

Front-of-pack nutrition labelling in the European Union: a behavioural, legal and political analysis

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I. Introduction

Overweight, obesity and chronic diseases remain a leading cause of premature mortality in the European Union and constitute a major public health priority. Between 2010 and 2016, overweight and obesity rates on the continent have increased respectively from 55.9% of the population to 58.7% and from 20.8% to 23.3%.¹ It is estimated that in 2017 over 950,000 deaths and over 16 million lost healthy life years were attributable to unhealthy diets and the resulting non-communicable diseases, among which cardiovascular diseases, diabetes and kidney diseases.²

The EU is increasingly active in public health matters,³ including in the prevention of lifestyle-related risks.⁴ The EU health programme 2014-2020 seeks ‘to promote health, prevent diseases, and foster supportive environments for healthy lifestyles [...] by addressing in particular the key lifestyle related risk factors’,⁵ among which diets figure prominently.⁶ Since the publication of the White Paper ‘A Strategy on Nutrition, Overweight, and Obesity-related Health Issues’ in 2007, improving the quality of European diets has remained an important priority for the EU.⁷ The Farm to Fork Strategy, published in 2020, aims, inter alia, at creating ‘a favourable food environment that makes it easier to choose healthy and sustainable diets [which] will benefit consumers’ health and quality of life, and reduce health-related costs for society’.⁸

Empowering consumers through the provision of nutrition information has always been a key component of EU action. Generally speaking, nutrition labelling is appealing to policymakers for two main reasons. First, it is congruent with the idea that, in a market relationship, consumers

¹ World Health Organisation, *European Health Report 2018*, p. 24.

² EU Science Hub, ‘EU burden from non-communicable diseases and key risk factors’, accessible at <https://ec.europa.eu/jrc/en/health-knowledge-gateway/societal-impacts/burden/>, last accessed 30/09/2020.

³ See Anniek De Ruijter, *EU Health Law & Policy: The Expansion of EU Power in Public Health and Health Care* (OUP, 2019); Tamara Hervey, Calum Young et al (eds), *Research Handbook on EU Health Law and Policy* (Edward Elgar Publishing 2017).

⁴ Alberto Alemanno and Amandine Garde (eds), *Regulating Lifestyle Risks: The EU, Alcohol, Tobacco and Unhealthy Diets* (Cambridge University Press 2015); A. Alemanno and A. Garde, ‘The emergence of an EU lifestyle policy: the case of alcohol, tobacco and unhealthy diets’ (2013) 50 *Common Market Law Review* 6.

⁵ Regulation (EU) No 282/2014 of the European Parliament and of the Council of 11 March 2014 on the establishment of a third Programme for the Union's action in the field of health (2014-2020), OJ L 86, 21.3.2014, p. 1–13, Art. 3(1).

⁶ Regulation 282/2014, Annex 1, para 1.1. See also the Proposal for a Regulation of the European Parliament and of the Council on the establishment of a Programme for the Union's action in the field of health –for the period 2021-2027 and repealing Regulation (EU) No 282/2014 (“EU4Health Programme”), COM(2020) 405 final, Recital 18.

⁷ For early discussions, see Paulette Kurzer and Alice Cooper, ‘Hold the Croissant! The European Union Declares War on Obesity’ (2011) 21 *Journal of European Social Policy* 2; Tim Lang and Geof Rayner, ‘Obesity: A Growing Issue for European Policy?’ (2005) 15 *Journal of European Social Policy* 4.

⁸ European Commission, *A Farm to Fork Strategy. For a fair, healthy and environmentally-friendly food system*, COM(2020) 381 final, p.2.

should be provided with adequate information in order to make choices that are best aligned with their preferences. It is a way to remedy existing asymmetries of information regarding the composition of foods.⁹ Rules on labelling are also comparatively less burdensome for food operators and consumers than other policies and thus tend to be easier to adopt and implement. Second, it is thought, and hoped, that the provision of nutrition information improves the quality of diets, not only because consumers make healthier food choices but also because food operators are incentivised to reformulate their products.

Regardless of its advantages, nutrition labelling as currently mandated by EU law suffers from serious defects from a public health perspective. The capacity of classic textual, tabular, back-of-pack information to influence consumer behaviour towards healthier choices appears limited in light of the existing scientific evidence. In reaction, governments and food operators have been experimenting with more effective front-of-pack (FoP) labels that convey information in a simplified and more salient manner. In Europe, the Nutri-Score, a type of colour-coded front-of-pack indicator that classifies food according to their nutritional quality, is gaining traction. Originally developed and adopted in France, it is being used in a growing number of EU Member States¹⁰ and is now supported by a wide range of actors, including EU citizens themselves¹¹ and a number of MEPs, companies and consumer organisations.¹² More generally, a recent Eurobarometer shows that 85% of Europeans favour the adoption of a logo helping them to choose healthy and sustainable foods.¹³ After years of discussion with stakeholders, the Commission has recently announced that it will propose, as part of its Farm to Fork Strategy, the adoption of a common and mandatory front-of-pack nutrition labelling scheme.¹⁴

The present contribution seeks to provide a general overview of the main scientific, legal and policy aspects pertaining to front-of-pack labelling in the EU context. The next section introduces the concept of FoP labelling, its main applications, and the existing scientific evidence regarding its effect on consumer behaviour and diets. The third section presents the EU legal framework currently applicable to nutrition labelling in general and FoP labelling in particular. The final section outlines the main reasons justifying action at the EU level and reflects on possible obstacles to the adoption of a FoP scheme common to all Member States. The article covers FoP nutrition

⁹ Shmuel I. Becher, Hongzhi Gao et al, 'Hungry for Change: the Law and Policy of Food Health Labeling' 54 *Wake Forest Law Review*, p. 1312.

¹⁰ Including Austria, Belgium, Germany, Luxembourg, Netherlands, Portugal and Spain.

¹¹ See the European Citizen's Initiative 'Pro Nutriscore', (ECI(2019)000008), started in May 2019 and withdrawn in April 2020, [https://europa.eu/citizens-initiative/initiatives/details/2019/000008_en], last accessed 08/01/2021.

¹² Euractiv, *EU-wide food label should not fall to the back-burner, say advocates*, 30 April 2020, accessible at [<https://www.euractiv.com/section/agriculture-food/news/eu-wide-food-label-should-not-fall-to-the-back-burner-say-advocates/>], last accessed 08/01/2021.

¹³ European Commission, 'Making our food fit for the future – Citizens' expectations', Special Eurobarometer, December 2020.

¹⁴ *Farm to Fork Strategy*, supra note 8, p 13; see also European Commission, *Report from the Commission to the European Parliament and the Council regarding the use of additional forms of expression and presentation of the nutrition declaration*, COM(2020) 207 final.

labelling in general but adopts a particular focus on the Nutri-Score, arguably the most popular label currently in use in the EU and a serious candidate to a potential pan-EU scheme.

II. The science of front-of-pack nutrition labelling¹⁵

1. What is front-of-pack nutrition labelling?

Front-of-pack nutrition labelling can be defined as the provision of nutrition information in the principal field of vision on food and drinks packaging.¹⁶ Under Regulation 1169/2011 on the provision of food information to consumers (FIC Regulation), the ‘field of vision’ is defined as ‘all the surfaces of a package that can be read from a single viewing point’¹⁷ and the ‘principal field of vision’ is ‘the field of vision [...] which is most likely to be seen at first glance by the consumer at the time of purchase and that enables the consumer to immediately identify a product in terms of its character or nature and, if applicable, its brand name’.¹⁸

Beyond this basic characteristic, FoP labels vary widely in their design (shape, colour, use of symbols, etc.) and purpose.¹⁹ Various categories have been proposed in the literature.²⁰ Table 1 below provides a summary of these categories and gives examples of some of the FoP labels currently in use in Europe and in other regions where these labels have been experimented with.²¹

Table 1: Front-of-pack nutrition labels in use in Europe and other regions²²

¹⁵ This section relies heavily on the recent study published by the Joint Research Centre of the European Commission, the most comprehensive review available on the issue to date: Stefan Storcksdieck genannt Bonsmann, Ginevra Marandola et al, *Front-of-pack nutrition labelling schemes: a comprehensive review*, Joint Research Centre, 2020.

¹⁶ Ibid., p. 18; see also Regulation (EU) No 1169/2011 of the European Parliament and of the Council of 25 October 2011 on the provision of food information to consumers, OJ L 304, 22.11.2011, p. 18–63, Recital 41.

¹⁷ Art. 2(2)(k).

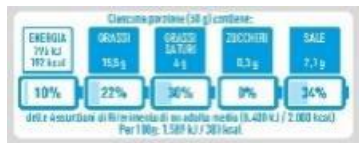
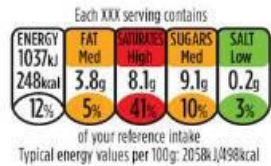
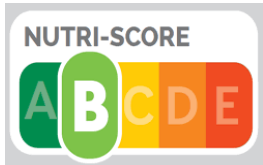
¹⁸ Regulation 1169/2011, Art. 2(2)(l).

¹⁹ Stefan Storcksdieck et al, supra note 15, pp. 20-28.

²⁰ See Stefan Storcksdieck et al, supra note 13, p. 29; *Report from the Commission regarding the use of additional forms of expression and presentation of the nutrition declaration*, supra note 12, p. 5.

²¹ For Chile, see Marcela Reyes, Maria Luisa Garmendia et al., ‘Development of the Chilean Front-of-Package Food Warning Label’ (2019) 19 *BMC Public Health* 1; for Australia and New Zealand see Becher et al., supra note 9.

²² Adapted from the *Report from the Commission regarding the use of additional forms of expression and presentation of the nutrition declaration*, supra note 14, p. 7, with additional graphical elements taken from Becher et al., supra note 9. The countries referred to are those where the use of the label has been recommended by health authorities or made mandatory.

Categories of FoP schemes			Examples of FoP schemes		Countries of use
Nutrient-specific labels	Reductive (non-interpretative)	Numerical	Reference Intakes label		Across Europe
			NutrInform Battery		Italy
	Evaluative (interpretative)	Colour-coded	Multiple Traffic Lights (MTL)		United Kingdom
		Textual	Chilean Warning Labels		Chile
Summary labels	Evaluative (interpretative)	Endorsement logos	Keyhole		Sweden, Denmark, Lithuania
		Graded indicators	Health Star Ratings		Australia, New Zealand
			Nutri-Score		France, Belgium, Netherlands, Luxembourg, Germany, Spain

FoP schemes differ along three main dimensions. Some are nutrient-specific and provide detailed information on the amount of energy and nutrients present in a product, usually expressed per serving or 100 g/ml, whilst others provide a summary of the overall nutrition quality of products. Schemes can also be reductive, conveying nutrition information in a simpler but ‘neutral’ way, or evaluative, in which case they assess the nutritional quality of products. Summary labels tend to also be evaluative. The MTL and the Nutri-Score are both evaluative and based on a ‘traffic-light’ colour-code, but the MTL evaluates separately different aspects of the food composition whereas the Nutri-Score gives a general grade to products. Finally, evaluative labels can be positive or negative. The Keyhole is a positive label, it endorses the healthiest choices within a food category. Warning labels, on the other hand, signal to consumers when a product contains excessive quantities of certain nutrients, salt, sugar, saturated fat, or a high energy content.

All evaluative FoP labelling schemes use nutrient profiling in order to determine the nutritional quality of foods. Nutrient profiling can be defined as ‘the classification of foods for specific purposes based on their nutrient composition.’²³ Different methods are used in the context of FoP labelling.²⁴ Nutrient-specific schemes usually use nutrient thresholds to determine if a given product should bear a warning or be labelled with a specific colour. Summary labels use algorithms that compute the content of different nutrients and result in an overall score.

The Nutri-Score, originally conceived and developed in France under the aegis of the French government, is a type of evaluative summary label that expresses nutrition information in the form of a colour-coded and graded indicator. Products are rated along a five-grade scale, from most to least healthy, using a combination of letters, from A to E, and colours, from dark green to red (see Table 1). It uses a nutrient profiling system that incorporates various favourable and unfavourable elements. The presence of fruits, vegetables, nuts, fibres and proteins leads to a better score whilst the energy content and the presence of sugar, saturated fatty acids and salt leads to a worse score.²⁵ The Nutri-Score and its underlying nutrient profiling system apply to foods in general and are intended both to guide people in their overall diet and to facilitate the comparison of products within categories, i.e. helping consumers to choose between two oils or two cheeses.²⁶

It is important to stress that FoP schemes also differ in their purpose and their relation to consumer autonomy. Some simply convey information whereas others seek to influence choices.²⁷ Reductive

²³ Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies, ‘The setting of nutrient profiles for foods bearing nutrition and health claims pursuant to article 4 of the Regulation (EC) no 1924/2006’ (2008) *The EFSA Journal* 644, p.1; see also Stefan Storcksdieck et al, supra note 15, p. 31.

²⁴ For an overview see Stefan Storcksdieck et al, supra note 15, pp. 31-34.

²⁵ For further details, see Chantal Julia and Serge Hercberg, ‘Development of a New Front-of-Pack Nutrition Label in France: The Fivecolour Nutri-Score’ (2017) 3 *Public Health Panorama* 4, p. 713.

²⁶ *Ibid.*, pp.713, 715.

²⁷ See Stefan Storcksdieck et al, supra note 15, pp. 37-38.

schemes provide nutrition information in a simplified manner but do not express a judgement on food. This means that potential behavioural change will arise from an enhanced reflection on the part of the consumer on what is good or bad for her. Evaluative schemes directly tell consumers what the good and/or the bad choice is. Further, whilst labels that use verbal and numerical information are most likely to operate at the deliberative level in individuals, with the need to process rather complex pieces of information, labels that use visual elements like colours or symbols can operate as nudges,²⁸ relying on people's cognitive heuristics and biases and operating at the level of their automatic and non-reflective system of thinking. An example is the use of the green and red colours on labels, which traditionally symbolise, respectively, the idea of approval and prohibition.²⁹ Having this in mind is important when evaluating the merits and effectiveness of different FoP labelling schemes.

2. Front-of-pack v classic nutrition information

The growing appeal of FoP labelling is a direct consequence of the vast body of evidence showing that the textual, tabular and back-of-pack provision of nutrition information does not have any significant impact on people's dietary choices and is unlikely to lead to any meaningful improvement from a public health perspective.³⁰ This is rather in line with the more general conclusion that mandated disclosure of information as a policy tool suffers from serious shortcomings: it is often ignored, misunderstood and not acted upon.³¹ Disclosures rely too often on an imagined version of the rational and diligent consumer that reads labels, understand complex pieces of information and subsequently adopts the right course of action. In reality, people are prone to errors, have limited mental bandwidth and limited willpower.³² In the area of nutrition, consumers themselves consider that more information is better, despite the fact that most of them 'are not equipped to interpret all this information due to factors such as low levels of nutrition knowledge, time pressure and competing priorities'.³³

²⁸ Kai Purnhagen, Erica van Herpen et al, 'The Potential Use of Visual Packaging Elements as Nudges' in Klaus Mathis and Avishalom Tor (eds), *Nudging - Possibilities, Limitations and Applications in European Law and Economics* (Springer International Publishing 2016).

²⁹ Amy L. Wilson et al, 'Nudging Healthier Food and Beverage Choices through Salience and Priming. Evidence from a Systematic Review' (2016) 51 *Food Quality and Preference*, p. 59; Jan Michael Bauer and Lucia A. Reisch, 'Behavioural Insights and (Un)Healthy Dietary Choices: A Review of Current Evidence' (2019) 42 *Journal of Consumer Policy* 1, p. 17.

³⁰ Bauer and Reisch, *supra* note 29, p. 29; Becher et al, *supra* note 9, pp. 1314, 1318; Caoimhín MacMaoláin 'Regulating consumer information: use of food labelling and mandatory disclosures to encourage healthier lifestyles' in Alberto Alemanno and Amandine Garde (eds), *Regulating Lifestyle Risks: The EU, Alcohol, Tobacco and Unhealthy Diets* (Cambridge University Press 2015), p. 47.

³¹ Omri Ben-Shahar and Carl E Schneider, *More Than You Wanted to Know* (Princeton University Press 2014); on information disclosure more generally see Eyal Zamir and Doron Teichman, *Behavioral Law and Economics* (Oxford University Press 2018), p 175 and following.

³² For a comprehensive overview, see Chapter 2 in Zamir and Teichman, *supra* note 31, pp. 19 and following.

³³ Zenobia Talati et al, 'Consumers' Perceptions of Five Front-of-Package Nutrition Labels: An Experimental Study Across 12 Countries' (2019) 11 *Nutrients* 8, p. 1945.

However, there are reasons to believe that more consumer-friendly labels could lead to better results, especially if they target System 1 thinking, the automatic and intuitive decision-making system.³⁴ Using the principal field of vision increases salience and several studies have concluded that FoP labels are noticed earlier and receive more attention than the classic back-of-pack nutrition information.³⁵ In particular, since consumers have difficulties interpreting technical and numerical nutrition information, recourse to visual elements such as graphics and symbols should be encouraged.³⁶ Vivid elements catch consumers' attention more easily, especially under time pressure like it is often the case in a shopping situation.³⁷ They may also have an impact on people's feelings and emotions, which has been shown to have an influence on behaviour.³⁸ As mentioned earlier, colours play an important role in this regard. The use of green in labels has for instance been proven to increase the perceived healthiness of products.³⁹ Finally, there is also evidence that the provision of health-related information at the point of purchase can have a 'goal priming' function, providing a nonconscious cue that activates the latent long term health goals that are present in individuals.⁴⁰

It is worth noting at this point that not all consumers are equal.⁴¹ Some, a minority, do read labels and have the necessary knowledge, resources, and motivation to engage with the information that is provided. Classic back-of-pack nutrition information may be sufficient to guide the choices of these consumers. The many others that do not or cannot pay attention to complex information, however, can benefit much from simplified information and visual cues.

3. Effectiveness of front-of-pack nutrition labelling

The failure of classic back-of-pack nutrition information to influence consumers' choices towards healthier options is rather clear, but this does not in itself suffice to establish that FoP labels do significantly better, and if yes, the extent to which they do so. It is also important to determine how FoP labels compare with one another. The following developments present the available evidence regarding the effect of FoP labels.

³⁴ Becher et al., *supra* note 9, p. 1321.

³⁵ Stefan Storcksdieck et al, *supra* note 15, p. 49.

³⁶ *Ibid.*, p. 67; Bauer and Reisch, *supra* note 29, p. 29.

³⁷ Purnhagen et al, *supra* note 28, p. 208.

³⁸ *Ibid.*, Wilson et al, *supra* note 29, p. 59.

³⁹ Jonathon P. Schuldt, 'Does Green Mean Healthy? Nutrition Label Color Affects Perceptions of Healthfulness' (2013) 28 *Health Communication* 8. A study on the MTL found that consumers were more concerned with avoiding red lights than choosing green lights: Peter Scarborough, Anne Matthews et al., 'Reds Are More Important than Greens: How UK Supermarket Shoppers Use the Different Information on a Traffic Light Nutrition Label in a Choice Experiment' (2015) 12 *International Journal of Behavioral Nutrition and Physical Activity* 1.

⁴⁰ Esther K. Papies, 'Health Goal Priming as a Situated Intervention Tool: How to Benefit from Nonconscious Motivational Routes to Health Behaviour' (2016) 10 *Health Psychology Review* 4, pp. 408-424; Bauer and Reisch, *supra* note 29, p. 19.

⁴¹ See in that regard the report made by TNS European Behaviour Studies Consortium, *Study on the Impact of Food Information on Consumers' Decision Making*, 2014, pp. 67-69. It singles out three key drivers of consumer attention and choice, time, money and interest in quality and health aspects, and combine them to arrive at six distinct categories of shoppers.

Before delving in further details into the various studies and reviews, it is worth highlighting two important methodological caveats. First, studying the effectiveness of FOP labels, or any label for that matter, requires to consider different aspects of consumer choice. '[A] given FOP scheme will not have an effect on behaviour unless it is noticed, understood, and ultimately accepted as reliable information and potentially guidance'.⁴² But these preconditions alone are not sufficient to establish that a given label will actually alter the behaviour of consumers and ultimately achieve the desired policy results. Adequate knowledge does not necessarily translate into healthier behaviours.⁴³ This needs to be studied and established separately.

Second, studying food choices is difficult. Food purchase takes place in a highly contextual and complex setting where shoppers are confronted with many different cues. Alongside health, consumer choice is driven by a variety of other factors, like time and money.⁴⁴ Ideally, studies should therefore be realised in real-life situations in order to gain greater ecological validity. These are however more difficult to conduct and therefore rarer. Most studies are made online or in laboratory settings and adopt a piecemeal approach, meaning that 'consumer responses are investigated in an artificially simplified choice context (e.g. with less information to be assessed, more time to decide, larger and more readable labels/logos, etc.), with subjects usually primed to focus on a specific piece of information.'⁴⁵ The results of these types of studies are of course pertinent but should nonetheless be taken with a certain degree of caution.⁴⁶

a. Attention, attractiveness and understanding of FoP labels

Different characteristics can increase the attention given to labels, including size, colour, contrast, placement and overall package context.⁴⁷ Colour is effective if there is sufficient contrast between the label and the package.⁴⁸ Overall, 'studies show good attention-grabbing potential of Nutri-Score, Multiple Traffic Lights, and warning labels'.⁴⁹ It is however important to note that some studies using eye-tracking rather than self-reported data question how much attention is actually paid to nutrition information.⁵⁰ In terms of attractiveness, consumers tend to favour FoP labels over classic nutrition declarations, with a preference for evaluative schemes that use colours to indicate nutrient levels or the overall nutritional quality of foods.⁵¹ A recent study concluded that the MTL

⁴² Stefan Storcksdieck et al, *supra* note 15, p. 47.

⁴³ Iina Ikonen, Francesca Sotgiu et al., 'Consumer Effects of Front-of-Package Nutrition Labeling: An Interdisciplinary Meta-Analysis' (2020) 48 *Journal of the Academy of Marketing Science* 3, p.371.

⁴⁴ See *supra* note 41.

⁴⁵ Stefan Storcksdieck et al, *supra* note 15, p. 43.

⁴⁶ A real-life study on food choices found for instance that 'effect sizes were 17 times smaller on average than those found in comparable laboratory studies', Pierre Dubois, Paulo Albuquerque et al., 'Effects of Front-of-Pack Labels on the Nutritional Quality of Supermarket Food Purchases: Evidence from a Large-Scale Randomized Controlled Trial' (2021) 49 *Journal of the Academy of Marketing Science*, p. 119.

⁴⁷ Stefan Storcksdieck et al, *supra* note 15, p. 50.

⁴⁸ *Ibid.*, p. 53.

⁴⁹ *Ibid.*, p. 49.

⁵⁰ *Ibid.*, p. 55.

⁵¹ *Ibid.*, pp. 59 -66.

was most liked and trusted if compared to other FoP schemes.⁵² Whilst some studies have concluded that consumers' taste varies among countries and cultural groups,⁵³ some others show consistent patterns in consumer perception between different populations.⁵⁴

It is not enough that consumers notice and like labels, they also need to understand the information that is provided to them. One usually distinguishes subjective understanding, whether consumers believe they have understood the information, from objective understanding, consumers' ability to correctly interpret the information as intended by the labels' designers.⁵⁵ Evidence shows that short and simple labels are best for objective understanding,⁵⁶ and that interpretative summary indicators are best to help consumers identifying the healthier products.⁵⁷ Colour-coded FoP schemes tend to do better,⁵⁸ especially when combined with a graded indicator such as it is the case for the Nutri-Score.⁵⁹ A number of online studies recently conducted in various European countries point to a greater effectiveness of the Nutri-Score in terms of consumers' understanding and ability to rank products according to their nutritional quality.⁶⁰ Again, such studies only provide partial information about the real-life performance of FoP schemes but are nonetheless useful to indicate 'which FOP schemes or specific characteristics are most likely to aid quick and accurate decisions about the nutritional quality of products.'⁶¹

An important horizontal issue regarding the perception and understanding of FoP labels is their effect on different subgroups in the population. Health inequalities are a major concern in the EU and worldwide,⁶² and the risk exists that FoP labels would work best on the already privileged

⁵² Talati et al, supra note 33.

⁵³ Stefan Storcksdieck et al, supra note 15, p. 64.

⁵⁴ Talati et al, supra note 33.

⁵⁵ Manon Egnell et al, 'Objective Understanding of Front-of-Package Nutrition Labels: An International Comparative Experimental Study across 12 Countries' (2018) 10 *Nutrients* 10, p. 1543 ; Ikonen et al., supra note 43, p. 371.

⁵⁶ Stefan Storcksdieck et al, supra note 15, p. 72

⁵⁷ Ikonen et al., supra note 43, p 371 ; Simone Pettigrew, Liyuwork M. Dana et al., 'The Role of Colour and Summary Indicators in Influencing Front-of-Pack Food Label Effectiveness across Seven Countries' *Public Health Nutrition*, published online 15 December 2020.

⁵⁸ Pettigrew et al., supra note 57.

⁵⁹ Stefan Storcksdieck et al, supra note 15, p. 72; Egnell et al, supra note 55.

⁶⁰ Valentina A Andreeva et al, 'Bulgarian Consumers' Objective Understanding of Front-of-Package Nutrition Labels: A Comparative, Randomized Study' (2020) 78 *Archives of Public Health* 35 ; Manon Egnell et al, 'Consumers' Responses to Front-of-Pack Nutrition Labelling: Results from a Sample from The Netherlands' (2019) 11 *Nutrients* 8 ; Manon Egnell et al, 'Compared to Other Front-of-Pack Nutrition Labels, the Nutri-Score Emerged as the Most Efficient to Inform Swiss Consumers on the Nutritional Quality of Food Products' (2020) 15 *PLoS ONE* 2; Morgane Fialon et al, 'Effectiveness of Different Front-of-Pack Nutrition Labels among Italian Consumers: Results from an Online Randomized Controlled Trial' (2020) 12 *Nutrients* 8.; Stefanie Vandevijvere et al, 'Consumers' Food Choices, Understanding and Perceptions in Response to Different Front-of-Pack Nutrition Labelling Systems in Belgium: Results from an Online Experimental Study' (2020) 78 *Archives of Public Health* 30; Manon Egnell et al., 'Objective Understanding of the Nutri-Score Front-of-Pack Label by European Consumers and Its Effect on Food Choices: An Online Experimental Study' (2020) 17 *International Journal of Behavioral Nutrition and Physical Activity* 1.

⁶¹ Stefan Storcksdieck et al, supra note 15, p. 85.

⁶² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, *Solidarity in health: reducing health inequalities in the EU*, COM(2009) 567 final.

segments of the population and thus reinforce the existing inequalities. Indeed, consumers with the highest income and education level tend to have better nutrition knowledge and an interest in healthier eating habits, resulting in greater label use and understanding.⁶³ In this regard, colour-coded evaluative FoP labels seem to work best across different segments of the population in terms of consumer understanding and product healthfulness assessment.⁶⁴ If compared to other FoP labels, the Nutri-Score performs best across subgroups and its strongest impact is observed amongst individuals with no nutritional knowledge.⁶⁵

b. Effect of FoP labels on purchases, diet and health

Regarding the effect of FoP labels on food choices, diet and health, little evidence allows, to this date, to conclude on a decisive impact on the population. Scientific studies on the effect of FoP labels on consumers' choices are not as frequent as the ones on consumer perception and understanding.⁶⁶ Combined evidence from laboratory experiments and real-life grocery shopping studies suggests a positive but limited effect of FoP nutrition labelling on the healthfulness of food purchases.⁶⁷ In this regard, colour-coded evaluative FoP schemes, such as MTL and Nutri-Score, have been found to work best,⁶⁸ but evidence remains mixed with some studies concluding that no major difference in food choices is observed between the different labels tested.⁶⁹ Evaluative labels seem to work by augmenting the consumption of 'virtue', green products rather than decreasing the consumption of 'vice', red products.⁷⁰

⁶³ Stefan Storcksdieck et al, *supra* note 15, p. 86.

⁶⁴ *Ibid.*, 95.

⁶⁵ Pauline Ducrot et al, 'Effectiveness of Front-Of-Pack Nutrition Labels in French Adults: Results from the NutriNet-Santé Cohort Study' (2015) 10 *PLoS ONE* 10; Pauline Ducrot et al, 'Objective Understanding of Front-of-Package Nutrition Labels among Nutritionally At-Risk Individuals' (2015) 7 *Nutrients* 8 ; Manon Egnell et al, 'Objective Understanding of Nutri-Score Front-Of-Package Nutrition Label According to Individual Characteristics of Subjects: Comparisons with Other Format Labels' (2018) 13 *PLoS ONE* 8.

⁶⁶ Stefan Storcksdieck et al, *supra* note 15, p. 95.

⁶⁷ *Ibid.*, pp. 95-109; Ikonen et al., *supra* note 43, p. 371; Helen Croker et al, 'Front of Pack Nutritional Labelling Schemes: A Systematic Review and Meta-analysis of Recent Evidence Relating to Objectively Measured Consumption and Purchasing' (2020) 33 *Journal of Human Nutrition and Dietetics* ; Alejandra Jáuregui et al, 'Impact of Front-of-Pack Nutrition Labels on Consumer Purchasing Intentions: A Randomized Experiment in Low- and Middle-Income Mexican Adults' (2020) 20 *BMC Public Health*, p. 10. ; Dubois et al., *supra* note 46; Paolo Crosetto et al., 'Nutritional and Economic Impact of Five Alternative Front-of-Pack Nutritional Labels: Experimental Evidence' (2020) 47 *European Review of Agricultural Economics* 2.

⁶⁸ Stefan Storcksdieck et al, *supra* note 15, p. 96; Zenobia Talati et al, 'Food Choice Under Five Front-of-Package Nutrition Label Conditions: An Experimental Study Across 12 Countries' (2019) 109 *American Journal of Public Health* 12. For studies supporting the MTL, see Ikonen et al., *supra* note 43, p. 372; Jauregui et al., *supra* note 67. For studies supporting Nutri-Score, see Egnell et al, 'Compared to Other Front-of-Pack Nutrition Labels, the Nutri-Score Emerged as the Most Efficient to Inform Swiss Consumers on the Nutritional Quality of Food Products', *supra* note 60; Dubois et al., *supra* note 46; Crosetto et al., *supra* note 67.

⁶⁹ See the various studies *supra* note 60, to the exception of Egnell et al, 'Compared to Other Front-of-Pack Nutrition Labels, the Nutri-Score Emerged as the Most Efficient to Inform Swiss Consumers on the Nutritional Quality of Food Products'.

⁷⁰ Dubois et al., *supra* note 46; see also Ikonen et al., *supra* note 43, p. 371.

Various factors can explain the limited effect of FoP labels and nutrition labelling in general on food choices. As we have seen, health interacts with other characteristics that are relevant for choice, such as tastiness or price, and the effect of labels may be undermined by cognitive depletion arising from fatigue or hunger.⁷¹ Labels are also highly dependent on the inclination of consumers towards healthy choices, working on pre-existing health motivation rather than creating it.⁷² The possibility also exists that consumers engage in compensating behaviour, deliberately choosing unhealthier foods after having eaten healthy ones.⁷³

Regarding the effect of FoP labels on overall diets and the improvement of the population's health, evidence is scant. It is indeed very difficult to appropriately monitor people's choices over a long period and to factor in all other policies and influences that may have had an impact on diets and health. This pertains more broadly to the difficulty of assessing whether a policy has reached its intended goal or not. The comprehensive review conducted by the Joint Research Centre of the European Commission concluded that there was to date no available real-life empirical evidence linking FoP labelling or specific FoP schemes with concrete changes in food intake and a particular effect on diet and health.⁷⁴ Modelling studies, extrapolating changes in diets that could result from FoP labelling and their health outcomes, suggest the existence of positive health benefits for evaluative labels.⁷⁵

However, a relevant predictor of the ability of an FoP scheme to improve diets is its ability to adequately distinguish between healthy and unhealthy products within and across food groups, and its compliance with dietary recommendations.⁷⁶ In that regard, studies show a reasonable match between FoP labels and dietary recommendations.⁷⁷ The Nutri-Score has been found in particular to be effective in discriminating the nutritional quality of products in different national contexts and to be consistent with a set of different national dietary guidelines.⁷⁸

c. Limitations and unforeseen effects of FoP labels

⁷¹ Stefan Storcksdieck et al, *supra* note 15, pp. 109-110.

⁷² *Ibid.*, p. 111; see Ikonen et al., *supra* note 43, p. 373.

⁷³ Becher et al, *supra* note 9, p. 1357.

⁷⁴ Stefan Storcksdieck et al, *supra* note 15, pp. 117 and 142.

⁷⁵ *Ibid.* pp. 131-142; see for instance for the Nutri-Score, Clara Gómez-Donoso et al., 'Association between the Nutrient Profile System Underpinning the Nutri-Score Front-of-Pack Nutrition Label and Mortality in the SUN Project: A Prospective Cohort Study' *Clinical Nutrition*, published online 17 July 2020.

⁷⁶ Julia and Hercberg, *supra* note 25, p.715.

⁷⁷ Stefan Storcksdieck et al, *supra* note 15, p. 115.

⁷⁸ Louise Dréano-Trécant et al, 'Performance of the Front-of-Pack Nutrition Label Nutri-Score to Discriminate the Nutritional Quality of Foods Products: A Comparative Study across 8 European Countries' (2020) 12 *Nutrients* 5; Fabien Szabo de Edelenyi et al, 'Ability of the Nutri-Score Front-of-Pack Nutrition Label to Discriminate the Nutritional Quality of Foods in the German Food Market and Consistency with Nutritional Recommendations' (2019) 77 *Archives of Public Health* 1, see also Urška Pivk Kupirovič et al, 'Facilitating Consumers Choice of Healthier Foods: A Comparison of Different Front-of-Package Labelling Schemes Using Slovenian Food Supply Database' (2020) 9 *Foods* 4, p. 411.

FoP labels present certain limitations and may lead to unforeseen and undesirable effects.⁷⁹ Evaluative labels that recommend the consumption of certain products could for instance lead to a halo effect, an overgeneralisation that gets consumers into believing that these products have general health benefits beyond their nutritional value. They could also provoke inaccurate inferences about other aspects of these products or competing products,⁸⁰ leading to evaluate unhealthy products better than they are.⁸¹

This is especially likely considering that FoP labels focus on nutrients and leave aside some other crucial determinants of the healthiness of food. The Nutri-Score is for instance often criticised for not incorporating additives or pesticides in its algorithm and more broadly for not discriminating enough between natural and processed food.⁸² There is a growing body of evidence showing that the consumption of ultra-processed foods, ‘products with additives and industrially processed ingredients that have been technologically broken down and modified’,⁸³ is detrimental to human health.⁸⁴ This dimension is currently not captured by the available FoP labels. This criticism must be tempered, partly because it is overblown,⁸⁵ the Nutri-Score ranks for instance most ultra-processed foods in its two lowest categories D and E,⁸⁶ and also because scientific knowledge does not seem to currently allow the development of a comprehensive indicator that would cover all the dimensions of health in food.⁸⁷ Nonetheless, considering the possible undesirable behavioural effects that have just been described, there is a clear risk that people draw wrong inferences from a well-graded food.⁸⁸

Finally, summary labels like the Nutri-Score, that work with a system where ‘positive’ and ‘negative’ nutrients compensate for each other, allow products with a (very) high content of a ‘negative’ nutrient to bear a positive logo. Some popular brands of cereals for children are for instance graded ‘B’ by the Nutri-Score thanks to their use of whole grain flour and their low level

⁷⁹ See Stefan Storcksdieck et al, supra note 15, pp. 148-151.

⁸⁰ By analogy in the context of nutrition claims, see Purnhagen et al supra note 28, pp. 203–204., Erica van Herpen and Hans CM van Trijp, ‘EU Health Claims: A Consumer Perspective’ in Harry Bremmers and Kai Purnhagen (eds), *Regulating and Managing Food Safety in the EU: A Legal-Economic Perspective* (Springer International Publishing 2018) pp. 98–99.

⁸¹ Ikonen et al., supra note 43, p. 373.

⁸² Chantal Julia, Mathilde Touvier and Serge Hercberg, ‘Le NutriScore mesure la qualité nutritionnelle des aliments, et c’est déjà beaucoup’, *The Conversation*, 3 July 2018, accessible at [<https://theconversation.com/le-nutriscore-mesure-la-qualite-nutritionnelle-des-aliments-et-cest-deja-beaucoup-99234>], last accessed 08/01/2021.

⁸³ Gyorgy Scrinis, ‘Ultra-Processed Foods and the Corporate Capture of Nutrition - an Essay by Gyorgy Scrinis’ *British Medical Journal*, published online 7 December 2020.

⁸⁴ Ibid.

⁸⁵ Dréano-Trécant et al, supra note 78, p. 1313, see also the useful publication by the BEUC, accessible at [https://www.beuc.eu/publications/five_nutri-score_myths_busted.pdf], last accessed 08/01/2021.

⁸⁶ Pilar Galán et al, ‘Nutri-score and ultra-processing: two dimensions, complementary and not contradictory’, 7 November 2020, accessible at [<https://nutriscore.blog/2020/11/07/nutri-score-and-ultra-processing-two-dimensions-complementary-and-not-contradictory/>], last accessed 08/01/2021.

⁸⁷ Julia et al, supra note 82.

⁸⁸ See Ikonen et al., supra note 43, p. 371.

of fat, in spite of a very high sugar content (25%).⁸⁹ The Health Stars Rating has faced similar problems.⁹⁰ Consumers may not realise that these products contain problematic levels of certain nutrients and as a result risk perceiving them as healthier than they are.

III. Nutrition labelling under EU law

1. Mandatory nutrition labelling

Regulation 1169/2011 (the FIC Regulation) is the main instrument regulating food information at the EU level. In line with the information paradigm that has dominated EU consumer policy to date, it foresees a classic mandatory nutrition declaration.

a. Food labelling and the information paradigm

The ‘information paradigm’ is a cornerstone of EU consumer policy. Providing information, especially through labelling, is considered to give consumers relevant knowledge on the products or services that they buy and to be an adequate way to protect their interests.⁹¹ This view usually follows the traditional assumptions of standard rationality under which consumers provided with adequate information make decisions that are best aligned with their preferences. This idea has been applied in the fields of food and nutrition,⁹² following ‘the assumption [...] that if consumers are aware of what each foodstuff contains, they should be trusted to apply their nutrition knowledge and make appropriate choices.’⁹³ This stance is politically charged, it ‘reflects the view that in a society where individuals are autonomous and dislike limitations, it is expected that they take primary responsibility for their dietary choices.’⁹⁴

The information paradigm finds its origin in the European Court of Justice’s case law on freedoms of movement, the free movement of goods especially, as the Court’s main prism to assess the proportionality of restrictive national measures that protect the health or interests of consumers. The Court considers that the average consumer is ‘reasonably well-informed and reasonably observant and circumspect’,⁹⁵ that it reads labels and processes information in the right way. As

⁸⁹ Sarah Amiri, ‘« Chocapic » : un aliment ultra-transformé recommandé par le Nutriscore’, *la Nutrition*, 13 October 2020, accessible at [<https://www.lanutrition.fr/chocapic-un-aliment-ultra-transforme-recommande-par-le-nutriscore>], last accessed 08/01/2021

⁹⁰ Becher et al., *supra* note 9, pp. 1324-1325.

⁹¹ Anne-Lise Sibony and Geneviève Helleringer, ‘EU Consumer Protection and Behavioural Sciences: Revolution or Reform?’ in Alberto Alemanno and Anne-Lise Sibony (eds), *Nudge and the Law : A European Perspective* (Hart Publishing 2015), p. 214.

⁹² Marine Friant-Perrot and Amandine Garde, ‘From BSE to Obesity: EFSA’s Growing Role in the EU’s Nutrition Policy’ in Alberto Alemanno and Simone Gabbi, *Foundations of EU Food Law and Policy : Ten Years of the European Food Safety Authority* (Ashgate 2013), p.137; Kai P Purnhagen and Hanna Schebesta, ‘Food Labelling for Consumers – EU Law, Regulation and Policy Options’ (European Parliament 2019), pp. 12–16.

⁹³ Friant-Perrot and Garde, *supra* note 92, p. 137.

⁹⁴ *Ibid.*, for a critique of this approach see Fran Baum and Matthew Fisher, ‘Why Behavioural Health Promotion Endures despite Its Failure to Reduce Health Inequities’ (2014) 36 *Sociology of Health & Illness* 2.

⁹⁵ Case C-210/96, *Gut Springerheide*, EU:C:1998:369, para 31.

the Court repeated several times, ‘consumers whose purchasing decisions depend on the composition of the products in question will first read the list of ingredients’.⁹⁶ It follows that compared to other more stringent types of measures, like restricting the use of certain ingredients or regulating other aspects of the presentation of products, the disclosure of information in the form of labels has been considered to be less restrictive of free movement and equally capable of protecting consumers.⁹⁷

This view has been taken onboard by the Commission and has greatly influenced EU consumer law⁹⁸ and food law,⁹⁹ including nutrition and the fight against the related public health scourges.¹⁰⁰ The Commission White Paper on nutrition, overweight and obesity clearly states that ‘the individual is ultimately responsible for his lifestyle, and that of his children, whilst recognising the importance and the influence of the environment on his behaviour’ and that ‘only a well-informed consumer is able to make rational decisions.’¹⁰¹ The Farm to Fork Strategy does not entirely depart from these premises as it seeks ‘to empower consumers to make informed, healthy and sustainable food choices’.¹⁰²

b. EU mandatory nutrition declaration

The FIC Regulation, whose provisions on nutrition started to apply from 13 December 2016, replaced Directive 90/496, the first EU legislative piece on nutrition labelling.¹⁰³ Pursuant to Article 30, all foods must carry a nutrition declaration which shall include the energy value and the amounts of fat, saturates, carbohydrates, sugars, protein and salt, which can be supplemented by other elements, such as fatty acids or fibre.¹⁰⁴ Article 16(3) foresees exceptions to the mandatory character of the nutrition declaration: unprocessed products that comprise a single ingredient or category of ingredients, processed products which the only processing they have been subjected to is maturing and comprising a single ingredient or category of ingredients, and a list of specific

⁹⁶ Case C-51/94, *Commission v Germany*, EU:C:1995:352, para 34, C-465/98 – *Darbo*, EU:C:2000:184, para 22.

⁹⁷ See e.g. cases C-120/78, *Rewe / Bundesmonopolverwaltung für Branntwein (Cassis de Dijon)*, EU:C:1979:42; 261/81, *Rau v De Smedt*, EU:C:1982:382; C-178/84, *Commission / Allemagne (Beer Purity)*, EU:C:1987:126.

⁹⁸ Sibony and Helleringer, *supra* note 75; Geneviève Helleringer and Anne-Lise Sibony, ‘European Consumer Protection Through The Behavioral Lens’ (2017) 23 *Columbia Journal of European Law* 3.

⁹⁹ See Art. 8(1) of Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety, OJ L 31, 1.2.2002, p. 1–24 : ‘Food law shall (...) provide a basis for consumers to make informed choices in relation to the foods they consume’.

¹⁰⁰ Recital 10 of Regulation 1169/2011 reads: ‘Knowledge of the basic principles of nutrition and appropriate nutrition information on foods would contribute significantly towards enabling the consumer to make such an informed choice. Education and information campaigns are an important mechanism for improving consumer understanding of food information.’

¹⁰¹ European Commission, *White Paper ‘A Strategy for Europe on Nutrition, Overweight and Obesity Related Health Issues’*, COM (2007) 279 final, p.3.

¹⁰² *Farm to Fork Strategy*, *supra* note 8, p. 13.

¹⁰³ Council Directive 90/496/EEC of 24 September 1990 on nutrition labelling for foodstuffs, OJ L 276, 6.10.1990, p. 40–44, see Art. 2.

¹⁰⁴ Regulation 1169/2011, art. 30.

products such as water, salt, coffee or tea.¹⁰⁵ Beverages containing more than 1,2 % by volume of alcohol are exempted from the mandatory nutrition declaration as well as the obligation to provide the list of ingredients also mandated by the Regulation.¹⁰⁶ Food business operators are encouraged to provide the energy value on a voluntary basis¹⁰⁷ and Member States are authorised to adopt stricter measures requiring the provision of the list of ingredients for these beverages.¹⁰⁸

The energy value and nutrient amounts must be expressed per 100 g or 100 ml and may also be expressed per portion or consumption unit,¹⁰⁹ ‘easily recognisable by the consumer, provided that the portion or the unit used is quantified on the label and that the number of portions or units contained in the package is stated’.¹¹⁰ All mandatory nutrition information must be presented in the same field of vision. Food business operators usually choose the back of packaged foods although this is not textually required by the Regulation. Nutrition information must be given in a clear format, in tabular format if space permits, otherwise in linear format.¹¹¹ It must be expressed with words or numbers.¹¹²

This form of textual/numerical information presented in tabular form, outside the principal field of vision, reflects the information paradigm and is typically the kind of nutrition information that appears defectuous in light of the behavioural evidence presented in the prior section. A 2006 consultative document from the Commission was already exploring the possibility of introducing alternative and more consumer-friendly forms of presentation, pointing at the evidence suggesting that ‘simplified front of pack labelling (‘signposting’) may offer significant advantages in terms of increasing consumer use.’¹¹³ The initial legislative proposal actually foresaw the mandatory display of energy value and key nutrient contents on the front-of pack.¹¹⁴ It was later dropped during the legislative process, due in part to the heavy opposition of the agri-food lobby.¹¹⁵

Article 35 of the FIC Regulation leaves Member States and food operators free to experiment, on a voluntary basis and under certain conditions, with the use of additional graphical forms or symbols to express or present the mandatory nutrition declaration that may help consumers to better understand it.¹¹⁶ Recital 43 notes that there was at the time of adoption ‘insufficient evidence across all the Union on how the average consumer understands and uses the alternative forms of

¹⁰⁵ See the complete list in Annex V of Regulation 1169/2011.

¹⁰⁶ Ibid., Art. 16(4) of Regulation 1169/2011.

¹⁰⁷ Regulation 1169/2011, art. 30(4) and Recital 42.

¹⁰⁸ Regulation 1169/2011, art. 41.

¹⁰⁹ Regulation 1169/2011, articles 32 and 33.

¹¹⁰ Regulation 1169/2011, art. 33(1).

¹¹¹ Regulation 1169/2011, art. 34, see also art. 13 and Annex XV.

¹¹² See also Art 9(2) of Regulation 1169/2011.

¹¹³ European Commission, *Labelling: competitiveness, consumer information and better regulation for the EU*, p.8.

¹¹⁴ European Commission, *Proposal for a Regulation of the European Parliament and of the Council on the provision of food information to consumers*, COM(2008) 40 final, Article 34.

¹¹⁵ Iris Goldner Lang, ‘Public Health in European Union Food Law’ in Tamara Hervey, Calum Young et al (eds), *Research Handbook on EU Health Law and Policy* (Edward Elgar Publishing 2017), p. 410; MacMaoláin, *supra* note 30, p. 62.

¹¹⁶ Regulation 1169/2011, art. 35 and Recital 43.

expression or presentation of the information’. To gather such evidence, the Regulation invited the Commission to ‘facilitate and organise the exchange of information between Member States, itself and stakeholders’¹¹⁷ and to submit a report by December 2017 on the use of additional forms of expression and presentation and the advisability of further harmonisation of those forms.¹¹⁸ The delayed report was published in May 2020 and its conclusions are discussed in Section IV.

2. Front-of-pack nutrition labelling

The fact that EU law does not mandate the provision of front-of-pack nutrition information does not mean that this form of labelling is left unregulated. It is governed by two main pieces of legislation, the FIC Regulation again and Regulation 1924/2006 on nutrition and health claims made on foods (the Claims Regulation).¹¹⁹ FoP labels cannot be made mandatory on food operators but can be used voluntarily and recommended by Member States. The applicable regime differs for nutrient-specific and summary labels, and in function of their evaluative character.¹²⁰ FoP labels officially adopted by Member States are also considered ‘draft technical regulation’ in the sense of Directive 2015/1535 and must therefore respect the notification obligation and the three months standstill period provided for in the Directive.¹²¹

a. Front-of-pack labelling under the FIC Regulation

Nutrient-specific front-of-pack labels, evaluative like the MTL or reductive like the NutrInform Battery, are regulated by Articles 30(3) and 35 of the FIC Regulation. ‘[I]n order to help consumers to easily see the essential nutrition information when purchasing foods’,¹²² the Regulation allows the repetition in the principal field of vision of the most important elements of the mandatory declaration: the energy value alone or the energy value together with the amounts fat, saturates, sugars, and salt.¹²³ This supplementary and voluntary front-of-pack nutrition information can be expressed using graphical forms or symbols, provided that it complies with a number of requirements, including not creating obstacles to the free movement of goods, not being misleading and be based on solid scientific evidence.¹²⁴ These additional forms of expression and presentation may only be recommended by Member States, who are then under the duty to notify any such

¹¹⁷ Regulation 1169/2011, art. 35(4).

¹¹⁸ Regulation 1169/2011, art. 35(5).

¹¹⁹ 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, OJ L 404, 30.12.2006, p. 9–25.

¹²⁰ This interpretation is in line with the one of the Commission, see the *Report from the Commission to the European Parliament and the Council regarding the use of additional forms of expression and presentation of the nutrition declaration*, supra note 12.

¹²¹ Directive (EU) 2015/1535 of the European Parliament and of the Council of 9 September 2015 laying down a procedure for the provision of information in the field of technical regulations and of rules on Information Society services, OJ L 241, 17.9.2015, p. 1–15, Arts 5 and 6.

¹²² Regulation 1169/2011, Recital 41.

¹²³ Regulation 1169/2011, Arts 30(3) and 34(3). The elements that can be repeated are considered to be the most important by Recital 41.

¹²⁴ Regulation 1169/2011, art. 35(1).

scheme to the Commission.¹²⁵ Member States must also monitor the use by food operators of these additional forms of nutrition information.¹²⁶

Labels that are not nutrient-specific and provide information on the overall quality of food, like the Nutri-Score, are regulated by Article 36 of the FIC Regulation. They are considered to be voluntary food information and must also comply with a set of requirements that are broadly similar to those of Article 35: they must not mislead the consumer, be ambiguous or confusing and shall be based on the relevant scientific data.¹²⁷

b. Front-of-pack labelling under the Claims Regulation

Evaluative FoP labels do not only provide factual information but also present some food as healthy or not. When a food is labelled as healthy, with the use of the green colour or of an endorsement logo, this is considered to be a nutrition claim in the sense of the Claims Regulation. A nutrition claim is ‘any claim which states, suggests or implies that a food has particular beneficial nutritional properties’ based on its calorific value or its nutrients.¹²⁸ In this case, evaluative labels must comply with the requirements set out in the Claims Regulation and must not ‘be false, ambiguous or misleading; give rise to doubt about the safety and/or the nutritional adequacy of other foods; encourage or condone excess consumption of a food’.¹²⁹ They are only permitted if the average consumer can be expected to understand the beneficial effects of the food carrying the label.¹³⁰ Evaluative schemes that are officially recommended by Member States must be notified to the Commission and the other Member States and respect a six months standstill period.¹³¹ It remains unclear how the use of evaluative FoP labels, duly approved by the Commission,¹³² fits with Article 8 of the Claims Regulation that only authorises a series of verbal nutrition claims listed in its Annex.

An interesting feature of the Claims Regulation is its reference to nutrient profiles. To prevent a situation ‘where nutrition or health claims mask the overall nutritional status of a food product, which could mislead consumers when trying to make healthy choices in the context of a balanced diet’,¹³³ Article 4 foresees the establishment of nutrient profiles for foods or categories of foods which must be complied with in order to bear a claim.¹³⁴ These nutrient profiles are used to determine which foods are excluded from bearing nutrition claims, the idea being that ‘food containing high levels of nutrients whose excessive intakes as part of the overall diet is not

¹²⁵ Regulation 1169/2011, art. 35(2).

¹²⁶ Regulation 1169/2011, art.35(3).

¹²⁷ Regulation 1169/2011, art. 36.

¹²⁸ Regulation 1924/2006, art. 2(2) (4).

¹²⁹ Regulation 1924/2006, art. 3.

¹³⁰ Regulation 1924/2006, art. 5(2).

¹³¹ Regulation 1924/2006, art. 23.

¹³² The notification and authorisation can be retrieved at [<https://ec.europa.eu/growth/tools-databases/tris/en/search/>], last accessed 08/01/2021.

¹³³ Regulation 1924/2006, Recital 11.

¹³⁴ Regulation 1924/2006, art. 4.

recommended should not be able to be marketed as providing nutrition or health benefits if, ultimately, such consumption is not healthy.¹³⁵ The relevance of these nutrient profiles for FoP labelling and the difficulties that have resulted in the non-adoption of these profiles are discussed in the following section.

IV. Towards a harmonised and mandatory EU front-of-pack labelling scheme

1. Developing a common EU scheme

a. The benefits of a common EU scheme

On the basis of the existing scientific evidence regarding both the shortcomings of the mandatory nutrition declaration and the potential health benefits of FoP labels, the introduction of a harmonised and mandatory front-of-pack labelling scheme at the EU level would be a welcome development. The Commission has clearly signalled its will to act on the matter. In its recent report adopted pursuant to Article 35(5) of the FIC Regulation and published in 2020, it announced that a new harmonised and mandatory FoP nutrition label would be proposed for adoption,¹³⁶ as part of the Farm to Fork Strategy.¹³⁷ The Commission will soon launch an impact assessment¹³⁸ that should result in a formal legislative proposal by the last quarter of 2022.¹³⁹

The introduction of a common EU FoP nutrition label would bring about several benefits. For diets and health, it would ensure that all foodstuffs marketed in the Union convey appropriate nutrition information that is noticed and understood by consumers, leading hopefully to healthier food choices and a reduction in the burden of diet-related diseases. The proliferation of different FoP labels on the European market could become a source of confusion and misunderstanding,¹⁴⁰ whereas having a single label would help consumers to better understand information and make relevant comparisons between products.¹⁴¹ The mandatory character of the EU FoP label is crucial so that consumers can have access to relevant and effective nutrition information at all times. Furthermore, voluntary schemes may bias consumers favourably towards products bearing a label that are actually less nutritious than products without a label.¹⁴² An interesting additional potentiality of FoP nutrition labels lies in their interaction with nutrition and health claims. They can help neutralising the tendency that consumers have to attribute general health benefits to products bearing claims, beyond the specific content of the claim in question, by ensuring that

¹³⁵ Friant-Perrot and Garde, *supra* note 92, p. 141, see also Recital 11 of Regulation 1924/2006.

¹³⁶ *Report from the Commission to the European Parliament and the Council regarding the use of additional forms of expression and presentation of the nutrition declaration*, *supra* note 14, p. 20.

¹³⁷ *Farm to Fork Strategy*, *supra* note 8, p. 13.

¹³⁸ [https://ec.europa.eu/food/safety/labelling_nutrition/labelling_legislation/nutrition-labelling_en], last accessed 08/01/2021.

¹³⁹ Annex to the *Farm to Fork Strategy*, *supra* note 8.

¹⁴⁰ Stefan Storcksdieck et al, *supra* note 15, pp. 150-151.

¹⁴¹ Becher et al, *supra* note 9, p. 1348.

¹⁴² Stefan Storcksdieck et al, *supra* note 15, pp. 148-149.

consumers can correctly identify healthier and less healthy products.¹⁴³ An EU FoP nutrition label would therefore contribute to the general objective of the Claims Regulation which is to limit the misleading character of claims. Finally, adopting an EU FoP label could create a strong incentive for the reformulation of foods marketed in the EU,¹⁴⁴ as food manufacturers would want to avoid seeing their nutritionally poorer products shunned by consumers. Evidence actually suggests that evaluative FoP labels lead to an improvement in the nutritional quality of food products where these have been adopted.¹⁴⁵

A common scheme would, to a certain extent, also be good for food business operators. It would limit the fragmentation of the internal market that is already occurring at the EU and Member State levels, as countries and companies are experimenting with a growing number of different schemes. Having to adapt to different labels entails costs and uncertainty for operators, even if these remain optional. Indeed, '[t]he fact that a FOP scheme is recommended by a Member State could create expectations for consumers that food products marketed in that country, including those coming from other countries, should be labelled with the official scheme [...] and could create a pressure on EU food business operators to label all products present on the national market with the official scheme promoted by the Member State.'¹⁴⁶

b. The rolling-out of a common EU scheme

The Commission has not expressed its preference for a specific scheme yet, but in light of the evidence gathered and the backing of a growing number of Member States, the Nutri-Score clearly appears as a front-runner. In its report, the Commission itself concludes that evaluative schemes that use colour-coding with a graded indicator appear most promising to improve the nutritional quality of food choices.¹⁴⁷ A number of Member States, led by Italy and supported by powerful interest groups,¹⁴⁸ strongly oppose however the adoption of a Nutri-Score-like label at the EU level and continue to favour, in spite of the evidence, the provision of classic textual nutrition information.¹⁴⁹ Italy has developed and promotes its own FoP label, the NutriInform Battery (see

¹⁴³ Zenobia Talati et al., 'Consumers' Responses to Health Claims in the Context of Other on-Pack Nutrition Information: A Systematic Review' (2017) 75 *Nutrition Reviews* 4, 271. ; see also Zenobia Talati et al., 'Can Front-of-Pack Nutrition Labels Overcome Any Biasing Effects of Nutrient and Health Claims?' (2019) 13 *Obesity Research & Clinical Practice* 3.

¹⁴⁴ For Nutri-Score, see Julia and Hercberg, *supra* note 25, pp. 712–713; Szabo de Edelenyi et al, *supra* note 78, p. 2.

¹⁴⁵ Stefan Storcksdieck et al, *supra* note 15, pp. 143, see more generally for nutrition labelling Mathilde Gressier, et al., 'Healthy Foods and Healthy Diets. How Government Policies Can Steer Food Reformulation' (2020) 12 *Nutrients* 7, pp. 1994–1995.

¹⁴⁶ *Report from the Commission to the European Parliament and the Council regarding the use of additional forms of expression and presentation of the nutrition declaration*, *supra* note 14, p. 16.

¹⁴⁷ *Ibid.*, p. 19.

¹⁴⁸ It is for instance the case of Copa-Cogeca, the main interest group representing European farmers: [<https://www.euractiv.com/section/agriculture-food/news/eu-farmers-side-with-italy-against-colour-coded-nutrition-labelling/>], last accessed 08/01/2021.

¹⁴⁹ See the following inaccurate statements contained in their statements, Council of the European Union, 'Non Paper on the "Front of Pack Nutrition Labeling – FOPNL" by Cyprus, Czech Republic, Greece, Hungary, Italy, Latvia and

Table 1). This nutrient-specific reductive label was recently approved by the Commission.¹⁵⁰ Few studies have yet been made on this new label. It may be good to convey nutrient-specific information¹⁵¹ but it is highly probable, based on the evidence exposed above, that it is less effective than colour-coded evaluative labelling schemes.

That controversies arise around the adoption a single European FoP nutrition label should not come as a surprise. Food is intensely political and a number of legitimate interrogations remain that must be addressed with the help of sound scientific evidence. The upcoming consultation and impact assessment should provide an adequate forum for discussion and enable the Commission to propose the adoption of the nutrition label that suits best the interests of European consumers. It would perhaps be good if the adopted scheme provided sufficient flexibility to allow experts to redefine when needed, in order to keep pace with new findings in nutrition and behavioural sciences and correct possible mistakes or insufficiencies.¹⁵² If a summary and graded indicator were to be adopted, in order to avoid the possibility described above of products containing problematic levels of certain nutrients being attributed a ‘good score’, thresholds could be introduced alongside the underlying algorithm. Above the set levels, products that would otherwise be positively labelled because of their overall composition would be prevented to figure in the best categories.¹⁵³ The nutrient profiles referred to in the Claims Regulation serve a similar purpose, so the work done in that context could be usefully transposed to inform the design of the EU label.

It is of paramount importance that the roll-out the of the label is accompanied by a vast communication and education campaign reaching consumers in all Member States. Consumers must get familiar with the new scheme and the way it functions to be able to build trust, especially if the scheme is a summary label that does not convey as much information as the classic nutrition declaration.¹⁵⁴ They must learn how to use it to reduce their overall consumption of foods with poor nutritional quality but also to be able to make useful comparisons within food groups. Any labelling scheme has its blind spots and can be misinterpreted by consumers, it is therefore important that consumers understand that nutrition labels do not aim at summarising all there is to

Romania’, 2020, 10846/20: ‘consumer currently have enough information about the nutritional value of food’, ‘colour codes have not shown to be effective in helping consumers to evaluate the real nutritional quality/value of food’, pp. 3-4. The Italian hostility towards the Nutri-Score also appears from the following parliamentary questions addressed by Italian MEPS to the European Commission, accessible at [https://www.europarl.europa.eu/doceo/document/P-9-2019-004347_EN.html] and [https://www.europarl.europa.eu/doceo/document/E-9-2019-004318_EN.html], last accessed 08/01/2021.

¹⁵⁰ [<https://ec.europa.eu/growth/tools-databases/tris/en/search/?trisaction=search.detail&year=2020&num=31>], last accessed 08/01/2021.

¹⁵¹ A study made in Italy shows that consumers found the NutriInform Battery more informative and helpful than the Nutri-Score in terms of their understanding of the product composition, see Marco Francesco et al., ‘Effects on Consumers’ Subjective Understanding of a New Front-of-Pack Nutritional Label: A Study on Italian Consumers’ *International Journal of Food Sciences and Nutrition*, published online 4 August 2020. It is important to note that this research received funding from Federalimentare, the Italian Federation of Food Industries.

¹⁵² Becher et al., supra note 9, p. 1347.

¹⁵³ See Becher et al., supra note 9, pp. 1346-1347.

¹⁵⁴ See Talati et al, supra note 33, concluding that: ‘[t]he more simplified FoPLs (Nutri-Score and warning labels) were seen as not providing enough information and were least trusted and less likely to be desired as compulsory’.

know about food. Finally, any such campaign should also promote healthy eating and nutrition knowledge more generally, as it has been shown that labels work best on people that already have healthy goals and health knowledge.¹⁵⁵

2. EU scheme and the challenge of cultural diversity

As pertinent as it is to protect the health of European citizens, devising and generalising a common FoP scheme throughout the EU does not go without challenges. One that is particularly relevant to the EU is the wide diversity that exists in food habits across Europe and the importance of certain types of food for national cultures. Despite its importance, this topic is too often overlooked in the making of EU food law.¹⁵⁶

a. Cultural diversity: an obstacle to the effectiveness of a single EU label?

The diversity of the European population and its dietary habits could be an obstacle to the effectiveness of a single scheme in all Member States. Generally speaking, a growing body of evidence shows that behavioural traits can be culturally situated,¹⁵⁷ putting into question the effectiveness of behavioural strategies uniformly applied in different contexts. Regarding FoP labels, some studies do suggest that variations on consumer preference are linked to cultural differences.¹⁵⁸ The evidence remains mixed however, with a recent study concluding that '[n]o meaningful or consistent patterns were observed in the interactions between country and FoPL type, indicating that culture was not a strong predictor of general perceptions'.¹⁵⁹ When it comes to consumer understanding, evidence supporting the Nutri-Score appears to be consistent across a significant number of European countries.¹⁶⁰ Whatever scheme is ultimately proposed by the European Commission, it will have to be robustly tested in all Member States.

Another, potentially more problematic consequence of cultural diversity lies with the variation in dietary habits that exists between EU Member States. As previously discussed, the classification of food that results from the application of a FoP label and its nutrient profiling system needs to be pertinent where it is applied and in compliance with local dietary guidelines. These dietary guidelines vary from country to country and are heavily influenced by cultural factors and local patterns of consumptions. In its Opinion on the establishment of food-based dietary guidelines, the European Food Safety Authority (EFSA) noted for instance that it was 'not feasible to establish detailed and effective food based dietary guidelines which could be used at the EU level',¹⁶¹ due

¹⁵⁵ Stefan Storcksdieck et al, *supra* note 15, pp. 111, 157.

¹⁵⁶ See Friant-Perrot and Garde, *supra* note 92; Gareth Davies, 'Internal market adjudication and the quality of life in Europe' (2015) 21 *The Columbia Journal of European Law* 2; more generally see Marjolein van Asselt, Michelle Everson, et al, *Trade, Health and the Environment: The European Union Put to the Test* (Routledge, 2013).

¹⁵⁷ See Zamir and Teichman, *supra* note 31, pp. 111-114 and 124-127.

¹⁵⁸ Stefan Storcksdieck et al, *supra* note 15, p. 64

¹⁵⁹ Talati et al, *supra* note 33, p. 1934.

¹⁶⁰ See *supra* note 60.

¹⁶¹ EFSA Panel on Dietetic Products, Nutrition and Allergies, 'Scientific Opinion on establishing Food-Based Dietary Guidelines' (2010) 8 *The EFSA Journal* 3, p. 25.

to diverging public health priorities between countries and the wide disparity in dietary habits and availability of food products.¹⁶²

The importance of these cultural differences and the possible difficulties arising therefrom materialised in the context of the adoption of the Claims Regulation's nutrient profiles. The Claims Regulation itself recognises that nutrient profiles should take into account 'the variability of dietary habits and traditions'.¹⁶³ In its Opinion on the matter, EFSA noted that 'the lack of uniform data for food composition and food consumption across the EU, as well as differences in nutrient intake recommendations and food based dietary guidelines between Member States, makes it more difficult to set nutrient profiles at EU level than at national level'.¹⁶⁴ This, amongst other things, explain why it has been difficult to establish nutrient profiles at the EU level.

Variations in local patterns of consumption could hence render the establishment of a common nutrient profiling system underpinning the EU FoP nutrition label difficult, as the classification resulting from it would need to be suitable in all EU food markets. In light of the existence evidence, it seems however not to be the case for the Nutri-Score, whose food classification has been tested and validated in several countries already.¹⁶⁵ It would perhaps also be possible to adopt a single label and make local adaptations to the nutrient profiling system when necessary.

b. Application of a front-of-pack label to traditional products

Cultural diversity is not only a challenge for the scientific validity of an EU FoP scheme but for its political acceptance. Food has many other values beyond nutrition¹⁶⁶ and it is commonly accepted that science and health alone cannot provide a basis for the regulation of health risks.¹⁶⁷ Managing these risks require the incorporation of broader societal concerns. The application of an EU evaluative label on traditional products is seen by some as a threat to the integrity of these products and the preservation of cultural traditions, and an attempt at stigmatising products that fulfil an importance social role.

The EU recognises a number of 'quality products', protected by schemes such as the Protected designation of origin (PDO), the Protected geographical indication (PGI) or the Traditional speciality guaranteed (TSG). These quality schemes aim 'at protecting the names of specific products to promote their unique characteristics, linked to their geographical origin as well as traditional know-how'.¹⁶⁸ Thousands of foods and beverages that often form the core of national

¹⁶² Ibid., pp. 25-26.

¹⁶³ Regulation 1924/2006, Recital 12, see also art. 4(1)(b).

¹⁶⁴ EFSA, supra note 23, p.4; see also Friant-Perrot and Garde, supra note 92, p. 142.

¹⁶⁵ See supra note 78.

¹⁶⁶ Ann Grodzins Gold, 'Food Values Beyond Nutrition' in Ronald J Herring (ed.), *The Oxford Handbook of Food, Politics and Society* (OUP 2013); Friant Perrot and Garde, supra note 92, pp. 151-153.

¹⁶⁷ Maria Weimer, *Risk Regulation in the Internal Market: Lessons from Agricultural Biotechnology* (Oxford University Press, 2019); Maria Weimer and Anniek De Ruijter, *Regulating Risks in the European Union : The Co-Production of Expert and Executive Power* (Hart Publishing 2017).

¹⁶⁸ [https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/quality-schemes-explained_en#aims], last accessed 08/01/2021.

or local food cultures benefit from these schemes,¹⁶⁹ such as the Italian Parma ham, the Dutch Gouda cheese or the French champagne. They tend to have a high energy content and to contain excessive level of fat, salt or sugar.

The application of nutrition rules to these products has led to political difficulties in the context of the Claims Regulation. The impossibility to establish the nutrient profiles as mandated by the Regulation partly stems from the opposition of certain Member States that wanted to seek exemptions or establish more lenient conditions for certain categories of foods.¹⁷⁰ One of their main arguments was that applying the nutrient profiles proposed by the Commission would lead to a segregation of the market between ‘traditional products, for which reformulation would be challenging, if not impossible, due to their legal composition specifications [...] and therefore would be perceived as nonhealthy foods’ and ‘processed foods which could be more easily reformulated and [...] would be perceived as healthy foods’.¹⁷¹

The same considerations have been expressed with regards to FoP nutrition labelling. In 2016, the Council delegations of seven Member States submitted a note regarding the MTL label developed in the United Kingdom,¹⁷² in which they signalled their discontent with the system and its detrimental effects on EU quality products. They bemoaned that some of these products ‘would get a “red label” in reason of their composition’ and be shunned by consumers, in contradiction with European quality policy.¹⁷³ This line of argumentation continues to be used in the most recent debates. In its 2020 FoP labelling report, the Commission noted that ‘[e]xperts from a few EU national competent authorities favoured reductive FOP schemes providing nutrient-specific information, based on portion sizes, without evaluating foods and are concerned that under evaluative FOP schemes some traditional products and regional specialities (e.g. cheeses, edible oils, meat products) might display labels that deter consumer purchase.’¹⁷⁴ The same Member States that rejects evaluative and colour-coded FoP labels also call for PDO, PGI, TSG and single ingredient products, such as olive oil, to be exempted from any EU FoP label, basing their claim on the necessity to protect the European cultural heritage.¹⁷⁵

Despite being partly, or perhaps mostly, motivated by economic and corporate interests,¹⁷⁶ those claims cannot be entirely dismissed. It is undeniable that the uniform application of an evaluative

¹⁶⁹ [<https://ec.europa.eu/info/food-farming-fisheries/food-safety-and-quality/certification/quality-labels/geographical-indications-register/>], last accessed 08/01/2020.

¹⁷⁰ European Commission staff working document, *Evaluation of the Regulation (EC) No 1924/2006 on nutrition and health claims made on foods with regard to nutrient profiles and health claims made on plants and their preparations and of the general regulatory framework for their use in foods*, SWD(2020) 95 final, p. 17.

¹⁷¹ Ibid.

¹⁷² Council of the European Union, “‘Hybrid’ Nutrition Labelling System Recommended in Some Member States – Information from the Delegations of Italy, Cyprus, Greece, Portugal, Romania, Slovenia and Spain”, 2016, 6585/16.

¹⁷³ Ibid., p. 2.

¹⁷⁴ *Report from the Commission to the European Parliament and the Council regarding the use of additional forms of expression and presentation of the nutrition declaration*, supra note 14, p. 17.

¹⁷⁵ Council of the European Union, supra note 149, p. 4.

¹⁷⁶ Politico, ‘Italy collects allies in food label fight’, 14 August, 2020, accessible at [<https://www.politico.eu/article/italy-collects-allies-in-food-label-fight/>], last accessed 08/01/2020.

FoP scheme would lead to many traditional and local products being ranked less favourably than some processed foods that have less cultural value, which could hurt the former to the benefit of the latter. The Treaty on the Functioning of the European Union recognises itself that Europe's rich and diverse food heritage must be preserved.¹⁷⁷ Moreover, alienating certain populations would risk to completely undermine trust in an EU label and threaten its effectiveness.

However, an exemption for EU quality products does not seem to be the right way forward. It would reinforce the tendency that people have to judge traditional products as healthier than they actually are¹⁷⁸ and open the Pandora's box for other kind of exceptions. If health is taken seriously, then an EU FoP label should apply to all foods, and to alcoholic beverages too.¹⁷⁹ It falls on all the relevant stakeholders to explain that a red label does not mean that a product should never be consumed, but simply consumed in reasonable quantities.

V. Conclusion

The bumpy journey to an EU FoP nutrition labelling scheme may have entered its final phase. There is a momentum for the adoption in a few years' time of a consumer-friendly FoP label which would supplement the current mandatory nutrition declaration and, hopefully, contributes to the improvement of Europeans' diets, health and well-being. It would also contribute to the overall goals of promoting a more sustainable EU food system, as healthier diets tend to be better for the environment and offer the potential to reduce animal cruelty. A robust and evidence-based proposal will have to be elaborated to build a coalition that is as broad as possible. The complexity of the issue and the remaining scientific uncertainties that exist regarding nutrition and consumer behaviour are no excuses to refrain from acting.

Deep and long-lasting changes in dietary habits are however unlikely to come from nutrition labelling alone. It should be one of the building bricks of a broader strategy. Food consumption, obesity and chronic diseases are complex, multi-factorial phenomena that require horizontal and multi-level action. Other important regulatory initiatives should be considered by the EU, among which a dramatic upscale in the protection of children against harmful marketing and advertising.¹⁸⁰

¹⁷⁷ Article 13 TFEU states the following: 'In formulating and implementing the Union's agriculture, fisheries, transport, internal market, research and technological development and space policies, the Union and the Member States shall, since animals are sentient beings, pay full regard to the welfare requirements of animals, while respecting the legislative or administrative provisions and customs of the Member States relating in particular to religious rites, cultural traditions and regional heritage.'

¹⁷⁸ Fabrice Etilé, *Obésité: santé publique et populisme alimentaire* (Éditions Rue d'Ulm 2013), p. 43.

¹⁷⁹ See the conclusions of the following report: European Commission, *Report from the Commission to the European Parliament and the Council regarding the mandatory labelling of the list of ingredients and the nutrition declaration of alcoholic beverages*, COM(2017) 58 final, p 4.

¹⁸⁰ See Amandine Garde, 'For the more systematic regulation of harmful marketing practices' (2020) 11 *European Journal of Risk Regulation* 4; Oliver Bartlett and Amandine Garde, 'The EU's Failure to Support Member States in Their Implementation of the WHO Recommendations: How to Ignore the Elephant in the Room?' (2017) 8 *European Journal of Risk Regulation* 2; Oliver Bartlett and Amandine Garde, 'Time to Seize the (Red) Bull by the Horns: The EU's Failure to Protect Children from Alcohol and Unhealthy Food Marketing.' (2013) 38 *European law review* 4.

Chile offers a successful example of such combined action. The simultaneous introduction in 2016 of a FoP warning label and of a ban of sales in school and restrictions on child-directed marketing targeting unhealthy products, led for instance to a significant reduction in purchases of sugar-sweetened beverages.¹⁸¹

¹⁸¹ Lindsey Smith Taillie et al, 'An Evaluation of Chile's Law of Food Labeling and Advertising on Sugar-Sweetened Beverage Purchases from 2015 to 2017: A before-and-after Study' (2020) 17 *PLoS Medicine* 2.