Best-ReMaP
Healthy Food for a Healthy Future

D6.1 EU coordinated approach using the WHO nutrient profile model for the identification of foods not permitted for marketing to children

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Abbreviations

AVMSD	Audio-Visual Media Services Directive
CDPC	Centre for Disease Prevention and Control (Latvia)
CHDR	The Centre for Health & Diet Research (Ireland)
CIPH	Croatian Institute of Public Health
DGS	Directorate-General of Health
EC JRC	European's Commission Joint Research Centre
EU	European Union
HFSS	High Fat, Sugar, and/or Salt
ICH	Institute of Child Health (Greece)
JA	Joint Action
LR SAM	Ministry of Health of Lithuania
MoH	Ministry of Health
MoH CY	Ministry of Health (Cyprus)
MOH-FR	French Ministry of Solidarity and Health
MoSA	Ministry of Social Affairs (Estonia)
MS	Member States
NCDs	Noncommunicable diseases
NIHD	The National Institute for Health Development (Estonia)
NIJZ	National Institute of Public Health of the Republic of Slovenia
NIPH	National Institute of Public Health (Romania)
NPM	Nutrient Profile Model
PAHO	Pan American Health Organization

PT NPM	Portuguese Nutrient Profile Model
SL NPM	Slovenian Nutrient Profile Model
SPF	Santé publique France (French National Public Health Agency)
THL	National Institute of Health and Welfare (Finland)
UK NPM	United Kingdom Nutrient Profile Model
WHO	World Health Organization

Executive summary

Unhealthy food and beverage marketing directed at children increases their dietary intake and has a negative impact on children's preference for energy-dense, low-nutrition food and beverage, as well as on children's purchase behaviour and diet-related-health. The implementation of effective measures to reduce children's exposure to unhealthy food marketing encompass a clear definition of foods from which marketing to children should not be permitted.

Work Package 6 of Best-ReMaP Joint Action aims to explore, develop and share, with participating countries, the best practices to reduce unhealthy food marketing to children and adolescents. Supporting Member States (MS) in transposing the Audio-Visual Media Services Directive (AVMSD), is within WP6 objectives, as well as to encourage MS in taking further actions to reduce marketing of unhealthy food to children and adolescents. In this regard, one of the outputs of WP6 is a proposal for an EU coordinated Nutrient Profile Model (NPM), based on the World Health Organization (WHO) Europe Nutrient Profile Model (as identified in the AVMSD), to identify foods not permitted to be marketed to children and adolescents.

This report presents the context, background and foundation of the EU coordinated approach using the WHO nutrient profile model for the identification of foods not permitted for marketing to children. The general principles for the proposal of an EU

coordinated NPM, as well as the rationale used to adjust the WHO Europe NPM are included in this report. Besides the application of the thresholds defined in the reference model - the WHO Europe NPM – further references were applied. The EU Regulation No 1924/2004 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods, the values of the 25% of the reference intake (reference intake based on the WHO recommendations), the WHO Global Sodium Benchmarks, as well as other NPMs from different WHO regions and countries that have adapted the WHO Europe NPM, were considered.

The result is a proposal for an EU coordinated NPM which establishes thresholds for free sugars, salt, saturated fat, total fat, trans-fatty acids, and non-sugar sweeteners, according to WHO recommendations and the current scientific evidence. To ensure that the model was as restrictive as necessary to accurately protect children from unhealthy food marketing, this model was compared with the reference model and four more nutrient profile models. Nevertheless, as this proposal is foreseen to be a living document and a participatory activity, it will consider contributions from the participating countries of the WP6 Task 6.3, which will include testing and adaptations to this proposal by these countries. In this regard, a roadmap for this process of continuously revision and improvement of the proposal for the EU coordinated nutrient profile model is suggested. The outcome of this process will be the final version of the EU coordinated nutrient profile model.

At last, in order to support MS in adapting and implementing the NPM, the present report also includes the stages necessary to adapt the EU coordinated NPM to the national context, plus the Slovenian and Portuguese experiences in adapting and implementing an NPM.

1. Context

The Best-ReMaP project is a three-year initiative (2020-2023) funded by the European Union's (EU) Health Programme (2014-2020) and participating organisations. Altogether, 35 beneficiaries representing 24 European countries collaborate on implementing pilot projects and generating practical lessons in the field of nutrition with special focus on children and adolescents. Best-ReMaP Joint Action (JA) seeks to contribute to an improved quality of food supplied to citizens of Europe by adapting, replicating and implementing effective health interventions, based on practices that have been proven to work in the areas of 1) food monitoring and reformulation; 2) framing of food marketing to children and adolescents and 3) public procurement of healthy food in public settings.

Building on its work through the different fields of work, the JA will support implementation, transfer and integration of the results, outcomes and recommendations of the Best-ReMaP JA into national and EU level policies. Throughout the JA processes, the participatory engagement of EU and national stakeholders in the field will be prioritised.

Work Package 6, one of the work packages of this JA, aims to explore, develop and share, within participating countries, the best practices on reducing unhealthy food marketing to children and adolescents. WP6 aims to support Member States (MS) in transposing the Audio-Visual Media Services Directive (AVMSD), as well as to encourage MS in taking further actions to reduce marketing of unhealthy food to children and adolescents. In this regard, one of the outputs of WP6 will be a proposal for an EU coordinated Nutrient Profile Model (NPM), based on the World Health Organization (WHO) Europe Nutrient Profile Model (as identified in the AVMSD), to identify foods not permitted to be marketed to children and adolescents.

The Audio-Visual Media Services was revised in 2018 with some proposals, as protecting minors from content and advertising that might impair their physical, mental or moral development. The recent revision of the AVMSD encourages the EU MS to ensure that self- and co-regulation, including through codes of conduct, is used to effectively reduce the exposure of children to audio-visual commercial communications regarding foods and beverages that are high in salt, sugars, fat, saturated fats or trans-

fatty acids or that otherwise do not fit those national or international nutritional guidelines, recognising nutritional guidelines such as the WHO Regional Office for Europe's nutrient profile model.

The transposition of this Directive into national legislation is mandatory. This is an opportunity for EU MS to really implement and develop concrete measures to reduce children's exposure to unhealthy food marketing. The European Commission has been reinforcing the importance of acting in this area, through calling for the attention on the implementation and monitoring of the AVMSD in several of the strategic documents, as well as highlighting other measures that will help tackling this challenge, in particular within the Europe's Beating Cancer Plan, the EU Strategy on the Rights of the Child and the Farm2Fork Strategy.

This Europe's Beating Cancer Plan highlights the relevance of healthy eating in cancer prevention, including measures in reducing food advertising and marketing to children. It reinforces the Commission's work in this area, notably in monitoring the implementation of the EU Audio-visual Media Services Directive and in supporting the implementation of policies to reduce the marketing of unhealthy food products, through the EU Joint Action Best-ReMaP (1). In the prevention key action area: "3.4. Improving health promotion through access to healthy diets and physical activity", the Cancer Plan "will (…) address the marketing and advertising of products linked to cancer risks." Additionally, once marketing and advertising is designed to influence the choices consumers make, the Commission is "planning to prepare an implementation report in 2022 on the Audio-visual Media Service Directive, including those on commercial communications on unhealthy food and drinks.

The EU Strategy on the Rights of the Child Thematic Area 2: "Socio-economic inclusion, health and education: An EU that fights child poverty, promotes inclusive and child-friendly societies, health and education systems" provides for ensuring the rights of all children to health through "the development of best practices and a voluntary code of conduct to reduce online marketing to children of products high in sugar, fat and salt within the Joint Action on Implementation of Validated Best Practices in Nutrition". The Thematic Area 5 focused on "Digital and information society: An EU where children can safely navigate the digital environment and harness its

opportunities" also mentions the protection of children from harmful marketing by stating the AVMSD (2).

The Farm to Fork Strategy sets key targets in priority areas for the EU. In the area related to "Stimulating sustainable food processing, wholesale, retail, hospitality and food services practices", this strategy establishes that the Commission "will also seek opportunities to facilitate the shift to healthier diets and stimulate product reformulation, including by setting up nutrient profiles to restrict the promotion (via nutrition or health claims) of foods high in fat, sugars and salt" (3).

Taking into account these call to actions, in particular the AVMSD call for effectively reducing the exposure of children to audiovisual commercial communications of foods and beverages that are high in salt, sugars, fat, saturated fats or trans-fatty acids, the European's Commission Joint Research Centre (EC JRC) have developed a toolkit to support EU Member States the transposition of the AVMSD into national legislation (4).

2. Background

- According to the Childhood Obesity Surveillance Initiative, in 2017, the prevalence of overweight (including obesity) in European children aged 7–9 years was 29% in boys and 27% in girls. The prevalence of obesity was 13% in boys and 9% in girls (according to WHO definitions) (5).

- An obesogenic environment is an environment that promotes high energy intake and sedentary behaviour. It is characterised by changes in the production, availability, marketing and prices of food, as well as a decrease in physical activity with an intensification of screen-based and sedentary activities (6-8).

- The marketing of ultra-processed and energy-dense food products, that are extremely flavoursome, contributes significantly to obesogenic environments, and substantial evidence demonstrates the influence of these food and beverages on children's dietary habits (9-13). The evidence suggests that unhealthy food and beverage marketing directed at children increases their dietary intake (9, 14, 15) and has a negative impact on children's preference for energy-dense, low-nutrition food and beverage (11, 14-16), as well as on children's purchase behaviour (11) and diet-related-health (11, 16).

- Regarding children's exposure to marketing, according to a systematic review, the most common categories of food products promoted to children are pre-sugared breakfast cereals, soft-drinks, confectionary, savoury snacks and fast-food outlets (known as the 'Big Five') (11). More recently, evidence shows that there are four times more advertisements on television for foods/beverages that should not be permitted than for permitted foods/beverages and the frequency of the first advertisements was higher during peak viewing times compared with other times (17). Concerning social media, evidence indicates that 72% of children and adolescents are exposed to food marketing and sugar-sweetened beverages are among the

most promoted unhealthy products (18). Most of the food and beverage ads promotes noncore foods, which are more commonly delivered as video. The most used persuasive marketing techniques were taste appeal, uniqueness/novelty, the use of animation, fun appeal, use of promotional characters, price, and health and nutrition benefits (18). Similar to television, unhealthy food ads predominate in content aimed toward children on YouTube (19). From 380 YouTube videos, only 27 videos (7.4%) did not feature any food or beverage cues (20). The most frequently featured were cakes and fast foods, as healthier products such as fruits and vegetables were less frequent (20).

- Results from the EU Kids Online 2020 survey of 19 countries show a substantial increase in both the proportion of smartphone-using children and the amount of internet use compared to the EU Kids Online survey in 2010. The amount of time children spends online every day has almost doubled in many countries. A great shift in the way children access the internet has been represented by smartphones, with their use already widespread among children aged 9-16 years in 2013-2014. Smartphones are personal and portable, being integrated into different social contexts and activities. The internet has become increasingly ubiquitous in children's daily lives. For most children, smartphones are now the preferred means of 'going online', reporting using their smartphones almost all the time, several times a day or at least daily (21).

- The World Health Assembly adopted unanimously the WHO Set of Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children, in May of 2010 (22), which encourage MS to take action to reduce the impact on children of unhealthy and inappropriate marketing. These recommendations have been reinforced, by the Global Action Plan for the Prevention and Control of NCDs 2013-2020 (23), by the WHO Commission on Ending Childhood Obesity (8), and recently by the WHO-UNICEF-Lancet Commission (24).

- The implementation of effective measures to reduce children's exposure to unhealthy food marketing requires a clear identification of foods from which marketing to children should be not permitted, that should be based on evidence-based nutritional criteria. This is so-called nutrient profiling and can defined "the science of classifying foods according to their nutritional composition for reasons related to preventing disease and promoting health" (25, 26). Nutrient profiling is one mechanism that Member States can use in implementing recommendations and developing norms and regulations for energy-dense/nutrient-poor foods and non-alcoholic beverages. It has been recognized by WHO as a useful tool for a variety of applications and is a critical tool for the implementation of restrictions on the marketing of foods to children (8, 22). Despite being used in design and implementation of statutory and voluntary strategies related with restriction in the marketing of unhealthy food and beverages to children and adolescents, it can also be used in other strategies on the prevention and control of obesity (27).

- Additionally, the EC JRC also recommends the definition of nutritional criteria to (dis)qualify foods or beverages for marketing purposes, through nutrient profile models, in order to make the procedure of restricting marketing objective and transparent (4). Setting such nutritional criteria may also support industry reformulation. In the JRC toolkit to support the development and update of codes of conduct., it is also mentioned that the stricter the criteria, the higher the level of protection of children to unhealthy food marketing, as in the case of the WHO Europe Nutrient Profile Model (4).

3. General principles for the proposal for an EU coordinated nutrient profile model for the identification of foods not permitted to be marketed to children

As mentioned in the AVMSD Directive, the EU coordinated nutrient profile model for the identification of foods not permitted to be marketed to children is based on the **WHO Europe nutrient profile model** () (28).

This proposal for the EU coordinated nutrient profile model is a tool to classify **high fat, sugar, and/or salt foods**, as any food and beverage with excessive amount of free sugars and/or non-sugar sweeteners, salt, total fat, saturated fat and/or trans-fatty acids, in order to identify foods that should not be permitted to be marketed to children.

Following the WHO Europe nutrient profile model, this proposal for the EU coordinated nutrient profile model establishes nutrient composition thresholds according to each food category. A threshold NPM is likely to be clearer and easier to use than a scoring system and easier to be adapted for each country context. This nutrient profile model defines nutrient composition thresholds for unfavourable nutrient, in particular a maximum level for each nutrient. Moreover, the reference amount used for this NPM was 100 g of food.

The inclusion criteria for the critical nutrients addressed in this model, namely free sugars, salt, saturated fat, total fat, and trans-fatty acids were based on the WHO nutrient intake recommendations for preventing diet-related chronic diseases. Total fat should not exceed 30% of total energy intake, intake of saturated fats should be less than 10% of total energy intake, and intake of trans-fats less than 1% of total energy intake. In both adults and children, WHO recommends reducing the intake of free sugars to less than 10% of total energy intake (strong recommendation). WHO suggests a further reduction of the intake of free sugars to below 5% of total energy

intake (conditional recommendation)[1]. Additionally, WHO recommends a salt intake below 5 g per day (equivalent to sodium intake of less than 2 g per day) (29).

In addition to critical nutrients, “non-sugar sweeteners” were also considered in the model. The rationale for their inclusion is that regular use of sweet flavours (sugar-based or not) promotes the intake of sweet food and drinks, including those that contain sugars, contributing to overweight. This outcome is particularly important in young children because consumption at an early age defines lifelong consumption patterns (30, 31). Considering this approach, this proposal for the EU coordinated nutrient profile model takes into account, not only added sugars but also other sweetening agents (including all syrups, honey, fruit juice, fruit juice concentrates or non-sugar sweeteners).

Food categories high in energy and low nutritional value, or for which there is consistent scientific evidence about their risks to human health when consumed regularly and excessively, as chocolates, confectionery, energy bars, toppings and spreadable sweet creams, sweet desserts; cakes and other confectionery products, cookies and candy powder preparations; juices; energy drinks; ice creams and sorbets are classified as “not permitted”.

For other food categories, that in general might integrate a healthy dietary pattern, thresholds were defined for the nutrients of concern (Annex A), considering the nutritional composition of each food category. The main objective of this approach is to provide guidance on foods likely to be of nutritional concern for some nutrients.

[1] Considering the WHO definition, free sugars include monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit and vegetables juices or smoothies, and fruit juice concentrates. Excludes lactose in milk and milk products, but also includes all sugars in fruit and vegetable purees/pastes and extruded fruit and vegetables.

	Food category	Included in category (examples)	Not included in category (examples)	Customs tariff code (position and/or subposition number)[a]	Marketing not permitted if product exceeds, per 100 g:[b]						
					total fat (g)	sat. fat (g)	total sugars (g)	added sugars (g)	non-sugar sweeteners (g)	salt (g)	energy (kcal)
1	Chocolate and sugar confectionery, energy bars, and sweet toppings and desserts	Chocolate and other products containing cocoa; white chocolate; jelly, sweets and boiled sweets; chewing gum and bubble gum; caramels; liquorice sweets; spreadable chocolate and other sweet sandwich toppings; nut spreads, including peanut butter; cereal, granola and muesli bars; marzipan	Chocolate flavoured breakfast cereals; cakes and pastries; biscuits and other baked goods covered in chocolate	17.04; 18.06; some of 19.05; 20.06; some of 20.08; some of 21.06	Not permitted						
2	Cakes, sweet biscuits and pastries; other sweet bakery wares, and dry mixes for making such	Pastries; croissants; cookies/ biscuits; sponge cakes; wafers; fruit pies; sweet buns; chocolate-covered biscuits; cake mixes and batters	Bread and bread products	19.01.20; 19.05.20; 19.05.31; 19.05.32	Not permitted						
3	Savoury snacks	Popcorn and maize corn; seeds; nuts and mixed nuts; savoury biscuits and pretzels; other snacks made from rice, maize, dough or potato		08.01; 08.02; 10.05; 19.04.10, 19.04.20; some of 19.05; 20.05.20; 20.08.11; 20.08.19; 20.08.99				0		0.1[c]	
4	Beverages										
	a) Juices	100% fruit and vegetable juices; juices reconstituted from concentrate, and smoothies		20.09	Not permitted[d]						
	b) Milk drinks[e]	Milks and sweetened milks; almond, soya, rice and oat milks	Cream	Some of 04.01; some of 04.02; 22.02.90	2.5			0	0		
	c) Energy drinks[f]			Some of 22.02	Not permitted						
	d) Other beverages	Cola, lemonade, orangeade; other soft drinks, mineral and/or flavoured waters (including aerated) with added sugars or sweetener	100% fruit and vegetable juices; milk drinks	22.01; some of 22.02				0	0		
5	Edible ices	Ice cream, frozen yoghurt, iced lollies and sorbets		21.05	Not permitted						
6	Breakfast cereals[g]	Oatmeal; cornflakes; chocolate breakfast cereals; mueslis		19.04.10; 19.04.20	10		15			1.6	
7	Yoghurts, sour milk, cream and other similar foods	Yoghurt; kephir; buttermilk; flavoured sour, fermented milk and drinking yoghurt; fromage frais; cheese-based and other yoghurt substitutes; yoghurt products containing additional ingredients (such as fruit; muesli); cream	Milks and sweetened milks; almond, rice and oat milks	Some of 04.02; 04.03; 04.04; some of 04.06.10; 19.01.10; 19.01.90; some of 21.06	2.5	2.0	10			0.2[c]	
8	Cheese	Medium-hard and hard cheeses; soft cheeses; fresh cheese (such as ricotta, mozzarella); grated or powdered cheese; cottage cheese; processed cheese spreads		04.06	20					1.3	
9	Ready-made and convenience foods and composite dishes	Pizzas; lasagne and other pasta dishes with sauces; quiches; ready meals; ready-made sandwiches; filled pastas; soups and stews (packaged or tinned); mixes and dough		Some of 16; some of 19.01.20; 19.02.19; 19.02.20; some of 19.05; some of 20.05; 21.04	10	4	10			1	225
10	Butter and other fats and oils	Butter; vegetable oils, margarines and spreads		04.05; 15		20				1.3	
11	Bread, bread products and crisp breads[g]	Ordinary bread (containing cereal, leavens and salt); gluten-free bread; unleavened bread; crisp breads; rusks and toasted breads	Sweet biscuits; pastries; cakes	19.05.10; 19.05.40;19.05.90	10		10			1.2	
12	Fresh or dried pasta, rice and grains		Filled pasta and pasta in sauce	10; some of 11; 19.02 excluding 19.02.20	10		10			1.2	
13	Fresh and frozen meat, poultry, fish and similar	Eggs		02 excluding 02.10; some of 03 excluding 03.05	Permitted						
14	Processed meat, poultry, fish and similar	Sausage, ham, bacon; chicken nuggets; smoked and pickled fish; tinned fish in brine or oils; fish fingers and breaded/battered fish	Pepperoni pizza	02.10; some of 03; some of 16	20					1.7	
15	Fresh and frozen fruit, vegetables and legumes	Fruit and vegetables; legumes; starchy vegetables, roots and tubers	Tinned fruits, vegetables and legumes; fruit in syrup; dried fruit; frozen fruit with added sugar	07 excluding 07.10, 07.11, 07.12, 07.13; some of 08 excluding 08.01; 08.02; 08.11; 08.12; 08.13; 08.14	Permitted						
16	Processed fruit, vegetables and legumes	Tinned fruit, vegetables and legumes; dried fruit,[h] dried vegetables and legumes; marmalade; jams; pickled vegetables and fruit; stewed fruits; fruit peel; frozen French fries; frozen fruit with added sugar	Fruit juice	07.10; 07.11; 07.12; 07.13; some of 08.03; some of 08.05; some of 08.06; 08.11, 08.12, 08.13 and 08.14; 20.01; 20.02; 20.03; 20.04; 20.05; 20.06; 20.07; 20.08.20, 20.08.30, 20.08.40, 20.08.50, 20.08.60, 20.08.70, 20.08.80; 20.08.93; 20.08.97; 20.08.99	5		10	0		1	
17	Sauces, dips and dressings	Salad dressings; tomato ketchup; mayonnaise; ready-to-use dips; soya sauce; mustard and mustard flour		21.03	10			0		1	

Sat. fat = saturated fat.

[a] Where appropriate, a four-digit position number has been given. Where "some of" is indicated, this means that most (but not all) food products in this position number are covered. In some instances a six-digit subposition is provided so as to pinpoint specific products more easily.

[b] The food products should, where possible, be assessed as sold or as reconstituted (if necessary) according to the manufacturer's instructions.

[c] Salt equivalent.

[d] This is in line with the WHO Guidelines on Sugars Intake for Children and Adults (in press), as fruit juices are a significant source of free sugars for children. However, it is recognized that countries, according to national context and national food-based dietary guidelines, may take the decision to permit the marketing of 100% fruit juices in small portions.

[e] This nutrient profile model applies to products for children above 36 months. Follow-up formulas and growing-up milks are not covered by this model. It should be noted that World Health Assembly Resolution WHA39.28, adopted in 1986, states that the practice of providing infants with specially formulated milks (so called "follow-up milks") is not necessary. Further, any food or drink given before complementary feeding is nutritionally required may interfere with the initiation or maintenance of breastfeeding and should, therefore, be neither promoted nor encouraged for use by infants during this period.

[f] There is no agreement on a definition of energy drinks. However, such a category of drinks includes a variety of non-alcoholic beverages. While caffeine is considered the main ingredient, a number of other substances are often present. The most common of these include guarana, taurine, glucuronolactone and vitamins. A common feature is that these beverages are marketed for their actual or perceived effects as stimulants, energizers and performance enhancers.

[g] For this category, countries may choose to include a threshold for minimum dietary fibre content, for example >6g dietary fibre.

[h] This is in line with the WHO Guidelines on Sugars Intake for Children and Adults (in press), as dried fruits are a significant source of concentrated sugars for children. However, it is recognized that countries, according to national context and national food-based dietary guidelines, may take the decision to permit the marketing of dried fruits in small portions.

Figure 1. WHO Regional Office for Europe nutrient profile model.

4. Further adjustments to the WHO Regional Office for Europe NPM

There are some adjustments to the WHO Regional Office for Europe NPM that we would like to propose and explore further. For these adjustments to the WHO Regional Office for Europe NPM we consider other nutrient profile models more recently developed for other WHO Regions (Eastern Mediterranean and Pan American Regions) were also considered (32), as well as, EU countries' experiences (Portugal and Slovenia) in using and adapting the WHO Europe nutrient profile model to the national contexts.

a. Improve/update the HFSS definition

Once employing the definition of HFSS foods may limit the application of the model, we suggest defining the products that are covered by the model as the following: "high fat, sugar, and/or salt foods, as any food and beverage with excessive amount of free sugars and/or non-sugar sweeteners, salt, total fat, saturated fat and/or trans-fatty acids, in order to identify foods that should not be permitted to be marketed to children".

b. **Define thresholds for free sugars instead of total sugars**

Should "free sugars" be considered, accordingly with the WHO recommendations, instead of defining cut-offs for total sugars and added sugars? Free sugars include monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit and vegetables juices or smoothies, and fruit juice concentrates. Excludes lactose in milk and milk products, but also includes all sugars in fruit and vegetable purees/pastes and extruded fruit and vegetables. Therefore, this may encourage also better reformulation of some products, once some products have been using other sweetener agents that are already covered by this definition (e.g., fruit purees).

Proposed methodology for estimating free sugars

To classify products as permitted or not permitted to be marketed to children, estimating free sugars content might be necessary when this content is not detailed in

the food/beverage product packaging. Therefore, whenever the content of free sugars has to be estimated, the following methodology is proposed (Table 1).

Table 1. Method for estimating free sugars based on the amount of total sugars declared on food/beverage product packaging (Adapted from WHO PAHO NPM and UK NPM 2018 proposal) (33).

Declared in the product packaging…	Estimated free sugars equals...	Examples of products
0 g of total sugars	0 g	Canned fish
Added sugar	Amount declared as added sugars	Any product that declares added sugars
Total sugars, and the product is part of a group of foods with no or a minimal amount of naturally occurring sugars	Amount declared as total sugars	Regular soft drinks, sweet biscuits, breakfast cereals, non-dairy products (milks, yoghurts)
Total sugars and the product are yogurt or milk, with sugars in the list of ingredients	Free sugars = total sugars – lactose - Liquid yoghurts: assumed 33% of total sugars taken as lactose - Solid yoghurts and fromage frais: assumed 3.8g /100 g - Chocolate flavoured milks: assumed 50% of total sugars is lactose	Flavoured milk or yogurt
Total sugars, and the product is a processed fruit item with sugars in the list of ingredients	50% of declared total sugars	Fruit in syrup

c. Define a general rationale

We have considered the possibility of defining a general rationale, which applies to all food categories. With this proposal we would like to help justifying some of the thresholds identified (so that the criteria for selecting the thresholds are clearly identified). Such explanation was important for some countries' discussion with food industry, when defining NPMs. As the basis of this general rationale, the following references might be considered:

- Food categories high in energy and low nutritional value, or for which there is consistent scientific evidence about their risks to human health when consumed

regularly and excessively, as chocolates, confectionery, energy bars, toppings and spreadable sweet creams, sweet desserts; cakes and other confectionery products, cookies and candy powder preparations; juices; soft drinks; energy drinks; other beverages; ice creams and sorbets; and processed meat, are classified as “not permitted”.

- For other food categories, that in general might integrate a healthy dietary pattern, thresholds were defined for the nutrients of concern (Annex A) considering the nutritional composition of each food category. The main objective of this approach is to provide guidance on foods likely to be of nutritional concern for some nutrients. For defining the thresholds, that allow the classification of food products with nutrients of concern, were applied different reference values, according to each food category and its nutritional characteristics. In general, the rationale for defining the thresholds for different food categories reflect its global nutrient profile and this definition was based on four main references (Table 4):
    - **For the nutrients in which within the food category is possible to find in the market foods with relatively low content of fat, saturated fat, salt and sugar** – the thresholds have been set according to the values of the nutritional claims “low fat”, “low-saturated fat”, “low sodium/salt” and “low sugar”, as defined by the Regulation (EC) No. 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods (Table 2).
    - **For the nutrients in which within the food category is difficult to find in the market foods with relatively low content of fat, saturated fat, salt and sugar** – the thresholds have been set taking into account the values of the 25% of the reference intake[2] (reference intake based on the WHO recommendations) (

[2] Different nutrient profile models developed for some European countries, both in the context of front-of-package nutrition labelling (37) (traffic light label (United Kingdom) (38) and Nutri-score (France) (39), as well as in the context of nutrient profile models to restrict food marketing aimed at children (nutrient profile model of the UK - Nutrient Profiling System da Food Standards Agency) (40) have considered the 25% of the reference intake as a threshold for the identification of “high content in salt, sugar, fat and saturated fatty acids”. This value also fits most of the values established by WHO experts. In this regard, in this model, the cut-off of 25% of the reference intake was also accepted as a maximum value for some nutrients in certain food categories. To note that, in general, this value enables to include the best-in-class food products for the various food categories.

- Table 3. Values of the 25% of the reference intake.
-) or according the “best in class” values. For the “best in class” values, the thresholds of the WHO Regional Office for Europe nutrient profile model were used and specifically for salt values were considered the WHO Global Sodium Benchmarks (Annex B). Furthermore, the cut-offs of the Nutrient profile model for the marketing of food and non-alcoholic beverages to children in the WHO Eastern Mediterranean Region were applied to one category and the salt benchmarks applied to some categories (decision tree for this rationale in Figure 2).

Table 2. Nutritional claims “low fat”, “low-saturated fat”, “low sodium/salt” and “low sugar” defined by the Regulation (EC) No. 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods.

	Low content (100 g)	Low content (100 ml)
Total fat	≤ 3 g	≤ 1.5 g (or 1,8 g of fat for semi-skimmed milk)
Saturated fat	≤ 1.5 g	≤ 0.75 g
Sodium/Salt	≤ 0.3 g (salt)	
Sugar	≤ 5 g	≤ 2.5 g

Table 3. Values of the 25% of the reference intake.

	Reference Intake	25% of the reference intake (per 100 g)	25% of the reference intake (per 100 ml)
Energy	2000 kcal	-	-
Saturated fat	22 g *	5 g	2.5 g
Sodium/Salt **	5 g	1.3 g	0.7 g
Free Sugars ***	25 g	6.25 g	3.125 g
Total fat	66.7 g	16.7 g	8.5 g

* 5% of total energy intake, accordingly to the WHO recommendations.
** In accordance with WHO recommendations not to exceed 5g per day (22).
*** In accordance with WHO recommendations not to exceed 5% of total energy intake (23).

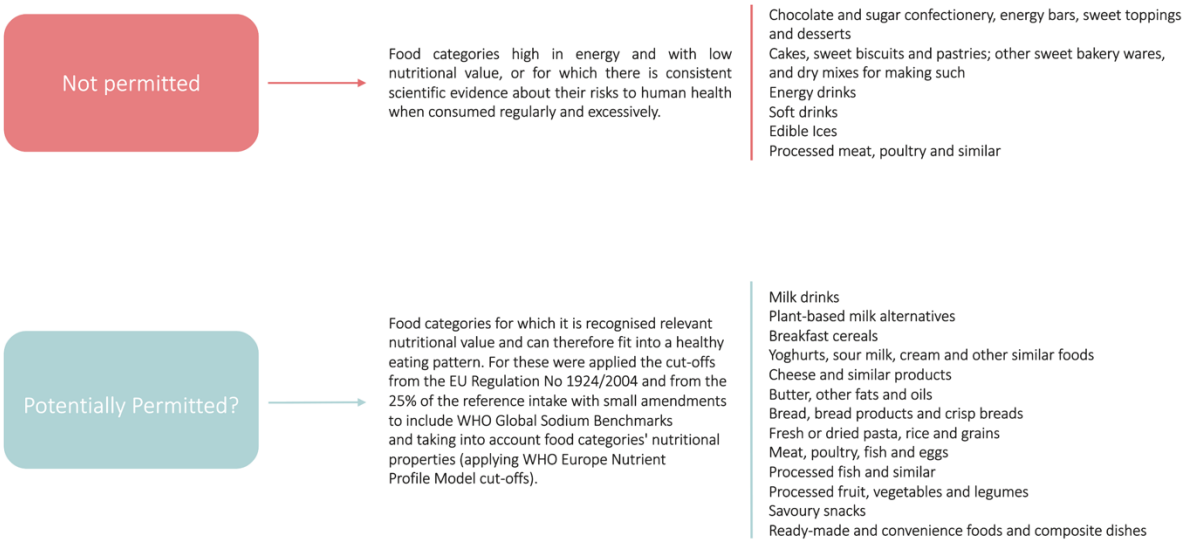

Figure 2. Rational decision tree for the rationale of the EU coordinated nutrient profile model.

d. **Update the salt thresholds for some food categories**

In 2020, the WHO developed global benchmarks for sodium levels across different food categories (33). This report builds on the work and experiences of countries and regions in setting targets for sodium levels in different food categories, as part of national and regional efforts to reduce population salt intake, reduce the burden of diet- and nutrition-related noncommunicable diseases (NCDs), as well as achieving the global NCD target for a 30% relative reduction in mean population intake of salt (by achieving a target of less than 5 g of salt (i.e., <2 g of sodium) per day by 2025).

Benchmark values are based on the lowest maximum value for each subcategory from existing national or regional targets. Feasibility for these targets has been demonstrated in several countries, and therefore the WHO global sodium benchmarks should reflect the lowest maximum value.

For the definition of some of the salt cut-offs in the EU coordinated nutrient profile model, the benchmarks for six food categories may be considered: Breakfast cereals; Cheese and similar products; Butter, other fats and oils; Bread, bread products and crisp breads; Sauces, dips and dressings.

e. **Classify the processed meat and soft drinks as food categories "not permitted"**

In the WHO Europe NPM, food categories high in energy and low nutritional value, or for which there is consistent scientific evidence about their risks to human health when consumed regularly and excessively are identified as "not permitted". Considering that soft drinks have high content in sugar or non-sugar sweeteners, low nutritional value and present risk to human health when consumed regularly (29, 34-37), we propose to add this category to the "not permitted". Regarding processed meat, in 2015 the WHO's International Agency for Research on Cancer (IARC) classified it as carcinogenic to humans (Group 1), based on sufficient evidence in humans that the consumption of processed meat causes colorectal cancer (38). The food products included in this group are not recommended in most of the national food-based dietary guidelines. Therefore, all products that fall under these categories should not be marketed/advertised to children.

f. Clarify how to use the NPM for composite/combined meals (meals with more than one component)

When the meal is composed by more than one component, each of the components must be evaluated and assessed its nutrient profile. This may include combination of products belonging to more than one category and that were not able to be considered ready-made or convenience foods, as, for example "crepe with chocolate", "ice cream with several toppings", "yoghurt with granola". In these cases, each of the products must be classified accordingly to its NPM category (i.e., in "yoghurt with granola", classification would be made for both the yoghurt and the granola). If one of the products is classified as "not permitted" for food marketing to children, the whole product is classified as "not permitted".

Considering these adjustments to the WHO Regional Office for Europe NPM we developed an EU WHO-modified NPM. The EU coordinated NPM, as well as the differences between the WHO Europe NPM are described in Table 4.

Table 4. Differences between the WHO Regional Office for Europe nutrient profile model and the proposal for the EU coordinated nutrient profile model.

Food Category	Marketing not permitted if products exceed, per 100 g	
	WHO Europe NPM	Proposal for the EU coordinated NPM
Chocolate and sugar confectionery, energy bars, sweet toppings and desserts	Not permitted	Not permitted [a]
Cakes, sweet biscuits and pastries; other sweet bakery wares, and dry mixes for making such	Not permitted	Not permitted [a]
Savoury snacks	Added sugar – 0 g Salt – 0.1 g	Free sugars – 0 g [a,b] Salt – 0.1 g [a]
Beverages		
Juices	Not permitted	Not permitted [a]
Milk drinks	Total Fat – 2.5 g Added sugar – 0 g Non-sugar sweeteners – 0 g	Milk drinks: Total Fat – 1.8 g [c]; Free sugars – 0 g [b,a]; Non-sugar sweeteners – 0 g [a] Plant-based "milk" alternatives: Total Fat – 1.5 g [c]; Free sugars – 0 g [a,b]; Non-sugar sweeteners – 0 g [a]
Energy drinks	Not permitted	Not permitted [a]
Other beverages	Added sugar – 0 g Non-sugar sweeteners – 0 g	Mineral and/or flavoured waters: Free sugars – 0 g [a,b]; Non-sugar sweeteners – 0 g [a] Other beverages: Not permitted
Edible ices	Not permitted	Not permitted [a]
Breakfast cereals	Total Fat – 10 g Total sugar – 15 g Salt – 1.6 g	Total Fat – 10 g [a] Free Sugars – 15 g [a,b] Salt – 0.8 g [e]
Yoghurts, sour milk, cream and other similar foods	Total Fat – 2.5 g Saturated Fat – 2 g Total sugar – 10 g Salt – 0.2 g	Total Fat – 3 g [c] Saturated Fat – 1.5 g [c] Free Sugars – 6.25 g [b,d] Salt – 0.3 g [c]
Cheese and similar products	Total Fat – 20 g Salt – 1.3 g	Total Fat – 16.7 g [d] Salt – 1.3 g [e]
Ready-made and convenience foods and composite dishes	Total Fat – 10 g Saturated Fat – 4 g Total Sugar – 10 g Salt – 1 g Energy – 225 kcal	Total Fat – 10 g [a] Saturated Fat – 4 g [a] Free sugars – 6.25 g [b,d] Salt – 1 g [a] Energy – 225 kcal [a]
Butter, other fats and oils	Saturated Fat – 20 g Salt – 1.3 g	Saturated Fat – 20 g [a] Salt – 1 g [e] – 1.3 g [d]
Bread, bread products and crisp breads	Total Fat – 10 g Total sugar – 10 g Salt – 1.2 g	Total Fat – 3g [c] - 10 g [a] Free sugars – 6.25 g [b,d] Salt – 0.825 g [e] – 1.3 g [d]

Food Category	Marketing not permitted if products exceed, per 100 g		
	WHO Europe NPM	Proposal for the EU coordinated NPM	
Fresh or dried pasta, rice and grains	Total Fat – 10 g Total sugar – 10 g Salt – 1.2 g	Total Fat – 3g [c] - 10 g [a] Free Sugars – 6.25 g [b,d] Salt – 1.3 g [d]	
Meat, poultry, fish and eggs	Permitted	Salt - 0.1 [f]	
Processed meat, poultry, fish and similar	Total Fat – 20 g Salt – 1.7 g	Processed meat, poultry and similar	Not permitted
		Processed fish and similar	Salt – 1.3 g [d]
Fresh and frozen fruit, vegetables or legumes	Permitted	Permitted	
Processed fruit, vegetables and legumes	Total Fat – 5 g Total Sugar – 10 g Added sugars – 0 g Salt – 1 g	Total Fat – 3 g [c] Free sugars – 0 g [a,b] Salt – 1.3 g [d]	
Sauces, dips and dressings	Total Fat – 10 g Added sugars – 0 g Salt – 1 g	Total Fat – 10 g [a] Free Sugars – 3.125 g [b,d] Salt – 0.9 g [e]	

a Applied the cut-offs of the *WHO Regional Office for Europe nutrient profile model*.

b Free sugars include monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit and vegetables juices or smoothies, and fruit juice concentrates. Excludes lactose in milk and milk products, but also includes all sugars in fruit and vegetable purees/pastes and extruded fruit and vegetables.

c Were considered as thresholds the maximum values for the nutritional claims “low fat”, “low-saturated fat”, “low sodium/salt” and “low sugar” defined by the Regulation (EC) No. 1924/2006 of the European Parliament and of the Council of 20 December 2006 on nutrition and health claims made on foods.

d Were considered as thresholds the values of the 25% of the reference intake, according to the WHO recommendations.

e Based on *WHO Global Sodium Benchmarks for different food categories*.

f Applied the cut-offs of the *Nutrient profile model for the marketing of food and non-alcoholic beverages to children in the WHO Eastern Mediterranean Region*

5. Differences between the WHO Regional Office for Europe nutrient profile model and the proposal for the EU coordinated nutrient profile model

The proposal for the EU coordinated nutrient profile model (Table 5) was based on the WHO Regional Office for Europe nutrient profile model, however there were some adjustments to consider the other references followed during the definition of the rationale of this coordinated proposal. The differences between these two models were described in Table 4. Comparative analysis was performed for some food categories, where bigger changes were applied (Figure 3 to Figure 7).

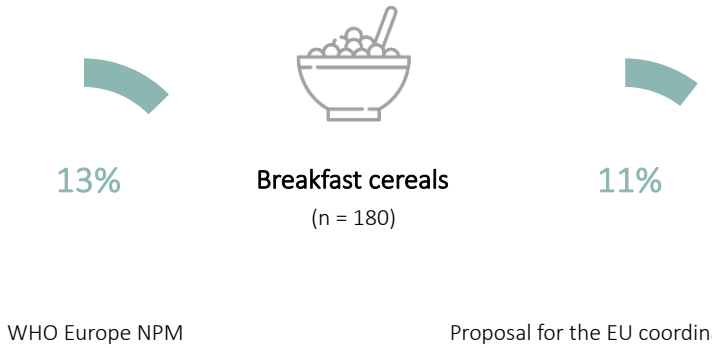

Figure 3. Comparison between the percentage of breakfast cereals permitted to be marketed to children, according to the WHO Europe NPM and the Proposal for the EU coordinated NPM.

Figure 4. Comparison between the percentage of yoghurts permitted to be marketed to children, according to the WHO Europe NPM and the Proposal for the EU coordinated NPM.

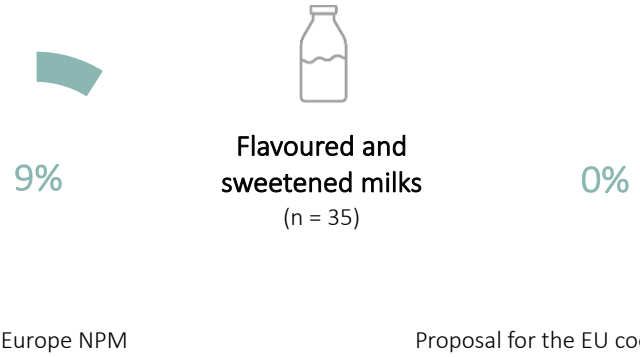

Figure 5. Comparison between the percentage of flavoured and sweetened milks permitted to be marketed to children, according to the WHO Europe NPM and the Proposal for the EU coordinated NPM.

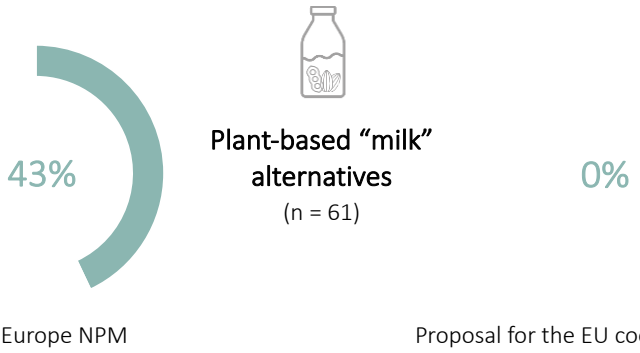

Figure 6. Comparison between the percentage of plant-based "milk" alternatives permitted to be marketed to children, according to the WHO Europe NPM and the Proposal for the EU coordinated NPM.

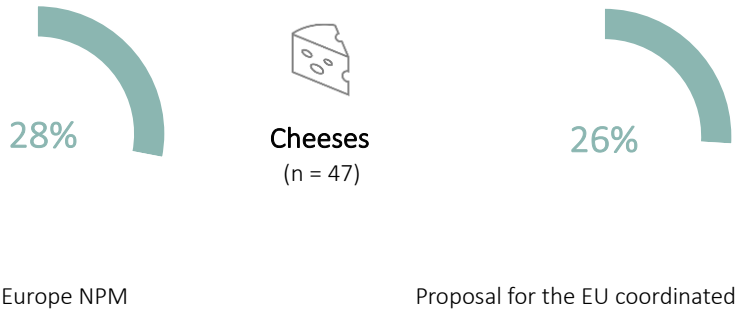

Figure 7. Comparison between the percentage of cheeses permitted to be marketed to children, according to the WHO Europe NPM and the Proposal for the EU coordinated NPM.

Table 5. Proposal for the EU coordinated nutrient profile model for the identification of foods not permitted to be marketed to children.

Food Category		Included in the category (examples)	Not included in the category (examples)	Customs tariff code (position and/or supposition number) [a]	Marketing not permitted if product exceeds, per 100 g [b]						
					Total fat (g)	Saturated fat (g)	Free Sugars (g)	Non-sugar sweeteners (g)	Salt (g)	Trans fatty acids (g)	Energy (kcal)
1	Chocolate and sugar confectionery, energy bars, and sweet toppings and desserts	Chocolate and other products containing cocoa; white chocolate; jelly, sweets and boiled sweets; chewing gum and bubble gum; caramels; liquorice sweets; spreadable chocolate and other sweet sandwich toppings; nut spreads, including peanut butter; cereal, granola and muesli bars; marzipan	Chocolate flavoured breakfast cereals; cakes and pastries; biscuits and other baked goods covered in chocolate	17.04; 18.06; some of 19.05; some of 20.08; some of 21.06				Not permitted			
2	Cakes, sweet biscuits and pastries; other sweet bakery wares, and dry mixes for making such	Pastries; croissants; cookies/ biscuits; sponge cakes; wafers; fruit pies; sweet buns; chocolate-covered biscuits; cake mixes and batters	Bread and bread products	19.01.20; 19.05.20; 19.05.31; 19.05.32				Not permitted			
3	Savoury snacks	Popcorn and maize corn; seeds; nuts and mixed nuts; savoury biscuits and pretzels; other snacks made from rice, maize, dough or potato		08.01; 08.02; 10.05; 19.04.10, 19.04.20; some of 19.05; 20.05.20; 20.08.11; 20.08.19; 20.08.99			0		0.1		
4	Beverages										
	a) Juices	100% fruit and vegetable juices; juices reconstituted from concentrate, and smoothies		20.09				Not permitted			
	b) Milks [c]	Milks and sweetened or flavoured milks; milk powder	Cream	Some of 04.01; some of 04.02	1.8		0	0			
	c) Plant-based “milk” alternatives	Almond, soya, rice and oat milks		22.02.99	1.5		0	0			
	d) Energy drinks [d]			some of 22.02				Not permitted			
	e) Mineral and/or flavoured waters (including aerated)	mineral and/or flavoured waters (including aerated) with added sugars or sweetener		22.01; some of 22.02			0	0			

Food Category		Included in the category (examples)	Not included in the category (examples)	Customs tariff code (position and/or supposition number) [a]	Marketing not permitted if product exceeds, per 100 g [b]						
					Total fat (g)	Saturated fat (g)	Free Sugars (g)	Non-sugar sweeteners (g)	Salt (g)	Trans fatty acids (g)	Energy (kcal)
	f) Other beverages	Cola, lemonade, orangeade; other soft drinks	100% fruit and vegetable juices; milk drinks	Some of 22.02				Not permitted			
5	Edible ices	Ice cream, frozen yoghurt, iced lollies and sorbets		21.05				Not permitted			
6	Breakfast cereals	Cereal flakes; infant cereals with and without milk powder; cornflakes; oatmeal; cornflakes; chocolate breakfast cereals; mueslis and granolas		19.04.10; 19.04.20	10		15		0.8		
7	Yoghurts, sour milk, cream and other similar foods	Yoghurt; kephir; buttermilk; flavoured sour, fermented milk and drinking yoghurt; fromage frais; cheesebased and other yoghurt substitutes; yoghurt products containing additional ingredients (such as fruit; muesli); cream	Milks and sweetened milks; almond, rice and oat milks	Some of 04.02; 04.03; 04.04; some of 04.06.10; 19.01.10; 19.01.90; some of 21.06	3	1.5	6.25		0.3		
8	Cheese and similar products	Medium-hard and hard cheeses; soft cheeses; fresh cheese (such as ricotta, mozzarella); grated or powdered cheese; cottage cheese; processed cheese spreads, and similar products made from non-diary ingredients		04.06	16.7				1.3		
9	Ready-made and convenience foods and composite dishes	Pizzas; lasagne and other pasta dishes with sauces; quiches; ready meals; ready-made sandwiches; filled pastas; soups and stews (packaged or tinned); mixes and dough		Some of 16; some of 19.01.20; 19.02.19; 19.02.20; some of 19.05; some of 20.05; 21.04	10	4	6.25		1.0		225
10	Butter and other fats and oils	Butter; vegetable oils; margarines and spreads		04.05; 15		20			1.0 - 1.3		
11	Bread, bread products and crisp breads	Ordinary bread (containing cereal, leavens and salt); gluten-free bread; unleavened bread; crisp breads; rusks and toasted breads	Sweet biscuits; pastries; cakes	19.05.10; 19.05.40;19.05.90	3.0 - 10		6.25		0.825 - 1.3		
12	Fresh or dried pasta, rice and grains	Fresh and dried pasta; ordinary, whole-grain and wild rice; corn; buckwheat; quinoa; bulgur and oats	Filled pasta and pasta in sauce	10; some 11; 19.02 excluding 19.02.20	3.0 - 10		6.25		1.3		
13	Fresh and frozen meat, poultry, fish and similar	Eggs	Processed meat and meat products	02 excluding 02.09 and 02.10; some of 03 excluding 03.05; 04.07; 04.08					0.1		

Food Category		Included in the category (examples)	Not included in the category (examples)	Customs tariff code (position and/or supposition number) [a]	Marketing not permitted if product exceeds, per 100 g [b]						
					Total fat (g)	Saturated fat (g)	Free Sugars (g)	Non-sugar sweeteners (g)	Salt (g)	Trans fatty acids (g)	Energy (kcal)
14	Processed meat, poultry and meat products	Sausage, ham, bacon; chicken nuggets	Pepperoni pizza	02.10; some of 16				Not permitted			
15	Processed/canned fish	Smoked and pickled fish; tinned fish in brine or oils; fish fingers and breaded/battered fish		Some of 03; some of 16					1.3		
16	Fresh and frozen fruit, vegetables or legumes	Fruit and vegetables; legumes; starchy vegetables, roots and tubers	Tinned fruits, vegetables and legumes; fruit in syrup; dried fruit; frozen fruit with added sugar	07 excluding 07.10, 07.11, 07.12, 07.13; some of 08 excluding 08.01; 08.02; 08.11; 08.12; 08.13; 08.14				Permitted			
17	Processed fruit, vegetables and legumes	Tinned fruit, vegetables and legumes; dried fruit; dried vegetables and legumes; marmalade; jams; pickled vegetables and fruit; stewed fruits; fruit peel; frozen French fries'; frozen fruit with added sugar	Fruit juice	07.10; 07.11; 07.12; 07.13; some of 08.03; some of 08.05; some of 08.06; 08.11, 08.12, 08.13 and 08.14; 20.01; 20.02; 20.03; 20.04; 20.05; 20.06; 20.07; 20.08.20, 20.08.30, 20.08.40, 20.08.50, 20.08.60, 20.08.70, 20.08.80; 20.08.93; 20.08.97; 20.08.99	3.0		0		1.3		
18	Sauces, dips and dressings	Sauces, dips and dressings Salad dressings; tomato ketchup; mayonnaise; ready-to-use dips; soya sauce; mustard and mustard flour		21.03	10		3.125		0.9		

*For nutrients for which limit values are not defined, the following values should be considered: 1) salt - <0.3 g of salt per 100 g of product; 2) sugar - 5 g of sugar per 100 g for solids/2.5 g of sugar per 100 ml for liquids; 3) saturated fat- 1.5 g of saturated fat per 100 g for solids/ 0,75 g of saturated fat per 100 ml for liquids and 4) trans-fatty acids - 2 g per 100g of fat the content of saturated fat.
Note 1. Whereas restaurant meals/menus consisting of 2 or more components, each of the components must meet the criteria specified individually.
Note 2. Saturated fat refers to fatty acids without double bonds; trans-fatty acids refers to fatty acids that present, at least one nonconjugated double bond (namely interrupted by, at least one, methylene group) between carbon molecules in the trans configuration; free sugars include monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit and vegetables juices or smoothies, and fruit juice concentrates; also includes all sugars in fruit and vegetable purees/pastes and extruded fruit and vegetables, but excludes lactose in milk and milk products; salt refers to the salt content equivalent calculated by the formula: salt = sodium x 2.5; energy refers to the total energy available in food and its macronutrient constituents (carbohydrates, fats, proteins).[a] Where appropriate, a four-digit position number has been given. Where "some of" is indicated, it means that most (but not all) food products in this position number are covered. In some instances, a six-digit sub position is provided to pinpoint specific products more easily.
[b] The food products should, where possible, be assessed as sold or as reconstituted (if necessary) according to the manufacturer's instructions.
[c] This nutrient profile model applies to products for children above 36 months. Follow-up formulas and growing-up milks are not covered by this model. It should be noted that World Health Assembly Resolution WHA39.28, adopted in 1986, states that the practice

6. EU Coordinated Nutrient Profile Model - Roadmap

In this document, we presented the proposal for the EU coordinated nutrient profile model (Table 5). However, this proposal is foreseen to be a living document and, in this regard, be revised and adjusted accordingly to the most updated evidence and following the revisions of the reference model – the WHO Regional Office for Europe nutrient profile model. Additionally, the model will also be revised and adjusted taking into consideration the ongoing review by the Commission regarding the work on setting nutrient profiles to restrict the use of nutrition or health claims in foods.

Additionally, the development of the EU coordinated nutrient profile model is foreseen to be a participatory activity. Therefore, this proposal may also consider all the contributions from the participating countries of the WP6 of EU Best-ReMaP JA, which includes tests and adaptations to this proposal by these countries.

In this regard, a roadmap for this process of continuously revision and improvement of the proposal for the EU coordinated nutrient profile model is suggested (Figure 8). The outcome of this process will be the final version of the EU coordinated nutrient profile model.

It should be considered that at least the **participating partners in WP6 Task 6.3**[3] (Implementation of the transposition of the new Audio-visual Media Services Directive (AVMSD)) may perform the test of the EU coordinated NPM in their national food databases. Further instructions for this testing in national food databases are presented in the next chapter. Nevertheless, during the upcoming 3 months, participating partners may recognise the resources available for performing this testing and it will be better discussed in the September's meeting.

[3] **Participating partners of WP6 Task 6.3: ICH, CDPC, SPF, MOH-FR, NIPH, NIJZ, CHDR, MoH CY, CIPH, MoSA, NIHD, THL, LR SAM.**

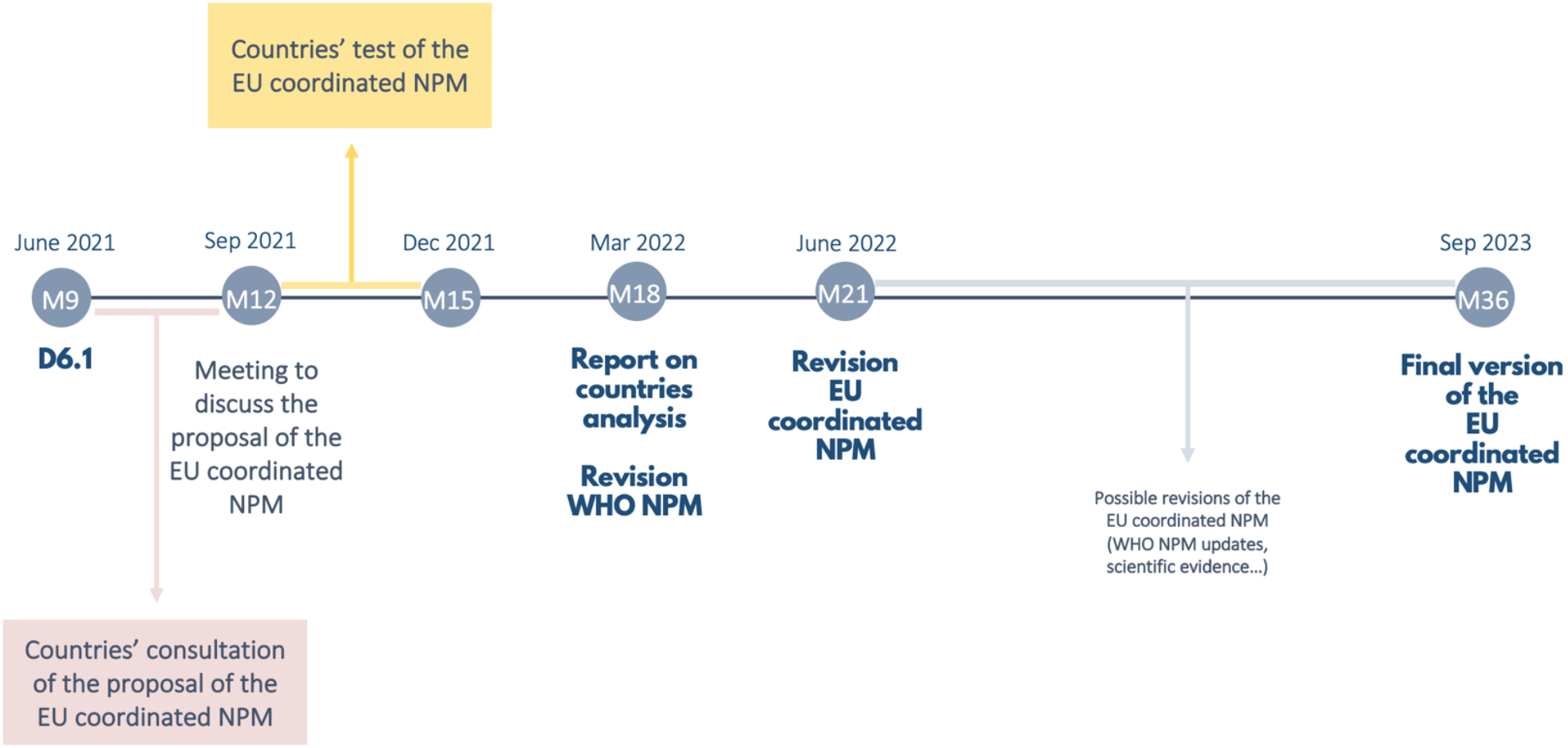

Figure 8. Roadmap for the process of revision and improvement of the proposal for the EU coordinated nutrient profile model.

7. Notes on how to adapt the EU coordinated nutrient profile model to national context

In the process of adapting the EU coordinated nutrient profile model (Table 5) at the national level it may be necessary to adopt the following steps to ensure the validity of the model and that the model is adequately implemented:

1. Identification of adaptions that will make the nutrient profile model more suitable for the national context[4]. This step is important to ensure the consistency of the nutrient profile model with other public health measures aimed to promote healthy eating, but also with the national food-based dietary guidelines and the characteristics of the food products (nutritional composition) available in each national market. For that purpose, countries may have to (39):

- Analyse the NPM alignment with other policies (current regulations for nutrition claims, food reformulation plans in place, nutrition standards for foods in schools…);
- Compare this classification against food-based dietary guidelines[5];
- Analyse the nutritional composition of food products available in each national market. For further clarification on this analysis, please see point 3 below.

2. Engagement of relevant stakeholders in the process, aligned and in close collaboration with the intersectoral working group in place:
    - 1st stage: Create an expert group composed by nutritionists, dietitians and academic in nutrition sciences. The model should be consulted on and validated with experts' opinions about the foods' classification according to the nutrient profiling system.
    - 2nd stage: Consultation with different stakeholders, including industry stakeholders, stakeholders on children's rights and protection, as well as on consumer defence/protection.

[4] Please consider that adaptations may include changes in the nutrients of concern, adjustments in the food categories (adding, removing, and redefining), modifications in the thresholds, and create exceptions for some food products/categories.

[5] Countries will need food-based dietary guidelines and food composition data for a range of commonly consumed foods; basic food intake data would also be useful (37).

3. Test the agreement between the adapted version of the nutrient profile model and the reference NPM (ex: EU coordinated nutrient profile model) using national food databases. This analysis should not be performed in food composition databases since they often provide average values rather than product-specific information. Therefore, performing such analyses won't indicate the variability among similar food products within a same food category. Databases including the food products most consumed – accessed from the last national diet and nutrition surveys, or food databases based on market sales, may be used. These will allow to include the food products more commonly consumed by the target population. However, the selected database to test the NPM should include the most common categories of food products promoted to children, as well as the products accountable for a greater sugar intake in children and adolescents. These comprise the following food categories: soft drinks, sugar confectionery, sweets, cookies, juices, breakfast cereals, yoghurts, savoury snacks and fast-food outlets.

8. Country experiences in adapting and implementing a Nutrient Profile Model

Slovenia

In Slovenia, the transposition of the Directive 2010/13 EU AVMD to the national context indicated that marketing restrictions should be considered in accordance with the nutrition guidelines of MoH. In 2011, Slovenian started the process of developing a national nutrient profile model. In 2012 became a testing country for the development and implementation of the WHO Europe NPM and in 2015 this model was implemented in the country, considering harmonisation.

The process of adaptation included discussion with stakeholders from private sector, consumer organizations and NGOs, as well as a strong work with academia (biotechnology and food processing engineering). Some adjustments were made to the NPM, according to the suggestions and demands. The following adjustments were included (40):

- Category 4.a is changed: no limitations for 100 % fruit and vegetable juices.
- Category 4.b is changed: milk drinks: total fats limited to 3,5 g/100 g (instead of 2,5 g); additional limitation for total sugars of 10 g/100 g is added.
- Category 4.c is added, vegetable drinks: threshold for total fats is the same, 2,5 g/100 g; additional limitations for total sugars of 10 g/ 100 g and for salt 0,2 g NaCl/100g are added and additional no sweeteners intake to be encouraged.
- Category 7a is changed, yogurt, *sauer* milk and similar foods: limitation for total fats is 3,2 g/100 g (instead of 2,5 g), limitation for saturated fats is 2,6 g/100 g (instead of 2,0 g); additional threshold for sweeteners is added: 0 g / 100 g.
- Category 7b is added: cream and butter (no intake to be encouraged).
- New category 18 is added, nutrition supplements: no intake to be encouraged.
- It was not possible to classify food categories as “not permitted” – therefore, it was adopted “no intake to be encouraged”.

To consider that for the adaption of this model and redefinition of several thresholds, several analyses to the Slovene market were performed. Some of these include assessment of the sugar content in breakfast cereals, nectars and beverages with fruit, and also the fat and salt content of cheeses.

After the WHO Europe published its model, there were several developments in Slovenia:

1. WHO NP is translated to Slovene - first adaptation of the profile (March 2015).
2. Meeting of the working group with relevant sectors and institutions (April 2015)
3. Meeting of the working group with the private sector umbrella organization (Chamber of commerce of Slovenia, Food processing industry sector) (May 2015); food technologists and advertisers – two silos in private sector.
4. Participation at the Scandinavian monitoring workshop – most welcomed share of experiences and approaches, very appreciated (September 2015).
5. Guidelines, based on WHO NPM, were prepared, and entered in the finalization stage at the MoH (September 2015).
6. Meeting with Slovene Chamber of Advertisers (volunteered to liase with TV operators) (October 2015).
7. Meeting with Slovene Chamber of Advertisers and Slovene TV operators (December 2015)
8. Two meetings of PHWG to debate and prepare respond (January and February 2016).
9. Response of MoH sent to Chamber of Advertisers, Chamber of Commerce and Industries, Chamber of Trade (March 2016).
10. Final responses of stakeholders and launch of the Slovene guidelines for audio-visual media operators, based on the WHO NPM (July 2016).

Nevertheless, one of the most important facilitators of the process was the leadership and substantial interest from the MoH in implementing the guidelines defined in the law, with the NIPH expertise.

Portugal

In Portugal, the definition of a Nutrient Profile Model was determined by the Law n. º 30/2019, of 23 April 2019, which introduces restrictions on the advertising towards children under the age of 16 of food and beverages high in energy, salt, sugar, saturated and trans fatty acids. In this Law, it is stated that the Directorate-General of Health (DGS) is the responsible entity for defining the thresholds to identify the food/beverages with a high energy value, salt, sugar, saturated fatty acids and trans

fatty acids, which should be based on the WHO and UE recommendations. After the implementation of the Law, the DGS had 2 months to define the nutrient profile model to food marketing restrictions to children and the following steps were followed:

11. The DGS developed the first draft of the Portuguese NPM (PT NPM). During this process, the proposal was tested against the WHO Europe NPM.
12. Consultation and revision of the draft described in the previous number by an expert group, composed by nutritionists, dietitians and academia nutrition experts.
13. Establishment of a Stakeholders group, composed by the food industry, Consumer Protection Associations, College of Nutritionists, and the Portuguese Nutrition Association.
14. In June the PT NPM was finalised from the technical side and started the approval process at the political level.
15. The Portuguese NPM published in August 2019.

The PT NPM has some differences comparing to the WHO Europe NPM. Some of these differences have resulted from the challenges encountered regarding the legal definition of food and beverages that would be included in the restrictions. The limits imposed by the Law no 30/2019 of 23 of April did not allow for the identification of food categories as “not permitted”, regardless their nutrient profile, or for considering total fat or non-sugar sweeteners content. Additionally, there was the need to define thresholds for all food categories. The following references were considered for the adaptations included in the PT NPM:

- Law n.º 30/2019 (constraints imposed by the Portuguese law on food marketing restrictions to children).
- EU regulations (Regulation (CE) n.º 1924/2006, on nutrition and health claims on foods and Regulation (EU) n.º 2019/649, on trans fatty acids).
- Other policies in place in Portugal (food reformulation plan).
- Nutritional composition of foods available in the Portuguese market (e.g., breakfast cereals, yoghurts and cheeses).
- 25% of the reference intake (following the WHO recommendations

Regarding trans fatty acids, the thresholds were defined considering the value established for trans fatty acids by the Commission Regulation (EU) 2019/649 of 24 April 2019, which amends Annex III to Regulation (EC) No 1925/2006 of the European Parliament and of the Council as regards trans-fat, other than trans-fat naturally occurring in fat of animal origin (41).

After the definition of the model, the agreement between the Portuguese NPM and the WHO Europe NPM was tested and it was found a strong agreement between the two models. The main differences in the PT WHO-Modified NPM were due to the impossibility to include non-sugar sweeteners in the nutrient profile model, which have resulted in a higher percentage of products permitted in the categories of sugar-sweetened drinks and plant-based milk alternatives.

Regarding the process of the development of the PT NPM, there were key elements for the success of this process that should be pointed out:

- The Directorate-General of Health as the institution with the responsibility of defining the PT NPM.
- The involvement of the food industry in a general stakeholder group that integrated other institutions which supported a robust NPM (there were no bilateral meetings with the industry).
- The expert group and the involvement of supportive stakeholders was determinant to ensure that no changes to the NPM were made at political level.
- The support from the Ministry of Health.

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10. Annexes

Annex 1 – Nutrients of concern considered per food category

The following nutrients of concern were considered in the food categories of the EU coordinated nutrient profile model (Table 6).

Table 6. Nutrients of concern of the food categories included in the nutrient profile model.

Food Categories	Nutrients of concern					
	Free sugars	Salt	Saturated Fat	Total Fat	Trans fatty acids	Non-sugar sweeteners
Savoury snacks	x	x				
Milk drinks	x			x	*	x
Plant-based “milk” drinks	x			x	*	x
Breakfast cereals	x	x		x	*	
Yoghurts, sour milk, cream and other similar foods	x	x	x	x	*	
Cheese and similar products		x		x	*	
Ready-made and convenience foods and composite dishes	x	x	x	x		
Butter, other fats and oils		x	x		*	
Bread, bread products and crisp breads	x	x		x	*	
Fresh or dried pasta, rice and grains	x	x				
Meat, poultry, fish and eggs		x				
Processed fish and similar		x				
Processed fruit, vegetables and legumes	x	x		x	*	
Sauces, dips and dressings	x	x		x		

***** Marketing is prohibited if the product contains > 1 g per 100 g total fat in the form of industrially-produces *trans* fatty acids, or ³ 0.5% of total energy in the form of alcohol, according to the WHO recommendations on *trans* fat intake.

Annex 2 – WHO Global Sodium Benchmarks

In 2020, the WHO developed global benchmarks for sodium levels across different food categories (33). This report builds on the work and experiences of countries and regions in setting targets for sodium levels in different food categories, as part of national and regional efforts to reduce population salt intake, reduce the burden of diet- and nutrition-related noncommunicable diseases (NCDs), as well as achieving the global NCD target for a 30% relative reduction in mean population intake of salt (by achieving a target of less than 5 g of salt (i.e., <2 g of sodium) per day by 2025).

Benchmark values are based on the *lowest maximum value for each subcategory from existing national or regional targets*. Feasibility for these targets has been demonstrated in several countries, and therefore the WHO global sodium benchmarks should reflect the lowest maximum value.

For the definition of some of the salt cut-offs in the EU coordinated nutrient profile model, the benchmarks for five food categories were considered (Table 7).

Table 7. Salt benchmarks applied in the EU coordinated nutrient profile model.

Food categories	Salt benchmark
Breakfast cereals	0.8 g / 100 g
Cheese and similar products	1.3 g / 100 g
Butter, other fats and oils	1 g / 100 g
Bread, bread products and crisp breads	0.825 g / 100 g
Sauces, dips and dressings	0.9 g / 100 g

These benchmarks were selected for these food categories, considering values for certain of its subcategories:

- **Breakfast cereals: 0.8 g /100 g**

From the subcategory “Highly processed breakfast cereals”, which includes “Highly processed, ready-to-eat breakfast cereals including shredded, flaked, puffed or extruded cereals, and cereals with added nutrients such as sodium, fat, sugars (or non-sugar sweeteners), fibre or various vitamins and minerals. Includes granola”.

- **Cheese and similar products: 1.3 g / 100 g**

From the subcategory “Soft to medium ripened cheese”, which includes: “All soft to medium firm textured 520 ripened cheeses, often with a relatively short ripening period (e.g., Emmental, Colby, Monterey Jack, young Gouda and mild Cheddar)”.

- **Butter, other fats and oils: 1 g / 100 g**

From the subcategory “Salted butter, butter blends, margarine and oil-based spreads”, which includes: “Flavoured butter, butter blends and margarine. Includes vegetable oil spreads such as olive oil spreads. Excludes unsalted butter”.

- **Bread, bread products and crisp breads: 0.825 g / 100 g**

From the subcategory “Leavened bread”, which includes: “All types of yeast-leavened breads, including sourdough breads. Includes breads made with all types of cereal flours (e.g., white or whole grain wheat, spelt and rye). Includes all types of shapes and baking traditions (e.g., pan baked, hearth baked, large loafs, baguettes, rolls and buns). Includes all types of artisanal, pre-packaged sliced breads, par-baked bread and rolls, bagels, English muffins, pizza crusts, and diet or low-calorie breads. Includes breads with and without additions (e.g., herbs, nuts, olives, onion and cheese). Also includes refrigerated and frozen dough. Excludes dough for cookies, cakes and sponges, pastries, and scones. Excludes flatbreads that are leavened such as naan”.

- **Sauces, dips and dressings: 0.9 g / 100 g**

From the subcategory “Dips and dipping sauces”, which includes: “All dips (e.g., salsa, chutney and guacamole, bean-based dips such as hummus, and sweet sauces such as plum sauce, cherry sauce and pineapple sauce). Excludes cream- and cheese-based dips and fish and seafood-based mousse, spread and dips”.

Annex 3 – Comparative analysis of different Nutrient Profile Models

In order to support the development of the proposal for the EU coordinated NPM, a comparative analysis of different NPMs was performed in two different food databases:

- Data base, from products available in the Portuguese market, with 1251 products.
- Data base with 497 French products, from the ANSES-CIQUAL food composition table.

In Table 8 it is possible to find the food categories that were considered to this analysis. The food categories included in this analysis correspond to those that are most advertised to children and most consumed in Portugal. In the French database the corresponding categories were considered.

Table 8. Categories included in the analysis, per food data base.

	Portuguese Database	French Database
Categories	**n**	**n**
Breakfast cereals	179	48
Cereal bars	41	8
Biscuits/Cookies	207	64
Cakes/sweets	28	81
Chocolate powders	14	-
Savoury snacks	87	39
Yoghurts	408	84
Processed fruit	58	31
Flavoured milks	35	4
Plant-based milks	61	11
Soft Drinks + Energy drinks	84 + 2	44
Juices	47	58
Ice creams and sorbets	-	25

In this analysis, six nutrient profile models were included, to analyse the performance of each model in restricting unhealthy food marketing to children and adolescents. The following models were included in this comparative analysis:

- WHO Regional Office for Europe Nutrient Profile Model
- Nutri-Score
- UK Nutrient Profile Model 2018

- Portuguese Nutrient Profile Model (based on the WHO Europe NPM)
- Slovenian Nutrient Profile Model (based on the WHO Europe NPM)
- Proposal for the EU coordinated Nutrient Profile Model

Regarding the information present in these databases, some calculations and estimations were made:

1. Free sugars were calculated, in both food databases, accordingly to the proposed methodology in chapter IV.
2. In the French database:
    a) The energy value was estimated for around 280 products, considering the macronutrients content;
    b) Within the food categories selected, the products which did not have sugar or saturated fat were not included.

The main results of this analysis are presented as follow (**Napaka! Vira sklicevanja ni bilo mogoče najti.Napaka! Vira sklicevanja ni bilo mogoče najti.** to Figure 23). The proposal for the EU coordinated NPM is aligned with the WHO Europe NPM, being more restrictive in some categories, as the plant-based milks and flavoured milks categories. This difference is due to the use of free sugars threshold in the proposal for the EU coordinated NPM instead of total sugars/added sugars. The Portuguese NPM and the Slovenian NPM are also aligned with the WHO Europe NPM, presenting similar results, as these are national adaptations of the reference model. On the other hand, Nutri-Score was the most permissive model overall. Products classified in green categories of Nutri-Score (A and B) were classified as permitted. This model was especially permissive in the chocolate powder, flavoured milks, plant-based milks categories, but also in breakfast cereals and yoghurts.

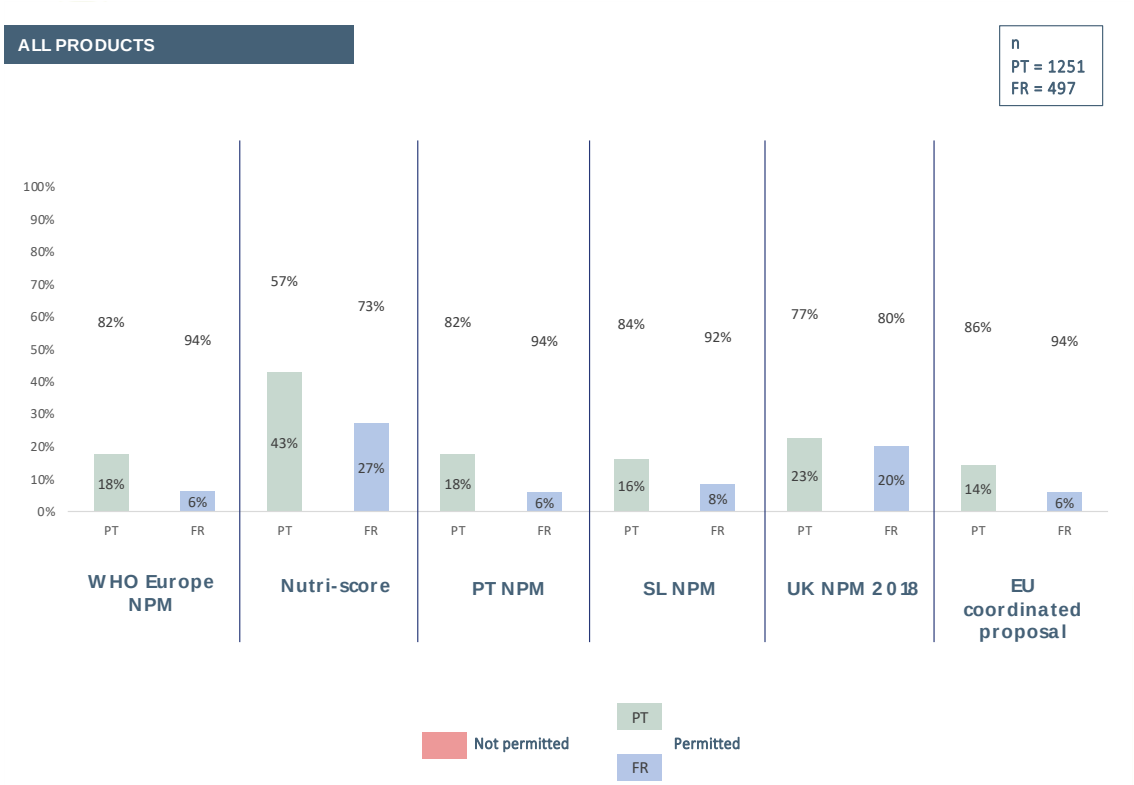

Figure 9. Overall results of the comparative analysis.

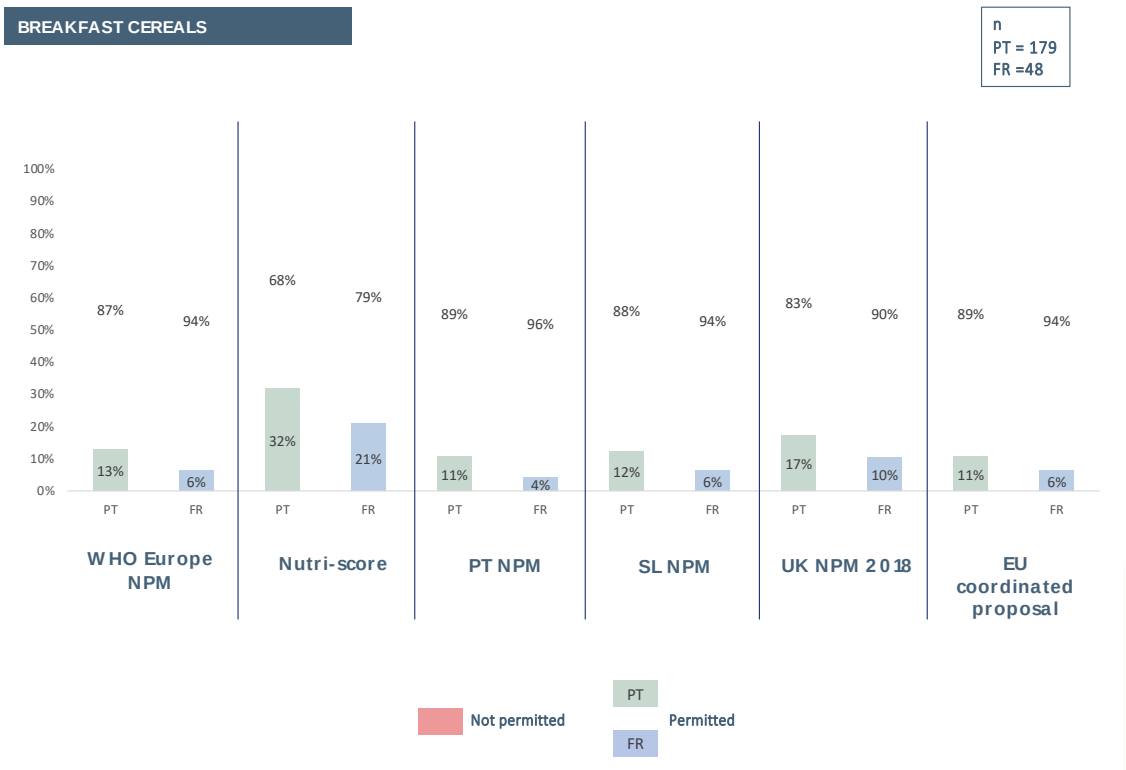

Figure 10. Breakfast cereals category comparative analysis.

Figure 11. Cereal bars category comparative analysis.

Figure 12. Biscuit/cookies category comparative analysis.

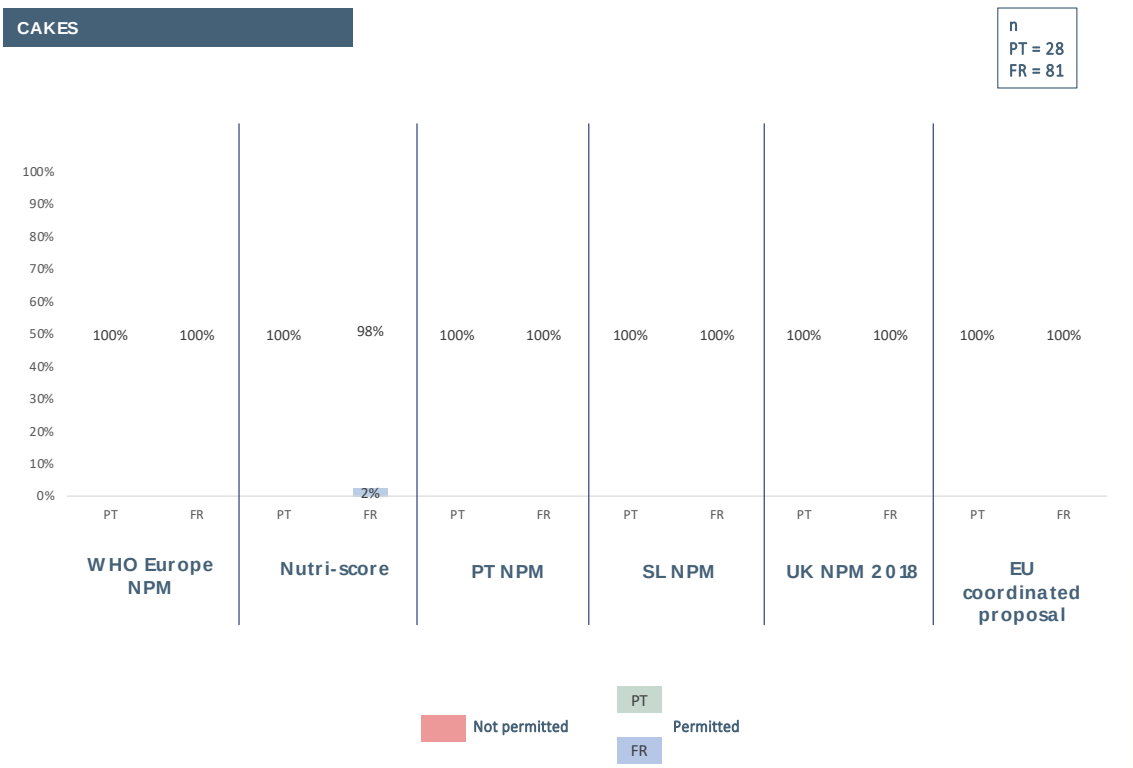

Figure 13. Cakes category comparative analysis.

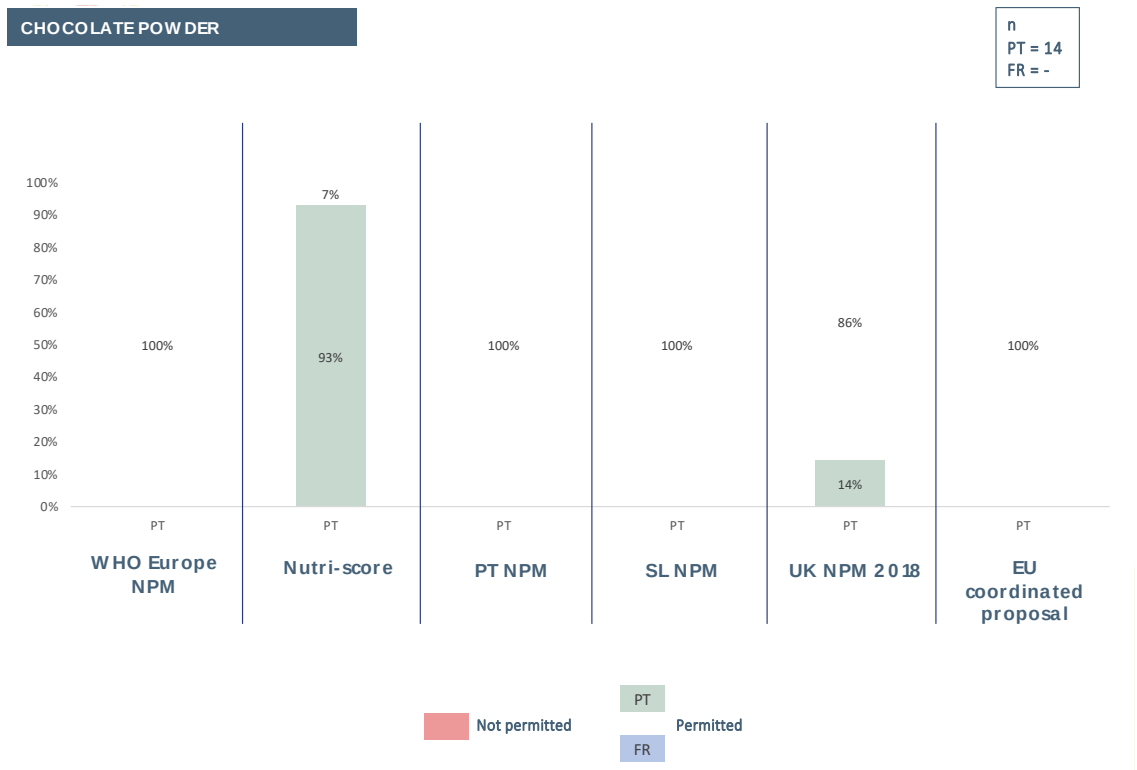

Figure 14. Chocolate powder category comparative analysis.

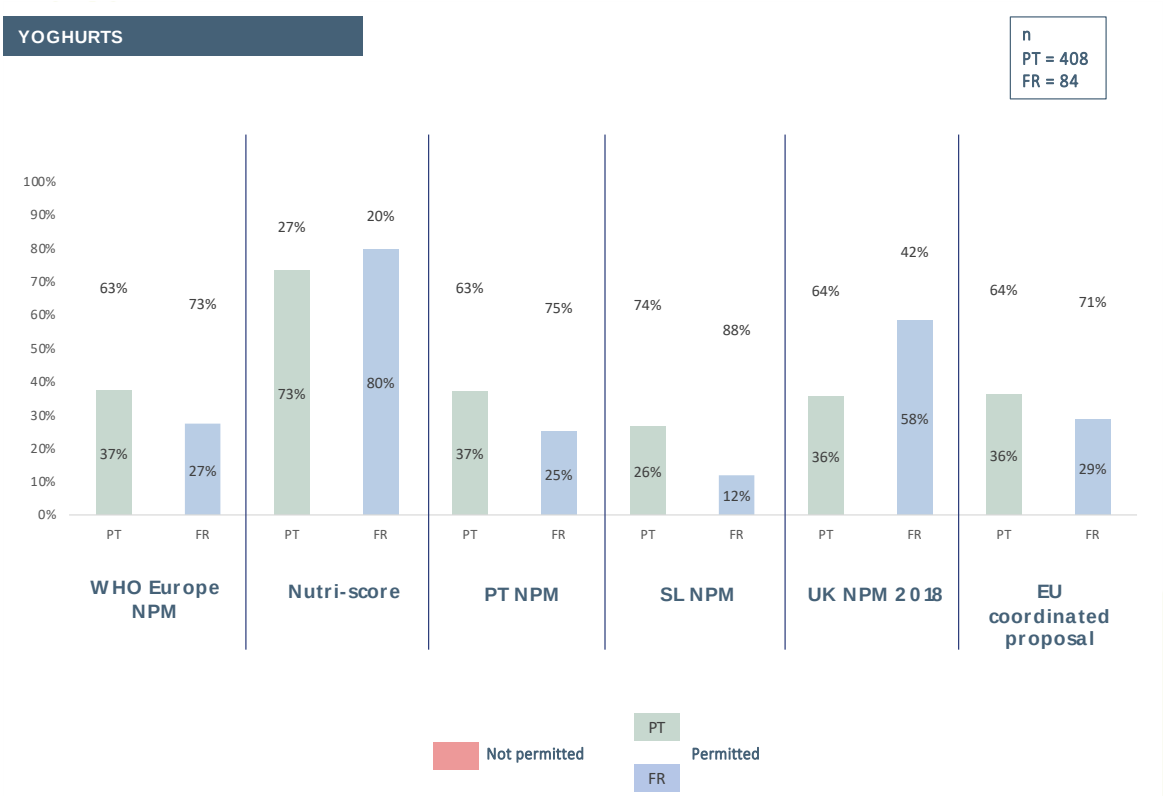

Figure 15. Yoghurts category comparative analysis.

Figure 16. Flavoured milks comparative analysis.

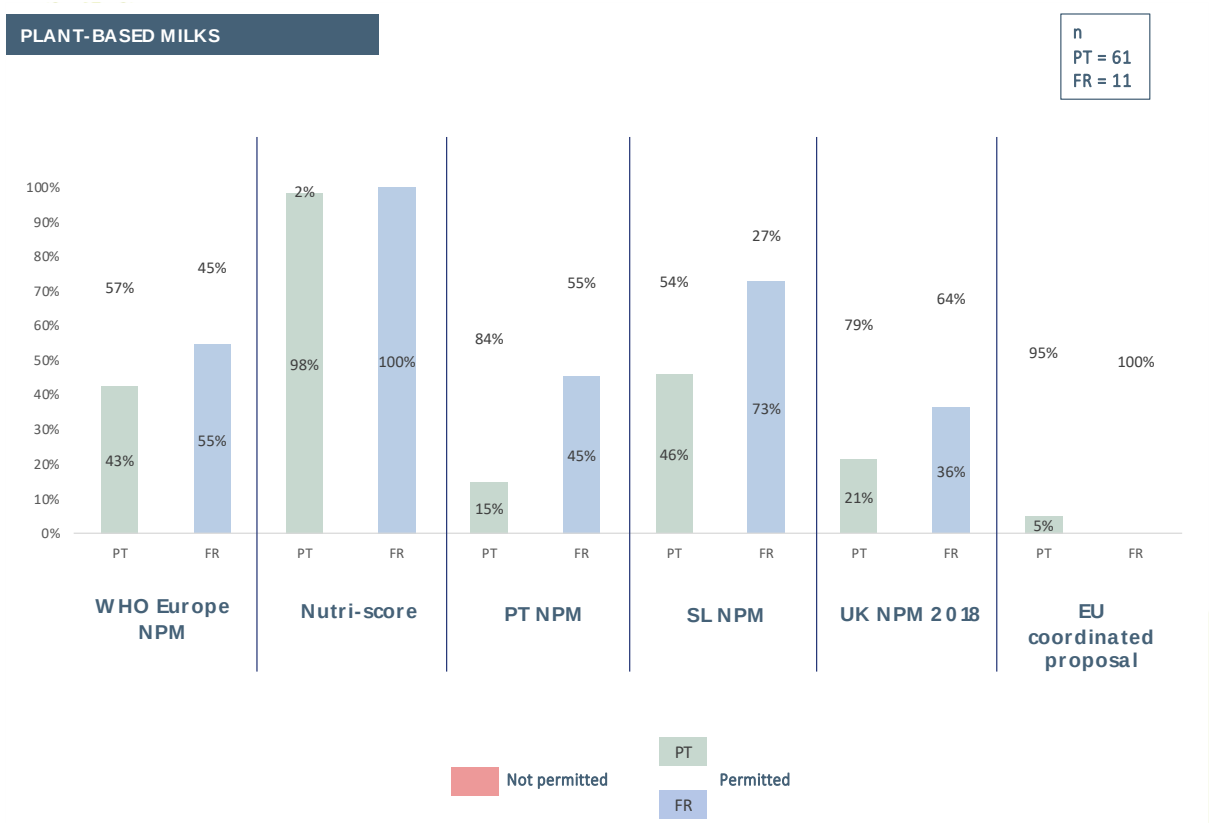

Figure 17. Plant-based milks category comparative analysis.

Figure 18. Juices category comparative analysis.

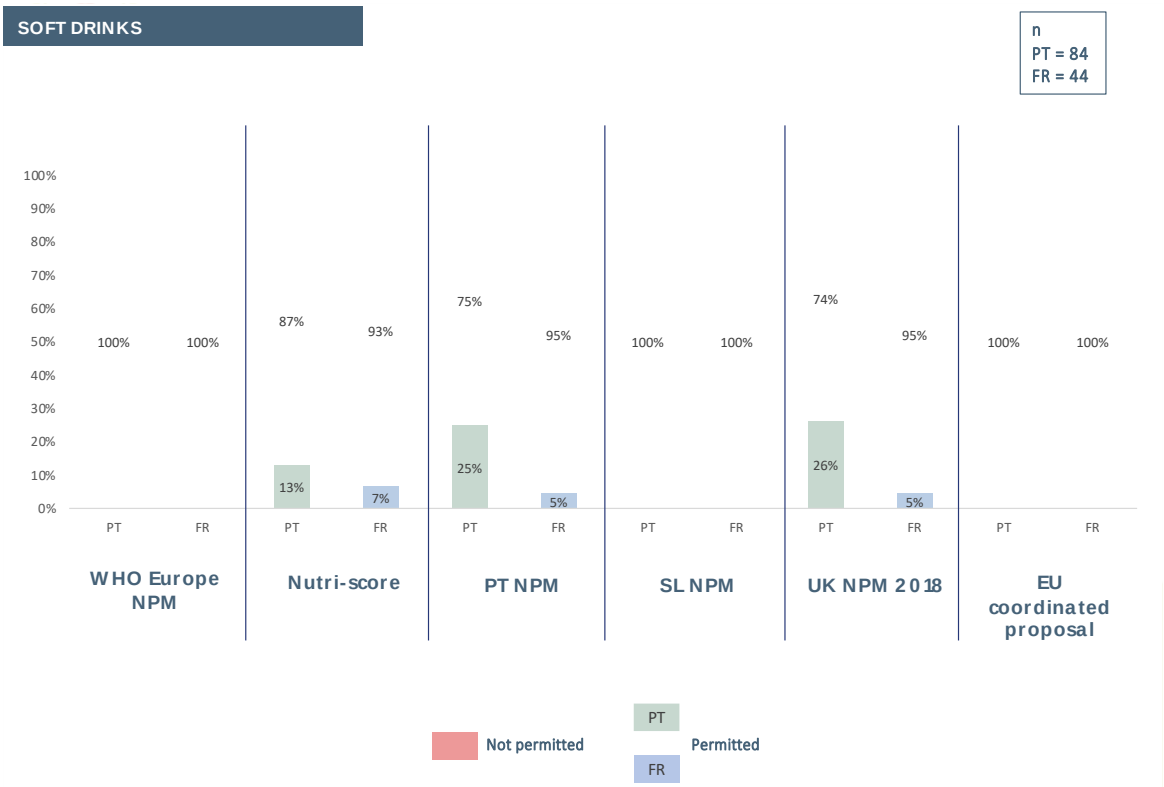

Figure 19. Soft drinks category comparative analysis.

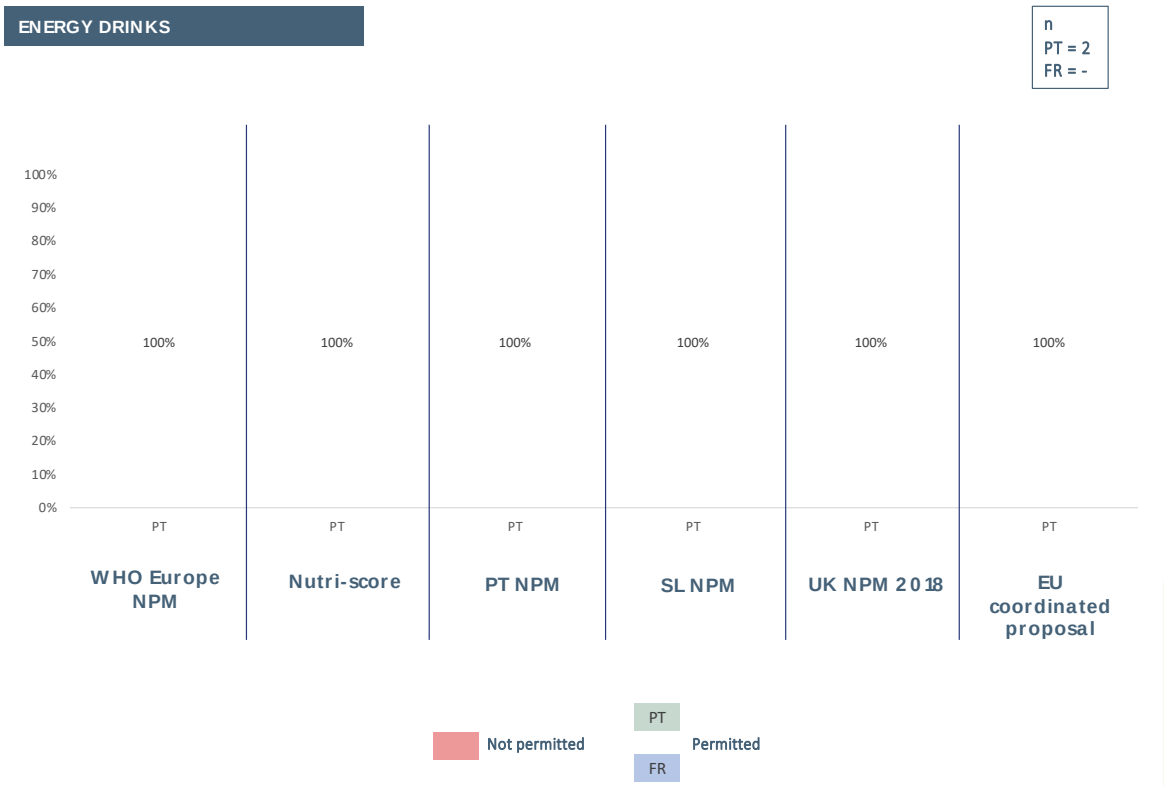

Figure 20. Energy drinks category comparative analysis.

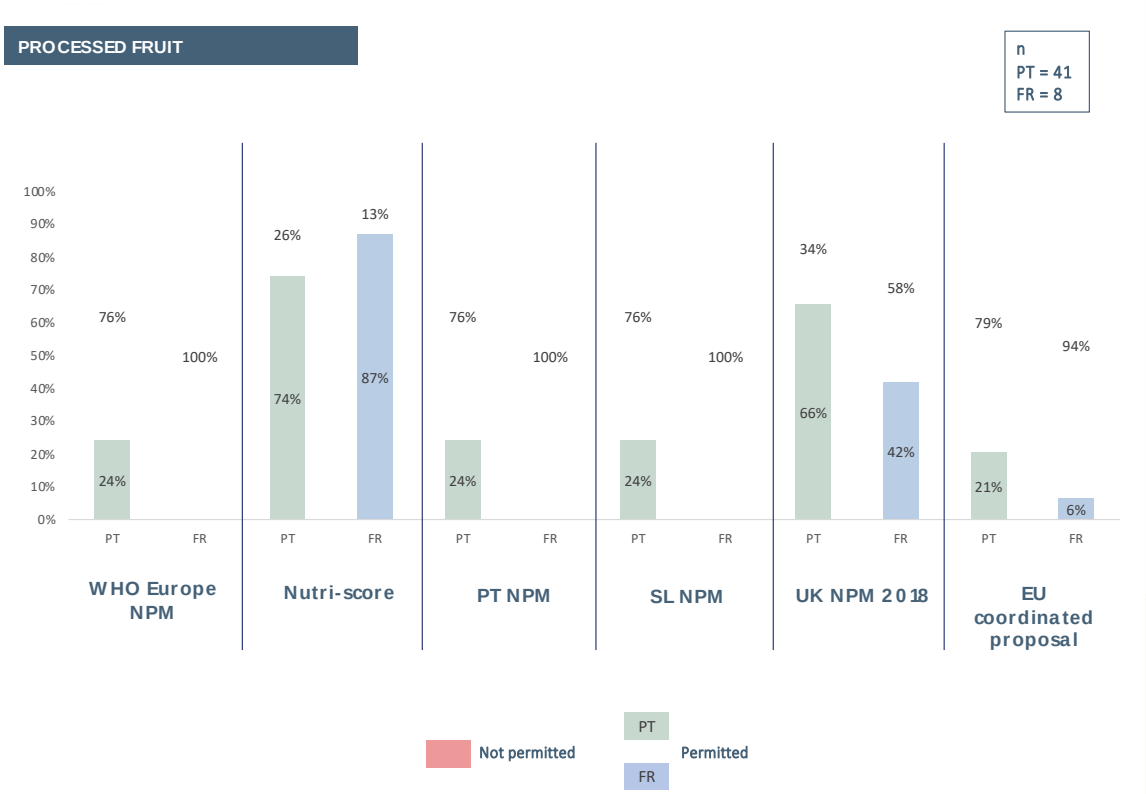

Figure 21. Processed fruit category comparative analysis.

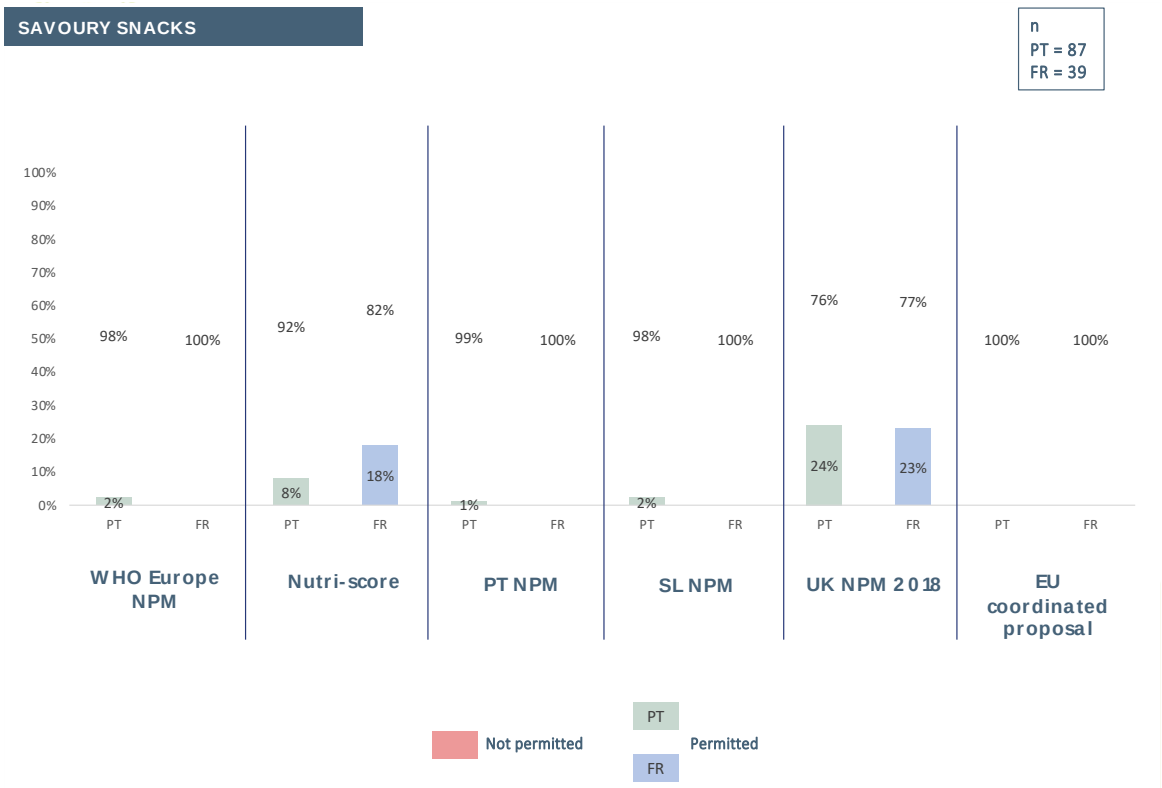

Figure 22. Savoury snacks category comparative analysis.

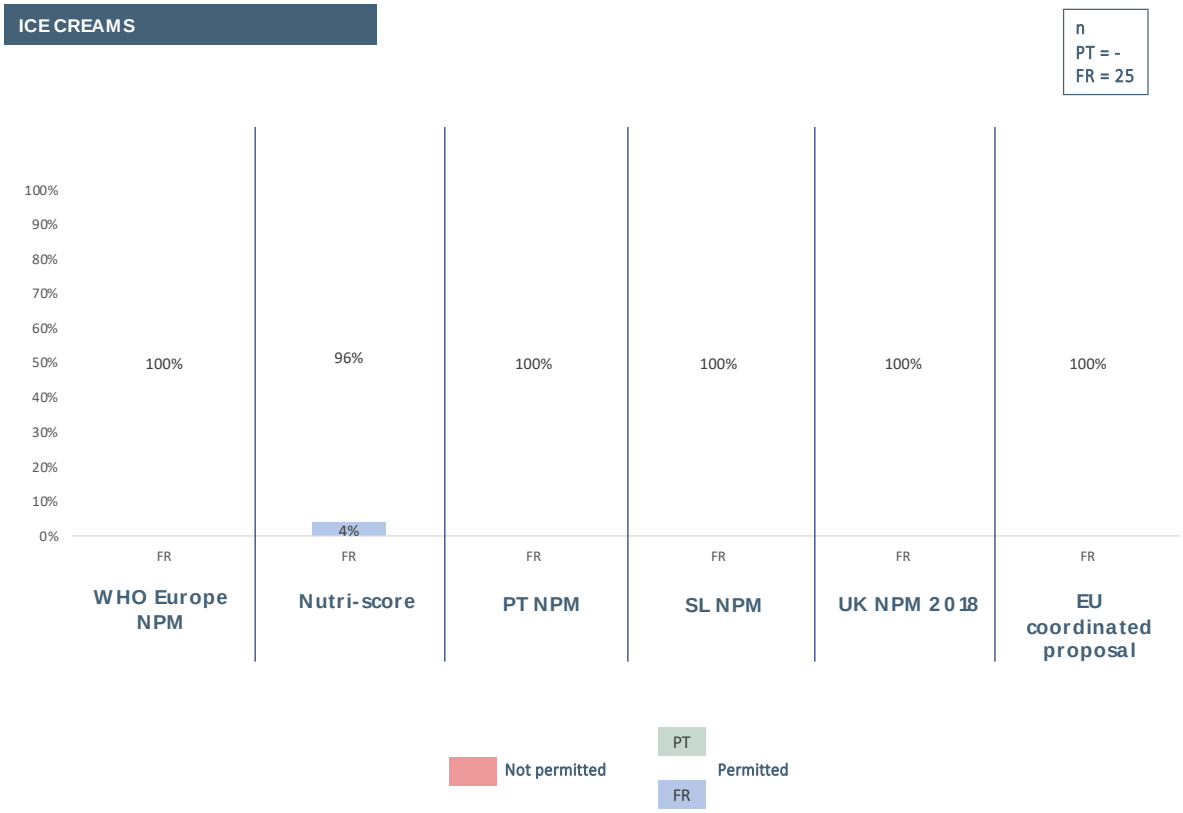

Figure 23. Ice cream category comparative analysis.