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Sugars content in selected **foods** in the EU

*A 2015 baseline to monitor
sugars reduction progress*

Robinson, Marguerite
Caldeira, Sandra
Wollgast, Jan

2018



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ABSTRACT

In 2015, as part of the EU Framework for National Initiatives on Selected Nutrients, the EU High Level Group on Nutrition and Physical Activity (HLG) set as a target the reduction of added sugars in food products by a minimum of 10% by 2020 against a 2015 baseline. A suitable monitoring framework is necessary to describe the baseline situation and to evaluate the progress of food reformulation; its development is under way in some EU Member States, as well as part of the Joint Action on Nutrition and Physical Activity (JANPA). This report complements these activities by filling data gaps where needed and by providing a broad geographical coverage based on commercially available data collected in a harmonised way for branded products across Europe. It estimates sugars content from 2015 data for the three product categories identified by the HLG for immediate action: sugars sweetened beverages, breakfast cereals and dairy products.

Based on market volume information, this report estimates the amount of total sugars sold to European consumers by these three product categories. By providing the mean sugars content, weighted by market share, for product (sub-) groups, it also highlights the existence of product groups whose reformulation is critical to achieving the 2020 target. The results highlight the need to adopt a multifaceted approach that targets not only individual high-sugars products, but also the products with high market shares that are contributing the highest overall volumes of sugars to consumers, independent of actual total sugars content. These results are calculated using 2015 data from a commercial market research company, Euromonitor International.¹ The analysis is performed for 22 European countries; however, a comparison between countries is not provided due to differing market coverage.

1. *Euromonitor International* [<http://www.euromonitor.com>]. Packages: Nutrition 2016, Packaged Food 2016 and Soft Drinks 2016.

1. Introduction

This work is a response to the adoption of the Added Sugars Annex² (Dec 2015) to the EU Framework for National Initiatives on Selected Nutrients³ (Feb 2011), in which EU Member States (MS) have committed to action towards achieving population intake levels and dietary patterns in line with recommendations. The Annex sets as a target the reduction of added sugars in products by a minimum of 10% by 2020, which should contribute to bringing added sugars intakes in line with recommendations at national level and from the World Health Organization (WHO). It was decided to start the work towards developing a monitoring framework and product group specific reformulation benchmarks focusing on three product categories: sugars sweetened beverages (SSBs), breakfast cereals and dairy products.⁴

It is proposed herein to use commercial data on both market shares and nutrient composition of branded food and drink products as a complementary source of information to the monitoring efforts of MSs. Thus, the purpose of this report is to set a 2015 baseline related to sugars for product reformulation, using data from Euromonitor International.¹ This database contains information on the total sugars content of packaged food and soft drinks items, as well as data on sales volumes and market shares. The market-share weighted total sugars content provides insights into the ‘true’ average sugars contents per 100 g (or 100 ml) of product categories, as sold to consumers, by giving the appropriate importance to the volume of the products sold. To achieve the overall reduction goal of -10% through product reformulation, it is this weighted average sugars content that will have to decrease by 10% by 2020.⁵ The sales volumes of total sugars can be

2. Annex II: *Added Sugars, EU Framework for National Initiatives on Selected Nutrients*, 2015. [https://ec.europa.eu/health/nutrition_physical_activity/docs/added_sugars_en.pdf]

3. *EU Framework for National Initiatives on Selected Nutrients*, 2011. [[ec.europa.eu/health/nutrition_physical.../eu-framework_national_nutrients_en.pdf](https://ec.europa.eu/health/nutrition_physical_activity/docs/eu_framework_national_nutrients_en.pdf)]

4. See the minutes of the Plenary meeting of the *European Platform for Action on Diet, Physical Activity and Health*, Luxembourg, 2 June 2016. [Available at: https://ec.europa.eu/health/nutrition_physical_activity/events_en]

5. Note: the -10% target is set on ‘added sugars’ and not ‘total sugars’, and therefore, to be precise it will have to be the market weighted added sugars content that will have to decrease by 10%.

used as a proxy for the intake of total sugars through food consumption and can provide valuable insights by highlighting the relative contributions of the three target product categories to overall (excess) sugars intakes. The combination of high product sales (consumption) volumes and products that are typically high in added sugars will highlight those product groups that need to receive major attention in food reformulation efforts.

2 . Added sugars

The European Food Safety Authority (EFSA, 2010) defines sugars as all ‘monosaccharides and disaccharides’. They further define added sugars as

‘sucrose, fructose, glucose, starch hydrolysates (glucose syrup, high-fructose syrup) and other isolated sugar preparations used as such or added during food preparation and manufacturing.’

The Added Sugars Annex expands this definition of added sugars, conforming with the WHO definition of free sugars (WHO, 2015), as follows

‘sucrose, fructose, glucose, starch hydrolysates (glucose syrup, high-fructose syrup) and other isolated sugar preparations used as such or added during food preparation and manufacturing. Sugar alcohols (polyols) such as sorbitol, xylitol, mannitol, and lactitol, are usually not included in the term ‘sugars’. In the scope of this annex, the term ‘added sugars’ is additionally considered to include sugars present in honey, syrups, and fruit juices and fruit juice concentrates.’

From 13 December 2016, Regulation (EU) No 1169/2011⁶ on the provision of food information to consumers requires the mandatory declaration of the amount of (total) sugars in prepacked foods to be listed, under carbohydrates in grams per 100 g. However, added sugars content is not declared on labels in the EU. A **‘With No Added Sugars’** nutrition claim is permitted under Regulation (EU) 1924/2006⁷ for health and nutrition claims made on foods, when the product *does not contain any added mono- or disaccharides or any other food used for its sweetening properties. If sugars are naturally present in the food, the following indication should also appear on the label: ‘CONTAINS NATURALLY OCCURRING SUGARS’.*

6. Regulation (EU) No 1169/2011 on food information to consumers (2011). Official Journal of the European Union L:304/18.

7. Regulation (EU) No 1924/2006 on nutrition and health claims made on foods (2006). Official Journal of the European Union L:12/3.

High intakes of sugars have been associated with a poor diet and increased incidence of non-communicable diseases (NCDs), such as obesity, cardiovascular disease and type 2 diabetes. In particular, added sugars provide calories but no additional nutritional value and may, in fact, reduce the intake of more nutritionally rich foods (WHO, 2015). Many health-related organisations have recommended limits on added sugars intakes. The WHO recommends reducing the intake of free sugars to less than 10% of the total energy intake (E%) in children and adults, with further reduction to below 5 E% providing additional health benefits (WHO, 2015). The Nordic Nutrition Recommendations state that the intake of added sugars should be kept below 10 E% (NNR, 2014). The Scientific Advisory Committee on Nutrition in the United Kingdom (UK) have recommended that the average population intake of free sugars should not exceed 5% of total dietary energy for age groups from 2 years upwards (SACN, 2015). In 2010, EFSA concluded that the evidence available was insufficient to set an upper limit on the daily intake of total or added sugars; following a recent request from several EU member states, EFSA will provide scientific advice on the daily intake of added sugars by early 2020.⁸

EFSA has compiled data on intakes of mono- and disaccharides in EU countries, taken from national dietary assessments (EFSA, 2010). Average intakes in adults (> 18 years) range from 16.6 to 24.1 E%, and in children and adolescents (aged 1-18 years) from 23.4 to 36.3 E%. A recent review of total and added sugars⁹ intakes in 11 European countries found that added sugars were provided mainly from sweet products (*e.g.* confectionary, chocolates, cakes, biscuits, sugar¹⁰ and jam), beverages and dairy (Azaïs-Braesco, 2017). Added sugars were found to contribute 7 to 11% of total energy intake in adults and 11 to 17% in children, well in excess of the 10% threshold set by the WHO (WHO, 2015). In particular, dairy products were found to contribute 4-15% of all added sugars intake in adults and 6-18% in children. Soft drinks (excluding fruit and vegetable juices) were found to contribute 7 to 26% of all added sugars intake in adults and 13 to 30% in children.

8. *EFSA to give advice on the intake of sugars added to food*. 2017. [<https://www.efsa.europa.eu/en/press/news/170323-0>]

9. This review includes data on added sugars and non-milk extrinsic sugars (NMES).

10. Refers to 'table sugar', *i.e.* sugar added to food at the consumer's discretion.

The Added Sugars Annex provides a non-exhaustive list of major food categories on which to focus for reformulation efforts. The list represents foods that are commonly high in added sugars,

- Sugars sweetened beverages
- Sugars sweetened dairy and dairy imitates
- Breakfast Cereals
- Confectionary
- Bakery products (*e.g.* cakes and cookies)
- Ready meals
- Savoury snacks
- Sauces
- Sugars sweetened desserts, ice cream and topping
- Canned fruits and vegetables

Currently, information on the presence of added sugars can only be gathered from the ingredients list on packaged food and drink products. Nevertheless, added sugars intake estimates have been made in several member states, including Denmark, France, Hungary, Ireland, Norway, Netherlands and the UK, using food composition databases and national food consumption surveys. Often, added sugars are estimated using (standard) recipes and printed ingredient lists. However, such endeavours are hindered by the presence of both intrinsic and extrinsic sugars in many food items. EU member states and stakeholders have agreed on focusing reformulation efforts initially on three categories: sugars sweetened beverages, breakfast cereals and dairy products. Some member states have estimated added sugars intakes from these target groups, *Table 1*. While a direct comparison between countries cannot be made, the following can be observed:

- Younger populations tend to consume more added sugars from breakfast cereals than older populations.
- Younger populations are also more likely to consume more added sugars from soft drinks, especially male populations.

Table 1. The % contribution to daily total added sugars intake attributable to certain food and drink groups in some Members States. A direct comparison between countries is not possible as different added sugars definitions, different food categorisations and different age groupings were used.

| Country | Food group | Age group | % Added Sugars | | |
|---|---|-----------|----------------|--------|------|
| | | | Male | Female | All |
| Netherlands (Sluik, 2016) | Breakfast cereals | 7-18 | 1 | 1.3 | |
| | | 19-69 | 0.8 | 1.2 | |
| | Non-alcoholic beverages (including fruit and vegetable juices, soft drinks, water, coffee/tea) | 7-18 | 34.2 | 31.1 | |
| 19-69 | | 29.8 | 23 | | |
| | Dairy (including milk, dairy beverages, dairy desserts, yoghurt, cottage cheese, cream, coffee milk) | 7-18 | 12.4 | 12.2 | |
| | | 19-69 | 11. | 12.3 | |
| Ireland (Joyce, 2008) | Ready-to-eat breakfast cereal | 5-12 | | | 11.1 |
| | | 13-17 | | | 10.6 |
| | | 18-64 | | | 5.5 |
| | Carbonated beverages, squashes and cordials | 5-12 | | | 27.7 |
| | | 13-17 | | | 27.7 |
| | | 18-64 | | | 14.2 |
| Ice-cream, pudding and chilled desserts | 5-12 | | | 5.8 | |
| | 13-17 | | | 5.0 | |
| | 18-64 | | | 7.9 | |
| UK* (Bates, 2016) | High fibre breakfast cereals | 4-10 | 4 | 3 | |
| | | 11-18 | 3 | 2 | |
| | | 19-64 | 3 | 3 | |
| | | 65+ | 3 | 4 | |
| | Other breakfast cereals | 4-10 | 4 | 5 | |
| | | 11-18 | 5 | 3 | |
| | | 19-64 | 2 | 2 | |
| | | 65+ | 2 | 3 | |
| | Non-alcoholic beverages (including fruit juice, not low calorie soft drinks, low calorie soft drinks, tea, coffee, water) | 4-10 | 28 | 26 | |
| | | 11-18 | 38 | 38 | |
| | | 19-64 | 26 | 23 | |
| | | 65+ | 10 | 13 | |
| | Milk and milk products (including other milk and cream, yoghurt, fromage frais and other dairy desserts, ice-cream) | 4-10 | 13 | 15 | |
| | | 11-18 | 8 | 8 | |
| | | 19-64 | 6 | 8 | |
| | | 65+ | 10 | 9 | |

* Data for non-milk extrinsic sugars (NMES).

3 . Methodology

In this report, the nutrient data collected by Euromonitor and based on the nutrient declarations on packaged foods, is used to generate distributions of total sugars content for the food and drink product categories/groups that have been identified as the initial focal points for monitoring reformulation efforts, namely sugars sweetened beverages (soft drinks), breakfast cereals and dairy products. Furthermore, to incorporate market volume sales, and their impact on the sugars volumes ultimately sold and consumed by the public, the mean total sugars content per food/drink group is weighed by market sales data.

3.1. Data Sources

Data were obtained from Euromonitor International, a commercial global market research company providing market data and analysis on the packaged food and soft drinks industries in 80 countries worldwide through their online Passport database. The database is structured into various packages/industries;

- Soft Drinks – provides market sales volumes/values and brand volume shares on on-trade¹¹ and off-trade sales,
- Packaged Food – provides market sales volumes/values and brand value shares on retail¹² and foodservice sales,
- Nutrition – provides nutrient market sales volumes, and brand volumes on retail sales as well as back-of-pack labelling information on nutrient content per 100 g (or 100 ml) for the Soft Drinks and Packaged Food industries.

Market data for the Soft Drinks and Packaged Food industries have been tracked by Euromonitor for 15 years and are updated annually. Available data includes the market sizes of food/drink subcategories in value and volume terms, in addition

11. Off-trade refers to Soft Drinks sales through retail outlets (e.g. supermarkets) and on-trade refers to sales through catering establishments such as bars, restaurants, etc.

12. Retail volume refers to Packaged Food sales through retail outlets and foodservice refers to sales to foodservice outlets such as hotels, restaurants, etc.

to product/brand and company shares. Market shares are available in volume and value terms for Soft Drinks, but only value shares are available for the Packaged Food industry. The Nutrition database includes the nutrient market sizes of food/drink subcategories in volume terms, in addition it quantifies the nutrient sales by brand and company shares and covers products sold in 2014, 2015 and 2016. For the purpose of this study, only the back-of-pack labelling information was used which records, if present, the nutrient content per 100 g (or 100 ml) of energy, carbohydrates, sugars, fibre, fat, saturated fat, protein and salt. Within Europe, Euromonitor researches nutrition data for 20 of the EU28 countries (Belgium, Bulgaria, Czech Republic, Denmark, Germany, Ireland, Greece, Spain, France, Italy, Hungary, Netherlands, Austria, Poland, Portugal, Romania, Slovakia, Finland, Sweden and the United Kingdom) and 2 EFTA countries, namely Norway and Switzerland. The study population for this report will be composed of these 22 countries.

Euromonitor employs a research methodology of sourcing nutrition data predominantly online through brand/retailer websites, with store checks carried out when the information cannot be found online. This methodology relies heavily on the relevant websites being updated regularly.¹³ The Nutrition database only tracks products sold through retail outlets. Therefore, only retail sales (off-trade sales for soft drinks) are considered in this analysis. This restriction is further necessitated by Euromonitor's methodology of tracking foodservice sales (for packaged food) to foodservice establishments and on-trade sales (for soft drinks) through establishments. The data presented in this report was extracted for the year 2015 from Euromonitor International packages Nutrition 2016 and Packaged Food 2016. Mid-year 2015 population data were extracted from the European Health for All Database (HFA-DB).¹⁴ These data were used to calculate all per capita statistics presented in this report.

13. In what regards accuracy and reliability of data, Euromonitor declares that 'While every attempt has been made to ensure accuracy and reliability, Euromonitor International cannot be held responsible for omissions or errors of historic figures or analyses'.

14. *WHO Regional Office for Europe. European Health for All database (HFA-DB)*. 2016. Extracted on 31/01/2017. [<http://data.euro.who.int/hfad/>].

Euromonitor's Nutrition database tracks both private label and branded products, with a focus on the leading market products. Products with multiple variants (*e.g.* nut, fruit or chocolate variants of breakfast cereals) and/or flavours (*e.g.* strawberry, pear flavoured fruited yogurts) are aggregated to form a single data entry to which a market volume/share is assigned, with a representative product chosen to assign the nutrient profile to the group. Euromonitor's 2016 Edition does not currently allow the identification of the representative flavour or variant chosen, nor does it allow identification of products that are aggregated from those that are not. Euromonitor uses local country analysts for data collection. All analysts receive detailed instructions on data sampling; however, the particular flavour or variant chosen to represent a product may not be consistent between countries.

3.2. Food and drink categories, groups and subcategories

This report will consider the following food and drink categories: SSBs, Breakfast Cereals and Dairy Products. The latter two categories are tracked by Euromonitor through the Packaged Food database, while SSBs are tracked through the Soft Drinks database. The subcategorisation of the products within each of these categories in the database is detailed in *Table 2*. These subcategories have been further grouped for ease of analysis and presentation. For the purpose of this report, Dairy Products exclude cheese and unflavoured milks, as these products usually do not contain added sugars, but include dairy imitates (such as soy milk) and water-based ice creams. Soft Drinks exclude unflavoured still/carbonated water, to which no sugars are added, and powdered concentrates, which are tracked in their powdered undrinkable form. The product descriptions employed by Euromonitor to define each subcategory are provided in *Annex 1*.

Table 2. Product subcategorisation in the Euromonitor Nutrition database and product groupings. Descriptions of the products covered in each subcategory are provided in Annex 1. RTD, ready-to-drink; RTE, ready-to-eat.

| Food/Drink Category | Product Groups | Subcategory |
|---------------------|------------------|--|
| Soft Drinks | Water | Flavoured Bottled Water Functional Bottled Water |
| | Carbonates | Ginger Ale Lemonade/Lime Orange Carbonates Other Mixers Other Non-Cola Carbonates Speciality Low-Calorie Cola Speciality Regular Cola Standard Low-Calorie Cola Standard Regular Cola Tonic Water |
| | Concentrates | Liquid Concentrates |
| | Juice | Not From Concentrate 100% Juice Reconstituted 100% Juice Unfrozen Juice (up to 24%) Unfrozen Nectars (25-99%) |
| | RTD Coffee | RTD Coffee |
| | RTD Tea | Carbonated RTD Tea Still RTD Tea |
| | Sports & Energy | Energy Drinks Sports Drinks |
| | Asian Speciality | Asian Speciality Drinks |
| Breakfast Cereals | | Children's Breakfast Cereals Flakes Hot Cereals Muesli Other RTE Cereals |

Table 2. (Cont.).

| Food/Drink Category | Product Groups | Subcategory |
|---------------------|-----------------------|--|
| Dairy Products | Yoghurt | Drinking Yoghurt Flavoured Yoghurt Fruited Yoghurt Plain Yoghurt |
| | Drinks | Dairy Only Flavoured Milk Drinks Flavoured Milk Drinks With Fruit Juice Other Non-Dairy Milk Alternatives Soy Drinks Soy Milk |
| | Fromage Frais & Quark | Flavoured Fromage Frais & Quark Plain Fromage Frais & Quark Savoury Fromage Frais & Quark |
| | Desserts & Snacks | Chilled Dairy-Based Desserts Chilled Snacks Chilled Soy-Based Desserts Shelf Stable Dairy-Based Desserts Shelf Stable Soy-Based Desserts |
| | Sour Milk | Sour Milk Products |
| | Coffee Whiteners | Coffee Whiteners |
| | Frozen Products | Bulk Dairy Ice Cream Bulk Water Ice Cream Frozen Yoghurt Ice Cream Desserts Multi-Pack Dairy Ice Cream Multi-Pack Water Ice Cream Single Portion Dairy Ice Cream Single Portion Water Ice Cream |

3.3. Assigning total sugars

Although Euromonitor provides data on both market sizes/shares and nutrient content, the two databases are not directly integrated. The methodology used to extract total sugars content and market share (%) for each product is described below. The total sugars content and market share for individual products were then combined with the market volume of the corresponding subcategory to determine (i) the annual total retail (off-trade) volume sold per product, and (ii) the volume of total sugars sold per product. The latter volume has been used to estimate the volume of total sugars sold per food/drink category or group.

An initial list of products was generated from the market share data for all subcategories listed in *Table 2*. For each product, the brand name, subcategory and % market share were extracted from Euromonitor. For Soft Drinks, the % market volume share was extracted and for Breakfast Cereals and Dairy Products, the % market value share was extracted, as Euromonitor does not collect data on % market volume share for these categories. For each product, the name and subcategory were then checked against the Nutrition database and, if the product was located therein, the total sugars content per 100 g (or 100 ml) was extracted. The list was then checked for products with

- missing market share,
- zero market share,
- missing sugars content data.

Such products were removed from the list to yield the final list of products with a recorded total sugars content value and a non-zero market share in 2015. A total of 6711 products were identified: 2967 Soft Drinks, 869 Breakfast Cereals and 2875 Dairy Products. The number of products in each category and country is listed in *Table 3*. A complete breakdown by country and subcategory is given in *Annex 2*.

Table 3. Number of products extracted from the Euromonitor database, per category and per country. These numbers represent products that were on the market in 2015 and had their total sugars content per 100g recorded in the Nutrition database.

| Country | Soft Drinks | Breakfast Cereals | Dairy Products | Total |
|----------------|-------------|-------------------|----------------|-------------|
| Belgium | 99 | 44 | 153 | 296 |
| Bulgaria | 99 | 24 | 69 | 192 |
| Czech Republic | 167 | 43 | 189 | 399 |
| Denmark | 140 | 39 | 99 | 278 |
| Germany | 148 | 41 | 159 | 348 |
| Ireland | 101 | 55 | 118 | 274 |
| Greece | 85 | 29 | 110 | 224 |
| Spain | 108 | 30 | 147 | 285 |
| France | 138 | 44 | 135 | 317 |
| Italy | 128 | 30 | 152 | 310 |
| Hungary | 224 | 52 | 186 | 462 |
| Netherlands | 119 | 31 | 129 | 279 |
| Austria | 133 | 30 | 129 | 292 |
| Poland | 194 | 50 | 124 | 368 |
| Portugal | 82 | 44 | 103 | 229 |
| Romania | 97 | 21 | 67 | 185 |
| Slovakia | 156 | 36 | 104 | 296 |
| Finland | 198 | 40 | 163 | 401 |
| Sweden | 179 | 57 | 126 | 362 |
| United Kingdom | 170 | 59 | 174 | 403 |
| Norway | 119 | 38 | 122 | 279 |
| Switzerland | 83 | 32 | 117 | 232 |
| Total | 2967 | 869 | 2875 | 6711 |

For each listed product, the annual volume sold (in litres for Soft Drinks and tonnes for Breakfast Cereals and Dairy Products) was calculated using the % market share and the annual volume sold of the corresponding subcategory. Note that for Breakfast Cereals and Dairy Products, only the % value share was available. The assumption was made that the % value share corresponds to the % volume share, hence the value share was used to calculate the annual volume. This assumption can overestimate the market share of products that are more expensive per unit volume. The market coverage of the Soft Drinks, Breakfast Cereals and Dairy Products categories was then determined from the sum of total volumes of all products in each of the categories and the category annual volume extracted directly from Euromonitor.

Finally, the total volume of sugars sold annually per product was calculated from the product's total annual volume sold and the total sugars content per 100 g. These values could then be aggregated to assign sugars volumes per subcategory, group or category. The per capita values were obtained using 2015 mid-year population data from HFA-DB. Euromonitor endeavours to select the leading market products for data collection, typically ensuring comprehensive market coverage: this was a limitation in some cases, especially for private label products. Detailed market coverage of the products analysed herein is shown in *Table 4*, and a breakdown by subcategory is detailed in *Annex 3*.

Table 4. Percentage market coverage of products extracted from the Euromonitor database, per category and per country.

| Country | Soft Drinks | Breakfast Cereals | Dairy Products |
|----------------|-------------|-------------------|----------------|
| Belgium | 65.6 | 63.6 | 66.8 |
| Bulgaria | 68.5 | 66.8 | 51.1 |
| Czech Republic | 79.7 | 80.4 | 72.2 |
| Denmark | 80.8 | 65.4 | 66.5 |
| Germany | 65.2 | 66.6 | 61.2 |
| Ireland | 72.8 | 67.1 | 62.5 |

Table 4. (Cont.).

| Country | Soft Drinks | Breakfast Cereals | Dairy Products |
|----------------|-------------|-------------------|----------------|
| Greece | 83.8 | 71.9 | 77.3 |
| Spain | 73.9 | 70.1 | 73.8 |
| France | 82.5 | 67.6 | 64.7 |
| Italy | 74.7 | 84.3 | 79.8 |
| Hungary | 86.3 | 80.1 | 65.7 |
| Netherlands | 72.9 | 51.1 | 73.1 |
| Austria | 72.0 | 77.0 | 62.4 |
| Poland | 80.1 | 81.5 | 59.6 |
| Portugal | 55.6 | 83.7 | 82.0 |
| Romania | 92.3 | 49.1 | 46.0 |
| Slovakia | 76.6 | 84.3 | 63.7 |
| Finland | 90.4 | 88.0 | 84.0 |
| Sweden | 92.0 | 84.0 | 80.5 |
| United Kingdom | 82.7 | 75.8 | 70.2 |
| Norway | 85.6 | 73.9 | 83.7 |
| Switzerland | 71.0 | 56.5 | 52.8 |

4 . Baselines in 2015 for total sugars

The number of products and market coverage by subcategory are detailed in *Annexes 2* and *3*. Several subcategories appeared to be scarcely researched or were niche products with low product numbers representing significant market shares in some countries (*e.g.* two Soy Milk products represented 96% of the Greek market). The low product numbers in many subcategories prohibited an analysis of the distribution of total sugars content at the lowest subcategory level, despite relatively large market coverage in some cases. For this reason, the analysis focused on the food/drink category level, with additional analyses of some specific product groups outlined in *Table 2*.

The results are presented as distributions of total sugars content in grams per 100 ml for Soft Drinks and grams per 100 g for Breakfast Cereals and Dairy Products. All products in the Dairy Products category were extracted from Euromonitor in units of tonnes. This allowed for drinkable products such as milk drinks to be analysed in combination with solid products such as desserts. The weight-to-volume conversion was performed by Euromonitor before data extraction using 'standard conversion ratios'. The distributions of total sugars content for all 22 countries are graphically presented in boxplots, with summary statistics provided in accompanying tables. A guide to the graphical presentation of the data is provided in *Annex 4*. A European average is not provided as many products were sold in multiple countries and would thus be overrepresented in any such analysis. For each country, the box represents the middle 50% of the data points (each data point indicates the total sugars content per 100 g or 100 ml of an individual product). The lower edge of the box denotes the 25th percentile (1st quartile, Q_1) and the upper edge denotes the 75th percentile (3rd quartile, Q_3). A red horizontal line denotes the median value and its position within the box indicates the skewness of the total sugars content values. A green diamond denotes the arithmetic mean of the total sugars content of all products. Whiskers extending from the upper and lower edges of the box indicate data points that are within 1.5 times the interquartile range ($IQR = Q_3 - Q_1$) of the box edges. The whiskers extend to these values or to the closest data point within range. Outlier points are located outside the

whisker's range and are denoted by a red cross. These points represent products with extreme (high or low) total sugars content and were included in the calculation of the summary statistics, including the mean.

The total sugars content of products alone was not sufficient to provide a clear picture of the sugars market and was supplemented with market sales volumes to elucidate the 'true' total sugars content within a particular food/drink category. Therefore, in addition to the arithmetic mean, a weighted mean has been calculated whereby each product was weighted by its individual % market share. This is represented by a yellow square on the sugars distribution graphics. If the weighted mean was greater than the arithmetic mean, it indicates that the higher-sugars products were sold in larger quantities. Conversely, if the weighted mean was less than the arithmetic mean, it indicates that more sales came from the lower-sugars products, and the arithmetic mean has been skewed by low-selling high-sugars products. An alternative, and perhaps more intuitive, interpretation of the weighted mean is that it is in fact equal to the total volume of sugars sold through a group/category expressed as a percentage of the total volume of products sold through that group/category. This is explicitly shown in *Box 1*.

Box 1. *Explicit calculation of the weighted mean of total sugars content.*

For each food/drink category, the weighted mean total sugars content per 100 g (or 100 ml for Soft Drinks), which will be denoted by \bar{S} was calculated by scaling the total sugars content of each product with its % market share. If S_i represents the sugar content in grams per 100g (or 100 ml) of product i and M_i represents the % market share of product i , then the weighted mean is calculated as

$$\bar{S} = \frac{\sum_i (M_i S_i)}{\sum_i M_i}$$

Now, consider V_i to be the annual total retail (off-trade) volume of product i in grams (or millilitres). Then the annual retail volume of the food/drink category spanned by i will simply be $V = \sum_i V_i$. It follows that the annual volume of total sugars sold through product i is $\frac{(V_i S_i)}{100}$ and the total annual sugar volume of the food/drink category is

$$\sum_i \frac{(V_i S_i)}{100}$$

The percentage of the total volume that is sold within a category that is sugar is then

$$\frac{\sum_i (V_i S_i)}{V}$$

Box 1. (Cont.)

And, noting that the % market share of product i is just

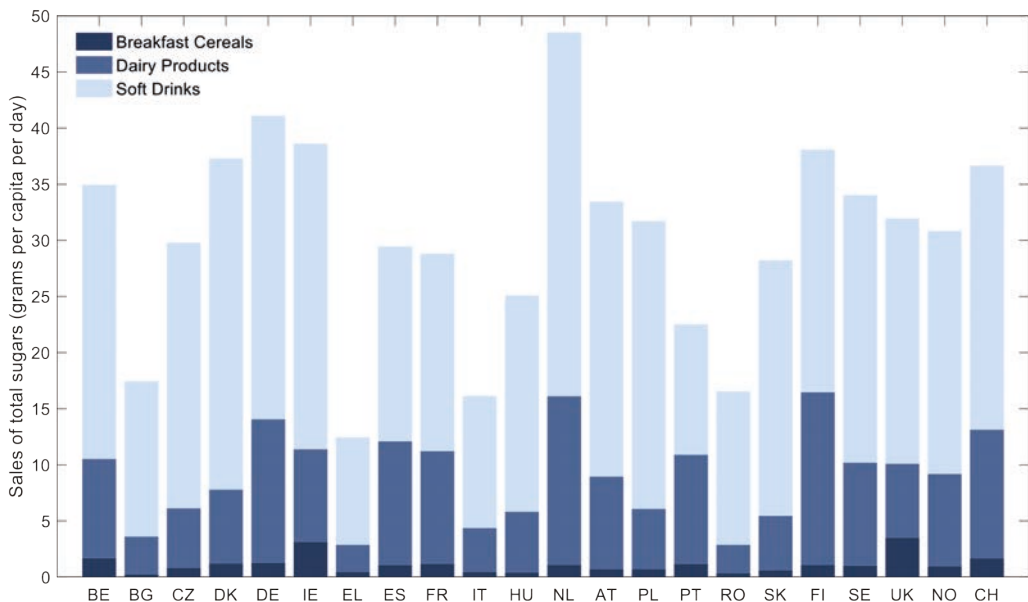
$$M_i = \frac{V_i}{V} \times 100,$$

It is then trivial to show that

$$\bar{S} = \frac{\sum_i (M_i S_i)}{\sum_i M_i} = \frac{\sum_i (V_i S_i)}{V}.$$

Figure 1 shows the volume of total sugars sold in 2015, in grams per capita per day and broken down by food/drink category. These sugars volumes were calculated from the products extracted from the database and were scaled by market coverage to yield values representative of the whole market. In all countries, Soft Drinks were sold in the largest volumes, followed by Dairy Products and finally Breakfast Cereals. The largest volume of sugars sold through these three food/drink categories was in the Netherlands and the smallest in Greece.

Figure 1. Sales of total sugars in 2015 calculated using Euromonitor data, grouped by food/drink category, with per capita values determined using mid-year populations from HFA-DB. Values were scaled by market coverage to represent 100% of the retail/off-trade market.



4.1. Soft Drinks (sugars sweetened beverages)

The 2015 sales of off-trade Soft Drink volumes, in litres per capita per day, are presented in *Figure 2*. The figure shows actual sales, representing 100% of the market, as extracted from the Euromonitor Soft Drinks database with per capita sales determined using mid-year 2015 population data extracted from HFA-DB. For ease of presentation, products have been grouped as detailed in *Table 2*. In all countries, Carbonates represented the largest per capita daily sales. Juice was typically the second largest drink type sold, except in the Czech Republic and Slovakia where more Water (excluding unflavoured water) was sold, and Portugal and Switzerland where more Ready-To-Drink (RTD) Tea was sold.

Nutrient composition data were extracted from the Euromonitor Nutrition database for a total of 2967 Soft Drink products across the 22 countries and from the 23 subcategories listed in *Table 2*. The distribution of these products per country is detailed in *Table 3* and the breakdown by subcategory is documented in *Annex 2, Table A.1*. Market coverage is detailed in *Table 4* and ranged from 55.6% in Portugal to 92.3% in Romania.

The sales of total sugars attributable to the product groups in the Soft Drinks category are shown in *Figure 3*, where volumes correspond to the market coverage detailed in *Table 4* and *Annex 3, Table A.4*. On the basis of this market coverage, Carbonates, Juice and Concentrates represented the bulk of sugars sales in all countries. More sugars were sold through Carbonates in all countries, except in Finland, where more sugars were sold through Juice. The largest volumes of sugars per capita per day were sold in Denmark and the Netherlands. Cumulatively, Carbonates, Concentrates and Juice represented over 90% of total sugars sales from the Soft Drink category in 9 countries.

Liquid Concentrates are typically diluted with water before consumption and this dilution ratio varies between products, countries and personal taste. Therefore, the distribution of total sugars content for this subcategory is presented separately in subsection 4.1.1. *Figure 4* shows the distribution of total sugars content, in grams per 100 ml, for products extracted from the Soft Drinks category (excluding Liquid Concentrates) in all 22 countries. For ease of presentation, the upper outliers are not

shown, but can be seen in the full figure provided in *Annex 5*. Summary statistics are given in *Table 5*, in some cases the maximum values correspond to outliers not shown in *Figure 4*. The mean total sugars content varied from a minimum value of 5.7 g/100 ml in Romania to a maximum of 9.3 g/100 ml in Italy. The weighted mean varied from a minimum of 5.9 g/100 ml in the Czech Republic to a maximum of 9.6 g/100 ml in Greece. The minimum total sugars content in all countries was 0g/100 ml, as the Soft Drinks category includes sugar-free products, which also lowered the weighted mean.

Figure 2. Off-trade volume sales of Soft Drink product groups in 2015, in litres per capita per day. Sales volumes were extracted from the Euromonitor Soft Drinks database and mid-year 2015 populations were obtained from HFA-DB.

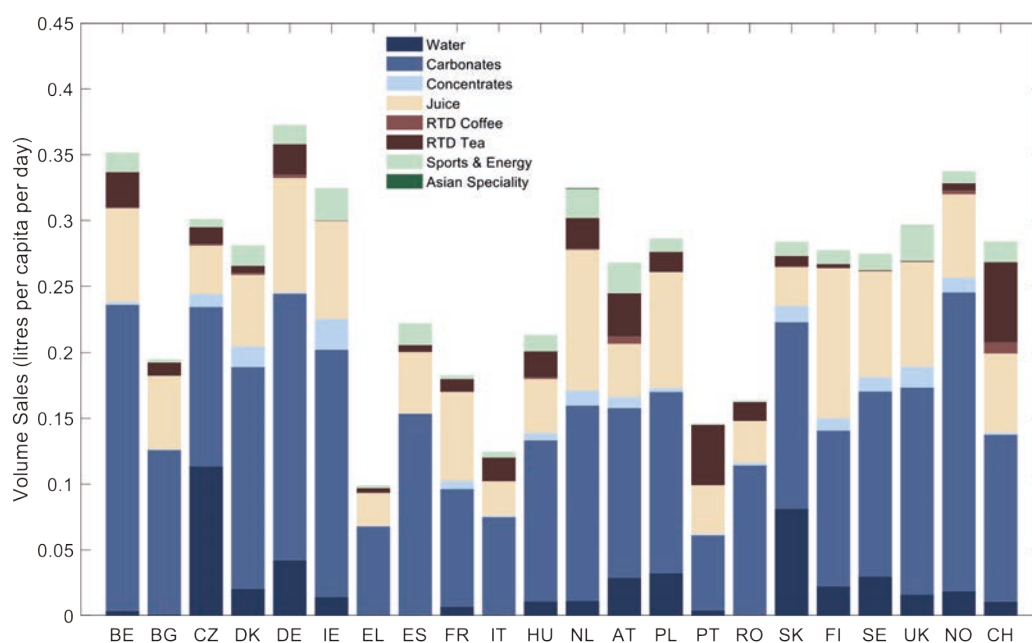


Figure 3. Sales of total sugars for Soft Drinks product groups in 2015, calculated using Euromonitor data, corresponding to market coverage in Table 4. The per capita values were calculated from the mid-year 2015 populations obtained from HFA-DB.

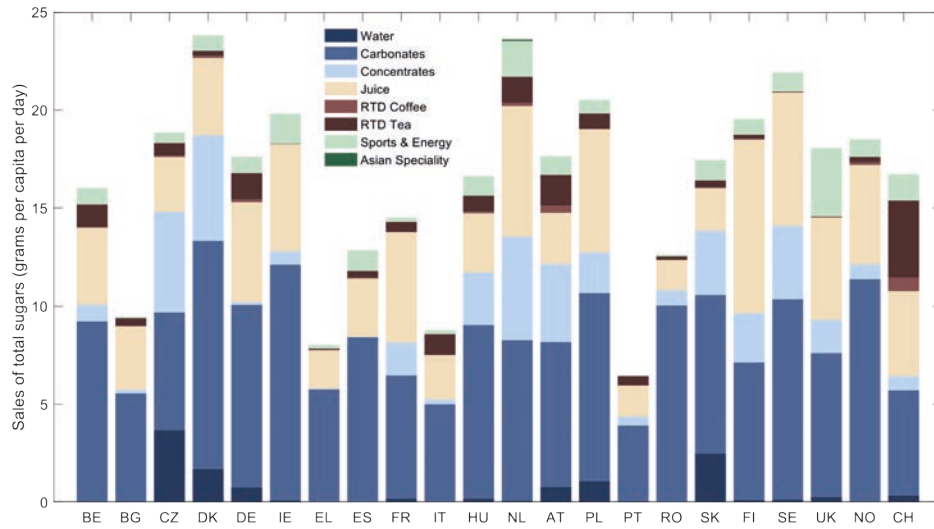


Figure 4. Distribution of total sugars content per 100 ml of Soft Drink products, excluding Liquid Concentrates (based on Euromonitor data, 2015). The green diamonds denote the arithmetic means and the yellow squares denote the weighted means, where the products' total sugars content has been weighted by % market share. See Annex 4 for a guide to the graphical representation of the data.

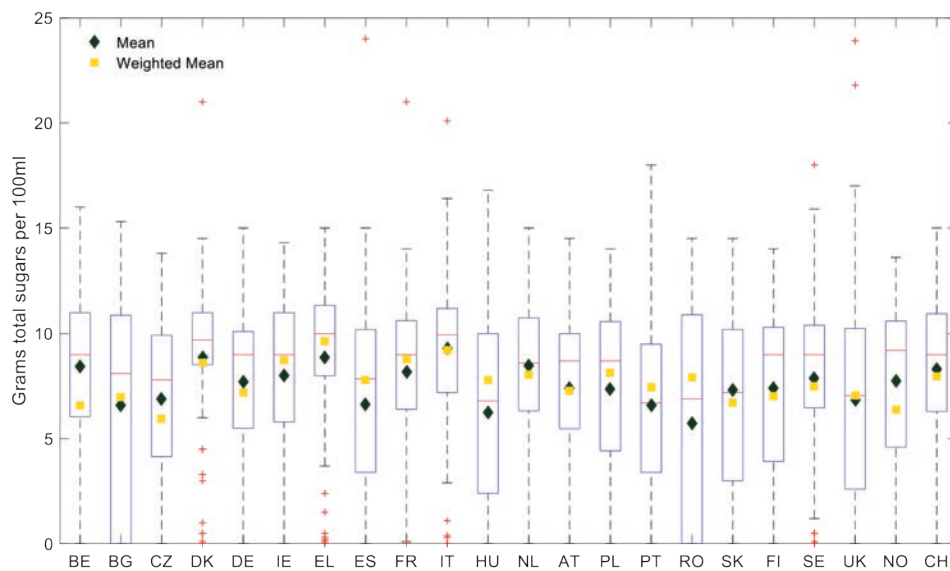


Table 5. Summary statistics of total sugars content for Soft Drinks in g/100 ml (based on Euro-monitor data, 2015), excluding Liquid Concentrates.

| Country | Weighted Mean | Mean | SD | Median | P25 | P75 | Min | Max |
|----------------|---------------|------|-----|--------|-----|------|-----|------|
| Belgium | 6.6 | 8.5 | 5.8 | 9.0 | 6.1 | 11.0 | 0.0 | 49.0 |
| Bulgaria | 7.0 | 6.6 | 5.0 | 8.1 | 0.0 | 10.9 | 0.0 | 15.3 |
| Czech Republic | 5.9 | 6.9 | 3.9 | 7.8 | 4.2 | 9.9 | 0.0 | 13.8 |
| Denmark | 8.6 | 8.9 | 3.6 | 9.7 | 8.5 | 11.0 | 0.0 | 21.0 |
| Germany | 7.2 | 7.7 | 3.4 | 9.0 | 5.5 | 10.1 | 0.0 | 15.0 |
| Ireland | 8.8 | 8.0 | 3.8 | 9.0 | 5.8 | 11.0 | 0.0 | 14.3 |
| Greece | 9.6 | 8.9 | 4.0 | 10.0 | 8.0 | 11.4 | 0.0 | 15.0 |
| Spain | 7.8 | 6.6 | 4.4 | 7.9 | 3.4 | 10.2 | 0.0 | 24.0 |
| France | 8.8 | 8.2 | 4.1 | 9.0 | 6.4 | 10.6 | 0.0 | 26.0 |
| Italy | 9.2 | 9.3 | 3.7 | 10.0 | 7.2 | 11.2 | 0.0 | 20.1 |
| Hungary | 7.8 | 6.2 | 4.3 | 6.8 | 2.4 | 10.0 | 0.0 | 16.8 |
| Netherlands | 8.0 | 8.5 | 7.7 | 8.6 | 6.3 | 10.8 | 0.0 | 70.0 |
| Austria | 7.3 | 7.4 | 3.6 | 8.7 | 5.6 | 10.0 | 0.0 | 14.5 |
| Poland | 8.1 | 7.4 | 3.8 | 8.7 | 4.4 | 10.6 | 0.0 | 14.0 |
| Portugal | 7.5 | 6.6 | 4.4 | 6.7 | 3.4 | 9.5 | 0.0 | 18.0 |
| Romania | 7.9 | 5.7 | 5.4 | 6.9 | 0.0 | 10.9 | 0.0 | 14.5 |
| Slovakia | 6.7 | 7.3 | 8.7 | 7.2 | 3.0 | 10.2 | 0.0 | 85.7 |
| Finland | 7.0 | 7.4 | 5.0 | 9.0 | 3.9 | 10.3 | 0.0 | 35.0 |
| Sweden | 7.5 | 7.9 | 3.9 | 9.0 | 6.5 | 10.4 | 0.0 | 18.0 |
| United Kingdom | 7.1 | 6.9 | 6.1 | 7.1 | 2.6 | 10.3 | 0.0 | 54.5 |
| Norway | 6.4 | 7.7 | 4.0 | 9.2 | 4.6 | 10.6 | 0.0 | 13.6 |
| Switzerland | 8.0 | 8.3 | 3.2 | 9.0 | 6.3 | 11.0 | 0.0 | 15.0 |

4.1.1. Liquid Concentrates

Liquid Concentrates are presented separately due to their often high total sugars content, as they are sold in a concentrated form. These products are typically diluted with water before consumption, which prohibited a comparison with other RTD beverages. The variance of total sugars content (g/100 ml), is shown in *Figure 5* for all 22 countries and summary statistics are given in *Table 6*. The large dispersion seen in most countries is attributable to the inclusion of both sugar-free (or no added sugars) and regular varieties in this product subcategory. The means and weighted means varied significantly between countries. For example, the unusually low values in Ireland can be clearly attributed to the majority of products sampled being ‘no added sugar’ variants. Ultimately, this analysis highlighted the large variations in sugars content within this subcategory.

Figure 5. Distribution of total sugars content per 100ml of Liquid Concentrate products (based on Euromonitor data, 2015). The green diamonds denote the arithmetic means and the yellow squares denote the weighted means, where the products’ total sugars content has been weighted by % market share. See Annex 4 for a guide to the graphical representation of the data.

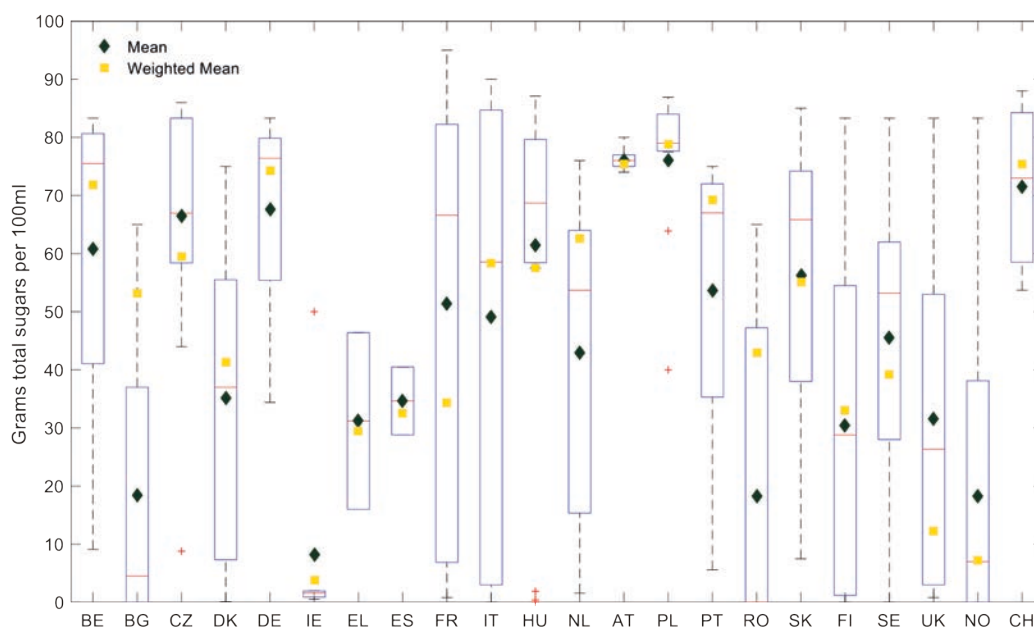


Table 6. Summary statistics of total sugars content for Liquid Concentrates in g/100ml (based on Euromonitor data, 2015)

| Country | Weighted Mean | Mean | SD | Median | P25 | P75 | Min | Max |
|----------------|---------------|------|------|--------|------|------|------|------|
| Belgium | 71.8 | 60.9 | 34.8 | 75.5 | 41.1 | 80.7 | 9.1 | 83.3 |
| Bulgaria | 53.2 | 18.5 | 31.3 | 4.5 | 0.0 | 37.0 | 0.0 | 65.0 |
| Czech Republic | 59.5 | 66.4 | 20.0 | 67.0 | 58.4 | 83.3 | 8.8 | 86.0 |
| Denmark | 41.3 | 35.2 | 27.3 | 37.0 | 7.3 | 55.5 | 0.1 | 75.0 |
| Germany | 74.2 | 67.6 | 22.4 | 76.4 | 55.4 | 79.9 | 34.4 | 83.3 |
| Ireland | 3.8 | 8.3 | 18.4 | 1.6 | 0.9 | 1.95 | 0.5 | 50.0 |
| Greece* | 29.5 | 31.2 | 21.5 | 31.2 | 16.0 | 46.4 | 16.0 | 46.4 |
| Spain* | 32.5 | 34.7 | 8.3 | 34.7 | 28.8 | 40.5 | 28.8 | 40.5 |
| France | 34.3 | 51.4 | 37.4 | 66.6 | 6.9 | 82.3 | 0.8 | 95.0 |
| Italy | 58.4 | 49.1 | 42.3 | 58.6 | 3.0 | 84.7 | 0.0 | 90.0 |
| Hungary | 57.6 | 61.4 | 28.0 | 68.7 | 58.5 | 79.7 | 0.0 | 87.1 |
| Netherlands | 62.6 | 43.0 | 28.6 | 53.7 | 15.4 | 64.0 | 1.6 | 76.0 |
| Austria | 75.4 | 76.0 | 1.7 | 76.0 | 75.0 | 77.0 | 74.0 | 80.0 |
| Poland | 78.8 | 76.0 | 13.4 | 79.0 | 77.6 | 84.0 | 40.0 | 86.9 |
| Portugal | 69.2 | 53.7 | 32.3 | 67.0 | 35.3 | 72.0 | 5.6 | 75.0 |
| Romania | 43.0 | 18.3 | 31.0 | 0.0 | 0.0 | 47.3 | 0.0 | 65.0 |
| Slovakia | 55.1 | 56.2 | 25.2 | 65.9 | 38.0 | 74.2 | 7.5 | 85.0 |
| Finland | 33.1 | 30.4 | 28.8 | 28.8 | 1.2 | 54.5 | 0.0 | 83.3 |
| Sweden | 39.1 | 45.6 | 24.6 | 53.2 | 28.0 | 62.0 | 0.0 | 83.3 |
| United Kingdom | 12.2 | 31.6 | 30.8 | 26.4 | 3.0 | 53.0 | 0.8 | 83.3 |
| Norway | 7.3 | 18.3 | 25.6 | 7.0 | 0.0 | 38.1 | 0.0 | 83.3 |
| Switzerland | 75.4 | 71.6 | 17.2 | 73.0 | 58.5 | 84.3 | 53.7 | 88.0 |

* Sample contained only two products.

4.1.2. Low-Calorie and Regular Cola Carbonates

The product group of Carbonates represented the largest off-trade volume sales in the Soft Drinks category in all 22 countries as well as the largest contributor of this category to daily per capita sugars sales in 21 countries. This group includes both sugar-free and regular varieties. Within the group, Standard Regular Cola contributed to over 50% of daily per capita sugars sales in 16 countries. Data on off-trade volume sales and total sugars sales (corresponding to market coverage, detailed in *Table 4* and *Annex 3*) are documented in *Table 7* for Regular Cola Carbonates and Low-Calorie Cola Carbonates, including both Standard and Speciality varieties. There was no Cola Carbonate product extracted from the database for four countries (Bulgaria, Ireland, Spain and Switzerland): although products in the corresponding subcategories were present in the database for all countries, it was found on a closer inspection that no sugars data has been recorded for them. Of the countries for which data was available, there were only three where more Low-Calorie Cola Drinks were sold than Regular Cola Drinks: Belgium, the UK and Norway. In contrast, some countries sold significantly more Regular Cola than Low Calorie, for example over 90% of the Cola sold in Slovakia was of the Regular variety. The arithmetic and weighted means for the Cola products are given in *Table 8*.

Table 7. Off-trade volume sales and total sugars sales of Regular and Low-Calorie Cola Carbonate Drinks in 2015 (including both Standard and Speciality varieties), corresponding to market coverage detailed in *Table 4* and *Annex 3*. The per capita rates were calculated using mid-year 2015 population data from HFA-DB.

| Country | Regular Cola Carbonates | | Low-Calorie Cola Carbonates | |
|----------------|--|---|--|---|
| | Volume sales (millilitre per capita per day) | Sugars sales (grams per capita per day) | Volume Sales (millilitre per capita per day) | Sugars Sales (grams per capita per day) |
| Belgium | 53.2 | 5.7 | 62.5 | 0.020 |
| Bulgaria | 29.2 | 3.2 | 0.0 | 0.000 |
| Czech Republic | 54.4 | 4.8 | 11.5 | 0.002 |
| Denmark | 62.2 | 6.7 | 33.2 | 0.130 |

Table 7. (Cont.).

| Country | Regular Cola Carbonates | | Low-Calorie Cola Carbonates | |
|----------------|--|---|--|---|
| | Volume sales (millilitre per capita per day) | Sugars sales (grams per capita per day) | Volume Sales (millilitre per capita per day) | Sugars Sales (grams per capita per day) |
| Germany | 37.8 | 4.0 | 30.7 | 0.370 |
| Ireland | 60.1 | 6.4 | 0.0 | 0.000 |
| Greece | 33.6 | 3.6 | 5.4 | 0.000 |
| Spain | 61.1 | 6.2 | 0.0 | 0.000 |
| France | 44.2 | 4.7 | 11.5 | 0.030 |
| Italy | 28.4 | 3.1 | 4.7 | 0.002 |
| Hungary | 54.1 | 5.5 | 10.9 | 0.050 |
| Netherlands | 42.4 | 4.5 | 15.4 | 0.060 |
| Austria | 36.4 | 3.9 | 17.4 | 0.003 |
| Poland | 64.1 | 6.8 | 9.4 | 0.006 |
| Portugal | 24.8 | 2.5 | 3.8 | 0.001 |
| Romania | 51.9 | 5.5 | 6.7 | 0.002 |
| Slovakia | 45.3 | 4.4 | 4.2 | 0.040 |
| Finland | 33.2 | 3.4 | 30.0 | 0.050 |
| Sweden | 51.6 | 5.4 | 27.9 | 0.130 |
| United Kingdom | 43.3 | 4.5 | 45.1 | 0.030 |
| Norway | 68.3 | 7.3 | 92.6 | 0.003 |
| Switzerland | 32.1 | 3.4 | 0.0 | 0.000 |

Table 8. Mean and weighted mean of total sugars content, in g/100ml, for Regular and Low-Calorie Cola Carbonate Drinks including Standard and Speciality varieties (based on Euromonitor data, 2015).

| Country | Regular Cola Carbonates | | Low-Calorie Cola Carbonates | |
|----------------|-------------------------|------|-----------------------------|------|
| | Weighted Mean | Mean | Weighted Mean | Mean |
| Belgium | 10.6 | 10.4 | 0.02 | 1.68 |
| Bulgaria | 10.9 | 5.4 | - | - |
| Czech Republic | 8.8 | 8.4 | 0.02 | 0.03 |
| Denmark | 10.7 | 10.8 | 0.39 | 1.23 |
| Germany | 10.5 | 10.4 | 1.19 | 2.05 |
| Ireland | 10.6 | 9.9 | - | - |
| Greece | 10.6 | 10.6 | 0.00 | 0.02 |
| Spain | 10.1 | 6.8 | - | - |
| France | 10.7 | 11.4 | 0.26 | 2.35 |
| Italy | 10.9 | 10.7 | 0.05 | 0.08 |
| Hungary | 10.2 | 7.6 | 0.44 | 1.28 |
| Netherlands | 10.7 | 10.8 | 0.37 | 0.76 |
| Austria | 10.6 | 10.4 | 0.02 | 0.08 |
| Poland | 10.5 | 10.0 | 0.06 | 0.07 |
| Portugal | 10.2 | 9.9 | 0.04 | 0.10 |
| Romania | 10.6 | 6.5 | 0.03 | 0.05 |
| Slovakia | 9.7 | 8.6 | 0.84 | 2.74 |
| Finland | 10.2 | 8.9 | 0.17 | 0.75 |
| Sweden | 10.5 | 10.5 | 0.47 | 0.98 |
| United Kingdom | 10.5 | 10.3 | 0.07 | 0.58 |
| Norway | 10.6 | 8.8 | 0.00 | 0.02 |
| Switzerland | 10.6 | 10.7 | - | - |

4.2. Breakfast Cereals

The 2015 retail volume sales of Breakfast Cereals, in grams per capita per day, are presented in *Figure 6*. The figure shows sales representing 100% of the market, as extracted from the Euromonitor Packaged Food database, with per capita values calculated using mid-year 2015 populations extracted from HFA-DB. The largest daily per capita sales of Breakfast Cereal products were in the Nordic countries, Ireland and the UK. In the Nordic countries, sales were mostly composed of Hot Cereals, whereas large volumes of all cereal subcategories were sold in Ireland and the UK.

Nutrient composition data for a total of 869 Breakfast Cereal products across the 22 countries from the 5 subcategories listed in *Table 2* were extracted from the Euromonitor database. The distribution of these products per country is detailed in *Table 3* and the breakdown by subcategory is documented in *Annex 2, Table A.2*. Market coverage is detailed in *Table 4* and ranged from 49.1% in Romania to 88% in Finland.

The sales of total sugars attributable to each subcategory are shown in *Figure 7*, corresponding to market coverage detailed in *Table 4* and *Annex 3, Table A.5*. This breakdown of the sugars shows that in 12 of the 22 countries, Children's Breakfast Cereals contributed the greatest to sugars sales. Muesli was the largest contributor in 8 countries, which may partly be due to the presence of intrinsic sugars from the fruit and nut ingredients.

The distribution of total sugars content per 100 g of Breakfast Cereal products, as a category, in each country is shown in *Figure 8* and the associated summary statistics are detailed in *Table 9*. The boxplot clearly shows the large spread of the sugars content values, which typically ranged from approximately 1 g/100 g to 40 g/100 g, which resulted from the aggregation of product subcategories with substantially different nutrient profiles. The weighted means per subcategory are provided in *Table 10*. For most countries, Children's Breakfast Cereals had the highest weighted means and Hot Cereals had the lowest. Overall, the Nordic countries were notable for the low weighted means, which can be attributed to their high sales volumes of Hot Cereals, as the weighted means for other subcategories did not differ substantially from other countries.

Figure 6. Retail volume sales of Breakfast Cereal products, by subcategory, in grams per capita per day, in 2015. Sales volumes were extracted from the Euromonitor Packaged Food database and mid-year 2015 populations were obtained from HFA-DB.

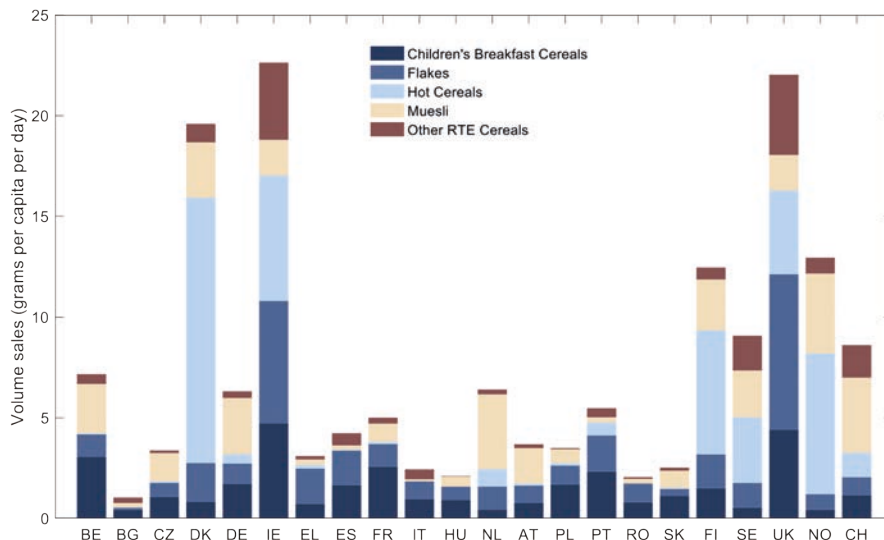


Figure 7. Sales of total sugars in 2015 of Breakfast Cereal products, by subcategory, in grams per capita per day, calculated using Euromonitor data and corresponding to market coverage detailed in Table 4 and Annex 3. The per capita values were calculated from the mid-year 2015 populations obtained from HFA-DB.

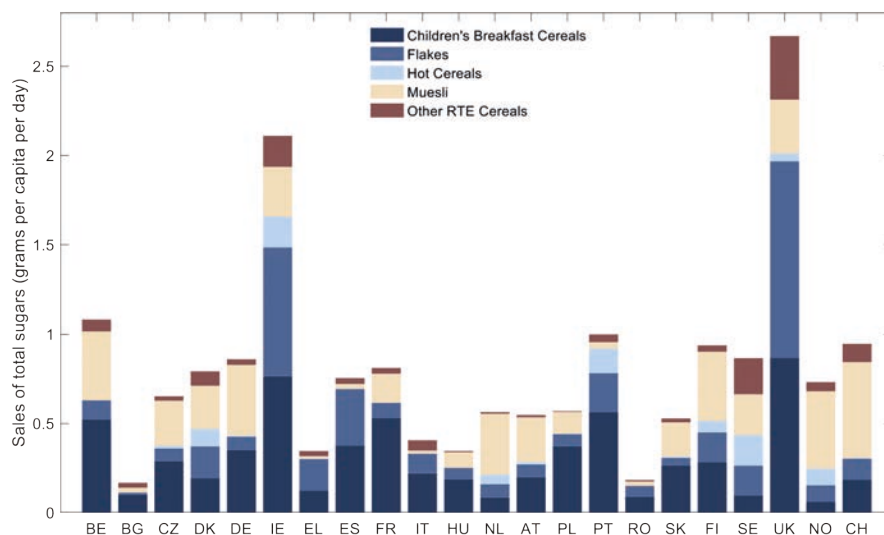


Figure 8. Distribution of total sugars content per 100 g of Breakfast Cereal products (based on Euromonitor data, 2015). The green diamonds denote the arithmetic means and the yellow squares denote the weighted means, where the products' total sugars content has been weighted by % market share. See Annex 4 for guide to the graphical representation of the data.

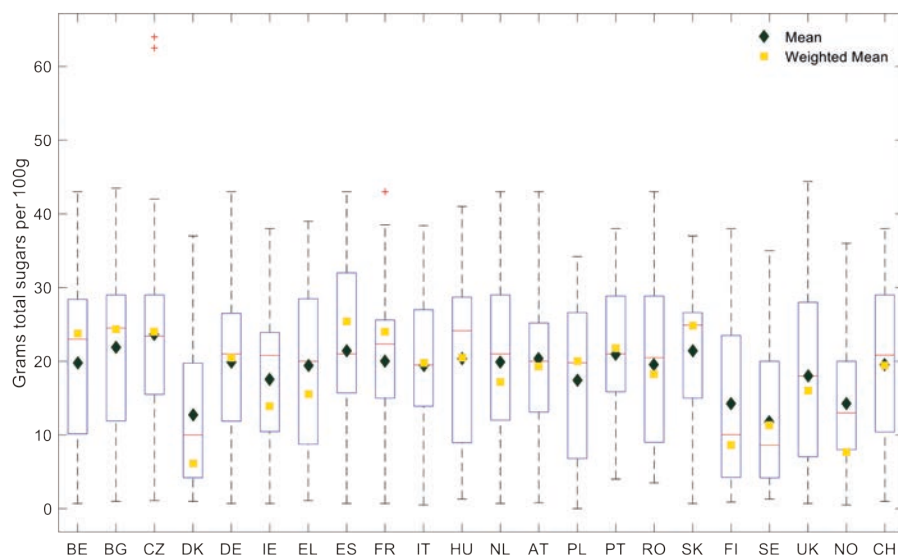


Table 9. Summary statistics of total sugars content for Breakfast Cereals, in g/100g, in 2015, calculated using Euromonitor data.

| Country | Weighted Mean | Mean | SD | Median | P25 | P75 | Min | Max |
|----------------|---------------|------|------|--------|------|------|-----|------|
| Belgium | 23.7 | 19.8 | 11.2 | 23.0 | 10.2 | 28.4 | 0.7 | 43.0 |
| Bulgaria | 24.3 | 21.9 | 11.2 | 24.5 | 11.9 | 29.0 | 1.0 | 43.5 |
| Czech Republic | 24.1 | 23.7 | 12.8 | 23.4 | 15.5 | 29.0 | 1.1 | 64.0 |
| Denmark | 6.2 | 12.7 | 10.3 | 10.0 | 4.2 | 19.8 | 1.0 | 37.0 |
| Germany | 20.5 | 19.9 | 10.1 | 21.0 | 11.9 | 26.5 | 0.7 | 43.0 |
| Ireland | 13.9 | 17.6 | 9.7 | 20.8 | 10.5 | 23.9 | 0.7 | 38.0 |
| Greece | 15.5 | 19.5 | 10.5 | 20.0 | 8.8 | 28.5 | 1.1 | 39.0 |
| Spain | 25.4 | 21.4 | 12.0 | 21.0 | 15.7 | 32.0 | 0.7 | 43.0 |
| France | 24.0 | 20.0 | 10.0 | 22.4 | 15.0 | 25.6 | 0.7 | 43.0 |

Table 9. (Cont.).

| Country | Weighted Mean | Mean | SD | Median | P25 | P75 | Min | Max |
|----------------|---------------|------|------|--------|------|------|-----|------|
| Italy | 19.8 | 19.5 | 10.7 | 19.5 | 13.9 | 27.0 | 0.5 | 38.4 |
| Hungary | 20.5 | 20.4 | 10.5 | 24.2 | 9.0 | 28.7 | 1.3 | 41.0 |
| Netherlands | 17.2 | 19.8 | 11.7 | 21.0 | 12.0 | 29.0 | 0.7 | 43.0 |
| Austria | 19.3 | 20.4 | 10.1 | 20.0 | 13.1 | 25.2 | 0.8 | 43.0 |
| Poland | 20.0 | 17.4 | 10.9 | 19.8 | 6.8 | 26.6 | 0.0 | 34.2 |
| Portugal | 21.8 | 20.9 | 9.1 | 21.0 | 15.9 | 28.9 | 4.0 | 38.0 |
| Romania | 18.2 | 19.6 | 11.4 | 20.5 | 9.0 | 28.9 | 3.5 | 43.0 |
| Slovakia | 24.9 | 21.5 | 10.4 | 24.9 | 15.0 | 26.6 | 0.7 | 37.0 |
| Finland | 8.6 | 14.2 | 11.3 | 10.1 | 4.3 | 23.5 | 0.9 | 38.0 |
| Sweden | 11.5 | 11.8 | 9.4 | 8.6 | 4.2 | 20.0 | 1.3 | 35.0 |
| United Kingdom | 16.0 | 18.0 | 12.0 | 18.0 | 7.1 | 28.0 | 0.7 | 44.4 |
| Norway | 7.7 | 14.3 | 9.3 | 13.0 | 8.0 | 20.0 | 0.5 | 36.0 |
| Switzerland | 19.5 | 19.6 | 11.0 | 20.9 | 10.4 | 29.0 | 1.0 | 38.0 |

Table 10. Weighted mean of the total sugars content, in g/100g, for Breakfast Cereal subcategories in 2015, calculated using Euromonitor data.

| Country | Children's Breakfast Cereals | Flakes | Hot Cereals | Muesli | Other RTE Cereals |
|----------------|------------------------------|--------|-------------|--------|-------------------|
| Belgium | 29.8 | 14.0 | 1.4 | 22.4 | 22.9 |
| Bulgaria | 29.0 | 16.6 | - | 20.9 | 20.4 |
| Czech Republic | 32.8 | 13.6 | 22.5 | 22.0 | 25.9 |
| Denmark | 29.3 | 12.0 | 1.2 | 12.1 | 12.8 |
| Germany | 29.2 | 11.8 | 1.2 | 22.1 | 15.6 |
| Ireland | 25.4 | 17.0 | 3.8 | 21.2 | 8.1 |
| Greece | 26.8 | 13.0 | 1.1 | 15.6 | 18.4 |

Table 10. (Cont.).

| Country | Children's Breakfast Cereals | Flakes | Hot Cereals | Muesli | Other RTE Cereals |
|----------------|------------------------------|--------|-------------|--------|-------------------|
| Spain | 33.4 | 21.2 | 1.6 | 23.2 | 15.9 |
| France | 29.8 | 13.5 | 1.5 | 22.6 | 19.1 |
| Italy | 28.9 | 13.9 | - | 20.4 | 14.2 |
| Hungary | 25.5 | 11.2 | 25.0 | 24.5 | 27.2 |
| Netherlands | 27.1 | 13.5 | 7.2 | 21.1 | 14.6 |
| Austria | 29.9 | 12.8 | 22.6 | 17.0 | 14.6 |
| Poland | 26.3 | 9.4 | 2.1 | 20.4 | 25.3 |
| Portugal | 29.0 | 13.7 | 27.6 | 18.3 | 12.6 |
| Romania | 26.0 | 12.1 | - | 23.4 | 17.9 |
| Slovakia | 27.8 | 15.9 | 18.8 | 26.0 | 17.4 |
| Finland | 26.3 | 10.6 | 1.1 | 17.3 | 8.8 |
| Sweden | 23.5 | 14.1 | 6.3 | 12.6 | 13.7 |
| United Kingdom | 25.3 | 19.7 | 1.5 | 21.3 | 10.8 |
| Norway | 26.4 | 14.6 | 1.7 | 16.3 | 8.3 |
| Switzerland | 28.6 | 17.2 | 1.0 | 20.9 | 18.1 |

4.3. Dairy Products

Nutrient composition data were extracted from the Euromonitor database for a total of 2875 Dairy Products across the 22 countries and from the 27 subcategories listed in *Table 2*. This category includes all flavoured milk drinks and milk alternatives, but excludes unflavoured milks. The distribution of these products per country is detailed in *Table 3* and the breakdown by subcategory is documented in *Annex 2, Table A.3*. Market coverage is detailed in *Table 4* and ranged from 46% in Romania to 83.7% in Norway. *Figure 9* shows the retail volume sales in grams per capita per day, as extracted from the Euromonitor Packaged Food database. The largest volumes of Dairy Products were sold in Finland and the Netherlands. In all

countries, Yoghurts represented the largest proportion of the daily per capita sales, with notable quantities of Desserts & Snacks and Sour Milk products also sold in The Netherlands and Finland respectively. Sour Milk was the subcategory sold in the largest quantities in the Nordic countries.

The sales of total sugars attributable to the various groups of Dairy Products are shown in *Figure 10*, corresponding to market coverage detailed in *Table 4* and *Annex 3, Table A.6*. On the basis of this market coverage, Yoghurts represented a large proportion of the total sugars sales in all countries. In many countries, substantial volumes of sugars were sold through Frozen Products (dairy- and water-based) and Desserts & Snacks (dairy- and soy-based). Due to the heterogeneous nature of the products in this category and the different consumption patterns among countries (e.g. as dietary staples, as opposed to infrequent dessert/snack items), several sub-categories have been examined in greater detail.

Figure 9. Retail volume sales of Dairy Product groups, in grams per capita per day, in 2015. Sales volumes were extracted from the Euromonitor Packaged Food database and mid-year 2015 populations were obtained from HFA-DB.

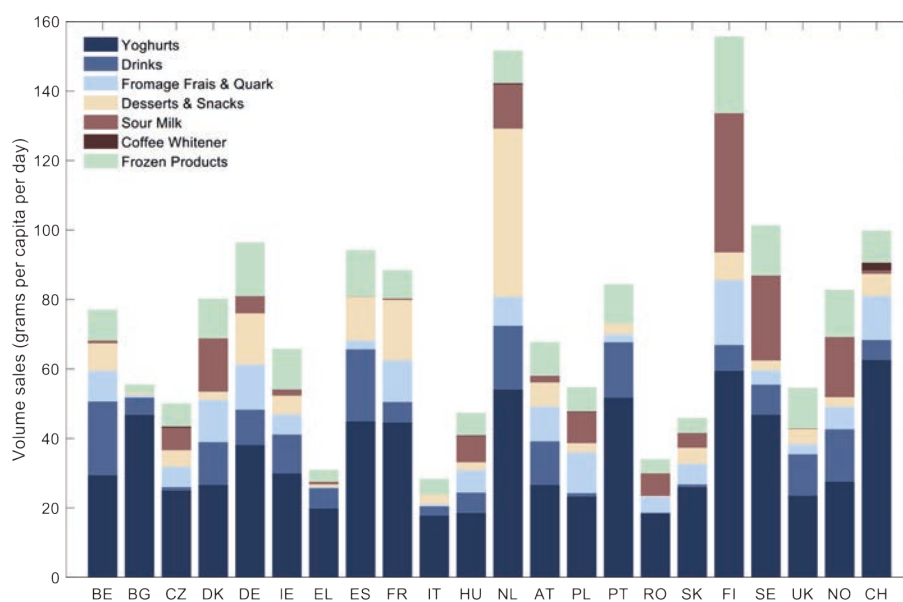
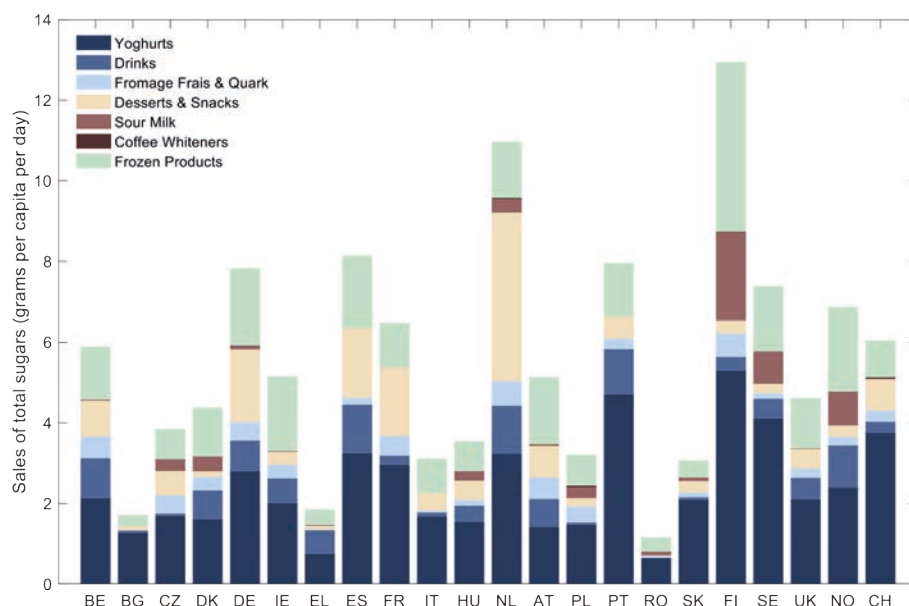


Figure 10. Sales of total sugars for Dairy Product groups (based on Euromonitor data, 2015) corresponding to the market coverage detailed in Table 4 and Annex 3. The per capita values were calculated from the mid-year 2015 populations obtained from HFA-DB.



4.3.1. Yoghurts

Data were extracted for a total of 850 Yoghurt products distributed as follows: 254 Plain Yoghurts, 193 Flavoured Yoghurts, 262 Fruited Yoghurts and 141 Drinking Yoghurts. The breakdown by country is detailed in *Annex 2, Table A.3*. The largest daily per capita volumes sold were in Switzerland, Finland and the Netherlands (*Figure 11*). Fruited Yoghurts accounted for the highest proportion of sales in 13 countries, reaching over 60% of total per capita Yoghurt sales in each of the Nordic countries and the UK. Plain Yoghurts had the highest portion of sales in only four countries, representing over 90% of Yoghurt sales in Bulgaria and Greece. Less than 5% of Yoghurt sales were of the Plain variety in Portugal and Sweden. Drinking Yoghurts accounted for the highest proportion of sales in three coun-

tries, accounting for over 50% of all Yoghurt sales in Portugal. Finally, the subcategory of Flavoured Yoghurts was the strongest seller in Spain and Italy.

Figure 12 shows the sales of total sugars from each Yoghurt subcategory, representing the market coverage detailed in *Table 4* and *Annex 3, Table A.6*. On the basis of this market coverage, the highest proportion of sugars sold in 15 of the 22 countries came from Fruited Yoghurts, which amounted to over 70% of sugars sold in Finland, Sweden and the UK. Of particular note is the situation in Bulgaria, where Yoghurt retail volume sales were comparatively high in relation to other countries; yet, due to the large consumption of Plain Yoghurts, the sales of total sugars was in line with other countries or even lower than most.

The distribution of the total sugars content per 100 g of the Yoghurts product group in each country is shown in *Figure 13* and the associated summary statistics are detailed in *Table 11*. The boxplot shows a large spread in the data, with an average IQR of 7.7 g/100 g and an average range of 17 g/100 g. In most countries, the weighted mean exceeded the arithmetic mean, indicating that larger volumes of products with high sugars content were sold. Countries where relatively large volumes of Plain Yoghurts were sold, such as Bulgaria and Greece, had notably smaller weighted means.

The weighted mean by Yoghurt subcategory is detailed in *Table 12*. Quite a large variation can be observed between countries, especially in the Plain Yoghurt subcategory where total sugars content went from as low as 3.7 g/100 g in Denmark to as high as 8.4 g/100 g in Italy. It is notable that some Plain Yoghurt products were clearly sweetened, as can be seen from the distribution of the total sugars in *Figure 14*, with many products exceeding 5 g/100 g.

Figure 11. Retail volume sales of Yoghurt subcategories, in grams per capita per day, in 2015. Sales volumes were extracted from the Euromonitor Packaged Food database and mid-year 2015 populations were obtained from the HFA-DB.

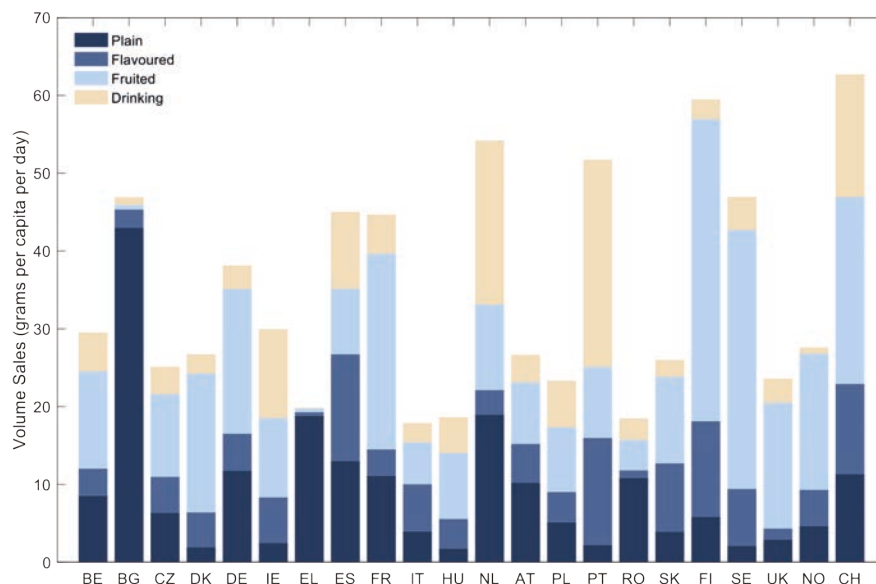


Figure 12. Sales of total sugars for Yoghurt subcategories, in grams per capita per day (based on Euromonitor data, 2015), corresponding to market coverage detailed in Table 4 and Annex 3. The per capita values were calculated from the mid-year 2015 populations obtained from HFA-DB.

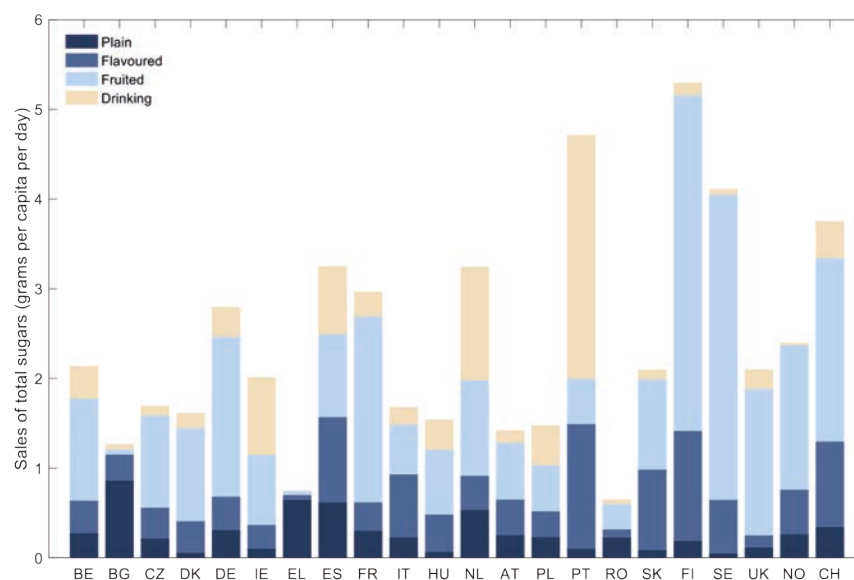


Figure 13. Distribution of total sugars content per 100g of Yoghurt products (based on Euromonitor data, 2015). The green diamonds denote the arithmetic means and the yellow squares denote the weighted means, where the products' total sugars content has been weighted by % market share. See Annex 4 for a guide to the graphical representation of the data.

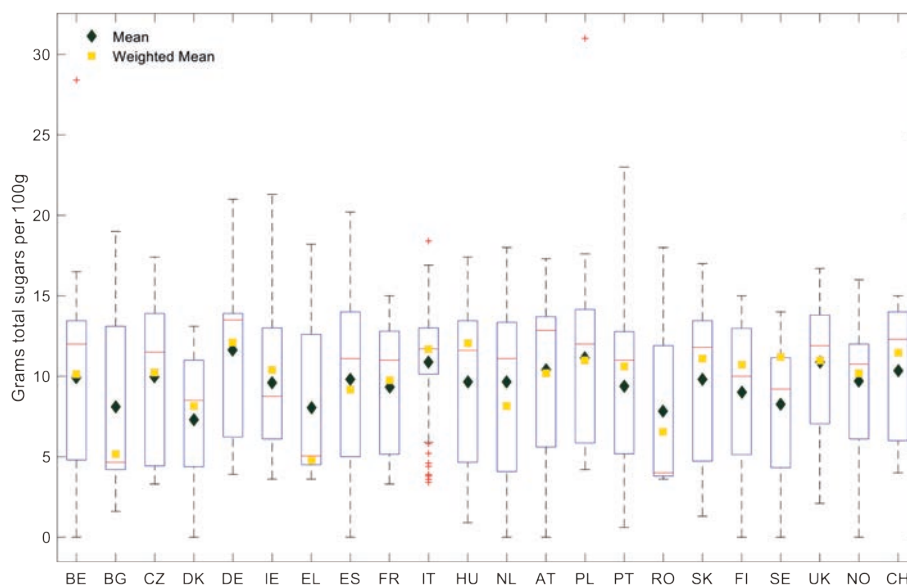


Table 11. Summary statistics of the total sugars content for Yoghurt products (including Plain, Flavoured, Fruited and Drinking varieties), in g/100g, (based on Euromonitor data, 2015).

| Country | Weighted Mean | Mean | SD | Median | P25 | P75 | Min | Max |
|----------------|---------------|------|-----|--------|-----|------|-----|------|
| Belgium | 10.1 | 9.9 | 5.5 | 12.0 | 4.8 | 13.5 | 0.0 | 28.4 |
| Bulgaria | 5.1 | 8.1 | 5.1 | 4.7 | 4.2 | 13.1 | 1.6 | 19.0 |
| Czech Republic | 10.2 | 10.0 | 4.6 | 11.5 | 4.4 | 13.9 | 3.3 | 17.4 |
| Denmark | 8.2 | 7.3 | 4.1 | 8.5 | 4.4 | 11.0 | 0.0 | 13.1 |
| Germany | 12.1 | 11.6 | 4.7 | 13.5 | 6.2 | 13.9 | 3.9 | 21.0 |
| Ireland | 10.4 | 9.6 | 4.1 | 8.8 | 6.1 | 13.0 | 3.6 | 21.3 |
| Greece | 4.8 | 8.0 | 4.5 | 5.1 | 4.5 | 12.6 | 3.6 | 18.2 |
| Spain | 9.2 | 9.8 | 4.9 | 11.1 | 5.0 | 14.0 | 0.0 | 20.2 |
| France | 9.7 | 9.3 | 3.9 | 11.0 | 5.2 | 12.8 | 3.3 | 15.0 |

Table 11. (Cont.).

| Country | Weighted Mean | Mean | SD | Median | P25 | P75 | Min | Max |
|----------------|---------------|------|-----|--------|------|------|-----|------|
| Italy | 11.7 | 10.9 | 3.5 | 11.7 | 10.1 | 13.0 | 3.4 | 18.4 |
| Hungary | 12.0 | 9.6 | 4.7 | 11.6 | 4.7 | 13.5 | 0.9 | 17.4 |
| Netherlands | 8.2 | 9.6 | 4.8 | 11.1 | 4.1 | 13.4 | 0.0 | 18.0 |
| Austria | 10.2 | 10.4 | 4.7 | 12.9 | 5.6 | 13.7 | 0.0 | 17.3 |
| Poland | 11.0 | 11.2 | 5.4 | 12.0 | 5.9 | 14.2 | 4.2 | 31.0 |
| Portugal | 10.6 | 9.4 | 4.6 | 11.0 | 5.2 | 12.8 | 0.6 | 23.0 |
| Romania | 6.6 | 7.8 | 4.7 | 4.0 | 3.8 | 11.9 | 3.6 | 18.0 |
| Slovakia | 11.1 | 9.8 | 4.6 | 11.8 | 4.7 | 13.5 | 1.3 | 17.0 |
| Finland | 10.7 | 9.0 | 4.2 | 10.0 | 5.1 | 13.0 | 0.0 | 15.0 |
| Sweden | 11.2 | 8.3 | 3.8 | 9.2 | 4.3 | 11.2 | 0.0 | 14.0 |
| United Kingdom | 11.0 | 10.9 | 3.8 | 11.9 | 7.1 | 13.8 | 2.1 | 16.7 |
| Norway | 10.2 | 9.7 | 3.7 | 10.8 | 6.1 | 12.0 | 0.0 | 16.0 |
| Switzerland | 11.4 | 10.3 | 3.9 | 12.3 | 6.0 | 14.0 | 4.0 | 15.0 |

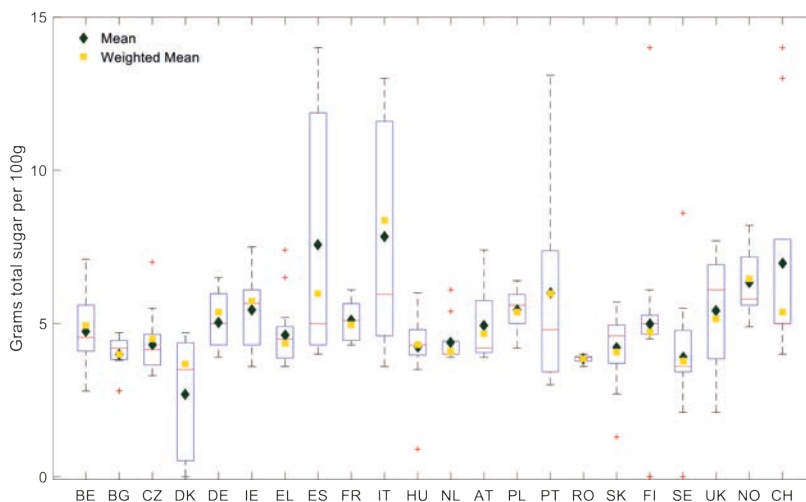
Table 12. Weighted mean of total sugars content, in g/100g, for Yoghurt subcategories (based on Euromonitor data, 2015).

| Country | Plain Yoghurts | Flavoured | Fruited | Drinking |
|----------------|----------------|-----------|---------|----------|
| Belgium | 4.9 | 13.3 | 12.0 | 10.8 |
| Bulgaria | 4.0 | 14.5 | 11.6 | 10.8 |
| Czech Republic | 4.5 | 11.8 | 13.6 | 8.0 |
| Denmark | 3.7 | 9.8 | 8.2 | 8.5 |
| Germany | 5.4 | 13.8 | 13.9 | 18.9 |
| Ireland | 5.7 | 9.2 | 11.4 | 11.1 |
| Greece | 4.4 | 15.2 | 11.3 | 4.7 |
| Spain | 6.0 | 9.2 | 12.6 | 10.0 |
| France | 5.0 | 13.0 | 11.0 | 8.6 |

Table 12. (Cont.).

| Country | Plain Yoghurts | Flavoured | Fruited | Drinking |
|----------------|----------------|-----------|---------|----------|
| Italy | 8.4 | 13.5 | 12.0 | 10.7 |
| Hungary | 4.3 | 13.4 | 13.5 | 12.1 |
| Netherlands | 4.1 | 12.5 | 12.3 | 8.5 |
| Austria | 4.7 | 15.1 | 12.9 | 13.4 |
| Poland | 5.4 | 14.3 | 13.6 | 13.4 |
| Portugal | 6.0 | 11.3 | 8.6 | 11.1 |
| Romania | 3.9 | 11.5 | 12.6 | 5.6 |
| Slovakia | 4.1 | 12.1 | 12.0 | 10.7 |
| Finland | 4.7 | 11.5 | 11.4 | 8.0 |
| Sweden | 3.8 | 9.2 | 12.1 | 8.6 |
| United Kingdom | 5.1 | 11.9 | 11.8 | 11.4 |
| Norway | 6.5 | 11.3 | 10.8 | 11.4 |
| Switzerland | 5.4 | 12.7 | 13.3 | 11.8 |

Figure 14. Distribution of the total sugars content per 100g of the Plain Yoghurt products (based on Euromonitor data, 2015). The green diamonds denote the arithmetic means and the yellow squares denote the weighted means, where the products' total sugars content has been weighted by % market share. See Annex 4 for a guide to the graphical representation of the data.



4.3.2. Desserts & Snacks

Data were extracted for a total of 296 products classified as Desserts & Snacks. The breakdown by country and subcategory is detailed in *Annex 2, Table A.3*. The low product numbers and market coverage in the individual subcategories prohibited an analysis at that level, so the distribution of sugars content is provided by product group instead. The largest daily per capita volumes sold were in the Netherlands, where the volume sold was almost 3 times that of the next largest market, France (*Figure 9*). The distribution of the total sugars content per 100 g of products within this group is shown in *Figure 15* and the associated summary statistics are detailed in *Table 13*. The boxplot shows quite a variable situation, with some countries exhibiting a small variance in the products' total sugars content, while others showed a large spread in the values. The average IQR was 12 g/100 g and the average range was 29.3 g/100 g.

Figure 15. Distribution of the total sugars content per 100g of the Desserts & Snacks products (based on Euromonitor data, 2015). The green diamonds denote the arithmetic means and the yellow squares denote the weighted means, where the products' total sugars content has been weighted by % market share. See Annex 4 for a guide to the graphical representation of the data.

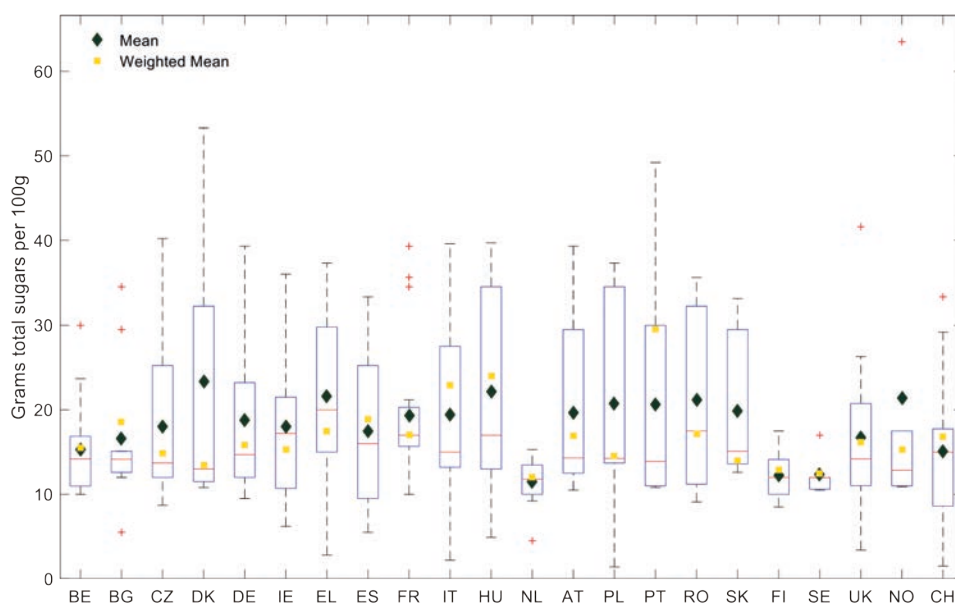


Table 13. Summary statistics of the total sugars content for Desserts & Snacks, in grams per 100 g (based on Euromonitor data, 2015).

| Country | Weighted Mean | Mean | SD | Median | P25 | P75 | Min | Max |
|----------------|---------------|------|------|--------|------|------|------|------|
| Belgium | 15.5 | 15.3 | 5.5 | 14.2 | 11.0 | 16.9 | 10.0 | 30.0 |
| Bulgaria | 18.6 | 16.6 | 8.7 | 14.2 | 12.6 | 15.1 | 5.5 | 34.5 |
| Czech Republic | 14.8 | 18.1 | 9.6 | 13.7 | 12.0 | 25.3 | 8.7 | 40.2 |
| Denmark | 13.4 | 23.4 | 16.1 | 13.0 | 11.5 | 32.2 | 10.8 | 53.3 |
| Germany | 15.8 | 18.8 | 9.1 | 14.7 | 12.0 | 23.2 | 9.5 | 39.3 |
| Ireland | 15.3 | 18.1 | 9.4 | 17.2 | 10.7 | 21.5 | 6.2 | 36.0 |
| Greece | 17.5 | 21.7 | 10.6 | 20.0 | 15.0 | 29.8 | 2.8 | 37.3 |
| Spain | 18.9 | 17.5 | 8.4 | 16.0 | 9.5 | 25.3 | 5.5 | 33.3 |
| France | 17.1 | 19.3 | 7.8 | 17.0 | 15.7 | 20.3 | 10.0 | 39.3 |
| Italy | 22.9 | 19.4 | 10.5 | 15.0 | 13.2 | 27.5 | 2.2 | 39.6 |
| Hungary | 24.0 | 22.2 | 12.0 | 17.0 | 13.0 | 34.5 | 4.9 | 39.7 |
| Netherlands | 12.0 | 11.5 | 2.6 | 11.8 | 10.0 | 13.5 | 4.5 | 15.3 |
| Austria | 17.0 | 19.6 | 10.1 | 14.3 | 12.5 | 29.5 | 10.5 | 39.3 |
| Poland | 14.5 | 20.8 | 12.3 | 14.3 | 13.7 | 34.5 | 1.4 | 37.3 |
| Portugal | 29.6 | 20.6 | 13.1 | 13.9 | 11.0 | 30.0 | 10.8 | 49.2 |
| Romania | 17.1 | 21.2 | 11.2 | 17.5 | 11.2 | 32.2 | 9.1 | 35.6 |
| Slovakia | 14.0 | 19.8 | 9.0 | 15.1 | 13.6 | 29.5 | 12.6 | 33.1 |
| Finland | 12.9 | 12.3 | 3.4 | 12.0 | 10.0 | 14.1 | 8.5 | 17.5 |
| Sweden | 12.4 | 12.4 | 2.4 | 12.0 | 10.6 | 12.0 | 10.5 | 17.0 |
| United Kingdom | 16.2 | 16.7 | 9.2 | 14.2 | 11.0 | 20.8 | 3.4 | 41.6 |
| Norway | 15.3 | 21.4 | 20.8 | 12.9 | 11.0 | 17.5 | 10.9 | 63.5 |
| Switzerland | 16.8 | 15.1 | 9.1 | 15.0 | 8.6 | 17.8 | 1.5 | 33.3 |

4.3.3. Drinks

Data were extracted for a total of 317 products classified as Drinks. The breakdown by country and subcategory is detailed in *Annex 2, Table A.3*. The largest daily per capita volumes sold were in Belgium and Spain, where the volume sold was more than 100 times that of the smallest market, Romania (*Figure 9*). The distribution of the total sugars content per 100 g of products within this group is shown in *Figure 16* and the associated summary statistics are detailed in *Table 14*. The boxplot shows quite a similar variation in total sugars content throughout Europe, apart from Romania, where Dairy Drinks did not appear to be a commonly purchased item. The average IQR was 6.8 g/100 g and the average range was 14 g/100 g.

Figure 16. Distribution of the total sugars content per 100 g of Dairy Drinks (based on Euromonitor data, 2015). The green diamonds denote the arithmetic means and the yellow squares denote the weighted means, where the products' total sugars content has been weighted by % market share. See Annex 4 for a guide to the graphical representation of the data.

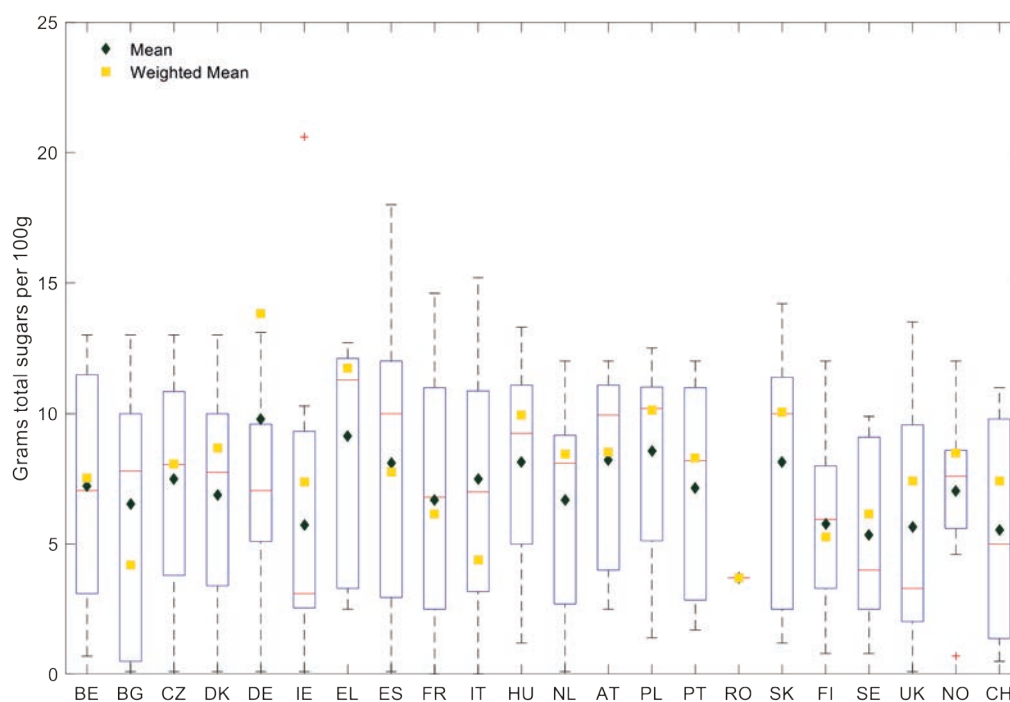


Table 14. Summary statistics of the total sugars content for Dairy Drinks, in grams per 100 g (based on Euromonitor data, 2015).

| Country | Weighted Mean | Mean | SD | Median | P25 | P75 | Min | Max |
|----------------|---------------|------|------|--------|-----|------|-----|------|
| Belgium | 7.5 | 7.2 | 4.4 | 7.1 | 3.1 | 11.5 | 0.7 | 13.0 |
| Bulgaria | 4.2 | 6.5 | 5.3 | 7.8 | 0.5 | 10.0 | 0.1 | 13.0 |
| Czech Republic | 8.1 | 7.5 | 4.1 | 8.1 | 3.8 | 10.9 | 0.1 | 13.0 |
| Denmark | 8.7 | 6.9 | 4.2 | 7.8 | 3.4 | 10.0 | 0.1 | 13.0 |
| Germany | 13.8 | 9.8 | 13.2 | 7.1 | 5.1 | 9.6 | 0.1 | 61.0 |
| Ireland | 7.4 | 5.7 | 5.5 | 3.1 | 2.6 | 9.3 | 0.1 | 20.6 |
| Greece | 11.8 | 9.1 | 4.3 | 11.3 | 3.3 | 12.1 | 2.5 | 12.7 |
| Spain | 7.8 | 8.1 | 5.2 | 10.0 | 3.0 | 12.0 | 0.1 | 18.0 |
| France | 6.2 | 6.7 | 4.9 | 6.8 | 2.5 | 11.0 | 0.0 | 14.6 |
| Italy | 4.4 | 7.5 | 4.3 | 7.0 | 3.2 | 10.9 | 0.0 | 15.2 |
| Hungary | 9.9 | 8.1 | 3.5 | 9.3 | 5.0 | 11.1 | 1.2 | 13.3 |
| Netherlands | 8.5 | 6.7 | 4.0 | 8.1 | 2.7 | 9.2 | 0.1 | 12.0 |
| Austria | 8.5 | 8.2 | 3.6 | 10.0 | 4.0 | 11.1 | 2.5 | 12.0 |
| Poland | 10.1 | 8.6 | 4.0 | 10.2 | 5.1 | 11.0 | 1.4 | 12.5 |
| Portugal | 8.3 | 7.2 | 4.0 | 8.2 | 2.9 | 11.0 | 1.7 | 12.0 |
| Romania* | 3.7 | 3.7 | 0.0 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| Slovakia | 10.1 | 8.2 | 5.0 | 10.0 | 2.5 | 11.4 | 1.2 | 14.2 |
| Finland | 5.3 | 5.8 | 3.1 | 6.0 | 3.3 | 8.0 | 0.8 | 12.0 |
| Sweden | 6.1 | 5.4 | 3.4 | 4.0 | 2.5 | 9.1 | 0.8 | 9.9 |
| United Kingdom | 7.4 | 5.6 | 4.5 | 3.3 | 2.0 | 9.6 | 0.1 | 13.5 |
| Norway | 8.5 | 7.0 | 3.0 | 7.6 | 5.6 | 8.6 | 0.7 | 12.0 |
| Switzerland | 7.4 | 5.5 | 4.1 | 5.0 | 1.4 | 9.8 | 0.5 | 11.0 |

* Sample contained only one product.

4.3.4. Frozen Products

Data were extracted for a total of 930 products classified as Frozen Products. The breakdown by country and subcategory is detailed in *Annex 2, Table A.3*. The largest daily per capita volume was sold in Finland and the smallest in Bulgaria (*Figure 9*). The distribution of the total sugars content per 100 g of products within this group is shown in *Figure 17* and the associated summary statistics are detailed in *Table 15*. The boxplot shows quite a similar variation in total sugars content throughout Europe. The average IQR was 7 g/100 g and the average range was 26.8 g/100 g.

Figure 17. Distribution of the total sugars content per 100g of Frozen Products (based on Euro-monitor data, 2015). The green diamonds denote the arithmetic means and the yellow squares denote the weighted means, where product total sugars content has been weighted by % market share. See Annex 4 for a guide to the graphical representation of the data.

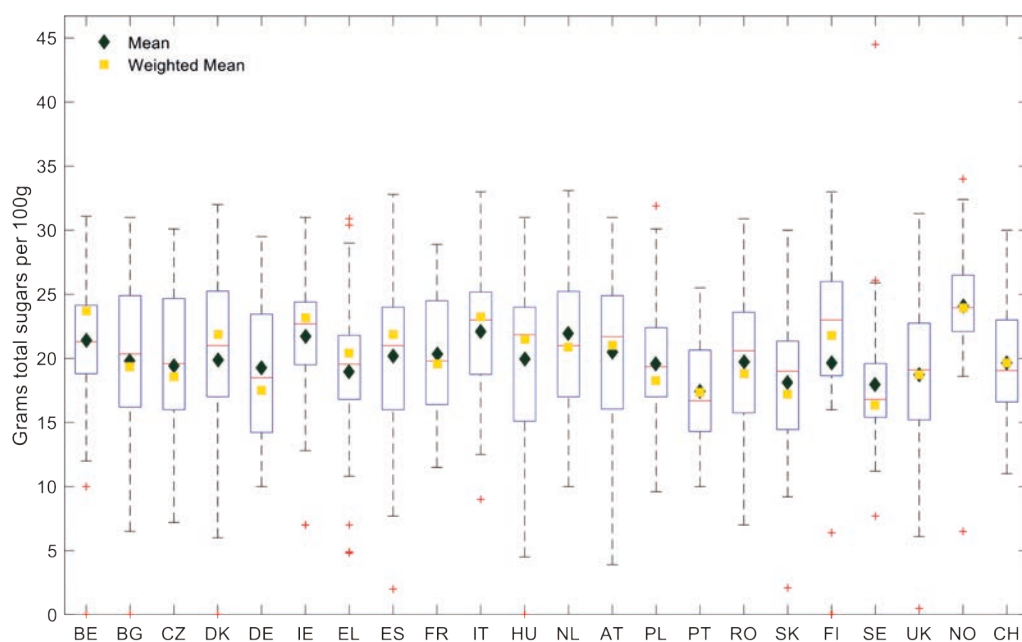


Table 15. Summary statistics of the total sugars content for Frozen Products, in grams per 100 g (based on Euromonitor data, 2015).

| Country | Weighted Mean | Mean | SD | Median | P25 | P75 | Min | Max |
|----------------|---------------|------|-----|--------|------|------|------|------|
| Belgium | 23.7 | 21.4 | 6.1 | 21.3 | 18.8 | 24.2 | 0.0 | 43.0 |
| Bulgaria | 19.3 | 19.8 | 6.9 | 20.4 | 16.2 | 24.9 | 0.0 | 31.0 |
| Czech Republic | 18.6 | 19.4 | 6.1 | 19.6 | 16.0 | 24.7 | 7.2 | 30.1 |
| Denmark | 21.9 | 19.8 | 6.8 | 21.0 | 17.0 | 25.3 | 0.0 | 32.0 |
| Germany | 17.5 | 19.3 | 5.6 | 18.5 | 14.2 | 23.5 | 10.0 | 29.5 |
| Ireland | 23.1 | 21.7 | 5.2 | 22.7 | 19.5 | 24.4 | 7.0 | 31.0 |
| Greece | 20.4 | 18.9 | 6.4 | 19.6 | 16.8 | 21.8 | 4.8 | 30.9 |
| Spain | 21.8 | 20.2 | 6.1 | 21.0 | 16.0 | 24.0 | 2.0 | 32.8 |
| France | 19.5 | 20.3 | 4.7 | 19.8 | 16.4 | 24.5 | 11.5 | 28.9 |
| Italy | 23.3 | 22.1 | 4.9 | 23.0 | 18.8 | 25.2 | 9.0 | 33.0 |
| Hungary | 21.5 | 19.9 | 6.9 | 21.9 | 15.1 | 24.0 | 0.0 | 31.0 |
| Netherlands | 20.8 | 21.9 | 5.9 | 21.0 | 17.0 | 25.2 | 10.0 | 33.1 |
| Austria | 21.0 | 20.5 | 6.2 | 21.7 | 16.1 | 24.9 | 3.9 | 31.0 |
| Poland | 18.3 | 19.5 | 5.8 | 19.4 | 17.0 | 22.4 | 9.6 | 31.9 |
| Portugal | 17.3 | 17.5 | 4.2 | 16.7 | 14.3 | 20.7 | 10.0 | 25.5 |
| Romania | 18.8 | 19.7 | 5.7 | 20.6 | 15.8 | 23.6 | 7.0 | 30.9 |
| Slovakia | 17.2 | 18.1 | 5.9 | 19.0 | 14.5 | 21.4 | 2.1 | 30.0 |
| Finland | 21.8 | 19.6 | 10 | 23.0 | 18.7 | 26.0 | 0.0 | 33.0 |
| Sweden | 16.4 | 18.0 | 5.4 | 16.8 | 15.4 | 19.6 | 7.7 | 44.5 |
| United Kingdom | 18.7 | 18.7 | 5.8 | 19.1 | 15.2 | 22.8 | 0.5 | 31.3 |
| Norway | 24.0 | 24.1 | 3.9 | 24.0 | 22.1 | 26.5 | 6.5 | 34.0 |
| Switzerland | 19.7 | 19.6 | 5.1 | 19.1 | 16.6 | 23.0 | 11.0 | 30.0 |

5 . Discussion

This report provides a baseline for the total sugars content per 100 g (or 100 ml) of Soft Drinks, Breakfast Cereals and Dairy Products on the market in 2015, as recorded in the Euromonitor International Nutrition 2016 database. The analysis provides an overview of the distribution of the total sugars content in 2015 of specific product subcategories, groups and categories, as outlined in *Table 2*. These distributions are underscored by market-share weighted averages which acknowledge both the volume of products sold and the total sugars content as printed on packaged food labels. This work can serve to complement and support ongoing efforts within the member states. It should be stressed that its focus is on sugars content only. The analysis provided is not intended to discount any additional nutritional value of the food and drink products analysed here.

The strength of the market-share weighted average approach lies in its ability to capture the true market influence of products that could otherwise be interpreted as outliers, such as those with a low sugars content but high market share or, alternatively, those with a low market share but high sugars content. The coupling of sugars content with market share provides a more tangible link to true consumption. It limits the overall impact of new and/or reformulated products with low sugars and low market share, giving greater impetus to the reformulation of leading market products. Furthermore, it is susceptible to additional efforts towards sugars reduction, such as a shift towards existing low sugars or sugar-free products. However, the usefulness of this approach is limited by the product classification adopted and efforts to ensure correct, meaningful and appropriate product groupings are essential.

The sugar content distributions, including the weighted averages, can be used as a baseline to monitor progress in any future analysis. *Table 16* summarises the baseline market share weighted means for the product categories considered in this report. It also provides a benchmark for a 10% reduction, where an allowance

of 3.8 g/100 g¹⁵ has been applied for sweetened dairy products to acknowledge intrinsic sugars content and the fact that a sugars reduction target commonly refers to added sugars. The data reported here show that within most product categories and subcategories there is a relatively large variation in the sugars content, often ranging from low or sugar-free products to extreme high sugar outliers. While we cannot be certain about the precise nature of this variation (given that the data collection methodology relies on the sampling of only the most representative variant of a brand product within each country), these findings are in line with those of others (JANPA 2017, Hashem 2016, Pombo-Rodrigues 2017, WHO 2017). While clearly acknowledging the individual differences between products and the wish of manufacturers to maintain their distinctive nature, this is suggestive of room for product reformulation. To reduce the average of sugars content within each food subcategory attention should be given to those products with higher sugars content and those with high market values. In some instances, as is the case for many Children's Breakfast Cereals products, these two coincide indicating the concrete potential for an impact on the sugars intake of children, a particular vulnerable group, through the improvement of this product category.

Efforts to establish baselines for the added sugars content of packaged food have been underway in several Member States. Using a sales weighted average, the UK has established baselines for several food groups that were identified as major contributors to children's total sugars intakes in the National Diet and Consumption Survey. In reference to the target categories identified by the HLG, the UK estimated the baseline sales weighted average for Breakfast Cereals and Yoghurts¹⁶ to be 15.3 g and 12.8 g respectively. These figures show a favorable comparison with those reported herein for the UK (market-share weighted averages of 16 g and 11 g for Breakfast Cereals and Yoghurts,¹⁷ respectively). In addition, JANPA has undertaken in France, Austria and Romania important pilot studies to monitor nutrient contents in selected products. While JANPA sampled a markedly higher number of products and the product subcategorisations differ substantially from those adopted by Euromonitor, mean sugar contents were comparable with those reported

15. The approach incorporates values used in the UK for illustrative purposes, without discounting or pre-empting approaches from other countries.

16. Includes Fromage Frais but excludes all natural/unsweetened products.

17. The Yoghurts group includes Plain Yoghurts and excludes Fromage Frais.

herein for Soft Drinks and Breakfast Cereals. However, due to the differing classification of products, a lower level comparison was not possible. Hence, despite its limitations, notably limited market coverage, Euromonitor data appears to offer a viable, opportunity to combine both total sugars content and market sales data collected in a harmonised way across Europe.

The establishment of an accurate overview of current dietary intake of added sugars, in addition to challenges capturing recent trends in a dynamic market, is hampered by inherent costs and methodological issues in national consumption surveys and food composition analyses. While the inclusion of market sales data does allow some insights to be gained, and approximations to be drawn, on population level intakes, the difficulties in estimating the added sugars content of food, in particular for those containing both intrinsic and extrinsic sugars remain.

The methodology presented here uses a single annually updated database for both market and nutrition information, with predefined product sub-categorisation across its geographical range, allowing consistent repeatability and reproducibility of the analysis. It is regrettable that the data coverage does not span the EU in its entirety; however, as recently noted by JANPA¹⁸ most of the EU countries (with the notable exception of France, the Netherlands and Belgium) do not have a nutrition information database or system in place that would allow for a fine and detailed monitoring such as the one needed for monitoring the ongoing sugar reduction efforts and the authors are not aware of any other data provider that currently and consistently tracks nutrient content in packaged food in all 28 member states. Importantly, incomplete market coverage, which ultimately yields an underestimation of the contribution of total sugars sold, prohibits a direct comparison between countries, which is neither attempted nor should be implied by this analysis. This report merely highlights the relative contribution of specific product groups to total sugars sold within major food/drink categories in each country considered, while not making assumptions about the remainder of the market or the differing consumption habits/tastes of individual populations.

18. http://www.janpa.eu/outcomes/Deliverables/D5.1%20Best%20practices%20inventory%20and%20guidelines%20for%20improving%20the%20collection%20and%20use%20of%20nutritional%20food%20information_def.pdf.

Considering the importance being given to food product improvement at the EU level, (as apparent in the EU framework for national initiatives on selected nutrients and the recent Council conclusions on food product improvement¹⁹ and Council conclusions to contribute towards halting the rise in childhood overweight and obesity²⁰) having a reliable system for monitoring the nutritional composition of foods is of great importance to assess the quality of the products on offer as well as trends regarding their composition. Also, there are ongoing discussions regarding the possible differences in the composition of the same foods sold in different European countries. Based on pilot studies conducted, JANPA has recently concluded that a reliable, responsive and precise monitoring system for the nutritional quality of foods and beverages based on nutrition labelling information could be implemented within a limited time-frame and at a very reasonable cost.²¹ Ideally, this should be controlled by public health authorities. JANPA also recognises the importance of data on the market shares of the products and proposes that public-private collaborations could allow industry to make such data available to public authorities.

As stated above, the methodology presented herein complements MSs current efforts and offers the basis of a possible standard operating procedure to monitor progress on reformulation. It lends additional support to JANPA's conclusions on the validity of nutrient label information and the importance of market share data. The methodology implemented here is similar to that of JANPA and could be replicated in the future using the same data sources or, potentially, be aligned with future developments stemming out of the important conclusions and proposals put forward by JANPA. Conceivable updates could include assessing progress in 2018 and evaluating achievements post-2020. Future monitoring activities could also be complemented by additional considerations, such as analyses of packaging trends in relation to portion size choices and new market trends towards the innovation of lower sugars products. Monitoring trends in sugars volumes sold, overall and per product group, could also provide insights into the effects of such actions on sugars intakes in the population.

19. Council conclusions on food product improvement (2016/c 269/04). <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX%3A52016XG0723%02801%029&rid=1>.

20. Council conclusions to contribute towards halting the rise in childhood overweight and obesity (2017/C 205/03). <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ%3AC%3A2017%3A205%3A0046%3A0052%3AEN%3APDF>.

21. http://www.janpa.eu/outcomes/Deliverables/2_scheda_inform%020POSITION%020PAPER_4p_210x297_JANPA.pdf.

Table 16. Product category baselines for 2015, and 10% reduction targets for sugars-sweetened products.

| | Soft Drinks ^b | | Breakfast Cereals | | Sweetened Dairy ^{a, c} | |
|----------------|--|------------------------------------|--|-----------------------------------|--|------------------------------------|
| | Baseline market-share weighted mean (g sugars per 100 g) | 10% reduction (g sugars per 100 g) | Baseline market-share weighted mean (g sugars per 100 g) | 10% reduction (g sugars per 100g) | Baseline market-share weighted mean (g sugars per 100 g) | 10% reduction (g sugars per 100 g) |
| Belgium | 6.6 | 5.9 | 23.7 | 21.3 | 14.2 | 13.2 |
| Bulgaria | 7.0 | 6.3 | 24.3 | 21.9 | 15.1 | 14.0 |
| Czech Republic | 5.9 | 5.3 | 24.1 | 21.7 | 12.0 | 11.2 |
| Denmark | 8.6 | 7.7 | 06.2 | 05.6 | 09.0 | 08.4 |
| Germany | 7.2 | 6.5 | 20.5 | 18.5 | 14.8 | 13.7 |
| Ireland | 8.8 | 7.9 | 13.9 | 12.5 | 13.9 | 12.8 |
| Greece | 9.6 | 8.6 | 15.5 | 14.0 | 13.7 | 12.7 |
| Spain | 7.8 | 7.0 | 25.4 | 22.9 | 14.1 | 13.1 |
| France | 8.8 | 7.9 | 24.0 | 21.6 | 13.5 | 12.5 |
| Italy | 9.2 | 8.3 | 19.8 | 17.8 | 15.7 | 14.5 |
| Hungary | 7.8 | 7.0 | 20.5 | 18.5 | 12.7 | 11.8 |
| Netherlands | 8.0 | 7.2 | 17.2 | 15.5 | 11.1 | 10.3 |
| Austria | 7.3 | 6.6 | 19.3 | 17.4 | 14.3 | 13.2 |
| Poland | 8.1 | 7.3 | 20.0 | 18.0 | 11.7 | 10.9 |
| Portugal | 7.5 | 6.8 | 21.8 | 19.6 | 12.1 | 11.3 |
| Romania | 7.9 | 7.1 | 18.2 | 16.4 | 09.5 | 09.0 |
| Slovakia | 6.7 | 6.0 | 24.9 | 22.4 | 11.6 | 10.8 |
| Finland | 7.0 | 6.3 | 08.6 | 07.7 | 11.0 | 10.3 |
| Sweden | 7.5 | 6.8 | 11.5 | 10.4 | 09.7 | 09.1 |
| United Kingdom | 7.1 | 6.4 | 16.0 | 14.4 | 13.3 | 12.3 |
| Norway | 6.4 | 5.8 | 07.7 | 06.9 | 10.2 | 10.0 |
| Switzerland | 8.0 | 7.2 | 19.5 | 17.6 | 13.5 | 12.6 |

a. Allowance 3.8 g made for intrinsic sugars.

b. Liquid concentrates excluded as they are diluted with varying volumes of water before consumption.

c. Product subcategories included: Drinking/Flavoured/Fruited Yoghurt, Dairy Only Flavoured Milk Drinks, Flavoured Milk Drinks with Fruit Juice, Flavoured/Savoury Fromage Frais & Quark, Chilled/Shelf-Stable Dairy-Based Desserts, Chilled Snacks, Sour Milk Products, Coffee Whiteners, Bulk/Multi-Pack/Single-Portion Dairy Ice Cream, Frozen Yoghurt, Ice Cream Desserts.

References

- Azaïs-Braesco, V., Sluik, D., Maillot, M., Kok, F., Moreno, L.A., *A review of total & added sugar intakes and dietary sources in Europe*. Nutrition Journal. 16(1), 6 (2017).
- Bates, B., Cos, L., Nicholson, S., Page, P., Prentice, A., Steer, T., Swan, G., *National Diet and Nutrition Survey: Results from Years 5 and 6 (Combined) of the Rolling Programme (2012/2012 – 2013/2014)*. Public Health England: London, U.K. (2016).
- EFSA Panel on Dietetic Products, Nutrition and Allergies (NDA), *Scientific opinion on dietary reference values for carbohydrates and dietary fibre*. EFSA Journal. 8(3) (2010).
- Hashem, K.M., He, F.J., Jenner, K.H., et al., *Cross-sectional survey of the amount of free sugars and calories in carbonated sugar-sweetened beverages on sale in the UK*. BMJ Open, 6:e010874 (2016).
- Joint Action on Nutrition and Physical Activity (JANPA), D5.2: Pilot study and identification of participants in a monitoring network (2017).
- Joyce, T., McCarthy, S.N., Gibney, M.J., *Relationship between energy from added sugars and frequency of added sugars intake in Irish children, teenagers and adults*. British Journal of Nutrient. 99(5), 1117-26 (2008).
- Nordic Nutrition recommendations (NNR) 2012: integrating nutrition and physical activity. Nordic Council of Ministers (2014).
- Pombo-Rodrigues, S., Hashem, K.M., He, F.J., MacGregor, G.A., *Salt and sugars content of breakfast cereals in the UK from 1992 to 2015*. Public Health Nutrition, 1-13 (2017).
- Scientific Advisory Committee on Nutrition (SACN). Carbohydrates and Health Report. London: The Stationary Office (2015).
- Sluik, D., van Lee, L., Engelen, A.I., Feskens, E.J., *Total, free and added sugar consumption and adherence to guidelines: The Dutch National Food Consumption Survey 2007-2010*. Nutrients. 8(2), 70 (2016).
- WHO Guideline: Sugars intake for adults and children. Geneva: World Health Organization (2015).
- WHO, Incentives and disincentives for reducing sugar in manufactured foods. An exploratory supply chain analysis. World Health Organization (2017).

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Annexes

Annex 1. Food/drink subcategory descriptions

This Annex details the descriptions used by Euromonitor International to define each subcategory under which products are classified.

Hot Cereals

Includes porridge and instant hot cereals, *e.g.* oat, wheat, rice, etc. Instant hot cereals are defined by the fact that they can be made in a dish with added water or milk and can be microwaved. Porridge, on the other hand, is a plain oat-based cereal cooked in milk or water and is non-microwaveable. This includes spoonable hot cereals only. Hot cereal beverages are excluded.

Children's Breakfast Cereals

Includes cereals of all types which are marketed at children/adolescents. Packaging and advertising is specifically developed to target children. Many products are sweet or chocolate-based variants of family products.

Flakes

Flaked cereals, the most widely known being corn flakes. Also included are wheat flakes, bran flakes, etc. Flakes that come with some other ingredients, *e.g.* brown sugar, honey, nuts, dried fruit, etc. are also included.

Muesli

Mixture of rolled oats, nuts, and dried fruits, usually eaten with milk or yoghurt. Crispy muesli is also included. Mixtures of oats & cereal cluster products are also included.

Other RTE Cereals

All non-flake or non-muesli cereals targeted at adults. Includes wheat biscuits, puffed wheat cereals, rice-based products, etc.

Dairy Only Flavoured Milk Drinks

Drinks made of milk to which flavouring (artificial or natural) has been added, *e.g.* chocolate, orange, strawberry, banana, vanilla, etc. Milk shakes are included. RTD Milo and the like, which are milk modifier drinks, are also included. Soy milk and ice cream based milk shakes are excluded. Note: Includes all coffee flavoured milk drinks that primarily target children, where coffee is one of a number of flavours within the brand range. Excludes RTD coffee drinks, including all coffee flavoured milk drinks that primarily target adults. Typically the brand range will include a variety of coffee types, such as espresso, cappuccino etc. This goes in RTD coffee under Soft Drinks.

Flavoured Milk Drinks with Fruit Juice

Drinks made of milk to which fruit juices have been added, *e.g.* mango, orange, strawberry, banana, cherry, apple, etc. 'Smoothies' are excluded. Soy milk and ice cream based milk shakes are excluded.

Soy Drinks

Typically long-life, with a minimal amount of soy protein per serving. These products are positioned more as regular beverages (competing against soft drinks) rather than milk alternatives. Often, there is little or no information on soy protein per serving. Both plain and flavoured (*e.g.* chocolate-flavoured, fruit-flavoured) varieties are included here. Black soy drinks have also recently emerged in Asia.

Soy Milk

Positioned as milk alternatives. Soy milk is typically fresh/pasteurised, found in chiller compartments, and should contain a significant amount of soy protein per serving. Both plain and flavoured (*e.g.* chocolate-flavoured) varieties are included here. Also includes soy milk combination beverages, *e.g.* soy and rice milk blends, soy and almond milk blends. Soy and fruit blend beverages are also included.

Other Non-Dairy Milk Alternatives

Includes all other explicitly positioned milk substitutes that are not actually dairy-based, and which are also not made from soy. Such products are typically derived from grains or nuts, with prominent examples including rice milk, oat milk, almond milk, hazelnut milk and hemp milk. Both plain and flavoured (*e.g.* chocolate-flavoured,

vanilla-flavoured, etc) varieties are included here. Please note that soy milk combination beverages (*e.g.* soy and rice milk blends; soy and almond milk blends) are excluded and tracked in Soy Milk (see above).

Sour Milk Products

Includes kefir, lassi as well as buttermilk and whey drinks. Kefir is significant in Eastern Europe. A cultured-milk beverage, kefir has a creamy consistency and slightly sour taste. Kefir is prepared by culturing fresh milk with Kefir grains/ granules which are a natural mother-culture. Traditionally, butter milk is the slightly sour, residual liquid which remains after butter is churned, *i.e.* milk from the butter or buttermilk. It is usually flecked with tiny spots of sweet, creamy butter. The flavor of buttermilk is similar to yoghurt. Commercial buttermilk is nowadays made by adding a lactic acid bacteria culture to pasteurized sweet milk and it may or may not have added butter flecks; the milk is later left to ferment. Low/reduced fat sour milk drinks are also included here.

Drinking Yoghurt

Includes dairy-based drinking yoghurts of all types (full-fat, low-fat, flavoured, fruited, plain, etc.), regardless of flavour (*e.g.* strawberry, banana raspberry, etc.) are included. Drinking yoghurts explicitly positioned towards children (and in some cases featuring a toy/surprise) is also included here regardless of flavour. Drinking fromage frais, also typically positioned for children is included here. Includes both normal/regular drinking yoghurt as well as products with a 'functional' positioning. Functional products refer to any products with a specific functional health positioning. For example, pre/pro biotic drinking yoghurts have ingredients that are living organisms which affect the ability of other living organisms to survive in an environment. Specifically, the product must contain living organisms/bacteria that, when consumed in adequate numbers survive in the large intestine long enough to offer health benefits beyond basic nutrition. Squeezers (tube format yoghurt) are not included; these are spoonable yoghurts sold in a type of packaging (a paper or plastic tube) that do not require a spoon for consumption.

Flavoured Yoghurt

Yoghurts containing artificial or natural fruit flavours, *e.g.* strawberry, banana, vanilla, lemon, peach, chocolate, key lime, orange creme, etc. Low-fat flavoured yoghurts are included.

Fruited Yoghurt

Yoghurts containing pieces of fruit (or whole fruits), *e.g.* pears, strawberry, peach, cherry, raspberry, blueberry, etc. Low-fat fruited yoghurts are included. Competing products with non-fruit toppings are also to be included here.

Plain Yoghurt

Unflavoured yoghurts, often known as ‘natural’ yoghurt. Includes plain set yoghurt and yoghurt made from different types of milk, *e.g.* cow, sheep, goat, etc. Low-fat plain/natural yoghurts are included.

Dairy-Based Desserts

Ready-to-eat dairy based desserts manufactured industrially, *e.g.* flans, crème caramels, mousses, cream desserts, rice pudding, etc. The products can either be sold chilled or at room temperature. Non-dairy based gelatin desserts that compete directly against dairy-based desserts are also included here. Note that cup jelly products in Asia are excluded. These products which can come in mini cups or regular sized cups are largely targeted at children and included in other sweet and savoury snacks.

Soy-based Desserts

Ready-to-eat soy-based desserts manufactured industrially, *e.g.* flans, crème caramels, mousses, cream desserts, jellies etc. The products can either be sold chilled or at room temperature.

Chilled Snacks

Individually wrapped soft cake sandwiches with a cream filling and chocolate covering. These products are fresh and need to be chilled. They have a relatively short shelf-life due to their milk content.

Coffee Whiteners

Powders made of glucose syrup and vegetable oils and/or milk ingredients (*e.g.* milk solids, milk fats, milk protein, whey protein). Note that these products are not dehydrated milk. Liquid versions of coffee whiteners are also included. Flavoured coffee whiteners (mocha, amaretto, almond, hazelnut, etc.) are also included.

Flavoured Fromage Frais and Quark

Full or low-fat soft cheese with a creamy and soft texture – cottage cheese is also included. Products included here are fruit-flavoured, *i.e.* they are normally consumed as a dessert. Note that products sold in two-chamber packaging, *i.e.* with a sweet mix are included. Desserts where flavoured fromage frais and/or quark is used as an ingredient are excluded.

Plain Fromage Frais and Quark

Full or low-fat soft cheese with a creamy and soft texture – cottage cheese is also included. Products included here are plain, *i.e.* not flavoured and are often used in cooking. Desserts where fromage frais and/or quark is used as an ingredient are excluded.

Savoury Fromage Frais and Quark

Full or low-fat soft cheese with a creamy and soft texture – cottage cheese and curd are also included. Products included here are usually flavoured with herbs or spices (paprika, chives, vegetables, olives, radishes, parsley, etc.).

Frozen Yoghurt

Yoghurts – usually fruit-flavoured – sold in a frozen format. Frozen yoghurts are usually sold alongside standard ice cream. Artisanal frozen yoghurts and frozen fromage frais are included.

Single Portion Dairy Ice Cream

Industrially prepared and packaged single portion ice cream bought to be consumed as a snack immediately or shortly after purchase. Product types include dairy based ice creams mainly sold in stick, cone or pot format. Combinations of water and dairy ice cream included here. Brand extensions of countlines (if dairy-based) are included. Note that fast food ice cream, *e.g.* from McDonald's, or soft serve ice cream are excluded.

Single Portion Water Ice Cream

Industrially prepared and packaged single portion ice cream bought to be consumed as a snack immediately or shortly after purchase. Product types include water-based ice creams mainly sold in stick, cone or pot format. Freeze pops and ice lollies are included. Combinations of water and dairy ice cream fall under

dairy ice cream. Note that fast food ice cream, *e.g.* from McDonald's, and soft serve ice cream are excluded.

Bulk Dairy Ice Cream

Industrially prepared dairy-based ice cream packaged in tubs (mostly in containers/tubs between around 500 ml - 5 litres), usually purchased in grocery outlets and taken home to be consumed as a dessert (or snack) at a later date. Smaller tubs usually contain premium ice cream whereas standard or economy dairy-based ice cream is usually packaged in larger containers.

Ice Cream Desserts

Industrially prepared and packaged ice cream based desserts; typically 'Viennetta like'. Rather than bulk ice cream in a tub, ice cream desserts are typically sliced like a cake. Ice cream cakes are included.

Multi-Pack Dairy Ice Cream

Single portion dairy ice cream where several units are packaged together (typically by three or more) for consumption at a later stage.

Bulk Water Ice Cream

Industrially prepared and packaged water based ice cream and marketed as an ice cream dessert, typically sorbets. Combinations of water and dairy ice cream fall under dairy. Most brands are identical as take-home dairy ice cream except for the product therein.

Multi-Pack Water Ice Cream

Single portion water ice cream where several units are packaged together (typically by three or more) for consumption at a later stage.

Flavoured Bottled Water

Includes all flavoured bottled water, both carbonated and still, which have not had functional ingredients added during production – these are included in functional bottled water. Commonly fruit juice or essence has a content of one milligram per litre. In addition, flavoured bottled water does not normally contain colourings. The product can be either sugarised or sugar-free.

Functional Bottled Water

Functional waters includes all waters which have been actively fortified/enhanced (with nutrients, vitamins, oxygen, or herbs such as ginseng or ginkgo biloba) during production, both carbonated and still, flavoured and unflavoured. Sports and energy drinks are excluded.

Carbonates

Euromonitor International defines carbonates as non-alcoholic drinks into which carbon dioxide gas has been dissolved. Carbonated bottled water and carbonated ready-to-drink tea are excluded. Carbonates are an aggregation of cola carbonates and non-cola carbonates, whether regular or low-calorie. Euromonitor International included both naturally and artificially-sweetened carbonates.

Standard Low-Calorie Cola

All low-calorie colas, which are not flavoured, decaffeinated, functional or in any other way altered from there, original low calorie cola carbonate form.

Speciality Low-Calorie Cola

All low-calorie cola carbonates, which are flavoured, decaffeinated, functional or in any other way altered from there, original low calorie cola carbonate form.

Standard Regular Cola

Includes all regular colas, which are not flavoured, decaffeinated, functional or in any other way altered. It does not include low-calorie cola carbonates.

Speciality Regular Cola

Includes all regular colas, which are flavoured, not decaffeinated, functional or in any other way altered. It does not include low-calorie cola carbonates.

Lemonade/Lime

This is the aggregation of juice-based and non-juice-based lemonade-lime non-cola carbonates.

Ginger Ale

Carbonated beverage made with ginger. This does not include Ginger Beer (in

Other Non-Cola Carbonates) which is similar to ginger ale but has a stronger ginger flavour.

Tonic Water

Tonic water is a carbonated beverage that derives its somewhat bitter taste from the addition of quinine. This also includes tonic waters that are lightly flavoured (for example tonic water with lemon). However, this does not include tonics that are bitter (that are included in Other Mixers).

Other Mixers

Tonic water with lemon or lime or orange flavour added is known as bitter lemon or bitter lime or bitter orange, respectively. This sub-category also includes non-alcoholic carbonated bitter. Such soft drinks are more popular in Europe than in the United States.

Orange Carbonates

This is the aggregation of juice-based and non-juice-based orange non-cola carbonates.

Other Non-Cola Carbonates

Includes all carbonated soft drinks that are not included in regular cola carbonates, low-calorie cola carbonates, lemonade-lime, orange or mixers. Products featuring flavour mixes, such as orange-pineapple, are included here.

Liquid Concentrates

Concentrates and syrups, or alternatively known squashes or dilutables, which are diluted with water before consumption. Based commonly on fruit juices, however are also available as other in other forms, for example cola. Dilution ratios vary from country to country, due to local preferences and available brands.

Juice

This sector only includes still drinks. Carbonated varieties are represented in the non-cola carbonates subsector. Juice flavoured milk drinks and fruit shakes are excluded. However, fruit/vegetable drinks that contain a minimum amount of milk are included within this sector.

Not from Concentrate 100% Juice

100% pure fruit or vegetable juice that has not been reconstituted from concentrate. These products are commonly freshly-squeezed and stored within chilled cabinets. Not from concentrate juices can be partially pasteurised, which means their shelf life can range from four days to three weeks.

Reconstituted 100% Juice

100% pure fruit or vegetable juice (still) that has been reconstituted from concentrate. These products are normally ambient/room temperature. They usually have an extended shelf life, commonly up to 12 months.

Unfrozen Juice Drinks (up to 24% Juice)

Includes all still juice drinks made up of fresh juice or concentrate, not exceeding 24% juice content.

Unfrozen Nectars (25-99% Juice)

This subsector includes all unfrozen nectars that are manufactured using a base of concentrated juice or a pasteurised purée of the fruit pulp, to which sugar and water are/can be added. For citrus fruits, the fruit content of nectars is usually over 50%, however can go as low as 25% for other fruits.

RTD Coffee

Includes packaged ready-to-drink coffee.

Carbonated RTD Tea

Carbonated packaged ready-to-drink tea, this does not include leaf or powdered tea.

Still RTD Tea

Non-carbonated packaged ready-to-drink tea this does not include leaf or powdered tea.

Energy Drinks

These are drinks that are designed to boost energy levels. They usually contain high levels of caffeine and the amino acid taurine. Other ingredients associated with stimulating properties, such as guarana and ginseng, are also commonly used.

Sports Drinks

The choice of sports drink usually depends on the provision of fluids, carbohydrates or both. Included into this subsector are isotonic, hypotonic and hypertonic sports drinks. Isotonic are products that replace lost body fluids, electrolytes (sodium, potassium and chlorides) and glucose in similar concentrations to existing body fluid without causing either swelling or shrinkage of cells. These products usually contain about 5 - 8% carbohydrate and are intended to be consumed during exercise and/or heat exposure. Hypotonic – this product is a weaker solution than your body fluid. These drinks contain less carbohydrate and therefore have lower osmolality (fewer dissolved particles than blood). These drinks help the body to speed up water absorption and are best used when you need urgent fluid replacement, as in after exercise. These drinks are not the best for energy replacement. Hypertonic – this drink is a stronger solution than your body fluid. These drinks are designed to replace and maintain energy levels during exercise of at least one hour. They are absorbed slowly and therefore are not appropriate for fluid replacement.

Asian Speciality Drinks

Asian speciality drinks are traditional drinks or national specialities commonly found in Asia. Examples include Bandung (rose syrup with milk), bird's nest, tamarind juice, ginger, lemongrass, roselle, zalaka, jelly drinks including grass jelly (cincau) and sugar cane. Also includes milk-based drinks such as Calpis or Bikkle, with milk content of 3% or less.

Annex 2. Number of products for Soft Drinks, Breakfast Cereals and Dairy Products per subcategory per country

Table A.1. Number of Soft Drink products extracted from Euromonitor International's Nutrition 2016 database. These numbers represent products that were on the market in 2015 and had their total sugars content per 100 g recorded in the database.

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH | Total | |
|---------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|----|
| Asian Speciality Drinks | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Carbonated RTD Tea | 3 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 2 | 0 | 0 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 14 |
| Energy Drinks | 8 | 8 | 9 | 6 | 13 | 8 | 4 | 11 | 7 | 4 | 14 | 6 | 7 | 18 | 3 | 10 | 9 | 12 | 10 | 13 | 8 | 6 | 194 | |
| Flavoured Bottled Water | 5 | 1 | 9 | 0 | 9 | 6 | 0 | 0 | 4 | 2 | 13 | 3 | 6 | 11 | 4 | 3 | 18 | 9 | 9 | 7 | 0 | 5 | 124 | |
| Functional Bottled Water | 3 | 0 | 3 | 3 | 7 | 0 | 0 | 0 | 1 | 1 | 6 | 3 | 3 | 4 | 0 | 0 | 8 | 9 | 3 | 5 | 3 | 2 | 64 | |
| Ginger Ale | 1 | 0 | 3 | 2 | 1 | 2 | 0 | 1 | 1 | 7 | 4 | 2 | 1 | 0 | 2 | 0 | 3 | 2 | 3 | 5 | 2 | 3 | 45 | |
| Lemonade/Lime | 7 | 9 | 11 | 13 | 10 | 8 | 10 | 9 | 13 | 6 | 14 | 3 | 10 | 12 | 5 | 6 | 8 | 11 | 8 | 9 | 8 | 7 | 197 | |
| Liquid Concentrates | 4 | 4 | 18 | 13 | 4 | 7 | 2 | 2 | 13 | 6 | 20 | 8 | 10 | 11 | 4 | 7 | 12 | 15 | 22 | 14 | 13 | 3 | 212 | |
| Not from Concentrate 100% Juice | 10 | 0 | 5 | 11 | 6 | 7 | 3 | 6 | 14 | 3 | 4 | 7 | 5 | 11 | 6 | 0 | 0 | 10 | 9 | 12 | 8 | 6 | 143 | |
| Orange Carbonates | 4 | 5 | 11 | 11 | 10 | 11 | 6 | 7 | 7 | 8 | 17 | 5 | 10 | 11 | 4 | 8 | 10 | 12 | 10 | 9 | 7 | 5 | 188 | |
| Other Mixers | 1 | 3 | 2 | 6 | 2 | 3 | 0 | 3 | 0 | 5 | 1 | 2 | 2 | 0 | 0 | 2 | 0 | 5 | 6 | 3 | 2 | 3 | 51 | |
| Other Non-Cola Carbonates | 8 | 6 | 15 | 10 | 16 | 15 | 5 | 7 | 14 | 7 | 20 | 8 | 17 | 15 | 7 | 9 | 9 | 20 | 19 | 15 | 19 | 4 | 265 | |
| Reconstituted 100% Juice | 5 | 7 | 11 | 10 | 11 | 7 | 15 | 9 | 8 | 13 | 15 | 8 | 11 | 12 | 6 | 8 | 16 | 20 | 17 | 8 | 9 | 8 | 234 | |
| RTD Coffee | 4 | 5 | 6 | 4 | 8 | 1 | 5 | 4 | 5 | 2 | 9 | 7 | 8 | 7 | 1 | 4 | 4 | 5 | 4 | 10 | 7 | 4 | 114 | |
| Speciality Low-Calorie Cola | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 4 | |
| Speciality Regular Cola | 2 | 3 | 4 | 3 | 4 | 1 | 1 | 5 | 2 | 4 | 2 | 2 | 1 | 3 | 1 | 2 | 3 | 1 | 2 | 2 | 2 | 2 | 52 | |
| Sports Drinks | 5 | 4 | 5 | 1 | 3 | 3 | 3 | 8 | 2 | 5 | 5 | 6 | 4 | 7 | 5 | 1 | 6 | 6 | 5 | 5 | 2 | 3 | 94 | |
| Standard Low-Calorie Cola | 4 | 0 | 4 | 9 | 8 | 0 | 5 | 0 | 6 | 4 | 12 | 9 | 6 | 9 | 5 | 4 | 8 | 10 | 8 | 9 | 6 | 0 | 126 | |

Table A.1. (Cont.)

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH | Total |
|-----------------------|-----------|-----------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|------------|------------|-----------|-----------|------------|------------|------------|------------|------------|-----------|-------------|
| Standard Regular Cola | 2 | 5 | 7 | 8 | 6 | 3 | 4 | 5 | 7 | 10 | 10 | 5 | 6 | 9 | 4 | 3 | 3 | 12 | 9 | 6 | 3 | 2 | 129 |
| Still RTD Tea | 8 | 8 | 11 | 8 | 11 | 2 | 9 | 7 | 4 | 14 | 17 | 9 | 8 | 9 | 5 | 4 | 9 | 6 | 5 | 4 | 5 | 7 | 170 |
| Tonic Water | 2 | 4 | 8 | 6 | 1 | 2 | 3 | 6 | 3 | 6 | 4 | 3 | 1 | 7 | 4 | 4 | 4 | 5 | 5 | 5 | 2 | 2 | 87 |
| Unfrozen Juice Drinks | 5 | 18 | 13 | 7 | 3 | 8 | 5 | 10 | 10 | 5 | 19 | 7 | 7 | 23 | 9 | 11 | 13 | 14 | 10 | 13 | 6 | 5 | 221 |
| Unfrozen Nectars | 8 | 9 | 12 | 9 | 12 | 7 | 5 | 8 | 14 | 16 | 18 | 10 | 9 | 15 | 7 | 11 | 13 | 14 | 15 | 12 | 6 | 5 | 235 |
| Total | 99 | 99 | 167 | 140 | 148 | 101 | 85 | 108 | 138 | 128 | 224 | 119 | 133 | 194 | 82 | 97 | 156 | 198 | 179 | 170 | 119 | 83 | 2967 |

Table A.2. Number of Breakfast Cereal products extracted from Euromonitor International's Nutrition 2016 database. These numbers represent products that were on the market in 2015 and had their total sugars content per 100 g recorded in the database.

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH | Total |
|------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Children's Breakfast Cereals | 16 | 7 | 11 | 8 | 11 | 9 | 8 | 10 | 12 | 11 | 18 | 10 | 9 | 14 | 15 | 7 | 14 | 8 | 11 | 16 | 5 | 9 | 239 |
| Flakes | 8 | 9 | 10 | 8 | 6 | 8 | 12 | 7 | 7 | 11 | 18 | 5 | 6 | 11 | 6 | 6 | 8 | 9 | 14 | 11 | 10 | 7 | 197 |
| Hot Cereals | 5 | 0 | 3 | 5 | 2 | 11 | 1 | 3 | 4 | 0 | 1 | 4 | 2 | 8 | 7 | 0 | 3 | 8 | 10 | 7 | 4 | 2 | 90 |
| Muesli | 9 | 4 | 11 | 13 | 14 | 16 | 4 | 6 | 13 | 4 | 12 | 6 | 9 | 15 | 10 | 3 | 4 | 11 | 13 | 10 | 13 | 11 | 211 |
| Other RTE Cereals | 6 | 4 | 8 | 5 | 8 | 11 | 4 | 4 | 8 | 4 | 3 | 6 | 4 | 2 | 6 | 5 | 7 | 4 | 9 | 15 | 6 | 3 | 132 |
| Total | 44 | 24 | 43 | 39 | 41 | 55 | 29 | 30 | 44 | 30 | 52 | 31 | 30 | 50 | 44 | 21 | 36 | 40 | 57 | 59 | 38 | 32 | 869 |

Table A.3. Number of Dairy Products extracted from Euromonitor International's Nutrition 2016 database. These numbers represent products that were on the market in 2015 and had their total sugars content per 100 g recorded in the database.

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH | Total |
|--|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|
| Chilled Dairy-based Desserts | 10 | 7 | 15 | 3 | 12 | 8 | 7 | 8 | 14 | 7 | 12 | 14 | 7 | 5 | 4 | 2 | 3 | 4 | 4 | 9 | 2 | 7 | 164 |
| Chilled Snacks | 1 | 2 | 6 | 3 | 6 | 3 | 4 | 1 | 3 | 6 | 15 | 0 | 4 | 4 | 1 | 3 | 3 | 0 | 0 | 0 | 0 | 2 | 67 |
| Chilled Soy-based Desserts | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 2 | 2 | 2 | 2 | 1 | 0 | 0 | 4 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 20 |
| Coffee Whiteners | 10 | 1 | 8 | 2 | 5 | 1 | 0 | 1 | 0 | 2 | 6 | 5 | 2 | 3 | 0 | 0 | 4 | 0 | 0 | 3 | 1 | 5 | 59 |
| Dairy Only Flavoured Milk Drinks | 7 | 4 | 7 | 4 | 12 | 3 | 7 | 9 | 7 | 8 | 16 | 3 | 5 | 8 | 8 | 0 | 5 | 8 | 7 | 8 | 6 | 7 | 149 |
| Drinking Yoghurt | 7 | 2 | 8 | 5 | 5 | 6 | 3 | 7 | 6 | 17 | 10 | 10 | 2 | 9 | 13 | 5 | 3 | 9 | 3 | 4 | 2 | 5 | 141 |
| Flavoured Fromage Frais and Quark | 7 | 0 | 11 | 3 | 9 | 5 | 0 | 3 | 8 | 1 | 6 | 7 | 4 | 10 | 3 | 0 | 5 | 12 | 10 | 11 | 5 | 5 | 125 |
| Flavoured Milk Drinks with Fruit Juice | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 2 | 1 | 3 | 5 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 19 |
| Flavoured Yoghurt | 6 | 4 | 17 | 3 | 12 | 7 | 6 | 11 | 6 | 15 | 9 | 10 | 10 | 6 | 7 | 1 | 13 | 13 | 9 | 10 | 10 | 8 | 193 |
| Fruited Yoghurt | 15 | 5 | 16 | 6 | 15 | 17 | 12 | 10 | 13 | 13 | 12 | 16 | 11 | 9 | 8 | 7 | 11 | 16 | 10 | 21 | 11 | 8 | 262 |
| Other Non-Dairy Milk Alternatives | 5 | 2 | 3 | 2 | 3 | 5 | 1 | 3 | 3 | 7 | 4 | 2 | 2 | 0 | 3 | 0 | 0 | 5 | 6 | 10 | 2 | 3 | 71 |
| Plain Fromage Frais and Quark | 8 | 4 | 10 | 6 | 6 | 3 | 3 | 1 | 6 | 3 | 10 | 5 | 12 | 11 | 2 | 2 | 6 | 8 | 5 | 4 | 5 | 12 | 132 |
| Plain Yoghurt | 12 | 11 | 20 | 7 | 11 | 10 | 25 | 11 | 8 | 14 | 17 | 9 | 9 | 11 | 9 | 9 | 12 | 13 | 11 | 9 | 7 | 9 | 254 |
| Savoury Fromage Frais and Quark | 0 | 0 | 4 | 0 | 3 | 0 | 0 | 0 | 2 | 0 | 2 | 2 | 3 | 3 | 0 | 6 | 3 | 1 | 1 | 3 | 0 | 3 | 36 |
| Shelf Stable Dairy-based Desserts | 2 | 1 | 0 | 0 | 3 | 2 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 19 |
| Shelf Stable Soy-based Desserts | 1 | 0 | 2 | 1 | 3 | 1 | 0 | 1 | 1 | 3 | 1 | 2 | 2 | 1 | 1 | 1 | 0 | 0 | 2 | 1 | 1 | 1 | 26 |
| Sour Milk Products | 5 | 0 | 17 | 9 | 5 | 2 | 2 | 2 | 1 | 0 | 12 | 8 | 8 | 11 | 1 | 5 | 6 | 16 | 10 | 0 | 7 | 3 | 130 |
| Soy Drinks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Soy Milk | 4 | 0 | 2 | 4 | 2 | 6 | 2 | 8 | 4 | 4 | 5 | 3 | 2 | 3 | 5 | 1 | 5 | 5 | 5 | 1 | 2 | 3 | 76 |
| Bulk Dairy Ice Cream | 8 | 10 | 12 | 8 | 11 | 6 | 10 | 9 | 10 | 11 | 7 | 5 | 9 | 8 | 7 | 5 | 9 | 11 | 14 | 17 | 13 | 5 | 205 |

Table A.3. (Cont.).

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH | Total |
|--------------------------------|------------|-----------|------------|-----------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------|------------|------------|------------|------------|------------|------------|-------------|
| Bulk Water Ice Cream | 6 | 0 | 3 | 1 | 5 | 1 | 0 | 7 | 4 | 0 | 6 | 1 | 4 | 0 | 4 | 1 | 0 | 2 | 3 | 1 | 3 | 4 | 56 |
| Frozen Yoghurt | 1 | 0 | 0 | 3 | 2 | 2 | 1 | 5 | 2 | 2 | 0 | 3 | 4 | 0 | 1 | 0 | 0 | 2 | 3 | 5 | 2 | 3 | 41 |
| Ice Cream Desserts | 5 | 3 | 8 | 4 | 8 | 2 | 3 | 9 | 6 | 5 | 5 | 3 | 3 | 3 | 4 | 1 | 5 | 1 | 2 | 4 | 4 | 2 | 90 |
| Multi-Pack Dairy Ice Cream | 14 | 2 | 4 | 6 | 8 | 3 | 8 | 16 | 12 | 10 | 7 | 7 | 7 | 4 | 6 | 0 | 2 | 10 | 5 | 14 | 14 | 7 | 166 |
| Multi-Pack Water Ice Cream | 6 | 0 | 1 | 5 | 5 | 3 | 0 | 5 | 4 | 7 | 1 | 3 | 5 | 0 | 2 | 0 | 0 | 5 | 4 | 8 | 3 | 1 | 68 |
| Single Portion Dairy Ice Cream | 7 | 7 | 10 | 8 | 4 | 14 | 14 | 10 | 10 | 5 | 13 | 5 | 4 | 11 | 4 | 15 | 6 | 14 | 9 | 21 | 16 | 7 | 214 |
| Single Portion Water Ice Cream | 5 | 4 | 5 | 6 | 2 | 7 | 2 | 6 | 2 | 5 | 7 | 2 | 4 | 4 | 3 | 2 | 3 | 7 | 3 | 5 | 3 | 3 | 90 |
| Total | 153 | 69 | 189 | 99 | 159 | 118 | 110 | 147 | 135 | 152 | 186 | 129 | 129 | 124 | 103 | 67 | 104 | 163 | 126 | 174 | 122 | 117 | 2875 |

Annex 3. Market coverage for Soft Drinks, Breakfast Cereals and Dairy Products per subcategory per country

Table A.4. Market coverage for Soft Drink products on the market in 2015, calculated from the products extracted from Euromonitor International's Nutrition 2016 database, expressed as a percentage of the total market volume extracted from their Packaged Food 2016 database.

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Asian Speciality Drinks | 0 | 0 | 0 | 0 | 41.4 | 0 | 0 | 0 | 34.2 | 0 | 0 | 81.5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Carbonated RTD Tea | 65.2 | 0 | 0 | 0 | 96.3 | 0 | 0 | 0 | 77.4 | 0 | 0 | 63.8 | 69.3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 100 | 100 |
| Energy Drinks | 62.4 | 96.1 | 92.1 | 84.4 | 82.3 | 82.9 | 84.8 | 93.7 | 82.8 | 72.6 | 82.5 | 80.3 | 47.1 | 73.8 | 50.8 | 82.4 | 72.8 | 90.9 | 92.7 | 96.6 | 90.2 | 87.4 |
| Flavoured Bottled Water | 70.9 | 31.1 | 82 | 0 | 57.9 | 71.2 | 0 | 0 | 65.6 | 94.1 | 67.2 | 82.4 | 79 | 79.2 | 61.5 | 97.3 | 79.1 | 92.6 | 97.3 | 67.8 | 0 | 73.2 |
| Functional Bottled Water | 72.5 | 0 | 87.8 | 100 | 88.6 | 0 | 0 | 0 | 78.7 | 43 | 28.6 | 60 | 38.7 | 74.5 | 0 | 0 | 90 | 95.4 | 91.6 | 68.9 | 96.9 | 11.1 |
| Ginger Ale | 60.8 | 0 | 92.7 | 80 | 46.6 | 82.1 | 0 | 98 | 88.4 | 36 | 65.4 | 72.9 | 51.3 | 0 | 85.8 | 0 | 80 | 100 | 86.9 | 81.1 | 32.8 | 99.9 |
| Lemonade/Lime | 55.9 | 58.1 | 55.2 | 89.2 | 71 | 91.8 | 77.7 | 75 | 69.7 | 49 | 82.6 | 66.1 | 65.5 | 66.4 | 69.1 | 90.4 | 73 | 91.1 | 91.2 | 89.3 | 94.7 | 59.9 |

Table A.4. (Cont.).

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH |
|---------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Liquid Concentrates | 51.5 | 75.4 | 87.1 | 82.3 | 17.8 | 77.7 | 45 | 21.5 | 78.3 | 58.4 | 81.7 | 72.7 | 61.1 | 85.9 | 67.5 | 83.1 | 46.9 | 79.2 | 85.8 | 86.4 | 90.1 | 60.5 |
| Not from Concentrate 100% Juice | 83.8 | 0 | 71.8 | 90.9 | 60.1 | 73.1 | 89.2 | 78.9 | 91.4 | 71.8 | 69.7 | 89.8 | 82.7 | 79.2 | 88.8 | 0 | 0 | 89.1 | 49.5 | 83.8 | 88 | 95.5 |
| Orange Carbonates | 60.7 | 57.9 | 58.6 | 98.3 | 57.3 | 95.4 | 81.9 | 92.7 | 89.1 | 58.8 | 90.1 | 72.3 | 77.5 | 81.8 | 64.1 | 87.3 | 89.4 | 95.6 | 96.6 | 87.3 | 89.3 | 70.1 |
| Other Mixers | 86.8 | 65.8 | 80.2 | 95.4 | 32.4 | 72.2 | 0 | 61.6 | 0 | 96.6 | 89.1 | 69.3 | 55 | 0 | 0 | 97.1 | 0 | 84.5 | 75.7 | 36.9 | 52.4 | 94.2 |
| Other Non-Cola Carbonates | 74.9 | 63.5 | 76 | 81.5 | 69.8 | 65.6 | 81.1 | 78.3 | 82.8 | 64.3 | 79.9 | 68 | 78.8 | 53.4 | 86.5 | 90.5 | 78.3 | 80.4 | 92 | 80.3 | 80.8 | 76.5 |
| Reconstituted 100% Juice | 50.8 | 94.3 | 83.9 | 68.6 | 73 | 89.5 | 75.9 | 83.1 | 75.3 | 76.1 | 93.6 | 90.4 | 64.1 | 75 | 80.2 | 95 | 77.6 | 89.9 | 94.4 | 65.4 | 82.9 | 74.8 |
| RTD Coffee | 77.5 | 64.8 | 81.9 | 94 | 54.3 | 55.8 | 45.2 | 97.1 | 37.6 | 34.8 | 72.8 | 87.2 | 79.4 | 60.8 | 45 | 94.8 | 68.9 | 100 | 92.8 | 79.2 | 95.6 | 94.6 |
| Speciality Low-Calorie Cola* | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12.4 | 0 | 0 |
| Speciality Regular Cola | 7.6 | 99.9 | 96.5 | 100 | 50.4 | 77.4 | 99.9 | 87.1 | 54.1 | 82.6 | 97.6 | 56.7 | 28.1 | 91.9 | 47 | 99 | 60 | 100 | 84 | 50.5 | 12.6 | 79.8 |
| Sports Drinks | 58.2 | 62.7 | 86.1 | 20.1 | 24.3 | 69.5 | 1.8 | 92.4 | 63.5 | 76.7 | 65.2 | 75.7 | 59.8 | 76.7 | 53.3 | 81 | 82.9 | 79.8 | 92.1 | 77.6 | 45.8 | 52.6 |
| Standard Low-Calorie Cola | 81.2 | 0 | 90.5 | 93.2 | 73.3 | 0 | 89.7 | 0 | 73.1 | 86 | 95.6 | 53.1 | 89.5 | 93.9 | 89 | 98 | 86.2 | 98.2 | 93.3 | 88 | 97.2 | 0 |
| Standard Regular Cola | 66.5 | 91 | 82.5 | 91.3 | 70.6 | 83.9 | 96 | 87.3 | 96.6 | 89.3 | 96.3 | 82.4 | 83 | 92.2 | 86.8 | 98.7 | 76.3 | 98.6 | 93.6 | 92.8 | 94.2 | 95 |
| Still RTD Tea | 65.2 | 83.8 | 80.3 | 81.1 | 86.9 | 87.2 | 83.5 | 94.8 | 81.2 | 82.8 | 80.5 | 79.9 | 70.9 | 72.9 | 20.9 | 95 | 79.5 | 99.1 | 97.2 | 74.8 | 71.3 | 89.4 |
| Tonic Water | 75.7 | 100 | 62.2 | 83.1 | 36.2 | 83.8 | 85 | 92.9 | 67.8 | 58.5 | 75.8 | 70.3 | 55.1 | 85.2 | 62.6 | 88 | 41.4 | 100 | 74.1 | 75.9 | 53.4 | 76.5 |
| Unfrozen Juice Drinks | 54.5 | 64.9 | 70.6 | 76.6 | 31.6 | 74.1 | 72.6 | 87.9 | 82.1 | 64.3 | 79.5 | 68.7 | 58.8 | 80.8 | 79 | 83.8 | 70 | 84.5 | 96.5 | 78.6 | 54.8 | 71.2 |
| Unfrozen Nectars | 38.9 | 87.8 | 84.5 | 94.7 | 91.1 | 82.1 | 60.8 | 88.2 | 80.2 | 78.3 | 83 | 74.7 | 65.9 | 93.4 | 47.4 | 88.2 | 64.8 | 84.7 | 91.4 | 75.2 | 70.4 | 74.5 |

* The low market coverage for the Speciality Low-Calorie Cola subcategory is due to the lack of sugar content data in the Nutrition database. Euromonitor's Soft Drinks database contains market data on 33 products in this subcategory across 10 countries. However, sugar content data was only available for four UK products.

Table A.5. Market coverage for Breakfast Cereal products on the market in 2015, calculated from the products extracted from Euromonitor International's Nutrition 2016 database, expressed as a percentage of the total market volume extracted from their Packaged Food 2016 database.

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Children's Breakfast Cereals | 57.3 | 81.9 | 83 | 80.2 | 69.9 | 63.8 | 63.5 | 68.2 | 69.3 | 78.8 | 80.2 | 72.6 | 86.9 | 84.2 | 83.5 | 42.1 | 85.8 | 71.9 | 78 | 77.9 | 55 | 56.3 |
| Flakes | 68.2 | 71.2 | 74.2 | 77.3 | 63.9 | 68.5 | 77.6 | 87.2 | 56.2 | 91.2 | 86.2 | 48.3 | 63.4 | 76.3 | 88.9 | 55.1 | 77.2 | 94.1 | 96.3 | 72.5 | 81.2 | 76.7 |
| Hot Cereals | 73.3 | 0 | 83.5 | 60.9 | 76.8 | 73.3 | 95.4 | 44.4 | 82.6 | 0 | 84.2 | 83.8 | 62.8 | 72.1 | 78.8 | 0 | 67.8 | 91.2 | 83.7 | 70.8 | 77.4 | 32.4 |
| Muesli | 69.9 | 55.8 | 81.9 | 72.8 | 64.4 | 74.1 | 31 | 54.2 | 79.1 | 86.7 | 71.4 | 43.6 | 83.6 | 87.9 | 73.4 | 47.5 | 86.2 | 90.3 | 78.2 | 80.3 | 67.3 | 68.9 |
| Other RTE Cereals | 60.1 | 50.6 | 74.2 | 68.6 | 62.1 | 55.9 | 90.4 | 34.3 | 56.7 | 82.4 | 85.1 | 24.1 | 45.6 | 31.2 | 76.6 | 52.3 | 84 | 69 | 85.6 | 83 | 78.9 | 35.2 |

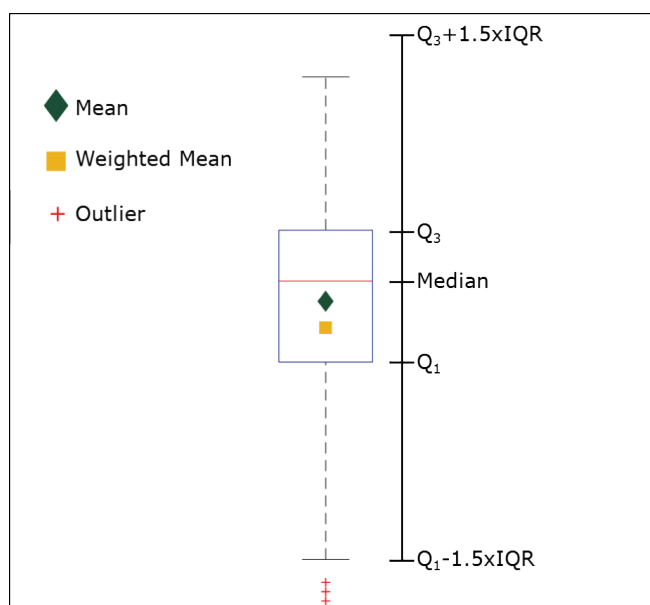
Table A.6. Market coverage for Dairy Products on the market in 2015, calculated from the products extracted from Euromonitor International's Nutrition 2016 database, expressed as a percentage of the total market volume extracted from their Packaged Food 2016 database.

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Chilled Dairy-based Desserts | 70.9 | 83.9 | 85.2 | 41.7 | 76.6 | 30.7 | 70.4 | 76.6 | 58.9 | 58.7 | 87.4 | 73.2 | 72.2 | 51.1 | 55.4 | 64.7 | 43.8 | 29.1 | 66.3 | 70.3 | 64 | 78.6 |
| Chilled Snacks | 99.9 | 97 | 96.7 | 72.6 | 86.5 | 94.1 | 98.8 | 64.9 | 91.5 | 99.1 | 93.7 | 0 | 81.5 | 91.1 | 80.3 | 45 | 60.4 | 0 | 0 | 0 | 0 | 33.7 |
| Chilled Soy-based Desserts | 78.5 | 0 | 0 | 0 | 66 | 0 | 0 | 46.1 | 59.8 | 72.4 | 79.5 | 99.9 | 0 | 0 | 87 | 90.2 | 0 | 94.3 | 0 | 0 | 43.5 | 60.3 |
| Coffee Whiteners | 85.8 | 54.5 | 52.3 | 77 | 76.6 | 67.8 | 0 | 60.8 | 0 | 58.8 | 42.2 | 75.7 | 52.4 | 67.4 | 0 | 0 | 83.7 | 0 | 0 | 53.1 | 100 | 41.5 |
| Dairy Only Flavoured Milk Drinks | 52.2 | 49.3 | 85.3 | 63.4 | 63.1 | 67.9 | 84.5 | 73.1 | 73.5 | 80.3 | 70 | 71.8 | 57.6 | 69 | 89.9 | 0 | 67.3 | 90.1 | 95 | 58.3 | 88.8 | 69 |
| Drinking Yoghurt | 66.9 | 55.5 | 37.7 | 79.9 | 58.3 | 68.8 | 92.1 | 75.8 | 63 | 73.3 | 59.8 | 70.9 | 29.5 | 54.8 | 92.1 | 33.7 | 45.9 | 70.8 | 18.1 | 62.3 | 27.8 | 22.2 |
| Flavoured Fromage Frais and Quark | 60.6 | 0 | 84 | 78.2 | 70.7 | 56.8 | 0 | 49 | 51.6 | 68.9 | 61.5 | 73.3 | 62 | 63.7 | 84.7 | 0 | 23.1 | 85.8 | 96 | 79.5 | 84.8 | 40.5 |
| Flavoured Milk Drinks with Fruit Juice | 0 | 0 | 0 | 0 | 75.3 | 76 | 0 | 63.6 | 0 | 57.1 | 84.5 | 86.1 | 63.4 | 0 | 84.6 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| Flavoured Yoghurt | 78.8 | 83.5 | 63.3 | 80.2 | 55.9 | 48.8 | 74.9 | 75.3 | 71.9 | 85.8 | 82.2 | 97.3 | 52.9 | 51.7 | 89.3 | 81.5 | 84.5 | 86.7 | 88.6 | 79.2 | 95.1 | 64.5 |
| Fruited Yoghurt | 75.6 | 84.6 | 70.9 | 70.8 | 68.8 | 66.8 | 85 | 87.2 | 74.5 | 85.8 | 63.2 | 78.8 | 61.7 | 45.6 | 64.1 | 56.7 | 75.2 | 84.6 | 84.6 | 85.3 | 85 | 63.9 |

Table A.6. (Cont.)

| | BE | BG | CZ | DK | DE | IE | EL | ES | FR | IT | HU | NL | AT | PL | PT | RO | SK | FI | SE | UK | NO | CH |
|-----------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| Other Non-Dairy Milk Alternatives | 94.7 | 24.7 | 64.6 | 73.3 | 49.6 | 97.9 | 99 | 69.8 | 89.7 | 82.6 | 77.3 | 79.6 | 89.1 | 0 | 87.7 | 0 | 0 | 80 | 95.5 | 87.3 | 33.6 | 74.7 |
| Plain Fromage Frai and Quark | 65.9 | 25.9 | 80.4 | 77.8 | 38.8 | 55.6 | 69.3 | 50 | 68.6 | 83.6 | 49 | 77.2 | 66 | 50.2 | 12.8 | 6.1 | 52.7 | 70.5 | 92.5 | 52.2 | 89.6 | 44.9 |
| Plain Yoghurt | 65.1 | 50.4 | 75.7 | 80.5 | 49.7 | 74.5 | 79.2 | 79.6 | 55.2 | 69.9 | 89.1 | 69 | 52.9 | 84.3 | 77.3 | 55.2 | 54.7 | 70 | 66.5 | 79.5 | 87.3 | 57.4 |
| Savoury Fromage Frai and Quark | 0 | 0 | 80.4 | 0 | 34 | 0 | 0 | 0 | 12.9 | 0 | 41.7 | 37.1 | 68 | 52.7 | 0 | 30.1 | 77.4 | 100 | 88.1 | 53.1 | 0 | 51.6 |
| Shelf Stable Dairy-based Desserts | 86.6 | 43 | 0 | 0 | 78.3 | 65.9 | 0 | 43.6 | 6.5 | 22.8 | 0 | 0 | 4.7 | 0 | 0 | 0 | 0 | 0 | 0 | 66.7 | 76.8 | 0 |
| Shelf Stable Soy-based Desserts | 73.5 | 0 | 86.9 | 80.9 | 66 | 42.3 | 0 | 29.7 | 51.5 | 53.7 | 53.3 | 99.6 | 82.9 | 86.1 | 99 | 31.3 | 0 | 0 | 96.4 | 51.5 | 78 | 81.6 |
| Sour Milk Products | 43.9 | 0 | 88.8 | 61 | 41 | 18.8 | 76 | 52 | 22.1 | 0 | 72.8 | 71 | 64.2 | 73.7 | 47.9 | 37.8 | 63 | 98.8 | 87.1 | 0 | 99.3 | 35.8 |
| Soy Drinks | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 75.1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Soy Milk | 74.4 | 0 | 85.3 | 91.5 | 32.2 | 68.6 | 96 | 80.4 | 48 | 90.6 | 83.5 | 80.7 | 86 | 35.7 | 71.9 | 16.6 | 78.4 | 91 | 89.5 | 59.4 | 51.3 | 91.5 |
| Bulk Dairy Ice Cream | 57.7 | 62.7 | 77.9 | 39.1 | 85 | 65.7 | 45.7 | 77.4 | 81.6 | 88 | 48.4 | 69.7 | 85.4 | 61.6 | 82.1 | 24.8 | 73.5 | 92 | 76.6 | 60.3 | 52 | 42.1 |
| Bulk Water Ice Cream | 59.5 | 0 | 56.2 | 52.8 | 73 | 68.6 | 0 | 50.6 | 37.7 | 0 | 81.7 | 23.4 | 90.3 | 0 | 85.2 | 12.2 | 0 | 29.8 | 89 | 3.1 | 66 | 51.6 |
| Frozen Yoghurt | 11.3 | 0 | 0 | 49 | 83.2 | 41.8 | 19.7 | 52.4 | 100 | 22.3 | 0 | 76.3 | 97.3 | 0 | 55.2 | 0 | 0 | 100 | 72.5 | 72.6 | 91.7 | 81 |
| Ice Cream Desserts | 45.8 | 55.3 | 55.8 | 65.3 | 59.7 | 81.3 | 60.7 | 65.2 | 69.7 | 81.1 | 70 | 77 | 73.4 | 43.6 | 75.3 | 17.2 | 57.8 | 94.8 | 64 | 59.4 | 58.4 | 58.5 |
| Multi-Pack Dairy Ice Cream | 79.5 | 28.7 | 72.4 | 56.5 | 58.8 | 61.2 | 65.7 | 58.6 | 79.2 | 86.2 | 53.3 | 78.7 | 76.5 | 86 | 72 | 0 | 26.8 | 82.9 | 40.9 | 55.6 | 83.1 | 56.2 |
| Multi-Pack Water Ice Cream | 34.8 | 0 | 59.9 | 59 | 43.4 | 52.1 | 0 | 47.6 | 28.6 | 66 | 16 | 69.3 | 68.4 | 0 | 45.9 | 0 | 0 | 85.3 | 47.9 | 44.9 | 67.9 | 14.4 |
| Single Portion Dairy Ice Cream | 39.3 | 61.1 | 41.5 | 60.9 | 55.3 | 74.8 | 63.7 | 59.3 | 69.5 | 63.8 | 55.2 | 62 | 88.5 | 59.9 | 53.4 | 63.1 | 38.6 | 84 | 64.4 | 73.5 | 73.7 | 55.4 |
| Single Portion Water Ice Cream | 32.8 | 72.7 | 58.5 | 60.8 | 26.1 | 84.9 | 30.8 | 42.9 | 26.1 | 76.8 | 71.4 | 66.1 | 81.5 | 34.4 | 63.7 | 64.5 | 51.7 | 82.9 | 65.7 | 40.1 | 55.1 | 19.7 |

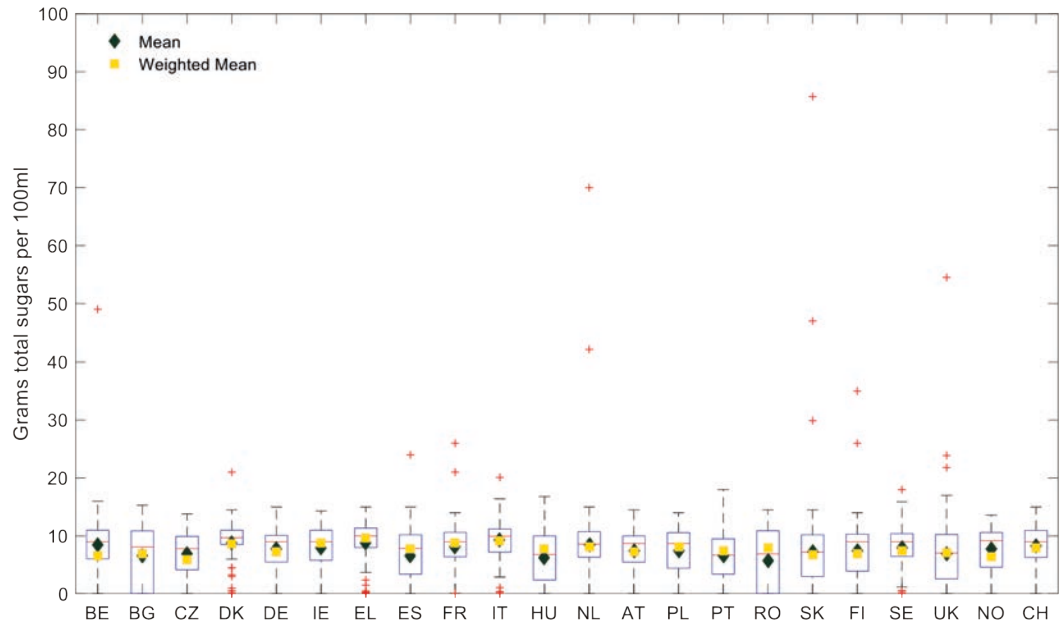
Annex 4. Graphical representation of the distribution of total sugars content



Each underlying data point represents the total sugars content in grams per 100 g (or 100 ml) of an individual product.

- The box represents the middle 50% of the data. The lower edge of the box denotes the 25th percentile (1st quartile, Q_1) and the upper edge denotes the 75th percentile (3rd quartile, Q_3).
- The red horizontal line denotes the median value and its position within the box indicates the skewness of the total sugars content values.
- The green diamond denotes the arithmetic mean of the total sugars content of all products.
- The yellow square denotes the weighted mean of the total sugars content of all products, where the sugars content of each product has been weighted by its % market share.
- The whiskers extend from the upper and lower edges of the box and indicate data points that are within 1.5 times the interquartile range ($IQR = Q_3 - Q_1$) of the box edges. The whiskers extend to these values or to the closest data point within range.
- Outliers, points located outside the whisker's range, are denoted by a red cross. These points represent products with extreme (high or low) total sugars content.

Annex 5. Distribution of total sugars content per 100 ml for Soft Drinks, excluding Liquid Concentrates – complete version of Figure 4



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