	136	210
Cereal bars	-	-	43	47	75	88	18	13	33	31
Cakes and biscuits	-	-	556	497	589	1133	125	134	422	528
Soft drinks	-	-	259	540	417	623	52	59	115	199
Breakfast cereals	-	-	118	78	131	237	13	37	73	95
Delicatessen meats	-	-	147	359	646	881	160	141	208	341
Chocolate products	-	-	296	427	218	379	57	55	179	180
Fruit purees, compotes and desserts	-	-	212	222	160	320	17	21	51	72
Jams	-	-	97	115	182	272	17	21	43	58
Canned fruits	-	-	64	54	64	87	34	39	22	37
Ice creams and sorbets	478	642	216	434	519	659	39	39	164	179
Fruit juices and nectars	-	-	186	507	415	730	67	89	104	231
Margarines	-	-	40	44	30	41	9	7	16	16
Bread products	-	-	159	309	219	455	55	72	145	187
Frozen pizzas	55	88	39	74	93	164	6	10	21	56
Ready-to-eat frozen meals	629	914	280	258	655	687	44	47	255	258
Dessert mixes	-	-	67	233	39	66	-	-	54	30
Fresh dairy products and similar	-	-	469	664	735	1152	62	103	286	492
Fresh delicatessen products	-	-	260	443	668	1378	76	91	137	357
Cold sauces	-	-	209	215	242	313	19	25	74	70

The dashes indicate that no product was collected for the sector/type of brand pair considered

Annex 7: Changes in the presence frequencies of additives as considered by Oqali with a presence frequency below 2% over at least one of the two collection years, all sectors combined

Ingredient considered by Oqali to be an additive <i>(n= number of products containing at least one ingredient considered to be an additive)</i>	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Products containing at least the additive considered, all sectors combined (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
E150D_SULPHITE AMMONIA CARAMEL (Baseline: n=215 ; Follow-up: n=318)	COLOUR	1%	1%	-0.03
E414_GUM ARABIC OR ACACIA GUM (Baseline: n=214 ; Follow-up: n=307)	OTHERS	1%	1%	-0.1
E223_SODIUM METABISULPHITE (Baseline: n=213 ; Follow-up: n=227)	OTHERS	1%	1%	-0.4***
E341(I)_MONOCALCIUM PHOSPHATE (Baseline: n=198 ; Follow-up: n=298)	OTHERS	1%	1%	-0.003
E472B_LACTIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS (Baseline: n=197 ; Follow-up: n=283)	OTHERS	1%	1%	-0.1
E417_TARA GUM (Baseline: n=183 ; Follow-up: n=160)	OTHERS	1%	1%	-1***
E472C_CITRIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS (Baseline: n=175 ; Follow-up: n=154)	OTHERS	1%	1%	-0.5***
E162_BEETROOT RED_BETANIN (Baseline: n=161 ; Follow-up: n=271)	COLOUR	1%	1%	+0.1
E150C_AMMONIA CARAMEL (Baseline: n=155 ; Follow-up: n=164)	COLOUR	1%	1%	-0.3**
E503(I)_AMMONIUM CARBONATE (Baseline: n=153 ; Follow-up: n=209)	OTHERS	1%	1%	-0.1
E407A_PROCESSED EUCHEUMA SEAWEED (Baseline: n=145 ; Follow-up: n=207)	OTHERS	1%	1%	-0.1
E339_SODIUM PHOSPHATES (Baseline: n=144 ; Follow-up: n=112)	OTHERS	1%	1%	-0.5***
E262(I)_SODIUM ACETATE (Baseline: n=143 ; Follow-up: n=184)	OTHERS	1%	1%	-0.1
E220_SULPHUR DIOXIDE (Baseline: n=138 ; Follow-up: n=182)	OTHERS	1%	1%	-0.1
E466_SODIUM CARBOXY METHYL CELLULOSE OR CELLULOSE GUM (Baseline: n=138 ; Follow-up: n=160)	OTHERS	1%	1%	-0.2*
E222_SODIUM HYDROGEN SULPHITE (Baseline: n=138 ; Follow-up: n=83)	OTHERS	1%	0.4%	-1***
E392_EXTRACTS OF ROSEMARY (Baseline: n=133 ; Follow-up: n=259)	OTHERS	1%	1%	+0.3*
E341_CALCIIUM PHOSPHATES (Baseline: n=133 ; Follow-up: n=195)	OTHERS	1%	1%	-0.03
E326_POTASSIUM LACTATE (Baseline: n=132 ; Follow-up: n=204)	OTHERS	1%	1%	+0.02
E211_SODIUM BENZOATE (Baseline: n=123 ; Follow-up: n=161)	OTHERS	1%	1%	-0.1
E170_CALCIIUM CARBONATE (Baseline: n=122 ; Follow-up: n=170)	COLOUR	1%	1%	-0.1
E575_GLUCONO_DELTA_LACTONE (Baseline: n=121 ; Follow-up: n=163)	OTHERS	1%	1%	-0.1
E445_GLYCEROL ESTERS OF WOOD ROSINS (Baseline: n=115 ; Follow-up: n=183)	OTHERS	1%	1%	+0.04
E325_SODIUM LACTATE (Baseline: n=115 ; Follow-up: n=149)	OTHERS	1%	1%	-0.1
E500(I)_SODIUM CARBONATE (Baseline: n=114 ; Follow-up: n=133)	OTHERS	1%	1%	-0.2*
E338_PHOSPHORIC ACID (Baseline: n=113 ; Follow-up: n=163)	OTHERS	1%	1%	-0.03
E110_SUNSET YELLOW FCF_ORANGE YELLOW S (Baseline: n=112 ; Follow-up: n=8)	COLOUR	1%	0.04%	-1***
E1422_ACETYLATED DISTARCH ADIPATE (Baseline: n=111 ; Follow-up: n=93)	OTHERS	1%	0.4%	-0.3***
E461_METHYL CELLULOSE (Baseline: n=109 ; Follow-up: n=158)	OTHERS	1%	1%	-0.03
E420(II)_SORBITOL SYRUP (Baseline: n=107 ; Follow-up: n=188)	SWEETENER	1%	1%	+0.1
E627_DISODIUM GUANYLATE (Baseline: n=106 ; Follow-up: n=136)	OTHERS	1%	1%	-0.1
E631_DISODIUM INOSINATE (Baseline: n=105 ; Follow-up: n=137)	OTHERS	1%	1%	-0.1
E102_TARTRAZINE (Baseline: n=102 ; Follow-up: n=8)	COLOUR	1%	0.04%	-1***
E124_PONCEAU 4R COCHINEAL RED A (Baseline: n=101 ; Follow-up: n=18)	COLOUR	1%	0.1%	-1***
E327_CALCIIUM LACTATE (Baseline: n=97 ; Follow-up: n=110)	OTHERS	1%	0.5%	-0.2*
E150B_CAUSTIC SULPHITE CARAMEL (Baseline: n=93 ; Follow-up: n=100)	COLOUR	1%	0.4%	-0.2*
E509_CALCIIUM CHLORIDE (Baseline: n=92 ; Follow-up: n=119)	OTHERS	1%	1%	-0.1
E473_SUCROSE ESTERS OF FATTY ACIDS (Baseline: n=92 ; Follow-up: n=90)	OTHERS	1%	0.4%	-0.2**
E955_SUCRALOSE (Baseline: n=91 ; Follow-up: n=302)	SWEETENER	1%	1%	+1***
E101(I)_RIBOFLAVIN (Baseline: n=91 ; Follow-up: n=85)	COLOUR	1%	0.4%	-0.2**
E171_TITANIUM DIOXIDE (Baseline: n=90 ; Follow-up: n=105)	COLOUR	1%	0.5%	-0.1
E524_SODIUM HYDROXIDE (Baseline: n=88 ; Follow-up: n=182)	OTHERS	1%	1%	+0.2*
E333_CALCIIUM CITRATES (Baseline: n=88 ; Follow-up: n=157)	OTHERS	1%	1%	+0.1
E334_TARTARIC ACID L(+) (Baseline: n=87 ; Follow-up: n=126)	OTHERS	1%	1%	-0.02

Ingredient considered by Oqali to be an additive (n= number of products containing at least one ingredient considered to be an additive)	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Products containing at least the additive considered, all sectors combined (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
E296, MALIC ACID (Baseline: n=85 ; Follow-up: n=188)	OTHERS	1%	1%	+0.3**
E1442, HYDROXY PROPYL DISTARCH PHOSPHATE (Baseline: n=82 ; Follow-up: n=90)	OTHERS	1%	0.4%	-0.2*
E260, ACETIC ACID (Baseline: n=79 ; Follow-up: n=131)	OTHERS	1%	1%	+0.1
E262, SODIUM ACETATES (Baseline: n=79 ; Follow-up: n=93)	OTHERS	1%	0.4%	-0.1
E332, POTASSIUM CITRATES (Baseline: n=69 ; Follow-up: n=84)	OTHERS	0.5%	0.4%	-0.1
E331(III), TRISODIUM CITRATE (Baseline: n=68 ; Follow-up: n=145)	OTHERS	0.5%	1%	+0.2*
E306, TOCOPHEROL RICH EXTRACT (Baseline: n=66 ; Follow-up: n=183)	OTHERS	0.4%	1%	+0.4***
E508, POTASSIUM CHLORIDE (Baseline: n=66 ; Follow-up: n=116)	OTHERS	0.4%	1%	+0.1
E172, IRON OXIDES AND HYDROXIDES (Baseline: n=66 ; Follow-up: n=96)	COLOUR	0.4%	0.4%	-0.02
E307, ALPHA TOCOPHEROL (Baseline: n=66 ; Follow-up: n=93)	OTHERS	0.4%	0.4%	-0.03
E200, SORBIC ACID (Baseline: n=65 ; Follow-up: n=99)	OTHERS	0.4%	0.4%	+0.004
E442, AMMONIUM PHOSPHATIDES (Baseline: n=65 ; Follow-up: n=89)	OTHERS	0.4%	0.4%	-0.04
E127, ERYTHROSINE (Baseline: n=65 ; Follow-up: n=64)	COLOUR	0.4%	0.3%	-0.2*
E904, SHELLAC (Baseline: n=63 ; Follow-up: n=113)	OTHERS	0.4%	1%	+0.1
E141, COPPER COMPLEXES OF CHLOROPHYLLS AND CHLOROPHYLLINS (Baseline: n=61 ; Follow-up: n=107)	COLOUR	0.4%	0.5%	+0.1
E504(I), MAGNESIUM CARBONATE (Baseline: n=61 ; Follow-up: n=94)	OTHERS	0.4%	0.4%	+0.01
E406, AGAR (Baseline: n=61 ; Follow-up: n=65)	OTHERS	0.4%	0.3%	-0.1*
E304, FATTY ACID ESTERS OF ASCORBIC ACID (Baseline: n=59 ; Follow-up: n=40)	OTHERS	0.4%	0.2%	-0.2***
E460, CELLULOSE (Baseline: n=57 ; Follow-up: n=85)	OTHERS	0.4%	0.4%	-0.004
E475, POLYGLYCEROL ESTERS OF FATTY ACIDS (Baseline: n=56 ; Follow-up: n=89)	OTHERS	0.4%	0.4%	+0.02
E503, AMMONIUM CARBONATES (Baseline: n=55 ; Follow-up: n=79)	OTHERS	0.4%	0.4%	-0.02
E129, ALLURA RED AC (Baseline: n=54 ; Follow-up: n=8)	COLOUR	0.4%	0.04%	-0.3***
E579, FERROUS GLUCONATE (Baseline: n=53 ; Follow-up: n=108)	OTHERS	0.4%	0.5%	+0.1
E1105, XANTHINE (Baseline: n=52 ; Follow-up: n=69)	OTHERS	0.4%	0.3%	-0.04
E385, CALCIUM DISODIUM ETHYLENE DIAMINE TETRA ACETATE (CALCIUM DISODIUM EDTA) (Baseline: n=52 ; Follow-up: n=46)	OTHERS	0.4%	0.2%	-0.1**
E954, SACCHARIN AND ITS SALTS (Baseline: n=51 ; Follow-up: n=36)	SWEETENER	0.3%	0.2%	-0.2***
E251, SODIUM NITRATE (Baseline: n=50 ; Follow-up: n=48)	OTHERS	0.3%	0.2%	-0.1*
E141(II), COPPER COMPLEXES OF CHLOROPHYLLINS (Baseline: n=48 ; Follow-up: n=67)	COLOUR	0.3%	0.3%	-0.02
E551, SILICON DIOXIDE (Baseline: n=48 ; Follow-up: n=39)	OTHERS	0.3%	0.2%	-0.1**
E920, L-CYSTEINE (Baseline: n=47 ; Follow-up: n=136)	OTHERS	0.3%	1%	+0.3***
E304(II), ASCORBYL PALMITATE (Baseline: n=46 ; Follow-up: n=50)	OTHERS	0.3%	0.2%	-0.1
E451(I), PENTASODIUM TRIPHOSPHATE (Baseline: n=46 ; Follow-up: n=37)	OTHERS	0.3%	0.2%	-0.1**
E336, POTASSIUM TARTRATES (Baseline: n=45 ; Follow-up: n=63)	OTHERS	0.3%	0.3%	-0.02
E952, CYCLAMATES (Baseline: n=38 ; Follow-up: n=44)	SWEETENER	0.3%	0.2%	-0.1
E482, CALCIUM STEAROYL 2-LACTYLATE (Baseline: n=38 ; Follow-up: n=36)	OTHERS	0.3%	0.2%	-0.1*
E242, DIMETHYL DICARBONATE (Baseline: n=37 ; Follow-up: n=29)	OTHERS	0.3%	0.1%	-0.1**
E903, CARNAUBA WAX (Baseline: n=36 ; Follow-up: n=55)	OTHERS	0.2%	0.2%	+0.003
E450(III), TETRASODIUM DIPHOSPHATE (Baseline: n=35 ; Follow-up: n=48)	OTHERS	0.2%	0.2%	-0.02
E320, BUTYLATED HYDROXYANISOLE (BHA) (Baseline: n=35 ; Follow-up: n=26)	OTHERS	0.2%	0.1%	-0.1**
E133, BRILLIANT BLUE FCF (Baseline: n=34 ; Follow-up: n=40)	COLOUR	0.2%	0.2%	-0.1
E104, QUINOLINE YELLOW (Baseline: n=33 ; Follow-up: n=2)	COLOUR	0.2%	0.01%	-0.2***
E341(III), TRICALCIUM PHOSPHATE (Baseline: n=32 ; Follow-up: n=50)	OTHERS	0.2%	0.2%	+0.01
E122, AZORUBINE, CARMOUMINE (Baseline: n=31 ; Follow-up: n=5)	COLOUR	0.2%	0.02%	-0.2***
E420, SORBITOLS (Baseline: n=30 ; Follow-up: n=171)	SWEETENER	0.2%	1%	+1***
E101, RIBOFLAVINS (Baseline: n=30 ; Follow-up: n=110)	COLOUR	0.2%	0.5%	+0.3***
E1200, POLYDEXTROSE (Baseline: n=29 ; Follow-up: n=67)	OTHERS	0.2%	0.3%	+0.1
E452(II), SODIUM POLYPHOSPHATE (Baseline: n=29 ; Follow-up: n=24)	OTHERS	0.2%	0.1%	-0.1*
E533B, TALC (Baseline: n=27 ; Follow-up: n=37)	OTHERS	0.2%	0.2%	-0.02
E965(II), MALTITOL (Baseline: n=27 ; Follow-up: n=37)	SWEETENER	0.2%	0.2%	-0.02
E477, PROPANE 1,2-DIOL ESTERS OF FATTY ACIDS (Baseline: n=27 ; Follow-up: n=33)	OTHERS	0.2%	0.1%	-0.03
E1420, ACETYLATED STARCH (Baseline: n=26 ; Follow-up: n=3)	OTHERS	0.2%	0.01%	-0.2***
E472A, ACETIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS (Baseline: n=25 ; Follow-up: n=29)	OTHERS	0.2%	0.1%	-0.04
E131, PATENT BLUE V (Baseline: n=23 ; Follow-up: n=11)	COLOUR	0.2%	0.05%	-0.1***
E1414, ACETYLATED DISTARCH PHOSPHATE (Baseline: n=23 ; Follow-up: n=6)	OTHERS	0.2%	0.03%	-0.1***
E306, E307, E308, E309, TOCOPHEROLS (Baseline: n=22 ; Follow-up: n=28)	OTHERS	0.1%	0.1%	-0.02
E460(II), POWDERED CELLULOSE (Baseline: n=22 ; Follow-up: n=4)	OTHERS	0.1%	0.02%	-0.1***
E235, NATAMYCIN (Baseline: n=20 ; Follow-up: n=28)	OTHERS	0.1%	0.1%	-0.01
E464, HYDROXYPROPYL METHYL CELLULOSE (Baseline: n=20 ; Follow-up: n=12)	OTHERS	0.1%	0.1%	-0.1**
E444, SUCROSE ACETATE ISOBUTYRATE (Baseline: n=19 ; Follow-up: n=25)	OTHERS	0.1%	0.1%	-0.02
E339(II), DISODIUM PHOSPHATE (Baseline: n=19 ; Follow-up: n=10)	OTHERS	0.1%	0.04%	-0.1**
E901, BEESWAX (Baseline: n=17 ; Follow-up: n=49)	OTHERS	0.1%	0.2%	+0.1*
E440(II), AMIDATED PECTIN (Baseline: n=17 ; Follow-up: n=39)	OTHERS	0.1%	0.2%	+0.1
E262(II), SODIUM DIACETATE (Baseline: n=17 ; Follow-up: n=31)	OTHERS	0.1%	0.1%	+0.02
E203, CALCIUM SORBATE (Baseline: n=17 ; Follow-up: n=29)	OTHERS	0.1%	0.1%	+0.02

Ingredient considered by Oqali to be an additive (n= number of products containing at least one ingredient considered to be an additive)	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Products containing at least the additive considered, all sectors combined (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
E341(II)_DICALCIUM PHOSPHATE (Baseline: n=17; Follow-up: n=5)	OTHERS	0,1%	0,02%	-0,1***
E339(I)_MONOSODIUM PHOSPHATE (Baseline: n=16; Follow-up: n=24)	OTHERS	0,1%	0,1%	-0,001
E141(I)_COPPER COMPLEXES OF CHLOROPHYLLS (Baseline: n=15; Follow-up: n=25)	COLOUR	0,1%	0,1%	+0,01
E140(I)_CHLOROPHYLLS (Baseline: n=15; Follow-up: n=22)	COLOUR	0,1%	0,1%	-0,003
E492_SORBITAN TRISTEARATE (Baseline: n=14; Follow-up: n=16)	OTHERS	0,1%	0,1%	-0,02
E1505_TRIETHYL CITRATE (Baseline: n=14; Follow-up: n=12)	OTHERS	0,1%	0,1%	-0,04
E221_SODIUM SULPHITE (Baseline: n=13; Follow-up: n=15)	OTHERS	0,1%	0,1%	-0,02
E339_E340_E341_E343_PHOSPHATES (Baseline: n=13; Follow-up: n=14)	OTHERS	0,1%	0,1%	-0,03
E530_MAGNESIUM OXIDE (Baseline: n=13; Follow-up: n=11)	OTHERS	0,1%	0,05%	-0,04
E472_ESTERS OF FOOD FATTY ACIDS (Baseline: n=13; Follow-up: n=8)	OTHERS	0,1%	0,04%	-0,1*
E405_PROPAANE 1,2, DIOL ALGINATE (Baseline: n=13; Follow-up: n=5)	OTHERS	0,1%	0,02%	-0,1**
E501 (I)_POTASSIUM CARBONATE (Baseline: n=12; Follow-up: n=20)	OTHERS	0,1%	0,1%	+0,01
E433_POLYOXYETHYLENE SORBITAN MONOLEATE (POLYSORBATE 80) (Baseline: n=12; Follow-up: n=12)	OTHERS	0,1%	0,1%	-0,03
E160 (Baseline: n=12; Follow-up: n=5)	COLOUR	0,1%	0,02%	-0,1**
E140(II)_CHLOROPHYLLINS (Baseline: n=12; Follow-up: n=3)	COLOUR	0,1%	0,01%	-0,1**
E160E_BETA_APO_8_CAROTENAL_C30 (Baseline: n=11; Follow-up: n=23)	COLOUR	0,1%	0,1%	+0,03
E135_ERYTHORBIC ACID (Baseline: n=11; Follow-up: n=14)	OTHERS	0,1%	0,1%	-0,01
E450(II)_TRISODIUM DIPHOSPHATE (Baseline: n=11; Follow-up: n=2)	OTHERS	0,1%	0,01%	-0,1***
E1103_INVERTASE (Baseline: n=10; Follow-up: n=9)	OTHERS	0,1%	0,04%	-0,03
E635_DISODIUM 5-RIBONUCLEOTIDE (Baseline: n=9; Follow-up: n=20)	OTHERS	0,1%	0,1%	+0,03
E336(I)_MONOPOTASSIUM TARTRATE (Baseline: n=9; Follow-up: n=18)	OTHERS	0,1%	0,1%	+0,02
E460(I)_MICROCRYSTALLINE CELLULOSE (Baseline: n=9; Follow-up: n=15)	OTHERS	0,1%	0,1%	+0,01
E151_BRILLIANT BLACK PN (Baseline: n=9; Follow-up: n=9)	COLOUR	0,1%	0,04%	-0,02
E630_INOSINIC ACID (Baseline: n=9; Follow-up: n=9)	OTHERS	0,1%	0,04%	-0,02
E290_PROPIONIC ACID (Baseline: n=9; Follow-up: n=4)	OTHERS	0,1%	0,02%	-0,04*
E142_GREEN S (Baseline: n=8; Follow-up: n=24)	COLOUR	0,1%	0,1%	+0,1
E470A_SODIUM POTASSIUM AND CALCIUM SALTS OF FATTY ACIDS (Baseline: n=8; Follow-up: n=7)	OTHERS	0,1%	0,03%	-0,02
E516_CALCIUM SULPHATE (Baseline: n=7; Follow-up: n=14)	OTHERS	0,05%	0,1%	+0,02
E340_POTASSIUM PHOSPHATES (Baseline: n=7; Follow-up: n=9)	OTHERS	0,05%	0,04%	-0,01
E402_POTASSIUM ALGINATE (Baseline: n=7; Follow-up: n=7)	OTHERS	0,05%	0,03%	-0,02
E501_POTASSIUM CARBONATES (Baseline: n=7; Follow-up: n=6)	OTHERS	0,05%	0,03%	-0,02
E578_CALCIUM GLUCONATE (Baseline: n=7; Follow-up: n=4)	OTHERS	0,05%	0,02%	-0,03
E450(V)_TETRAPOTASSIUM DIPHOSPHATE (Baseline: n=7; Follow-up: n=3)	OTHERS	0,05%	0,01%	-0,03
E212_POTASSIUM BENZOATE (Baseline: n=7; Follow-up: n=1)	OTHERS	0,05%	0,004%	+0,006
E132_INDIGOTINE, INDIGO CARMINE (Baseline: n=6; Follow-up: n=4)	COLOUR	0,04%	0,02%	-0,02
E325_E326_E327_E331_E332_E333_E334_E335_E336_E337_E338_E339_E340_E341_E343_E380_E450_E451_E452_EMULSIFYING SALTS (Baseline: n=6; Follow-up: n=2)	OTHERS	0,04%	0,01%	-0,03
E960_STEVIOL GLYCOSIDES (Baseline: n=5; Follow-up: n=78)	SWEETENER	0,03%	0,3%	+0,3***
E153_VEGETABLE CARBON (Baseline: n=5; Follow-up: n=36)	COLOUR	0,03%	0,2%	+0,1***
E504(II)_MAGNESIUM HYDROXIDE CARBONATE (Baseline: n=5; Follow-up: n=8)	OTHERS	0,03%	0,04%	+0,002
E959_NEOHESPERIDINE DC (Baseline: n=5; Follow-up: n=8)	SWEETENER	0,03%	0,04%	+0,002
E966_LACTITOL (Baseline: n=5; Follow-up: n=6)	SWEETENER	0,03%	0,03%	-0,01
E281_SODIUM PROPIONATE (Baseline: n=5; Follow-up: n=5)	OTHERS	0,03%	0,02%	-0,01
NITRITE SALT (Baseline: n=5; Follow-up: n=4)	OTHERS	0,03%	0,02%	-0,02
E150_CARAMEL (Baseline: n=5; Follow-up: n=3)	COLOUR	0,03%	0,01%	-0,02
E413_TRAGACANTH (Baseline: n=5; Follow-up: n=3)	OTHERS	0,03%	0,01%	-0,02
E263_CALCIUM ACETATE (Baseline: n=5; Follow-up: n=2)	OTHERS	0,03%	0,01%	-0,02
E261(I)_POTASSIUM ACETATE (Baseline: n=4; Follow-up: n=18)	OTHERS	0,03%	0,1%	+0,1*
E261_POTASSIUM ACETATES (Baseline: n=4; Follow-up: n=17)	OTHERS	0,03%	0,1%	+0,05
E470B_MAGNESIUM SALTS OF FATTY ACIDS (Baseline: n=4; Follow-up: n=8)	OTHERS	0,03%	0,04%	+0,01
E511_MAGNESIUM CHLORIDE (Baseline: n=4; Follow-up: n=8)	OTHERS	0,03%	0,04%	+0,01
E210_BENZOIC ACID (Baseline: n=4; Follow-up: n=7)	OTHERS	0,03%	0,03%	+0,004
E228_POTASSIUM HYDROGEN SULPHITE (Baseline: n=4; Follow-up: n=7)	OTHERS	0,03%	0,03%	+0,004
E479B_THERMALLY OXIDISED SOYA BEAN OIL INTERACTED WITH MONO- AND DIGLYCERIDES OF FATTY ACIDS (Baseline: n=4; Follow-up: n=3)	OTHERS	0,03%	0,01%	-0,01
E555_POTASSIUM ALUMINIUM SILICATE (Baseline: n=4; Follow-up: n=3)	OTHERS	0,03%	0,01%	-0,01
E310_PROPYL GALLATE (Baseline: n=4; Follow-up: n=2)	OTHERS	0,03%	0,01%	-0,02
E965(II)_MALTITOL SYRUP (Baseline: n=4; Follow-up: n=0)	SWEETENER	0,03%	0%	-0,03
E333(III)_TRICALCIUM CITRATE (Baseline: n=3; Follow-up: n=23)	OTHERS	0,02%	0,1%	+0,1**
E418_GELLAN GUM (Baseline: n=3; Follow-up: n=15)	OTHERS	0,02%	0,1%	+0,05*
E140_CHLOROPHYLLS AND CHLOROPHYLLINS (Baseline: n=3; Follow-up: n=10)	COLOUR	0,02%	0,04%	+0,02
E501(II)_POTASSIUM HYDROGEN CARBONATE (Baseline: n=3; Follow-up: n=10)	OTHERS	0,02%	0,04%	+0,02
E332(II)_TRIPOTASSIUM CITRATE (Baseline: n=3; Follow-up: n=7)	OTHERS	0,02%	0,03%	+0,02
E10(II)_RIBOFLAVIN_5_PHOSPHATE (Baseline: n=3; Follow-up: n=5)	COLOUR	0,02%	0,02%	+0,002
E339(III)_TRISODIUM PHOSPHATE (Baseline: n=3; Follow-up: n=5)	OTHERS	0,02%	0,02%	+0,002
E331(II)_DISODIUM CITRATE (Baseline: n=3; Follow-up: n=4)	OTHERS	0,02%	0,02%	-0,002

Ingredient considered by Oqali to be an additive (n= number of products containing at least one ingredient considered to be an additive)	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Products containing at least the additive considered, all sectors combined (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
E435 POLYOXYETHYLENE SORBITAN MONOSTEARATE (POLYSORBATE 60) (Baseline: n=3; Follow-up: n=2)	OTHERS	0,02%	0,01%	-0,01
E1412_DISTARCH PHOSPHATE (Baseline: n=3; Follow-up: n=1)	OTHERS	0,02%	0,004%	-0,02
E160D LYCOPENE (Baseline: n=3; Follow-up: n=1)	COLOUR	0,02%	0,004%	-0,02
E331(I) MONOSODIUM CITRATE (Baseline: n=2; Follow-up: n=6)	OTHERS	0,01%	0,03%	+0,01
E1520 PROPANE 1,2 DIOL (PROPYLENE GLYCOL) (Baseline: n=2; Follow-up: n=2)	OTHERS	0,01%	0,01%	-0,005
E432_E433_E434_E435_E436 POLYSORBATES (Baseline: n=2; Follow-up: n=2)	OTHERS	0,01%	0,01%	-0,005
E1440_HYDROXY PROPYL STARCH (Baseline: n=2; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,01
E585 FERROUS LACTATE (Baseline: n=2; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,01
E514(II) SODIUM HYDROGEN SULPHATE (Baseline: n=2; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E249 POTASSIUM NITRITE (Baseline: n=1; Follow-up: n=11)	OTHERS	0,01%	0,05%	+0,04*
E620 GLUTAMIC ACID (Baseline: n=1; Follow-up: n=5)	OTHERS	0,01%	0,02%	+0,02
E340(II) DIPOTASSIUM PHOSPHATE (Baseline: n=1; Follow-up: n=4)	OTHERS	0,01%	0,02%	+0,01
E535 SODIUM FERROCYANIDE (Baseline: n=1; Follow-up: n=4)	OTHERS	0,01%	0,02%	+0,01
E536 POTASSIUM FERROCYANIDE (Baseline: n=1; Follow-up: n=4)	OTHERS	0,01%	0,02%	+0,01
E1450 STARCH SODIUM OCTENYL SUCCINATE (Baseline: n=1; Follow-up: n=3)	OTHERS	0,01%	0,01%	+0,01
E335 SODIUM TARTRATES (Baseline: n=1; Follow-up: n=2)	OTHERS	0,01%	0,01%	+0,002
E451(II) PENTAPOTASSIUM TRIPHOSPHATE (Baseline: n=1; Follow-up: n=2)	OTHERS	0,01%	0,01%	+0,002
E999 QUILLAIA EXTRACT (Baseline: n=1; Follow-up: n=2)	OTHERS	0,01%	0,01%	+0,002
E1404 OXIDISED STARCH (Baseline: n=1; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,002
E160F ETHYL ESTER OF BETA-APO-8-CAROTENOIC ACID (C30) (Baseline: n=1; Follow-up: n=1)	COLOUR	0,01%	0,004%	-0,002
E302 CALCIUM ASCORBATE (Baseline: n=1; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,002
E381 AMMONIUM FERRIC CITRATE (Baseline: n=1; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,002
E431 POLYOXYETHYLENE (40) STEARATE (Baseline: n=1; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,002
E470 SALTS OF FATTY ACIDS (Baseline: n=1; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,002
E491 SORBITAN MONOSTEARATE (Baseline: n=1; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,002
E526 CALCIUM HYDROXIDE (Baseline: n=1; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,002
E559 ALUMINIUM SILICATE (KAOLIN) (Baseline: n=1; Follow-up: n=1)	OTHERS	0,01%	0,004%	-0,002
E967 XYLITOL (Baseline: n=1; Follow-up: n=1)	SWEETENER	0,01%	0,004%	-0,002
E123 AMARANTH (Baseline: n=1; Follow-up: n=0)	COLOUR	0,01%	0%	-0,01
E161 (Baseline: n=1; Follow-up: n=0)	COLOUR	0,01%	0%	-0,01
E161G CANTHAXANTHIN (Baseline: n=1; Follow-up: n=0)	COLOUR	0,01%	0%	-0,01
E234 NISIN (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E283 POTASSIUM PROPIONATE (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E342(I) AMMONIUM PHOSPHATE (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E404 CALCIUM ALGINATE (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E467 ETHYL HYDROXYETHYL CELLULOSE (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E472F MIXED ACETIC AND TARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E513 SULPHURIC ACID (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E514(I) SODIUM SULPHATE (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E515 POTASSIUM SULPHATES (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E525 POTASSIUM HYDROXYDE (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E554 SODIUM ALUMINIUM SILICATE (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E570 FATTY ACIDS (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E627_E628_E629 GUANYLATE (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E631_E632_E633 INOSINATE (Baseline: n=1; Follow-up: n=0)	OTHERS	0,01%	0%	-0,01
E504 MAGNESIUM CARBONATES (Baseline: n=0; Follow-up: n=29)	OTHERS	0%	0,1%	+0,1***
E441 HYDROGENATED SUPER GLYCERINATED RAPESEED OIL (Baseline: n=0; Follow-up: n=6)	OTHERS	0%	0,03%	+0,03
E290 CARBON DIOXIDE (Baseline: n=0; Follow-up: n=4)	OTHERS	0%	0,02%	+0,02
E953 ISOMALT (Baseline: n=0; Follow-up: n=4)	SWEETENER	0%	0,02%	+0,02
E333 CALCIUM CITRATES OR E341(HI), TRICALCIUM PHOSPHATE (Baseline: n=0; Follow-up: n=3)	OTHERS	0%	0,01%	+0,01
E1518 GLYCERYL TRIACETATE (TRIACETIN) (Baseline: n=0; Follow-up: n=2)	OTHERS	0%	0,01%	+0,01
E174 SILVER (Baseline: n=0; Follow-up: n=2)	COLOUR	0%	0,01%	+0,01
E309 DELTA_TOCOPHEROL (Baseline: n=0; Follow-up: n=2)	OTHERS	0%	0,01%	+0,01
E340(I) MONOPOTASSIUM PHOSPHATE (Baseline: n=0; Follow-up: n=2)	OTHERS	0%	0,01%	+0,01
E957 THAUMATIN (Baseline: n=0; Follow-up: n=2)	SWEETENER	0%	0,01%	+0,01
E175 GOLD (Baseline: n=0; Follow-up: n=1)	COLOUR	0%	0,004%	+0,004
E321 BUTYLATED HYDROXYTOLUENE (BHT) (Baseline: n=0; Follow-up: n=1)	OTHERS	0%	0,004%	+0,004
E352(I) CALCIUM MALATE (Baseline: n=0; Follow-up: n=1)	OTHERS	0%	0,004%	+0,004
E425 KONJAC (Baseline: n=0; Follow-up: n=1)	OTHERS	0%	0,004%	+0,004
E452(II) POTASSIUM POLYPHOSPHATE (Baseline: n=0; Follow-up: n=1)	OTHERS	0%	0,004%	+0,004
E452(IV) CALCIUM POLYPHOSPHATE (Baseline: n=0; Follow-up: n=1)	OTHERS	0%	0,004%	+0,004
E515(II) POTASSIUM SULPHATE (Baseline: n=0; Follow-up: n=1)	OTHERS	0%	0,004%	+0,004
E528 MAGNESIUM HYDROXIDE (Baseline: n=0; Follow-up: n=1)	OTHERS	0%	0,004%	+0,004
E640 GLYCINE AND ITS SODIUM SALT (Baseline: n=0; Follow-up: n=1)	OTHERS	0%	0,004%	+0,004

Purple cells: significant decrease in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
Orange cells: significant increase in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
Statistical test performed: chi-square test

Annex 8: Changes in product proportions according to the number of different additives found in the same product, all sectors combined

Number of different additives found in the same product (n=number of products containing the number of additives considered)	Products containing the number of additives considered, all sectors combined (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
	Baseline	Follow-up	Change in proportions (point)
0 additive (Baseline: n= 2022; Follow-up: n= 4088)	13.7%	18.3%	+5***
1 additive (Baseline: n= 2429; Follow-up: n= 3829)	16%	17%	+1
2 additives (Baseline: n= 1947; Follow-up: n= 3037)	13%	14%	+0.4
3 additives (Baseline: n= 1896; Follow-up: n= 2762)	13%	12%	-0.4
4 additives (Baseline: n= 1662; Follow-up: n= 2252)	11%	10%	-1***
5 additives (Baseline: n= 1374; Follow-up: n= 1840)	9%	8%	-1***
6 additives (Baseline: n= 987; Follow-up: n= 1383)	7%	6%	-0.5
7 additives (Baseline: n= 724; Follow-up: n= 1043)	5%	5%	-0.2
8 additives (Baseline: n= 590; Follow-up: n= 708)	4%	3%	-1***
9 additives (Baseline: n= 353; Follow-up: n= 454)	2%	2%	-0.4*
10 additives (Baseline: n= 241; Follow-up: n= 298)	2%	1%	-0.3*
11 additives (Baseline: n= 182; Follow-up: n= 204)	1%	1%	-0.3**
12 additives (Baseline: n= 115; Follow-up: n= 164)	1%	1%	-0.04
13 additives (Baseline: n= 84; Follow-up: n= 99)	1%	0,4%	-0.1
14 additives (Baseline: n= 75; Follow-up: n= 83)	1%	0,4%	-0.1
15 additives (Baseline: n= 49; Follow-up: n= 41)	0,3%	0,2%	-0.1**
16 additives (Baseline: n= 28; Follow-up: n= 27)	0,2%	0,1%	-0.1
17 additives (Baseline: n= 19; Follow-up: n= 8)	0,1%	0,04%	-0.1**
18 additives (Baseline: n= 15; Follow-up: n= 5)	0,1%	0,02%	-0.1**
19 additives (Baseline: n= 3; Follow-up: n= 1)	0,02%	0,004%	-0.02
20 additives (Baseline: n= 2; Follow-up: n= 2)	0,01%	0,01%	-0.005
21 additives (Baseline: n= 2; Follow-up: n= 1)	0,01%	0,004%	-0.01

Purple cells: significant decrease in the presence frequencies of at least the number of different additives found within the same product between the baselines and the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)

Orange cells: significant increase in the presence frequencies of at least the number of different additives found within the same product between the baselines and the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)

Statistical test performed: chi-square test

Annex 9: Extract of the changes in additive presence frequencies showing a significant change for the Fruit purees, compotes and desserts sector

As a reminder, all the results are available in Excel format on the Oqali website: https://www.oqali.fr/oqali_eng/Communication.

Ingredient considered by Oqali to be an additive	Categorisation of additives under Regulation (EC) No 1333/2008 (colour/sweetener/others)	Sector <i>(n=number of products containing at least the additive considered)</i>	Products containing at least the additive considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
			Baseline	Follow-up	Change in proportions (point)
E300_ASCORBIC ACID	OTHERS	Fruit purees, compotes and desserts (Baseline: n=304 ; Follow-up: n=502)	69%	79%	+10***

Orange cells: significant increase in the presence frequencies of at least one ingredient considered by OQALI to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)

Statistical test performed: chi-square test

Annex 10: Change in the distribution of the number of different additives found in the same product (products containing 10 or more additives grouped together), by sector and type of brands

Sector	Number of different additives found within the same product	Type of brands														
		Specialised retailer brands <i>(3 sectors out of the 20 studied)¹</i>			National brands <i>(20 sectors out of the 20 studied)</i>			Retailer brands <i>(20 sectors out of the 20 studied)</i>			Entry-level retailers brands <i>(19 sectors out of the 20 studied)</i>			Hard discount store brands <i>(20 sectors out of the 20 studied)</i>		
		Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)
Crackers	0	-	-	-	17%	37%	+20***	27%	32%	+5	36%	37%	+0.3	34%	30%	-3
	1	-	-	-	6%	10%	+4	11%	13%	+2	9%	13%	+4	14%	16%	+2
	2	-	-	-	2%	8%	+6*	10%	11%	+1	5%	8%	+3	7%	16%	+10**
	3	-	-	-	21%	15%	-6	11%	14%	+4	13%	13%	+1	18%	12%	-5
	4	-	-	-	14%	10%	-4	8%	8%	-0.3	24%	8%	-15*	11%	6%	-5
	5	-	-	-	17%	7%	-10**	10%	7%	-3	7%	10%	+3	7%	6%	-1
	6	-	-	-	10%	5%	-5	5%	4%	-2	2%	2%	-0.2	4%	5%	+1
	7	-	-	-	4%	2%	-2	4%	3%	-1	0%	3%	+3	1%	4%	+3
	8	-	-	-	6%	2%	-4	3%	2%	-1	0%	3%	+3	2%	0.5%	-2
	9	-	-	-	4%	2%	-2	5%	3%	-2	4%	2%	-2	1%	1%	+0.2
10 and over	-	-	-	0%	2%	+2	5%	3%	-2	0%	0%	+0	2%	2%	+0.2	
Cereal bars	0	-	-	-	0%	4%	+4	3%	2%	-0.4	0%	0%	+0	0%	0%	+0
	1	-	-	-	0%	4%	+4	17%	6%	-12*	28%	15%	-12	6%	0%	-6
	2	-	-	-	2%	9%	+6	19%	7%	-12*	0%	0%	+0	27%	10%	-18
	3	-	-	-	14%	4%	-10	24%	35%	+11	39%	46%	+7	33%	55%	+22
	4	-	-	-	33%	23%	-9	23%	16%	-7	28%	31%	+3	15%	16%	+1
	5	-	-	-	14%	21%	+7	9%	17%	+8	6%	8%	+2	15%	10%	-5
	6	-	-	-	26%	23%	-2	1%	8%	+7	0%	0%	+0	0%	3%	+3
	7	-	-	-	5%	2%	-3	3%	6%	+3	0%	0%	+0	3%	3%	+0.2
	8	-	-	-	5%	6%	+2	1%	3%	+2	0%	0%	+0	0%	3%	+3
	9	-	-	-	2%	0%	-2	0%	0%	+0	0%	0%	+0	0%	0%	+0
10 and over	-	-	-	0%	2%	+2	0%	0%	+0	0%	0%	+0	0%	0%	+0	

Sector	Number of different additives found within the same product	Type of brands														
		Specialised retailer brands (3 sectors out of the 20 studied) ¹			National brands (20 sectors out of the 20 studied)			Retailer brands (20 sectors out of the 20 studied)			Entry-level retailers brands (19 sectors out of the 20 studied)			Hard discount store brands (20 sectors out of the 20 studied)		
		Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)
Cakes and biscuits	0	-	-	-	3%	3%	+0.2	2%	2%	+0.01	1%	0%	-1	3%	2%	-1
	1	-	-	-	7%	7%	-1	6%	8%	+2	6%	4%	-1	6%	7%	+0.5
	2	-	-	-	16%	15%	-1	8%	13%	+5**	8%	7%	-1	11%	10%	-1
	3	-	-	-	16%	16%	+0.1	20%	20%	-0.2	26%	25%	-0.2	14%	16%	+2
	4	-	-	-	15%	16%	+1	27%	23%	-4*	36%	33%	-3	26%	23%	-2
	5	-	-	-	14%	15%	+1	12%	10%	-2	3%	7%	+4	15%	15%	-0.01
	6	-	-	-	6%	9%	+3	7%	7%	-0.4	5%	15%	+10**	6%	7%	+1
	7	-	-	-	6%	5%	-0.3	4%	6%	+2	9%	2%	-7*	5%	5%	+0.1
	8	-	-	-	4%	3%	-1	8%	7%	-1	5%	6%	+1	6%	8%	+2
	9	-	-	-	5%	3%	-1	2%	2%	-0.1	1%	0%	-1	3%	2%	-1
10 and over	-	-	-	8%	7%	-1	3%	3%	+0.4	2%	0%	-2	5%	5%	+0.04	
Soft drinks	0	-	-	-	11%	18%	+6*	7%	9%	+2	2%	0%	-2	12%	9%	-4
	1	-	-	-	10%	13%	+3	21%	22%	+1	6%	3%	-2	5%	13%	+7*
	2	-	-	-	14%	15%	+1	11%	12%	+1	10%	5%	-5	15%	17%	+2
	3	-	-	-	17%	16%	-1	23%	26%	+3	8%	8%	+1	23%	22%	-0.5
	4	-	-	-	10%	10%	+1	13%	15%	+2	17%	25%	+8	16%	16%	-0.1
	5	-	-	-	10%	9%	-1	15%	11%	-4*	13%	31%	+17*	18%	13%	-5
	6	-	-	-	7%	6%	-1	5%	3%	-2*	25%	14%	-11	6%	5%	-2
	7	-	-	-	8%	5%	-3	4%	2%	-1	6%	8%	+3	1%	2%	+1
	8	-	-	-	6%	4%	-2	1%	0.5%	-1	12%	3%	-8	4%	3%	-1
	9	-	-	-	3%	2%	-1	0%	0.3%	+0.3	2%	2%	-0.2	0%	1%	+1
10 and over	-	-	-	3%	2%	-1	0.5%	0.2%	-0.3	0%	0%	+0	0%	1%	+1	
Breakfast cereals	0	-	-	-	40%	18%	-22**	24%	28%	+4	15%	51%	+36*	27%	22%	-5
	1	-	-	-	34%	24%	-10	52%	43%	-9	62%	41%	-21	45%	48%	+3
	2	-	-	-	6%	6%	+0.5	10%	14%	+4	23%	8%	-15	19%	21%	+2
	3	-	-	-	7%	17%	+10*	11%	11%	-0.1	0%	0%	+0	7%	7%	+1
	4	-	-	-	5%	8%	+3	0%	0.4%	+0.4	0%	0%	+0	1%	1%	-0.3
	5	-	-	-	3%	13%	+10**	2%	3%	+0.2	0%	0%	+0	0%	0%	+0
	6	-	-	-	3%	8%	+5	0%	0%	+0	0%	0%	+0	0%	0%	+0
	7	-	-	-	2%	3%	+1	0%	0.4%	+0.4	0%	0%	+0	0%	0%	+0
	8	-	-	-	2%	4%	+2	0%	0%	+0	0%	0%	+0	0%	0%	+0
	9	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
10 and over	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	

Sector	Number of different additives found within the same product	Type of brands														
		Specialised retailer brands (3 sectors out of the 20 studied) ¹			National brands (20 sectors out of the 20 studied)			Retailer brands (20 sectors out of the 20 studied)			Entry-level retailers brands (19 sectors out of the 20 studied)			Hard discount store brands (20 sectors out of the 20 studied)		
		Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)
Delicatessen meats	0	-	-	-	4%	12%	+8**	4%	8%	+4**	1%	4%	+2	2%	9%	+7**
	1	-	-	-	10%	21%	+11**	19%	18%	-1	16%	21%	+5	17%	15%	-2
	2	-	-	-	39%	26%	-13**	28%	26%	-2	14%	14%	-0.2	25%	25%	+0.2
	3	-	-	-	20%	16%	-5	23%	22%	-1	23%	21%	-1	22%	24%	+2
	4	-	-	-	14%	12%	-2	14%	15%	+1	16%	14%	-2	12%	8%	-3
	5	-	-	-	7%	4%	-3	4%	5%	+0.3	7%	6%	-0.5	9%	9%	-0.3
	6	-	-	-	4%	2%	-2	4%	4%	+0.2	12%	9%	-3	12%	6%	-6*
	7	-	-	-	0%	3%	+3	2%	1%	-0.4	6%	6%	+0.05	1%	2%	+1
	8	-	-	-	1%	2%	+1	2%	1%	-1	1%	1%	+1	0.5%	1%	+1
	9	-	-	-	1%	1%	+0.2	0.3%	0.5%	+0.1	2%	1%	-1	0%	0.3%	+0.3
10 and over	-	-	-	0%	2%	+2	0%	0.2%	+0.2	3%	2%	-0.4	0%	0%	+0	
Chocolate products	0	-	-	-	4%	8%	+4	5%	3%	-1	0%	4%	+4	5%	1%	-4*
	1	-	-	-	62%	58%	-4	74%	77%	+3	46%	47%	+2	66%	75%	+9
	2	-	-	-	14%	15%	+1	8%	12%	+4	51%	45%	-5	18%	17%	-1
	3	-	-	-	7%	8%	+1	3%	2%	-1	2%	4%	+2	2%	3%	+1
	4	-	-	-	3%	3%	-0.3	5%	2%	-3*	2%	0%	-2	6%	2%	-4*
	5	-	-	-	4%	3%	-1	1%	1%	-1	0%	0%	+0	1%	0%	-1
	6	-	-	-	2%	3%	+1	2%	0.3%	-2	0%	0%	+0	1%	0%	-1
	7	-	-	-	1%	1%	-0.4	1%	1%	-0.1	0%	0%	+0	0%	0%	+0
	8	-	-	-	1%	1%	+0.03	1%	0%	-1	0%	0%	+0	0%	0%	+0
	9	-	-	-	0.3%	0.2%	-0.1	0%	0.3%	+0.3	0%	0%	+0	0%	1%	+1
10 and over	-	-	-	1%	1%	-1	0.5%	1%	+1	0%	0%	+0	2%	1%	-1	
Fruit purees, compotes and desserts	0	-	-	-	34%	22%	-12**	21%	13%	-7*	29%	33%	+4	22%	19%	-2
	1	-	-	-	59%	66%	+7	47%	56%	+9	59%	38%	-21	41%	38%	-4
	2	-	-	-	6%	10%	+4	28%	27%	-1	12%	29%	+17	37%	43%	+6
	3	-	-	-	1%	1%	+0.4	3%	3%	-0.3	0%	0%	+0	0%	0%	+0
	4	-	-	-	0%	0%	+0	1%	0.3%	-0.3	0%	0%	+0	0%	0%	+0
	5	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	6	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	7	-	-	-	0%	0%	+0	1%	0.3%	-0.3	0%	0%	+0	0%	0%	+0
	8	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	9	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
10 and over	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	

Sector	Number of different additives found within the same product	Type of brands														
		Specialised retailer brands (3 sectors out of the 20 studied) ¹			National brands (20 sectors out of the 20 studied)			Retailer brands (20 sectors out of the 20 studied)			Entry-level retailers brands (19 sectors out of the 20 studied)			Hard discount store brands (20 sectors out of the 20 studied)		
		Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)
Jams	0	-	-	-	6%	5%	-1	1%	2%	+1	0%	0%	+0	7%	5%	-2
	1	-	-	-	60%	54%	-6	18%	17%	-1	0%	0%	+0	14%	17%	+3
	2	-	-	-	19%	26%	+8	72%	67%	-5	100%	100%	+0	74%	72%	-2
	3	-	-	-	13%	12%	-1	8%	14%	+6*	0%	0%	+0	5%	5%	+1
	4	-	-	-	2%	3%	+1	0%	0%	+0	0%	0%	+0	0%	0%	+0
	5	-	-	-	0%	0%	+0	1%	0.4%	-1	0%	0%	+0	0%	0%	+0
	6	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	7	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	8	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	9	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
10 and over	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	
Canned fruits	0	-	-	-	20%	13%	-7	27%	21%	-6	21%	15%	-5	14%	19%	+5
	1	-	-	-	38%	44%	+7	38%	40%	+3	62%	67%	+5	55%	38%	-17
	2	-	-	-	28%	35%	+7	22%	30%	+8	15%	13%	-2	32%	32%	+1
	3	-	-	-	13%	7%	-5	14%	9%	-5	3%	5%	+2	0%	11%	+11
	4	-	-	-	2%	0%	-2	0%	0%	+0	0%	0%	+0	0%	0%	+0
	5	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	6	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	7	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	8	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	9	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
10 and over	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	
Ice creams and sorbets	0	0.4%	0%	-0.4	2%	1%	-0.5	0.4%	0%	-0.4	0%	0%	+0	2%	1%	-1
	1	4%	3%	-0.5	4%	7%	+3	2%	0.5%	-1*	0%	0%	+0	0%	0%	+0
	2	5%	3%	-1	4%	7%	+4	1%	1%	-1	0%	0%	+0	1%	2%	+2
	3	9%	9%	+0.3	5%	6%	+2	4%	3%	-1	8%	5%	-3	5%	4%	-1
	4	10%	14%	+4*	5%	6%	+2	8%	8%	+0.4	15%	21%	+5	13%	15%	+2
	5	10%	15%	+5*	11%	16%	+6	15%	14%	-1	31%	33%	+3	20%	16%	-4
	6	17%	17%	+0.3	18%	14%	-4	13%	19%	+6**	18%	10%	-8	16%	19%	+3
	7	14%	13%	-1	16%	12%	-4	16%	18%	+2	15%	26%	+10	17%	16%	-1
	8	13%	8%	-5**	9%	9%	-1	15%	12%	-3	5%	3%	-3	10%	11%	+1
	9	5%	7%	+2	12%	6%	-5*	10%	10%	-1	5%	3%	-3	7%	8%	+1
10 and over	14%	10%	-4	16%	15%	-1	15%	14%	-1	3%	0%	-3	9%	9%	-0.2	

Sector	Number of different additives found within the same product	Type of brands														
		Specialised retailer brands (3 sectors out of the 20 studied) ¹			National brands (20 sectors out of the 20 studied)			Retailer brands (20 sectors out of the 20 studied)			Entry-level retailers brands (19 sectors out of the 20 studied)			Hard discount store brands (20 sectors out of the 20 studied)		
		Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)
Fruit juices and nectars	0	-	-	-	87%	88%	+1	82%	82%	-1	67%	57%	-10	76%	75%	-1
	1	-	-	-	8%	7%	-0.4	12%	13%	+2	21%	26%	+5	17%	17%	-0.4
	2	-	-	-	5%	4%	-2	5%	5%	-1	10%	9%	-1	6%	7%	+2
	3	-	-	-	0%	0.4%	+0.4	0.2%	0.3%	+0.03	1%	7%	+5	1%	0.4%	-1
	4	-	-	-	0%	1%	+1	0%	0%	+0	0%	1%	+1	0%	0%	+0
	5	-	-	-	0%	0%	+0	0.5%	0.1%	-0.3	0%	0%	+0	0%	0%	+0
	6	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	7	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	8	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	9	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
10 and over	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	
Margarines	0	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
	1	-	-	-	10%	11%	+1	3%	5%	+2	0%	0%	+0	0%	0%	+0
	2	-	-	-	3%	5%	+2	0%	0%	+0	0%	0%	+0	0%	0%	+0
	3	-	-	-	13%	11%	-1	3%	7%	+4	0%	0%	+0	0%	6%	+6
	4	-	-	-	10%	16%	+6	27%	37%	+10	33%	29%	-5	13%	19%	+6
	5	-	-	-	43%	36%	-6	40%	34%	-6	67%	71%	+5	75%	69%	-6
	6	-	-	-	13%	9%	-3	13%	7%	-6	0%	0%	+0	13%	6%	-6
	7	-	-	-	10%	9%	-1	13%	7%	-6	0%	0%	+0	0%	0%	+0
	8	-	-	-	0%	2%	+2	0%	2%	+2	0%	0%	+0	0%	0%	+0
	9	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0
10 and over	-	-	-	0%	0%	+0	0%	0%	+0	0%	0%	+0	0%	0%	+0	
Bread products	0	-	-	-	14%	25%	+11**	9%	9%	+0.3	0%	0%	+0	9%	11%	+2
	1	-	-	-	23%	17%	-6	24%	29%	+5	31%	36%	+5	16%	26%	+10*
	2	-	-	-	15%	11%	-4	8%	4%	-4*	4%	0%	-4	10%	5%	-6
	3	-	-	-	8%	12%	+4	12%	9%	-4	11%	11%	+0.2	13%	11%	-2
	4	-	-	-	13%	12%	-1	8%	13%	+5	22%	15%	-7	10%	10%	+1
	5	-	-	-	14%	9%	-4	15%	17%	+2	9%	13%	+3	10%	15%	+5
	6	-	-	-	6%	5%	-1	8%	6%	-1	4%	10%	+6	9%	10%	+1
	7	-	-	-	4%	5%	+1	8%	7%	-1	5%	6%	+0.1	10%	5%	-5
	8	-	-	-	1%	1%	-0.3	2%	2%	-1	4%	1%	-2	5%	4%	-1
	9	-	-	-	0%	1%	+1	3%	3%	-0.1	5%	6%	+0.1	2%	1%	-2
10 and over	-	-	-	1%	1%	-1	2%	1%	-2	5%	3%	-3	6%	2%	-3	

Sector	Number of different additives found within the same product	Type of brands														
		Specialised retailer brands (3 sectors out of the 20 studied) ¹			National brands (20 sectors out of the 20 studied)			Retailer brands (20 sectors out of the 20 studied)			Entry-level retailers brands (19 sectors out of the 20 studied)			Hard discount store brands (20 sectors out of the 20 studied)		
		Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)
Frozen pizzas	0	22%	28%	+7	5%	15%	+10	28%	36%	+8	33%	50%	+17	33%	45%	+11
	1	15%	11%	-3	5%	19%	+14*	6%	12%	+6	17%	20%	+3	14%	7%	-7
	2	25%	15%	-11	26%	16%	-9	27%	15%	-12*	17%	10%	-7	24%	14%	-10
	3	16%	27%	+11	5%	4%	-1	10%	18%	+8	0%	0%	+0	5%	13%	+8
	4	13%	7%	-6	10%	9%	-1	9%	7%	-1	17%	0%	-17	5%	4%	-1
	5	5%	6%	+0.2	15%	14%	-2	8%	5%	-3	17%	10%	-7	5%	11%	+6
	6	0%	3%	+3	15%	9%	-6	1%	1%	+0.1	0%	10%	+10	5%	2%	-3
	7	4%	2%	-1	3%	8%	+6	1%	1%	-0.5	0%	0%	+0	5%	0%	-5
	8	0%	0%	+0	5%	4%	-1	0%	2%	+2	0%	0%	+0	0%	5%	+5
	9	0%	0%	+0	3%	0%	-3	1%	1%	-0.5	0%	0%	+0	0%	0%	+0
10 and over	0%	0%	+0	8%	1%	-6	10%	3%	-7*	0%	0%	+0	5%	0%	-5	
Ready-to-eat frozen meals	0	11%	16%	+4*	32%	41%	+9*	11%	17%	+6**	18%	19%	+1	13%	17%	+5
	1	17%	22%	+4*	19%	24%	+5	15%	21%	+5*	5%	13%	+8	11%	18%	+7*
	2	15%	17%	+2	20%	13%	-8*	12%	20%	+8***	7%	13%	+6	18%	18%	-0.2
	3	23%	17%	-6**	12%	8%	-4	19%	17%	-3	14%	15%	+1	17%	14%	-3
	4	11%	11%	-0.02	7%	5%	-2	11%	9%	-3	16%	11%	-5	11%	9%	-2
	5	9%	8%	-1	6%	4%	-1	9%	6%	-3*	14%	9%	-5	9%	6%	-3
	6	6%	3%	-3**	2%	1%	-1	11%	6%	-4**	7%	15%	+8	8%	7%	-1
	7	4%	3%	-1	1%	2%	+1	4%	1%	-3**	9%	2%	-7	5%	5%	-1
	8	1%	2%	+1	1%	2%	+1	2%	2%	-0.1	5%	4%	-0.3	3%	2%	-2
	9	1%	1%	-0.02	0.4%	0%	-0.4	2%	1%	-1	2%	0%	-2	2%	2%	-0.02
10 and over	1%	1%	-0.2	1%	1%	+0.1	3%	1%	-2***	5%	0%	-5	3%	3%	-0.03	
Dessert mixes	0	-	-	-	3%	14%	+11*	0%	2%	+2	-	-	-	0%	0%	+0
	1	-	-	-	6%	8%	+2	10%	8%	-3	-	-	-	7%	7%	-1
	2	-	-	-	21%	39%	+19**	23%	18%	-5	-	-	-	17%	17%	+0
	3	-	-	-	19%	16%	-3	15%	20%	+4	-	-	-	30%	20%	-10
	4	-	-	-	12%	8%	-4	0%	6%	+6	-	-	-	4%	7%	+3
	5	-	-	-	13%	6%	-8	21%	11%	-10	-	-	-	19%	10%	-9
	6	-	-	-	7%	6%	-2	15%	17%	+1	-	-	-	13%	17%	+4
	7	-	-	-	9%	1%	-8	10%	14%	+3	-	-	-	4%	20%	+16
	8	-	-	-	3%	1%	-2	3%	0%	-3	-	-	-	6%	3%	-2
	9	-	-	-	1%	1%	-1	3%	5%	+2	-	-	-	0%	0%	+0
10 and over	-	-	-	4%	0.4%	-4	0%	2%	+2	-	-	-	2%	0%	-2	

Sector	Number of different additives found within the same product	Type of brands														
		Specialised retailer brands (3 sectors out of the 20 studied) ¹			National brands (20 sectors out of the 20 studied)			Retailer brands (20 sectors out of the 20 studied)			Entry-level retailers brands (19 sectors out of the 20 studied)			Hard discount store brands (20 sectors out of the 20 studied)		
		Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)	Baseline	Follow-up	Change in proportions (point)
Fresh dairy products and similar	0	-	-	-	17%	26%	+9***	21%	24%	+3	37%	30%	-7	26%	26%	+1
	1	-	-	-	9%	9%	-1	10%	9%	-1	10%	5%	-5	10%	10%	-0.03
	2	-	-	-	12%	10%	-2	11%	9%	-1	3%	6%	+3	6%	10%	+3
	3	-	-	-	18%	15%	-3	9%	8%	-1	6%	13%	+6	10%	12%	+2
	4	-	-	-	13%	10%	-3	13%	11%	-2	6%	12%	+5	13%	11%	-3
	5	-	-	-	10%	8%	-2	10%	11%	+1	6%	9%	+2	12%	7%	-4*
	6	-	-	-	9%	6%	-3	7%	7%	+1	8%	7%	-1	7%	7%	+0.1
	7	-	-	-	5%	5%	+0.3	5%	6%	+1	6%	8%	+1	6%	6%	-0.05
	8	-	-	-	2%	3%	+2	5%	4%	-1	6%	2%	-5	3%	3%	+1
	9	-	-	-	2%	3%	+1	3%	2%	-1	3%	1%	-2	2%	2%	-1
10 and over	-	-	-	4%	4%	-0.3	7%	7%	+1	6%	9%	+2	5%	6%	+1	
Fresh delicatessen products	0	-	-	-	2%	19%	+16***	4%	18%	+14***	0%	12%	+12**	3%	9%	+6*
	1	-	-	-	8%	10%	+2	3%	7%	+4***	4%	9%	+5	2%	7%	+5*
	2	-	-	-	7%	10%	+3	6%	12%	+7***	1%	7%	+5	3%	5%	+2
	3	-	-	-	9%	9%	-1	9%	11%	+2	4%	8%	+4	7%	11%	+5
	4	-	-	-	15%	9%	-6**	12%	9%	-3*	13%	15%	+2	15%	13%	-2
	5	-	-	-	9%	10%	+1	11%	7%	-4**	7%	13%	+7	16%	11%	-5
	6	-	-	-	5%	6%	+1	8%	9%	+1	13%	4%	-9*	7%	10%	+2
	7	-	-	-	7%	5%	-2	7%	6%	-1	5%	4%	-1	6%	6%	+1
	8	-	-	-	5%	4%	-1	9%	4%	-5***	8%	1%	-7	8%	4%	-4
	9	-	-	-	3%	2%	-1	5%	4%	-2	8%	8%	-0.2	3%	4%	+2
10 and over	-	-	-	30%	16%	-13***	27%	13%	-14***	37%	19%	-18**	31%	19%	-12**	
Cold sauces	0	-	-	-	10%	10%	+1	1%	5%	+5**	0%	0%	+0	0%	4%	+4
	1	-	-	-	22%	11%	-11**	14%	12%	-2	21%	36%	+15	12%	9%	-4
	2	-	-	-	22%	21%	-1	8%	9%	+1	11%	0%	-11	7%	6%	-1
	3	-	-	-	15%	21%	+7	13%	12%	-1	5%	0%	-5	15%	4%	-11*
	4	-	-	-	11%	14%	+2	13%	12%	-1	16%	16%	+0.2	19%	10%	-9
	5	-	-	-	8%	10%	+2	18%	13%	-5	26%	4%	-22	14%	11%	-2
	6	-	-	-	6%	7%	+0.3	12%	11%	-0.4	0%	28%	+28	14%	20%	+6
	7	-	-	-	3%	5%	+2	9%	14%	+6*	11%	8%	-3	12%	23%	+11
	8	-	-	-	2%	0.5%	-2	7%	7%	-0.3	11%	4%	-7	8%	11%	+3
	9	-	-	-	1%	0.5%	-0.5	2%	3%	+0.1	0%	4%	+4	0%	0%	+0
10 and over	-	-	-	0%	0.5%	+0.5	4%	2%	-2	0%	0%	+0	0%	1%	+1	

¹ Because specialised retailer brands are only present in 3 sectors out of the 20 studied, it is difficult to compare them to the other type of brands

The dashes indicate that no product was collected for the sector/type of brand pair considered

Purple cells: significant decrease in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)

Orange cells: significant increase in the presence frequencies of at least one ingredient considered by Oqali to be an additive between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)

Statistical test performed: chi-square test

Annex 11: Changes in the presence frequencies of additives and additive groups of interest, all sectors combined and by sector

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
ACESULFAME-K E950	All sectors combined (Baseline: n=379 ; Follow-up: n=496)	3%	2%	-0.3*
	Crackers (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=235 ; Follow-up: n=319)	28%	22%	-5**
	Breakfast cereals (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=4 ; Follow-up: n=5)	1%	0.5%	-0.1
	Fruit purees, compotes and desserts (Baseline: n=0 ; Follow-up: n=3)	0%	0.5%	+0.5
	Jams (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=3 ; Follow-up: n=2)	0.2%	0.1%	-0.1
	Fruit juices and nectars (Baseline: n=6 ; Follow-up: n=19)	1%	1%	+0.4
	Margarines (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=131 ; Follow-up: n=147)	8%	6%	-2**
	Fresh delicatessen products (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
Cold sauces (Baseline: n=0 ; Follow-up: n=1)	0%	0.2%	+0.2	
BENZOIC ACID AND BENZOATES E210_E211_E212_E213	All sectors combined (Baseline: n=134 ; Follow-up: n=169)	1%	1%	-0.1
	Crackers (Baseline: n=1 ; Follow-up: n=2)	0.2%	0.2%	+0.004
	Cereal bars (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=3 ; Follow-up: n=1)	0.2%	0.04%	-0.1
	Soft drinks (Baseline: n=87 ; Follow-up: n=79)	10%	6%	-5***
	Breakfast cereals (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0 ; Follow-up: n=3)	0%	0.2%	+0.2
	Chocolate products (Baseline: n=1 ; Follow-up: n=0)	0.1%	0%	-0.1
	Fruit purees, compotes and desserts (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Fruit juices and nectars (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=3 ; Follow-up: n=1)	0.2%	0.05%	-0.1
	Dessert mixes (Baseline: n=0 ; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=5 ; Follow-up: n=2)	0.3%	0.1%	-0.2
	Fresh delicatessen products (Baseline: n=19 ; Follow-up: n=65)	2%	3%	+1*
Cold sauces (Baseline: n=15 ; Follow-up: n=16)	3%	3%	-0.2	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
PHOSPHORIC ACID AND PHOSPHATES E338, E339, E339(I), E339(II), E339(III), E340, E340(I), E340(II), E340(III), E341, E341(I), E341(II), E341(III), E343, E343(I), E343(II), E450, E450(I), E450(II), E450(III), E450(V), E450(VI), E450(VII), E451, E451(I), E451(II), E452, E452(I), E452(II), E452(III), E452(IV)	All sectors combined (Baseline: n=1579; Follow-up: n=2062)	11%	9%	-1***
	Crackers (Baseline: n=35; Follow-up: n=101)	6%	9%	+3*
	Cereal bars (Baseline: n=9; Follow-up: n=7)	5%	4%	-1
	Cakes and biscuits (Baseline: n=945; Follow-up: n=1255)	56%	55%	-1
	Soft drinks (Baseline: n=117; Follow-up: n=174)	14%	12%	-2
	Breakfast cereals (Baseline: n=20; Follow-up: n=24)	9%	5%	-4
	Delicatessen meats (Baseline: n=6; Follow-up: n=14)	1%	1%	+0.3
	Chocolate products (Baseline: n=22; Follow-up: n=18)	3%	2%	-1
	Fruit purees, compotes and desserts (Baseline: n=1; Follow-up: n=1)	0.2%	0.2%	-0.1
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice-creams and sorbets (Baseline: n=28; Follow-up: n=38)	2%	2%	-0.03
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=5; Follow-up: n=14)	1%	1%	+1
	Frozen pizzas (Baseline: n=24; Follow-up: n=36)	11%	9%	-2
	Ready-to-eat frozen meals (Baseline: n=131; Follow-up: n=87)	7%	4%	-3***
	Dessert mixes (Baseline: n=64; Follow-up: n=73)	40%	22%	-18***
	Fresh dairy products and similar (Baseline: n=72; Follow-up: n=156)	5%	6%	+2*
	Fresh delicatessen products (Baseline: n=90; Follow-up: n=64)	8%	3%	-5***
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	All sectors combined (Baseline: n=131; Follow-up: n=203)	1%	1%	+0.02
	Crackers (Baseline: n=3; Follow-up: n=3)	1%	0.3%	-0.3
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=78; Follow-up: n=97)	5%	4%	-0.4
	Soft drinks (Baseline: n=8; Follow-up: n=8)	1%	1%	-0.4
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=3)	0%	0.2%	+0.2
	Chocolate products (Baseline: n=1; Follow-up: n=1)	0.1%	0.1%	-0.04
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Ice creams and sorbets (Baseline: n=14; Follow-up: n=22)	1%	1%	+0.1	
Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Bread products (Baseline: n=0; Follow-up: n=1)	0%	0.1%	+0.1	
Frozen pizzas (Baseline: n=0; Follow-up: n=1)	0%	0.3%	+0.3	
Ready-to-eat frozen meals (Baseline: n=3; Follow-up: n=3)	0.2%	0.1%	-0.02	
Dessert mixes (Baseline: n=5; Follow-up: n=21)	0%	6%	+6**	
Fresh dairy products and similar (Baseline: n=3; Follow-up: n=10)	0.2%	0.4%	+0.2	
Fresh delicatessen products (Baseline: n=6; Follow-up: n=21)	1%	1%	+0.4	
Cold sauces (Baseline: n=15; Follow-up: n=12)	3%	2%	-1	
All sectors combined (Baseline: n=11; Follow-up: n=23)	0.1%	0.1%	+0.03	
Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Soft drinks (Baseline: n=5; Follow-up: n=11)	1%	1%	+0.2	
Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Chocolate products (Baseline: n=3; Follow-up: n=4)	0.4%	0.4%	-0.02	
Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Ice creams and sorbets (Baseline: n=1; Follow-up: n=0)	0.1%	0%	-0.1	
Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
Fresh delicatessen products (Baseline: n=2; Follow-up: n=8)	0.2%	0.4%	+0.2	
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
SILVER E174	All sectors combined (Baseline: n=0; Follow-up: n=2)	0%	0.01%	+0.01
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=0; Follow-up: n=2)	0%	0.1%	+0.1
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
BENTONITE E558	All sectors combined (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit purées, Fruit purees, compotes and desserts and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice-creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
BETA_CAROTENE, MIXED_CAROTENES, PLANT_CAROTENES E160A(I), E160A(II)	All sectors combined (Baseline: n=965; Follow-up: n=828)	7%	4%	-3***
	Crackers (Baseline: n=3; Follow-up: n=4)	1%	0.4%	-0.2
	Cereal bars (Baseline: n=1; Follow-up: n=2)	1%	1%	+1
	Cakes and biscuits (Baseline: n=173; Follow-up: n=207)	10%	9%	-1
	Soft drinks (Baseline: n=39; Follow-up: n=104)	5%	7%	+3*
	Breakfast cereals (Baseline: n=4; Follow-up: n=5)	1%	1%	-0.1
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=3; Follow-up: n=8)	0.4%	1%	+0.4
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=187; Follow-up: n=67)	13%	3%	-10***
	Fruit juices and nectars (Baseline: n=1; Follow-up: n=2)	0.1%	0.1%	-0.001
	Margarines (Baseline: n=74; Follow-up: n=26)	78%	24%	-54***
	Bread products (Baseline: n=130; Follow-up: n=153)	22%	15%	-8***
	Frozen pizzas (Baseline: n=26; Follow-up: n=5)	12%	1%	-11***
	Ready-to-eat frozen meals (Baseline: n=40; Follow-up: n=17)	2%	1%	-1***
	Dessert mixes (Baseline: n=13; Follow-up: n=19)	8%	5%	-3
	Fresh dairy products and similar (Baseline: n=62; Follow-up: n=96)	4%	4%	-0.01
	Fresh delicatessen products (Baseline: n=124; Follow-up: n=42)	11%	2%	-9***
Cold sauces (Baseline: n=85; Follow-up: n=72)	16%	12%	-4*	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
BUTYLATED HYDROXYTOLUENE (BHT) E321	All sectors combined (Baseline: n=0; Follow-up: n=1)	0%	0.004%	+0.004
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=1)	0%	0.05%	+0.05
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
CARAMELS E150A, E150B, E150C, E150D	All sectors combined (Baseline: n=944; Follow-up: n=1320)	6%	6%	-0.5
	Crackers (Baseline: n=12; Follow-up: n=31)	2%	3%	+1
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=71; Follow-up: n=120)	4%	5%	+1
	Soft drinks (Baseline: n=154; Follow-up: n=226)	18%	16%	-2
	Breakfast cereals (Baseline: n=14; Follow-up: n=21)	4%	5%	+1
	Delicatessen meats (Baseline: n=85; Follow-up: n=112)	7%	7%	-1
	Chocolate products (Baseline: n=1; Follow-up: n=8)	0.1%	1%	+1
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=2; Follow-up: n=2)	1%	0.4%	-0.2
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=207; Follow-up: n=341)	15%	17%	+3*
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=1; Follow-up: n=2)	0.2%	0.2%	+0.02
	Frozen pizzas (Baseline: n=3; Follow-up: n=4)	1%	1%	-0.4
	Ready-to-eat frozen meals (Baseline: n=129; Follow-up: n=117)	7%	5%	-2*
	Dessert mixes (Baseline: n=11; Follow-up: n=6)	7%	2%	-5**
	Fresh dairy products and similar (Baseline: n=113; Follow-up: n=163)	7%	7%	-1
	Fresh delicatessen products (Baseline: n=83; Follow-up: n=102)	7%	4%	-3***
Cold sauces (Baseline: n=58; Follow-up: n=65)	11%	10%	-0.2	
CALCIUM CARBONATE E170	All sectors combined (Baseline: n=122; Follow-up: n=170)	1%	1%	-0.1
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=13; Follow-up: n=19)	8%	11%	+3
	Cakes and biscuits (Baseline: n=14; Follow-up: n=12)	1%	1%	-0.3
	Soft drinks (Baseline: n=2; Follow-up: n=1)	0.2%	0.1%	-0.2
	Breakfast cereals (Baseline: n=25; Follow-up: n=38)	7%	9%	+1
	Delicatessen meats (Baseline: n=29; Follow-up: n=42)	3%	2%	-1
	Chocolate products (Baseline: n=10; Follow-up: n=14)	1%	1%	+0.01
	Fruit purees, compotes and desserts (Baseline: n=1; Follow-up: n=1)	0.2%	0.2%	-0.1
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=4; Follow-up: n=5)	0.3%	0.3%	-0.03
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=5; Follow-up: n=16)	1%	2%	+1
	Frozen pizzas (Baseline: n=2; Follow-up: n=8)	1%	2%	+1
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=5)	0%	0.2%	+0.2
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=3; Follow-up: n=6)	0.2%	0.2%	+0.1
	Fresh delicatessen products (Baseline: n=4; Follow-up: n=3)	0.4%	0.1%	-0.2
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)			
		Baseline	Follow-up	Change in proportions (point)	
CARRAGEENAN E407	All sectors combined (Baseline: n=1862; Follow-up: n=2181)	13%	10%	-3***	
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cereal bars (Baseline: n=4; Follow-up: n=4)	2%	2%	-0.1	
	Cakes and biscuits (Baseline: n=4; Follow-up: n=5)	0.2%	0.2%	-0.02	
	Soft drinks (Baseline: n=6; Follow-up: n=24)	1%	2%	+1*	
	Breakfast cereals (Baseline: n=3; Follow-up: n=9)	1%	2%	+1	
	Delicatessen meats (Baseline: n=56; Follow-up: n=79)	5%	5%	-0.2	
	Chocolate products (Baseline: n=3; Follow-up: n=11)	0.4%	1%	+1	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=1; Follow-up: n=0)	0.3%	0%	-0.3	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=725; Follow-up: n=605)	51%	31%	-20***	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=4; Follow-up: n=6)	1%	1%	-0.1	
	Frozen pizzas (Baseline: n=15; Follow-up: n=15)	7%	4%	-3	
	Ready-to-eat frozen meals (Baseline: n=207; Follow-up: n=151)	11%	7%	-4***	
	Dessert mixes (Baseline: n=49; Follow-up: n=110)	31%	33%	+3	
	Fresh dairy products and similar (Baseline: n=546; Follow-up: n=828)	35%	34%	-1	
	Fresh delicatessen products (Baseline: n=230; Follow-up: n=324)	20%	14%	-6***	
	Cold sauces (Baseline: n=9; Follow-up: n=10)	2%	2%	-0.05	
	MICROCRYSTALLINE CELLULOSE E460(I)	All sectors combined (Baseline: n=9; Follow-up: n=15)	0.1%	0.1%	+0.01
		Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cereal bars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cakes and biscuits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Soft drinks (Baseline: n=0; Follow-up: n=4)		0%	0.3%	+0.3	
Breakfast cereals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Delicatessen meats (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Chocolate products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Jams (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Canned fruits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ice creams and sorbets (Baseline: n=7; Follow-up: n=7)		0.5%	0.4%	-0.1	
Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Margarines (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Bread products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Frozen pizzas (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Dessert mixes (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh dairy products and similar (Baseline: n=2; Follow-up: n=4)		0.1%	0.2%	+0.04	
Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cold sauces (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
TRIETHYL CITRATE E1505		All sectors combined (Baseline: n=14; Follow-up: n=12)	0.1%	0.1%	-0.04
		Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=13; Follow-up: n=7)	1%	0.3%	-0.5*	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=1; Follow-up: n=1)	0.1%	0.1%	-0.02	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=1)	0%	0.05%	+0.05	
	Dessert mixes (Baseline: n=0; Follow-up: n=1)	0%	0.3%	+0.3	
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=2)	0%	0.1%	+0.1	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)			
		Baseline	Follow-up	Change in proportions (point)	
COPPER COMPLEXES OF CHLOROPHYLLS AND CHLOROPHYLLINS E141_E141(I), E141(II)	All sectors combined (Baseline: n=121; Follow-up: n=196)	1%	1%	+0.1	
	Crackers (Baseline: n=0; Follow-up: n=7)	0%	1%	+1	
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=1; Follow-up: n=1)	0.1%	0.04%	-0.02	
	Soft drinks (Baseline: n=8; Follow-up: n=20)	1%	1%	+0.5	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Chocolate products (Baseline: n=2; Follow-up: n=5)	0.3%	0.5%	+0.2	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=1)	0%	0.2%	+0.2	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=98; Follow-up: n=131)	6%	7%	+0.5	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=3)	0%	0.1%	+0.1	
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh dairy products and similar (Baseline: n=21; Follow-up: n=21)	1%	1%	-0.5	
	Fresh delicatessen products (Baseline: n=1; Follow-up: n=5)	0.1%	0.2%	+0.1	
	Cold sauces (Baseline: n=0; Follow-up: n=2)	0%	0.3%	+0.3	
	CURCUMIN E100	All sectors combined (Baseline: n=735; Follow-up: n=813)	5%	4%	-1***
		Crackers (Baseline: n=63; Follow-up: n=86)	11%	8%	-3*
Cereal bars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cakes and biscuits (Baseline: n=14; Follow-up: n=23)		1%	1%	+0.2	
Soft drinks (Baseline: n=9; Follow-up: n=2)		1%	0.1%	-1	
Breakfast cereals (Baseline: n=1; Follow-up: n=0)		0.3%	0%	-0.3	
Delicatessen meats (Baseline: n=2; Follow-up: n=1)		0.2%	0.1%	-0.1	
Chocolate products (Baseline: n=9; Follow-up: n=19)		1%	2%	+1	
Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Jams (Baseline: n=1; Follow-up: n=0)		0.3%	0%	-0.3	
Canned fruits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ice creams and sorbets (Baseline: n=379; Follow-up: n=387)		27%	20%	-7***	
Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Margarines (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Bread products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Frozen pizzas (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ready-to-eat frozen meals (Baseline: n=98; Follow-up: n=79)		5%	4%	-2*	
Dessert mixes (Baseline: n=2; Follow-up: n=1)		1%	0.3%	-1	
Fresh dairy products and similar (Baseline: n=125; Follow-up: n=186)		9%	8%	-1	
Fresh delicatessen products (Baseline: n=16; Follow-up: n=24)		1%	1%	-0.3	
Cold sauces (Baseline: n=6; Follow-up: n=5)		1%	1%	-0.3	
SILICON DIOXIDE E551		All sectors combined (Baseline: n=48; Follow-up: n=39)	0.3%	0.2%	-0.1**
		Crackers (Baseline: n=39; Follow-up: n=28)	7%	3%	-4***
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=0; Follow-up: n=1)	0%	0.04%	+0.04	
	Soft drinks (Baseline: n=0; Follow-up: n=1)	0%	0.1%	+0.1	
	Breakfast cereals (Baseline: n=0; Follow-up: n=4)	0%	1%	+1	
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Chocolate products (Baseline: n=0; Follow-up: n=3)	0%	0.3%	+0.3	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ready-to-eat frozen meals (Baseline: n=4; Follow-up: n=1)	0.2%	0.05%	-0.2	
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh delicatessen products (Baseline: n=1; Follow-up: n=0)	0.1%	0%	-0.1	
	Cold sauces (Baseline: n=4; Follow-up: n=1)	1%	0.2%	-1	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)			
		Baseline	Follow-up	Change in proportions (point)	
TITANIUM DIOXIDE E171	All sectors combined (Baseline: n=90; Follow-up: n=105)	1%	0.5%	-0.1	
	Crackers (Baseline: n=2; Follow-up: n=2)	0.4%	0.2%	-0.2	
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=7; Follow-up: n=8)	0.4%	0.3%	-0.1	
	Soft drinks (Baseline: n=0; Follow-up: n=1)	0%	0.1%	+0.1	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=1; Follow-up: n=1)	0.1%	0.1%	-0.03	
	Chocolate products (Baseline: n=19; Follow-up: n=16)	3%	2%	-1	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=54; Follow-up: n=67)	4%	3%	-0.4	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ready-to-eat frozen meals (Baseline: n=2; Follow-up: n=2)	0.1%	0.1%	-0.01	
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh dairy products and similar (Baseline: n=4; Follow-up: n=3)	0.3%	0.1%	-0.1	
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=1)	0%	0.04%	+0.04	
	Cold sauces (Baseline: n=1; Follow-up: n=4)	0.2%	1%	+0.5	
	ETHYL ESTER OF BETA-APO-8- CAROTENOIC ACID (C30) E160F	All sectors combined (Baseline: n=1; Follow-up: n=1)	0.01%	0.004%	-0.002
		Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cereal bars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cakes and biscuits (Baseline: n=1; Follow-up: n=1)		0.1%	0.04%	-0.02	
Soft drinks (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Breakfast cereals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Delicatessen meats (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Chocolate products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Jams (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Canned fruits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Margarines (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Bread products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Frozen pizzas (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Dessert mixes (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cold sauces (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
MONO- AND DIACETYL TARTARIC ACID ESTERS OF MONO- AND DIGLYCERIDES OF FATTY ACIDS E472E		All sectors combined (Baseline: n=262; Follow-up: n=369)	2%	2%	-0.1
		Crackers (Baseline: n=5; Follow-up: n=13)	1%	1%	+0.3
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=32; Follow-up: n=71)	2%	3%	+1*	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=1)	0%	0.2%	+0.2	
	Delicatessen meats (Baseline: n=2; Follow-up: n=0)	0.2%	0%	-0.2	
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=154; Follow-up: n=207)	27%	20%	-6**	
	Frozen pizzas (Baseline: n=1; Follow-up: n=2)	0.5%	1%	+0.04	
	Ready-to-eat frozen meals (Baseline: n=7; Follow-up: n=3)	0.4%	0.1%	-0.2	
	Dessert mixes (Baseline: n=2; Follow-up: n=4)	1%	1%	-0.03	
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh delicatessen products (Baseline: n=59; Follow-up: n=68)	5%	3%	-2**	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)			
		Baseline	Follow-up	Change in proportions (point)	
POLYGLYCEROL ESTERS OF FATTY ACIDS E475	All sectors combined (Baseline: n=56; Follow-up: n=89)	0.4%	0.4%	+0.02	
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=28; Follow-up: n=38)	2%	2%	+0.003	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Chocolate products (Baseline: n=0; Follow-up: n=2)	0%	0.2%	+0.2	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=9; Follow-up: n=8)	1%	0.4%	-0.2	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=10; Follow-up: n=36)	2%	4%	+2*	
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Dessert mixes (Baseline: n=7; Follow-up: n=1)	4%	0.3%	-4	
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh delicatessen products (Baseline: n=2; Follow-up: n=4)	0.2%	0.2%	+0.001	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	ETHYL LAUROYL ARGINATE E243	All sectors combined (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
		Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cereal bars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cakes and biscuits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Soft drinks (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Breakfast cereals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Delicatessen meats (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Chocolate products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fruit purées, Fruit purees, compotes and desserts and desserts (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Jams (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Canned fruits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ice-creams and sorbets (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Margarines (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Bread products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Frozen pizzas (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Dessert mixes (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cold sauces (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
FERROCYNANIDES E535, E536, E538		All sectors combined (Baseline: n=1; Follow-up: n=4)	0.01%	0.02%	+0.01
		Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Frozen pizzas (Baseline: n=1; Follow-up: n=0)	0.5%	0%	-0.5	
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=4)	0%	0.2%	+0.2	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
GLUTAMATES E620, E621, E622, E623, E624, E625	All sectors combined (Baseline: n=372; Follow-up: n=408)	3%	2%	-1***
	Crackers (Baseline: n=171; Follow-up: n=226)	31%	21%	-10***
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=0; Follow-up: n=2)	0%	0.1%	+0.1
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=43; Follow-up: n=69)	4%	4%	+0.2
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=2; Follow-up: n=1)	1%	0.3%	-1
	Ready-to-eat frozen meals (Baseline: n=66; Follow-up: n=36)	4%	2%	-2***
	Dessert mixes (Baseline: n=0; Follow-up: n=2)	0%	1%	+1
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh delicatessen products (Baseline: n=83; Follow-up: n=66)	7%	3%	-4***
	Cold sauces (Baseline: n=7; Follow-up: n=7)	1%	1%	-0.2
STEVIOL GLYCOSIDES E960	All sectors combined (Baseline: n=5; Follow-up: n=79)	0.03%	0.3%	+0.3***
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=3; Follow-up: n=55)	0.4%	4%	+4***
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=0; Follow-up: n=1)	0%	0.1%	+0.1
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=1; Follow-up: n=3)	0.1%	0.2%	+0.1
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=6)	0%	0.4%	+0.4
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=10)	0%	0.4%	+0.4
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cold sauces (Baseline: n=1; Follow-up: n=3)	0.2%	0.5%	+0.3
QUINOLINE YELLOW E104	All sectors combined (Baseline: n=33; Follow-up: n=2)	0.2%	0.01%	-0.2***
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=12; Follow-up: n=1)	1%	0.04%	-1***
	Soft drinks (Baseline: n=13; Follow-up: n=1)	2%	0.1%	-1***
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=5; Follow-up: n=0)	1%	0%	-1
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=1; Follow-up: n=0)	1%	0%	-1
	Fresh dairy products and similar (Baseline: n=1; Follow-up: n=0)	0.1%	0%	-0.1
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cold sauces (Baseline: n=1; Follow-up: n=0)	0.2%	0%	-0.2

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
LITHOLRUBINE BK E180	All sectors combined (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit purées, Fruit purees, compotes and desserts and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice-creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
LUTEIN E161B	All sectors combined (Baseline: n=563; Follow-up: n=570)	4%	3%	-1***
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=50; Follow-up: n=75)	3%	3%	+0.3
	Soft drinks (Baseline: n=47; Follow-up: n=65)	6%	5%	-1
	Breakfast cereals (Baseline: n=2; Follow-up: n=1)	1%	0.2%	-0.4
	Delicatessen meats (Baseline: n=15; Follow-up: n=22)	1%	1%	-0.01
	Chocolate products (Baseline: n=0; Follow-up: n=1)	0%	0.1%	+0.1
	Fruit purées, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=66; Follow-up: n=32)	5%	2%	-3***
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=16; Follow-up: n=2)	17%	2%	-15***
	Bread products (Baseline: n=10; Follow-up: n=39)	2%	4%	+2*
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=44; Follow-up: n=40)	2%	2%	-1
	Dessert mixes (Baseline: n=0; Follow-up: n=1)	0%	0.3%	+0.3
	Fresh dairy products and similar (Baseline: n=95; Follow-up: n=134)	6%	6%	-1
	Fresh delicatessen products (Baseline: n=117; Follow-up: n=58)	10%	3%	-8***
Cold sauces (Baseline: n=101; Follow-up: n=100)	19%	16%	-3	
SORBITAN MONOLAURATE AND MONOLEATE E493_E494	All sectors combined (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit purées, Fruit purees, compotes and desserts and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice-creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)			
		Baseline	Follow-up	Change in proportions (point)	
POLYOXYETHYLENE SORBITAN MONOLAURATE, MONOOLEATE, MONOPALMITATE, MONOSTEARATE, TRISTEARATE E432, E433, E434, E435, E436	All sectors combined (Baseline: n=17; Follow-up: n=16)	0.1%	0.1%	-0.04	
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Chocolate products (Baseline: n=0; Follow-up: n=2)	0%	0.2%	+0.2	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=2; Follow-up: n=3)	0.5%	0.2%	-0.3	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=4; Follow-up: n=5)	1%	0.5%	-0.2	
	Frozen pizzas (Baseline: n=1; Follow-up: n=0)	0.5%	0%	-0.5	
	Ready-to-eat frozen meals (Baseline: n=1; Follow-up: n=1)	0.1%	0.05%	-0.01	
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh dairy products and similar (Baseline: n=1; Follow-up: n=5)	0.1%	0.2%	+0.1	
	Fresh delicatessen products (Baseline: n=2; Follow-up: n=0)	0.2%	0%	-0.2	
	Cold sauces (Baseline: n=1; Follow-up: n=0)	0.2%	0%	-0.2	
	SORBITAN MONOSTEARATE, TRISTEARATE, MONOPALMITATE E491, E492, E495	All sectors combined (Baseline: n=15; Follow-up: n=17)	0.1%	0.1%	-0.03
		Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cereal bars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cakes and biscuits (Baseline: n=12; Follow-up: n=13)		1%	1%	-0.1	
Soft drinks (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Breakfast cereals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Delicatessen meats (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Chocolate products (Baseline: n=1; Follow-up: n=1)		0.1%	0.1%	-0.04	
Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Jams (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Canned fruits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ice creams and sorbets (Baseline: n=1; Follow-up: n=3)		0.1%	0.2%	+0.1	
Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Margarines (Baseline: n=1; Follow-up: n=0)		1%	0%	-1	
Bread products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Frozen pizzas (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Dessert mixes (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cold sauces (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
NITRITES E249, E250		All sectors combined (Baseline: n=1651; Follow-up: n=2235)	11%	10%	-1***
		Crackers (Baseline: n=7; Follow-up: n=10)	1%	1%	-0.3
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=866; Follow-up: n=1229)	75%	71%	-3	
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=1; Follow-up: n=0)	0.1%	0%	-0.1	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Frozen pizzas (Baseline: n=70; Follow-up: n=144)	33%	37%	+4	
	Ready-to-eat frozen meals (Baseline: n=247; Follow-up: n=247)	13%	11%	-2	
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh delicatessen products (Baseline: n=460; Follow-up: n=605)	40%	27%	-14***	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)			
		Baseline	Follow-up	Change in proportions (point)	
IRON OXIDES AND HYDROXIDES E172	All sectors combined (Baseline: n=66; Follow-up: n=96)	0.4%	0.4%	-0.02	
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=1; Follow-up: n=6)	0.1%	0.3%	+0.2	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=0; Follow-up: n=2)	0%	0.1%	+0.1	
	Chocolate products (Baseline: n=2; Follow-up: n=6)	0.3%	1%	+0.3	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=7; Follow-up: n=75)	4%	4%	-0.2	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ready-to-eat frozen meals (Baseline: n=2; Follow-up: n=1)	0.1%	0.05%	-0.1	
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh dairy products and similar (Baseline: n=1; Follow-up: n=0)	0.1%	0%	-0.1	
	Fresh delicatessen products (Baseline: n=3; Follow-up: n=6)	0.3%	0.3%	+0.002	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	SODIUM ALUMINIUM PHOSPHATE ACIDIC E541	All sectors combined (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
		Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cereal bars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cakes and biscuits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Soft drinks (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Breakfast cereals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Delicatessen meats (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Chocolate products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fruit purées, Fruit purees, compotes and desserts and desserts (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Jams (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Canned fruits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ice-creams and sorbets (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Margarines (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Bread products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Frozen pizzas (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Dessert mixes (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cold sauces (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
PONCEAU 4R COCHINEAL RED A E124		All sectors combined (Baseline: n=101; Follow-up: n=18)	1%	0.1%	-1***
		Crackers (Baseline: n=4; Follow-up: n=1)	1%	0.1%	-1
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=46; Follow-up: n=4)	3%	0.2%	-3***	
	Soft drinks (Baseline: n=5; Follow-up: n=0)	1%	0%	-1	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=2; Follow-up: n=2)	0.2%	0.1%	-0.1	
	Chocolate products (Baseline: n=3; Follow-up: n=1)	0.4%	0.1%	-0.3	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=4; Follow-up: n=4)	2%	2%	-0.3	
	Ice creams and sorbets (Baseline: n=12; Follow-up: n=0)	1%	0%	-1***	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=1; Follow-up: n=0)	0.2%	0%	-0.2	
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Dessert mixes (Baseline: n=2; Follow-up: n=1)	1%	0.3%	-1	
	Fresh dairy products and similar (Baseline: n=16; Follow-up: n=5)	1%	0.2%	-1***	
	Fresh delicatessen products (Baseline: n=6; Follow-up: n=0)	1%	0%	-1	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)			
		Baseline	Follow-up	Change in proportions (point)	
ANNATTO, BIXIN, NORBIXIN E160B	All sectors combined (Baseline: n=578; Follow-up: n=671)	4%	3%	-1***	
	Crackers (Baseline: n=65; Follow-up: n=94)	12%	9%	-3*	
	Cereal bars (Baseline: n=1; Follow-up: n=0)	1%	0%	-1	
	Cakes and biscuits (Baseline: n=1; Follow-up: n=7)	0.1%	0.3%	+0.2	
	Soft drinks (Baseline: n=1; Follow-up: n=0)	0.1%	0%	-0.1	
	Breakfast cereals (Baseline: n=13; Follow-up: n=13)	4%	3%	-1	
	Delicatessen meats (Baseline: n=0; Follow-up: n=6)	0%	0.3%	+0.3	
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=321; Follow-up: n=307)	23%	16%	-7***	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=1; Follow-up: n=1)	0.2%	0.1%	-0.1	
	Frozen pizzas (Baseline: n=3; Follow-up: n=10)	1%	3%	+1	
	Ready-to-eat frozen meals (Baseline: n=17; Follow-up: n=23)	1%	1%	+0.2	
	Dessert mixes (Baseline: n=29; Follow-up: n=40)	18%	12%	-6	
	Fresh dairy products and similar (Baseline: n=88; Follow-up: n=117)	6%	5%	-1	
	Fresh delicatessen products (Baseline: n=38; Follow-up: n=53)	3%	2%	-1	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	ALLURA RED AC E129	All sectors combined (Baseline: n=54; Follow-up: n=8)	0.4%	0.04%	-0.3***
		Crackers (Baseline: n=1; Follow-up: n=3)	0.2%	0.3%	+0.1
Cereal bars (Baseline: n=3; Follow-up: n=0)		2%	0%	-2	
Cakes and biscuits (Baseline: n=24; Follow-up: n=1)		1%	0.04%	-1***	
Soft drinks (Baseline: n=19; Follow-up: n=3)		2%	0.2%	-2***	
Breakfast cereals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Delicatessen meats (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Chocolate products (Baseline: n=2; Follow-up: n=0)		0.3%	0%	-0.3	
Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Jams (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Canned fruits (Baseline: n=1; Follow-up: n=1)		1%	0.5%	-0.1	
Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Margarines (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Bread products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Frozen pizzas (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Dessert mixes (Baseline: n=2; Follow-up: n=0)		1%	0%	-1	
Fresh dairy products and similar (Baseline: n=2; Follow-up: n=0)		0.1%	0%	-0.1	
Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cold sauces (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
ALUMINIUM SILICATES E554, E555, E556, E559		All sectors combined (Baseline: n=6; Follow-up: n=4)	0.04%	0.02%	-0.02
		Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=1; Follow-up: n=1)	0.1%	0.1%	-0.03	
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=3; Follow-up: n=2)	0.2%	0.1%	-0.1	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ready-to-eat frozen meals (Baseline: n=2; Follow-up: n=1)	0.1%	0.05%	-0.1	
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)			
		Baseline	Follow-up	Change in proportions (point)	
SODIUM AND CALCIUM STEAROYL 2, LACTYLATES E481, E482	All sectors combined (Baseline: n=257; Follow-up: n=302)	2%	1%	-0.4**	
	Crackers (Baseline: n=1; Follow-up: n=0)	0.2%	0%	-0.2	
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Cakes and biscuits (Baseline: n=10; Follow-up: n=14)	1%	1%	+0.02	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Chocolate products (Baseline: n=0; Follow-up: n=1)	0%	0.1%	+0.1	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=151; Follow-up: n=260)	26%	25%	-1	
	Frozen pizzas (Baseline: n=0; Follow-up: n=4)	0%	1%	+1	
	Ready-to-eat frozen meals (Baseline: n=3; Follow-up: n=3)	0.2%	0.1%	-0.02	
	Dessert mixes (Baseline: n=4; Follow-up: n=2)	3%	1%	-2	
	Fresh dairy products and similar (Baseline: n=2; Follow-up: n=0)	0.1%	0%	-0.1	
	Fresh delicatessen products (Baseline: n=86; Follow-up: n=18)	8%	1%	-7***	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	SUCRALOSE E955	All sectors combined (Baseline: n=91; Follow-up: n=302)	1%	1%	+1***
		Crackers (Baseline: n=0; Follow-up: n=1)	0%	0.1%	+0.1
Cereal bars (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cakes and biscuits (Baseline: n=1; Follow-up: n=0)		0.1%	0%	-0.1	
Soft drinks (Baseline: n=53; Follow-up: n=227)		6%	16%	+10***	
Breakfast cereals (Baseline: n=0; Follow-up: n=4)		0%	1%	+1	
Delicatessen meats (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Chocolate products (Baseline: n=0; Follow-up: n=2)		0%	0.2%	+0.2	
Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Jams (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Canned fruits (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ice creams and sorbets (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fruit juices and nectars (Baseline: n=4; Follow-up: n=17)		1%	1%	+1	
Margarines (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Bread products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Frozen pizzas (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Dessert mixes (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Fresh dairy products and similar (Baseline: n=27; Follow-up: n=44)		2%	2%	+0.1	
Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)		0%	0%	+0	
Cold sauces (Baseline: n=6; Follow-up: n=7)		1%	1%	+0.02	
SUCROSE ESTERS OF FATTY ACIDS AND SUCROGLYCERIDES E473, E474		All sectors combined (Baseline: n=92; Follow-up: n=90)	1%	0.4%	-0.2**
		Crackers (Baseline: n=14; Follow-up: n=13)	3%	1%	-1*
	Cereal bars (Baseline: n=66; Follow-up: n=59)	39%	33%	-6	
	Cakes and biscuits (Baseline: n=12; Follow-up: n=12)	1%	1%	-0.2	
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Chocolate products (Baseline: n=0; Follow-up: n=1)	0%	0.1%	+0.1	
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ice creams and sorbets (Baseline: n=0; Follow-up: n=1)	0%	0.1%	+0.1	
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Bread products (Baseline: n=0; Follow-up: n=2)	0%	0.2%	+0.2	
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Dessert mixes (Baseline: n=0; Follow-up: n=1)	0%	0.3%	+0.3	
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=1)	0%	0.04%	+0.04	
	Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
ALUMINIUM SULPHATES E520, E521, E522, E523	All sectors combined (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit purees, Fruit purees, compotes and desserts and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice-creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	
SULPHITES E220, E221, E222, E223, E224, E226, E227, E228	All sectors combined (Baseline: n=1295; Follow-up: n=1475)	9%	7%	-2***
	Crackers (Baseline: n=60; Follow-up: n=151)	11%	14%	+3
	Cereal bars (Baseline: n=28; Follow-up: n=29)	17%	16%	-0.4
	Cakes and biscuits (Baseline: n=109; Follow-up: n=131)	6%	6%	-1
	Soft drinks (Baseline: n=6; Follow-up: n=4)	1%	0.3%	-0.4
	Breakfast cereals (Baseline: n=18; Follow-up: n=13)	5%	3%	-2
	Delicatessen meats (Baseline: n=3; Follow-up: n=3)	0.3%	0.2%	-0.1
	Chocolate products (Baseline: n=9; Follow-up: n=7)	1%	1%	-1
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=1)	0%	0.2%	+0.2
	Jams (Baseline: n=4; Follow-up: n=4)	1%	1%	-0.3
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=32; Follow-up: n=45)	2%	2%	+0.04
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=1; Follow-up: n=3)	0.2%	0.3%	+0.1
	Frozen pizzas (Baseline: n=4; Follow-up: n=6)	2%	2%	-0.3
	Ready-to-eat frozen meals (Baseline: n=350; Follow-up: n=355)	19%	16%	-2*
	Dessert mixes (Baseline: n=1; Follow-up: n=2)	1%	1%	-0.02
	Fresh dairy products and similar (Baseline: n=7; Follow-up: n=6)	0.5%	0.2%	-0.2
	Fresh delicatessen products (Baseline: n=444; Follow-up: n=485)	39%	21%	-18***
Cold sauces (Baseline: n=219; Follow-up: n=230)	40%	37%	-3	
SUNSET YELLOW FCF ORANGE YELLOW S E110	All sectors combined (Baseline: n=112; Follow-up: n=8)	1%	0.04%	-1***
	Crackers (Baseline: n=6; Follow-up: n=1)	1%	0.1%	-1
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=17; Follow-up: n=0)	1%	0%	-1***
	Soft drinks (Baseline: n=28; Follow-up: n=4)	3%	0.3%	-3***
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=12; Follow-up: n=0)	2%	0%	-2***
	Fruit purees, compotes and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice creams and sorbets (Baseline: n=15; Follow-up: n=0)	1%	0%	-1***
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=1; Follow-up: n=0)	0.2%	0%	-0.2
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=23; Follow-up: n=1)	14%	0.3%	-14***
	Fresh dairy products and similar (Baseline: n=7; Follow-up: n=1)	0.5%	0.04%	-0.4
	Fresh delicatessen products (Baseline: n=3; Follow-up: n=1)	0.3%	0.04%	-0.2
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Group of additives of interest	Sector (n=number of products containing at least the additive group considered)	Products containing at least the additive group considered, by sector (study conducted on 20 sectors among the 30 currently monitored by Oqali)		
		Baseline	Follow-up	Change in proportions (point)
STEARYL TARTRATE E483	All sectors combined (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Crackers (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cereal bars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Cakes and biscuits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Soft drinks (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Breakfast cereals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Delicatessen meats (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Chocolate products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit purées, Fruit purees, compotes and desserts and desserts (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Jams (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Canned fruits (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ice-creams and sorbets (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fruit juices and nectars (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Margarines (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Bread products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Frozen pizzas (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Ready-to-eat frozen meals (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Dessert mixes (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh dairy products and similar (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
	Fresh delicatessen products (Baseline: n=0; Follow-up: n=0)	0%	0%	+0
Cold sauces (Baseline: n=0; Follow-up: n=0)	0%	0%	+0	

Purple cells: significant decrease in the presence frequencies of at least one selected additive group between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
Orange cells: significant increase in the presence frequencies of at least one selected additive group between the products from the baselines and those from the follow-ups (* if p<0.05; ** if p<0.01; *** if p<0.001)
Statistical test performed: chi-square test

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