

Addressing Obesity through Food Labelling Regulation.

An analysis of existing labelling schemes to identify best practices for a comprehensive unified European approach from a legal and nutritional perspective.

NIKOLAAS TILKIN-FRANSSENS REG Nr: 900516-832-020 LAW - LAW-80436 LAW & GOVERNANCE GROUP LAW – 80436, 36 ECTS Dr. Mr. H. Bremmers Dr. JHM de Vries

Abstract

The improvement of dietary quality through labelling regulation concerns a present day topic with the anticipated entry into force of mandatory nutrition labelling under the European Food Information to Consumers Regulation by December 2016.

This research therefore analysis how obesity as a contemporary challenge for European policy makers is being addressed through labelling initiatives. This involves the identification of both limitations and opportunities for policy makers in the light of the European but also international harmonization efforts. Both European and national labelling schemes are considered to exemplify the current state of food labelling policies at different governance levels that aim to address obesity and related health issues. Included are the EU Food Information to Consumers Regulation, the Nutrition and Health Claims Regulation, UK traffic light labelling, salt labelling, the Choices logo, the *5 a day* Campaign and Chilean nutritional warning labels.

The analysis equally considers nutritional strategies to counter obesity by examining if nutritional recommendations have been adequately implemented in the outlined labelling schemes. The nutritional strategies identified involve energy intake reduction, balancing the intake of certain nutrients or the promotion or discouragement of particular foods. Ultimately, suggestions for improvement of the chosen approaches are raised and a legally feasible labelling scheme is proposed. The latter compromising a single logo which addresses the main nutritional shortcomings of current European labelling legislation by including trans fats, fibre and added sugar and taking account of particular characteristics per food category.

Addressing Obesity through Food Labelling Regulation.

An analysis of existing labelling schemes to identify best practices for a comprehensive unified European approach from a legal and nutritional perspective.

Inhoud

1	. The	obesity epidemic	. 2
	1.1.	The global and raising prevalence of obesity	. 2
	1.2.	Prevention of non-communicable diseases	. 3
	1.3.	Estimation of public health impact in Europe	. 4
2	. Deli	neation of the research	. 4
	2.1.	Labelling as a policy tool to address obesity	. 4
	2.2.	Legal and nutritional aspects in labelling practices	. 5
	2.3.	Methodology of the research	. 5
3	. Add	ressing Obesity through law	. 6
	3.1.	Public policy approaches to the obesity epidemic	. 6
	3.2.	Policy interventions supporting an informed choice	. 7
	3.3.	Voluntary versus mandatory measures	. 8
	3.3.1.	Classification of initiatives	. 8
	3.3.2.	Pros and cons of voluntary measures	. 8
	3.3.3.	The complexity of the choice of policy measures	. 9
4	. Reg	ulatory Actors	. 9
	4.1.	Addressing the global issue	. 9
	4.1.1.	International legal obligations to act	. 9
	4.1.2.	The World Health Organization	10
	4.1.3.	International standard setting by the Codex Alimentarius	11
	4.2.	Legal restraints under international trade law	12
	4.3.	European Union nutrition policy	14
	4.3.1.	Addressing obesity within the EU	14
	4.3.2.	EU regulatory competence	14
	4.4.	European Union member states	16

5	Guid	ding	dietary principles	17
	5.1.	Pro	noting a healthy lifestyle	17
	5.2.	Red	ucing energy intakes	17
	5.3.	Nuti	ient intakes	18
	5.3.2.	Ν	utrient reference intakes	19
	5.3.3.	Т	ne complexities related to macro-nutrients	21
	5.3.3.1	1.	Inherent differences between macro-nutrients	21
	5.3.3.2	2.	Complexities regarding fats	21
	5.3.3.3	3.	The simple carbohydrate sugar	22
	5.3.3.4	4.	Salt	24
	5.3.3.5	5.	The positive contributions of fibre	24
	5.3.3.6	6.	Concluding remark on nutrient complexities	25
	5.4.	Foo	d choice promotion	25
6	EU	label	ling initiatives	26
	6.1.1.	0	verview of EU information legislation	26
	6.1.2.	F	ood Information to Consumers Regulation	27
	6.1.2.1	1.	The introduction of a mandatory nutrition labelling scheme	27
	6.1.2.1	1.1.	The adoption of the FIR	27
	6.1.2.1	1.2.	Mandatory elements of nutrition labelling	27
	6.1.2.2	2.	Limits to the provision of additional nutrition information	28
	6.1.2.2	2.1.	Voluntary food information	28
	6.1.2.2	2.2.	Additional forms of expression and presentation of the nutrition 29	n declaration
	6.1.2.2	2.3.	Reference intake indication	
	6.1.2.3	3.	Nutritional aspects of the FIR	31
	6.1.2.3	3.1.	Inclusion of detrimental macro-nutrients	31
	6.1.2.3	3.2.	Trans-fats	32
	6.1.2.3	3.3.	Lack of portion and consumption unit indications	33
	6.1.2.3	3.4.	Comments regarding reference intakes of nutrients	34
	6.1.2.4	4.	Legal consequences for member states	35
	6.1.2.5	5.	Relation to international law	35
	6.1.3.	Ν	utrition and Health Claims Regulation	36
	6.1.3.1	1.	Highlighting the positive attributes of food	36
	6.1.3.2	2.	Legal requirements on the use of claims	36

	6.1.4.	Eva	aluation	38
	6.1.4.1	I. I	Nutritional evaluation	38
	6.1.4.2	2. L	egal consequences of the NHCR	39
7	. Euro	opean	member state labelling initiatives	39
	7.1.1.	Litt	le leeway for creative labelling options	39
	7.1.2.	Nu	tritional aspects of national labelling schemes	40
	7.1.3.	Me	mber State Specific Initiatives	40
	7.1.3.1	I. 7	Fraffic light labelling	40
	7.1.3.1	l.1.	An interpretative labelling scheme	40
	7.1.3.1	1.2.	A de facto barrier to trade	41
	7.1.3.1	1.3.	Accordance with the FIR	42
	7.1.3.1	1.4.	Accordance with the Nutrition and Health Claims Regulation	43
	7.1.3.1	l.5.	Nutritional aspects	44
	7.1.3.2	2. ł	High salt content indication in Finland	46
	7.1.3.3	3. (Qualitative interpretation logos	47
	7.1.3.3	3.1.	Facilitating healthy food choice	47
	7.1.3.3	3.2.	The Choices Programme	48
	7.1.3.3	3.3.	Nutritional consideration	49
	7.1.3.3	3.4.	Accordance with EU law	50
	7.1.3.4	4. 5	5 a day campaign	52
	8. Tł	ne infl	uence of international trade law on national initiatives exemplified	53
	8.1.	Nutri	ional warning signs in Chile	53
	8.2.	Lega	I complications regarding the warning signs	54
	8.3.	Nutri	ional consideration of the warnings	55
	8.4.	Poter	ntial implementation of the warnings by European Union member states	57
9	. Disc	cussio	n	57
	9.1.	Cons	iderations on currently applicable labelling legislation	57
	9.1.1.	Sp	ecific comments regarding European labelling legislation	57
	9.1.1.1	I. E	European responsibilities and commitment	57
	9.1.1.2	2. 1	Nutritional shortcomings of the FIR	59
	9.2.	Poter	ntial policy initiatives	59
	9.2.1.	Be	st placed authorities	59
	9.2.2.	Lo	gos identifying healthy food choices	60
	9.2.3.	Vo	luntary versus mandatory labelling implementation of logos	60

9.2.	.4. Identification of a unified European approach	61
10.	Recommendations	61

Introduction

The promotion of a healthy diet is a precarious challenge for policy makers when considering the complexity of nutritional insight they need to take account of. Dietary recommendations tell us to consume less calories while at the same time to eat more fiber, to avoid red meats, to reduce our saturated and trans fat intake, to eat more fruit and vegetables, to avoid added sugars and to gradually diminish the use of salt among many other precise instructions. Currently, various labelling schemes are in place that aim to translate this information in concise and functional food labels. To avoid a bulk of messages creating more confusion than the accurate provision of information to consumers, efforts towards harmonization of nutritional information have been made. Within Europe, recent examples concern the use of claims and the mandatory provision of a nutrition table. While this nutrition information will soon be found in whole of Europe on prepacked foods, there are still additional labelling initiatives in place which aim to help consumers eat healthier. Question concerns how these efforts relate to the harmonization efforts and where they contribute a valuable addition. An overview of labelling schemes, including traffic light labelling, salt warning labels and 5 a day labels promoting fruit consumption, helps to identify the legal complexities and nutritional strengths associated with the currently existing initiatives. Ultimately, a suggestion is made for a particular labelling scheme that is able to cope with both the legal and nutritional issues that have been raised in the analysis. In essence, the use of a logo is advocated which can exist next to the harmonized rules and adequately implements the fundamental nutritional strategies.

List of Abbreviations

- ECJ European Court of Justice as part of the Court of Justice of the European Union (European Institution)
- EU European Union
- FIR Food Information to Consumers Regulation
- NCDs Non-Communicable Diseases
- NHCR Nutrition and Health Claims Regulation
- WHO World Health Organization
- WTO World Trade Organization
- UK FSA United Kingdom Food Standards Agency

List of Definitions

Overweight and **obesity** are defined as abnormal or excessive fat accumulation that may impair health. These are calculated according to the BMI. A BMI greater or equal to 25 is overweight and a BMI greater or equal to 30 is obese.

Non-communicable diseases (NCDs), also known as chronic diseases, are not passed from person to person. They are of long duration and generally slow progression. The 4 main types of noncommunicable diseases are cardiovascular diseases (like heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructed pulmonary disease and asthma) and diabetes.

Public policy are (declared) objectives of State bodies for the achievement of social goals such as public health, general welfare or public order.

Competence involves the legal capacity to act on the basis of constitutional acts or through attribution by the competent actor.

Food Information: *'information concerning a food and made available to the final consumer by means of a label, other accompanying material, or any other means including modern technology tools or verbal communication.'*¹

Nutrition Information: information concerning the energy value and the amounts of nutrients present in a particular food.

Labelling: 'any words, particulars, trademarks, brand name, pictorial matter or symbol relating to a food and placed on any packaging, document, notice, label, ring or collar accompanying or referring to such food.²

Label: 'any tag, brand, mark, pictorial or other descriptive matter, written, printed, stencilled, marked, embossed or impressed on, or attached to the packaging or container of food.'³

Kilocalorie: reference unit to measure the energy contributed by food, mostly used in US research publications and international law.

Kilojoule: reference unit to measure the energy contributed by food widely used in nutritional science.

Dietary reference intakes (DRIs) indicate the amount of an individual nutrient that people need for good health depending on their age and gender.

Reference Intake: European Union reference value used for labelling purposes indicating the amount of a certain nutrient that is recommended to be consumed in a day in order to maintain a balanced dietary pattern by the general population. Based on the DRI's of an adult women as established by EFSA.

¹ Article 2(2)(a) of the FIC Regulation

² Article 2(2)(j) of the FIC Regulation

³ Article 2(2)(i) of the FIC Regulation

Portion Size quantity expression related to what a consumer is reasonably expected to eat of a food as part of a package containing various portions.

Serving Size quantity expression related to what a consumer is presented with and expected to eat of a food corresponding to a serving unit.

Food-based dietary guidelines are science-based recommendations for healthy eating. They translate nutritional recommendations into messages about foods.⁴

Codex Alimentarius concerns an international cooperative framework of the WHO and FAO aiming to harmonize legal requirements between States worldwide. It contains internationally recognized standards, codes, guidelines and recommendations related to legal requirements on food safety, quality and other commodity aspects.

DALYs or Disability-Adjusted Life Years refers to a method used to express losses in life quality due to a burden resulting from a disease or health condition such as the potential adverse health effect related to obesity.

⁴ Ibid

OUTLINE

The following work considers labelling as a policy instrument to improve overall food consumption and ultimately the health of consumers. The issue of obesity and related health issues as a consequence of inadequate diets is described as forming a global threat that the world is faced with (Chapter 1). This focus of this work is subsequently narrowed down to labelling initiatives in the European ambit that aim to address the inadequacies in diets that lead to obesity and related health issues. The examination considers the legal constraints and opportunities for European policy makers on the one hand, and the deficiencies in the implementation of nutritional recommendations on the other (Chapter 2).

The chosen study object of food labelling proves to be a popular policy instrument with the aim of improving dietary habits (Chapter 3). Policy makers at the international, regional and national level are increasingly active in the field food labelling legislation for the protection of health and consumers while at the same time facilitating trade. An overview is given of the relevant actors in the fight against the obesity epidemic, marking their competences in the field of food labelling law (Chapter 4). The institutional overview is followed by an overview of nutritional strategies and recommendations which form the foundation of concrete labelling initiatives. Policy initiatives aiming to improve diets are to be based on sound scientific principles as found in nutritional recommendations. Therefore the work considers different nutritional strategies that can be used by policy makers. The fundamental nutritional insights are subsequently applied to the European and national labelling schemes discussed in the work (Chapter 5).

The recent European harmonization of food labelling requirements is presented as to the legal consequences it will have on member states. Besides, also the deficiencies in the applied nutritional aspects are highlighted (Chapter 6). The work furthermore considers various member state labelling schemes and their acceptance under current EU labelling legislation (Chapter 7). In addition, a Chilean labelling initiative is considered to exemplify international legal restrictions on labelling initiatives (Chapter 8). The complete analysis allows to identify shortcomings in the schemes. This provides the opportunity to introduce suggestions for either the improvement of existing labelling schemes or the implementation of alternative schemes and changes to the applied nutritional strategies (Chapter 9).

1. The obesity epidemic

1.1. The global and raising prevalence of obesity

Since the 1980s obesity reduction has become a worrisome issue for policymakers. In the early days the public health challenges due to overweight prevalence were mainly of concern to developed countries only. Nowadays more and more developing countries are also being affected.⁵ The low and middle income countries appear to demonstrate a similar trend towards overweight prevalence to such an extent that the number of overweight (BMI ≥ 25) and obese people (BMI ≥ 30) is raising vastly on the globe.⁶ Overweight prevalence in most developed countries appears to be reaching a peak.⁷ Though stabilization of the growth rate is nothing positive as the numbers of overweight prevalence are staggering high.⁸ This makes that obesity is often called a global epidemic asking for a global approach. The challenge of the 21st Century has shifted from assuring simple food availability to the improvement of dietary patterns among populations. This implies that global food policy should focus on the qualitative intake of certain foods and nutrients rather than on food security.⁹

Though important arguments can be raised against a unified global or wider regional approach towards obesity reduction. Namely that dietary patterns widely differ between nations. But in fact dietary patterns show even more dissemblance when looking at other factors such as age or gender.¹⁰ More apparent is the prevalence of obesity in lower social groups of society in –developed- OECD countries¹¹ regardless of the differences in eating habits between nations. The high obesity prevalence is mainly due to increased accessibility to and consumption of energy-dense foods in the last decades.¹² This is a trend which has occurred in all western and increasingly also developing countries. Accordingly, differences between countries in dietary patterns should not be a reason to dismiss a common policy.

⁵ MarieNg, et al. "Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the Global Burden of Disease Study 2013", 384 Lancet (2014), http://ac.els-cdn.com/S0140673614604608/1-s2.0-S0140673614604608-main.pdf?_tid=01450cf4-519e-11e5-aa8b-

⁰⁰⁰⁰⁰aacb362&acdnat=1441217657_55ae24ecf6394749e1aad674a0b72069>, 775.

⁶ Figure 7.3 and 7.5 in WHO, "Global Status Report on noncommunicable diseases", (2014), ">http://www.who.int/nmh/publications/ncd-status-report-2014/en/, p 302.
⁷ Ibid., 775-777.

⁸ Figure 1 in OECD, "OBESITY Update", 2014, http://www.oecd.org/health/Obesity-Update-2014.pdf>.

 ⁹ Furniaki Imamura *et al.*, "Dietary quality among men and women in 187 countries in 1990 and 2010:
 a systematic assessment", 3 Lancet Global Health (2015),
 http://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X(14)70381-X.pdf>, 132 and 140.
 ¹⁰ *Ibid.*, 141.

¹¹ Marion Devaux and Franco Sassi, "Social inequalities in obesity and overweight in 11 OECD countries", 23 European Journal of Public Health (2011), < http://eurpub.oxfordjournals.org/content/eurpub/23/3/464.full.pdf>, 464-469.

¹² Malden C. Nesheim and Marion Nestle, *The internationalization of the Obesity Epidemic*, in David E. Sahn, *The Fight against Hunger and Malnutrition: The Role of Food, Agriculture, and Targeted Policies*, Oxford University Press (Oxford, 2015), 90-91.

Presumably it would be more valuable to analyse the different food and nutrition policy approaches and assess best practices for a common approach or an exchange of feasible practices.¹³ Which is the mean idea behind this work

1.2. Prevention of non-communicable diseases

The consequences of overweight and obesity on human health are rather indirect as they contribute to the prevalence of diseases which often do not manifest but after many years of unhealthy dietary patterns. Clear links have been established between obesity and the manifestation or aggravation of heart strokes, high blood pressure, diabetes, coronary heart diseases, digestive and respiratory diseases, arthritis to even cancer.¹⁴ According to WHO global estimates in 2010¹⁵, overweight and obesity led to more than 3.4 million deaths per year, together with 93.6 million DALYs¹⁶. As obesity levels rise worldwide these numbers are likely to increase. By consequence, taking account of the adverse health effects, public healthcare systems¹⁷ are increasingly under pressure and similarly productivity costs are likely to incur.¹⁸ Actual responses to challenges posed by obesity and related NCDs are often reactive. For every sickness a cure is to be found. Yet the development and use of medicines to reduce high blood pressure, control diabetes or the treatment of cancer imply high investments and public health costs. A preventive approach, through efficient policy addressing the root causes is potentially a more cost-effective strategy.¹⁹

Interestingly and different from other risk factors to many chronic diseases, obesity and its adverse health effects are much more preventable from the perspective of the patient.²⁰ It could be claimed that the responsibility lies with the obese individual. The preventive solution even sounds evident, namely the change in diet together with physical exercise. Though the accumulation of body fat as a result of diet potentially leading to NCDs is a complex matter.²¹ To prevent obesity, manifest lifestyle changes need to occur and will have to be maintained.

¹³ WHO, "Comparative Analysis of Nutrition Policies in the WHO European Region, A comparative analysis of nutrition policies and plans of action in WHO European.", WHO Regional Office for Europe (2006), <http://www.euro.who.int/__data/assets/pdf_file/0004/149782/instanbul_conf_20ebd02.pdf>, p 1-3.

^{1-3.} ¹⁴ Peter T. Campbell, "Obesity: a certain and avoidable cause of cancer", 384 Lancet (2014), http://dx.doi.org/10.1016/S0140-6736(14)61172-7, 727-728.

¹⁵ WHO, "Global Status Report on noncommunicable diseases", 2014, ">http://www.who.int/nmh/publications/ncd-status-report-2014/en/, p 79-91.

¹⁶ DALY or Disability-Adjusted Life Year (See list of definitions).

¹⁷ Franco Sassi, *Obesity And The Economics Of* Prevention: *Fit Not Fat*, Edward Elgar Publishing, (Cheltenham, UK, 2010), p 24-31.

¹⁸ James Fry and Willa Finley, "The prevalence and costs of obesity in the EU", 64 Proceedings of the Nutrition Science (2005), 359-360.

¹⁹ Derek Yach, David Stuckler and Kelly D Brown, "Epidemiologic and economic consequences of the global epidemics of obesity and diabetes", 12 Nature Medicine (2006), http://archive.oxha.org/knowledge/publications/derek-nature-global-burden-obesity-and-diabetes.pdf>, 63-64

²⁰ Catherine Keating, Kathryn Backholer and Anna Peeters, "Prevalence of overweight and obesity in children and adults.", http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(14)62367-9.pdf, 384 Lancet (2014).

²¹ Taking other factors into account including genetic predisposition to weight gain and the prevalence of certain NCDs.

Public policy aims to support lifestyle changes by stimulating certain consumer choices. Governmental interventions may help to increase the availability and accessibility to healthy food.

1.3. Estimation of public health impact in Europe

The European regional office of the World Health Organization (WHO) has identified unhealthy dietary patterns together with excessive body weight as the leading risk factors to premature death in the European area.²² At present times 60% of men and 47% of women in Western Europe are overweight. This means that half of the European population is overweight.²³ Moreover, in nearly all member states of the European union obesity prevalence is above 10% of the population. By consequence, on average 1 out of 6 European adults is obese.²⁴ These factual circumstances have urged the European institutions to take action '*to reduce the risks associated with poor nutrition and limited physical exercise*²⁵ together with various initiatives at member state level. The following research will give an overview of various policy actions in the field of food labelling taken by European and member state institutions and also elaborate on their relation with global policies.

2. Delineation of the research

2.1. Labelling as a policy tool to address obesity

Lifestyle choices appear not to be optimal taking regard of the high obesity prevalence.²⁶ The improvement of dietary quality proves to be a rather challenging endeavour for policy makers.²⁷ In practice, various options are at the disposal of public authorities that may influence the accessibility, availability and consumption of healthy food alternatives. One widely used policy measure to address the contemporary challenge of obesity are food labelling initiatives. For various reasons, as will become clear under Chapter 3, they have proven to be a popular tool at various levels of governance. This work addresses such initiatives as adopted by policy makers from a legal and nutritional perspective.

²² WHO, "Comparative Analysis of Nutrition Policies in the WHO European Region, A comparative analysis of nutrition policies and plans of action in WHO European.", WHO Regional Office for Europe (2006), <http://www.euro.who.int/__data/assets/pdf_file/0004/149782/instanbul_conf_20ebd02.pdf> p 48.

²³ MarieNg, et al. "Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the Global Burden of Disease Study 2013", 384 Lancet (2014), http://ac.els-cdn.com/S0140673614604608/1-s2.0-S0140673614604608-main.pdf?_tid=01450cf4-519e-11e5-aa8b-

 $⁰⁰⁰⁰⁰ a a c b 362 \& a c d nat = 1441217657_55 a e 24 e c f 6394749 e 1 a a d 674 a 0 b 72069 >, 774.$

²⁴ OECD, "Health at a Glance: Europe 2014", (2014), <http://dx.doi.org/10.1787/health_glance_eur-2014-en>, p 56-57.

 ²⁵ COM. , "Strategy on nutrition, overweight and obesity-related health issues", (2007),
 http://ec.europa.eu/health/nutrition_physical_activity/policy/strategy_en.htm
 ²⁶ Franco Sassi, *Obesity And The Economics Of* Prevention: *Fit Not Fat*, Edward Elgar Publishing,

²⁶ Franco Sassi, *Obesity And The Economics Of* Prevention*: Fit Not Fat*, Edward Elgar Publishing, (Cheltenham, UK, 2010), p 34.

²⁷ Amandine Garde, EU law and obesity prevention, Kluwer (Alphen aan de Rijn, 2010), 11-17.

2.2. Legal and nutritional aspects in labelling practices

The following research aims to provide an overview of labelling initiatives taken at International, European and national level. The examination focuses on the legal and nutritional complexities related to the labelling schemes currently in place. However, in order to apply fundamental legal concepts to concrete labelling measures, it is important to understand what legal actors are competent to adopt labelling initiatives but also to highlight their regulatory limits. Public policy measures have to be adopted in a complex regulatory landscape compromising various policy levels, different stakeholders and often conflicting objectives and rules. The demonstrated complexities are subsequently applied to existing labelling initiatives. Through this analysis both the constraints and opportunities for future labelling initiatives can be identified which can serve as a guideline for present day policy makers.

The following step is to examine the scientific basis of particular labelling initiatives. Evidently, food labelling initiatives should be based on sound scientific grounds. Though, nutritional scientific insights are often rather hard to grasp in comprehensive dietary guidelines. Not to mention concise, practical guidelines which are to be used by non-nutritional experts. Consideration of fundamental nutritional principles will help to identify what present day science considers to be the main elements that lead or contribute to obesity and related adverse health effects. Thereafter, the overview of current labelling practices exemplifies how nutritional recommendations have been implemented into concrete food labelling initiatives. This allows to assess whether the labelling initiatives appropriately address the inadequacies of many diets and where there is room for improvement. Equally, this may assist policy makers in the formulation of scientifically sound policy initiatives.

The first major part of the work provides a rather theoretical legal and nutritional reference synopsis. The core part of the thesis however applies this theoretical framework to concrete labelling initiatives. The overall aim is to demonstrate the shortcomings, complexities and challenges but also opportunities for policy makers in the field of food labelling, taking nutritional recommendations and legal actualities into account. The final analysis can provide guidance to policy makers on what labelling measures are feasible within the European ambit. The final consideration will propose changes and creative solutions to come to potential labelling policies that may lead to a reduction in the pressing obesity challenge.

2.3. Methodology of the research

As the research compromises both legal and nutritional aspects sources of both study fields will be incorporated in the work. The contributions by the WHO and EFSA prove to be valuable sources as they likewise integrate scientific research into precise policy recommendations at international and European level of governance. Though the contributions of both institutions remain rather limited when considering specific labelling initiatives. The following research aims to elaborate on the matter by integrating a wide array of nutritional recommendations with food labelling initiatives. Concerning the legal aspects, the competence of legal actors at different levels of governance will be discussed using the

constituent treaties and related acts, scholarly interpretations and references to case law. The analysis will mainly look at binding obligations and constraints for European and national policy makers regarding public health initiatives. The fundamental question regards the obligations and constraints that apply to public institutions, such as the discretion that is left to national authorities to adopt food labelling legislation. This will help to understand which governance level is currently best placed to take legal initiative in the field of food labelling law.

What concerns the nutritional aspects, dietary recommendations that identify dietary inadequacies leading to obesity and NCD prevalence will be considered. In first order, relevant international or European resources on the matter will be considered. Mainly the published WHO reports and the EFSA journals constitute a valuable sources as they issue regular opinions on particular nutritional topics. Moreover they also takes account of the recommendations by other international and national authorities. Additionally, recommendations of national health services are consulted. The choice has been made to focus on the national health services of the Netherlands, Belgium and the United Kingdom. Reasons for the choice for the concerned references are multiple. Namely, the accessibility due to language, the progressive approach towards nutritional recommendations within these countries and the recently published guidelines on healthy food by the Dutch Health Council. Moreover, the nutritional recommendations of the different UK authorities laid the foundation for the traffic light labelling scheme and the 5 a day campaign which will be discussed in more detail. Consideration of various labelling schemes will require analysis of the concerned legalisation or other policy measures together with other official documentation, such as preparatory works, interpretations, guidance documents and where available considerations on the labelling measures in books, articles and reviews.

3. Addressing Obesity through law

3.1. Public policy approaches to the obesity epidemic

Policy makers at international, regional and national levels of governance have acknowledged the need for action (*Infra* Chapter 4). Obesity reduction is mostly embedded in a wider public health policy but in many cases separate action plans and policy measures are adopted with the specific purpose of addressing obesity or lifestyle-related diseases. In most national public health policies the reduction of obesity stands as a top priority.²⁸

Policymakers have a wide array of measures to choose from when it comes to addressing the obesity epidemic. They can force food producers, retailers or consumers to make changes by direct market interventions in order to make healthy choices more available and

²⁸ WHO, "Comparative Analysis of Nutrition Policies in the WHO European Region, A comparative analysis of nutrition policies and plans of action in WHO European.", WHO Regional Office for Europe (2006), http://www.euro.who.int/__data/assets/pdf_file/0004/149782/instanbul_conf_20ebd02.pdf, p. 13, 47- 48.

accessible.²⁹ The introduction of a trans-fat ban, a fat tax or changes in agricultural policy are well known examples. Another option is to increase the awareness of consumers through education and information. Information measures include food labelling which is the focal point of this work. As will be elaborated upon in this work, information measures will often be the preferred policy option from a legal point of view in comparison to more coercive means.

3.2. Policy interventions supporting an informed choice

To understand the choice for information measures as a policy instrument we should look at its economic rationale. Traditional free market principles leave from the basic idea that both the demand and supply side have perfect information in order for all market participants to make the right choice. In the case of food consumption, the right choice concerns the maximization of individual welfare. Though, in practice, market distortion has clearly occurred considering the high obesity prevalence.³⁰ Distortion may happen where the necessary information to take the right choices is not available to the consumer.³¹ Information deficiencies can potentially be restored with appropriate governmental interventions. More specifically, labelling initiatives provide information that may help consumers to make better choices regarding their food consumption.

In terms of public policy, information measures are often adopted under the heading of consumer or health protection.³² An important aspect of consumer protection is the provision of adequate information to consumers. For that purpose basic legal requirements demand that the disclosed information is accessible, accurate and not-misleading.³³ Though, in recent history the importance and existence of food information legislation has increased because of various reasons. For example with supply chains becoming ever more complex and the extension of product varieties the demand for information by consumers to know more about the foods they purchase increases.³⁴ This also includes interest for the nutritional composition of the food consumed. An important question regards how to incorporate these demands into policy while taking account of legal limitations and also through what form. Labelling requirements are a popular mandatory but also voluntary policy instrument in the combat towards obesity, making it an interesting object of comparative study.

²⁹ Marion Nestle, "Regulation does change eating behavior", Hastings College Press (2014), http://www.foodpolitics.com/wp-content/uploads/Hastings_Regulation_14.pdf>, 156-158.

³⁰ Franco Sassi, *Obesity And The Economics Of* Prevention*: Fit Not Fat*, Edward Elgar Publishing, (Cheltenham, UK, 2010), p 34.

³¹ Elise Golan, *et al.*, "Economics of food labelling", 24(2) Journal of Consumer Policy (2001), < http://link.springer.com/article/10.1023%2FA%3A1012272504846>, p 137.

³² Margaret Vidar, "International legal frameworks for food labelling and consumer rights" in Janice Albert, "Innovations in Food Labelling" FAO-CRC Press (New York, 2010), 22-24.

³³ See article 7 of the FIR

³⁴ Linda Marks, "What's in a label. Consumers, public policy and food labels", 9(3) Food Policy (1984), < http://www.sciencedirect.com/science/article/pii/0306919284900095>, p 252-253.

3.3. Voluntary versus mandatory measures

3.3.1. Classification of initiatives

Within the category of information measures, different types of initiatives exist. It is important to distinguish between the type of initiative because the exact classification may have important legal consequences. Often the degree of involvement of either government or either other stakeholders determines the legal status of a measure. Information measures as part of public policy can be mandatory, meaning they are enforceable through law. On the other hand public policy can be implemented as part of public-private cooperation through public education campaigns, guidelines or recommendations.³⁵ In many occasions food producers are given the liberty to engage into campaigns or measures promoting more healthy food alternatives. Though, often such voluntary schemes adhere to governmental guidelines on presentation, form or content.

Occasionally, governmental involvement is entirely absent and the initiative lies solely with a company or stakeholder group. Like initiatives will not be considered in this work as they are increasingly rare under the comprehensive framework of food labelling rules that are currently in place (*Infra* 6).

3.3.2. Pros and cons of voluntary measures

Voluntary measures leave more discretion to the food producers on when and how to engage in policy objectives such obesity reduction. From the side of the food industry, voluntary measures in cooperation with public authorities are more appreciated as they can be considered less interfering than strict governmental regulations. Likewise, from a government perspective voluntary measures are often the preferred choice as public support schemes do not need to manoeuvre through the same complicated legal landscape as legislative actions. Moreover, voluntary schemes avoid confrontation with major enterprises and the costs of implementation and monitoring are likely to be lower.³⁶ Though, voluntary industry commitments have the downside that they cannot be enforced by public authorities.³⁷ It should be stressed that the effectiveness of voluntary schemes depends on proper supervision or certification by governmental or other unbiased institutions.³⁸ Moreover in many cases voluntary actions do not address the real issues or contravene with financial

³⁵ OECD, "Obesity And The Economics Of Prevention: Fit Not Fat", <http://www.oecd.org/els/healthsystems/46044572.pdf>, (2010), p 3.

³⁶ *Ibid.,* p 3.

³⁷ Allyn L. Taylor, Emily Whelan Parento and Laura A. Schmidt, "The Increasing Weight of Regulation:Countries Combat the Global Obesity Epidemic", 90 Indiana Law Journal (2015), < http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2422508>, 263-265.

³⁸ WHO, "Global Action Plan For The Prevention And Control Of Non-Communicable Diseases", WHO 2013, <http://apps.who.int/iris/bitstream/10665/94384/1/9789241506236_eng.pdf?ua=1>.

³⁸ WHO Europea, "European Food and Nutrition Action Plan 2015-2020", Regional Committee For Europe (2014), <

http://www.euro.who.int/__data/assets/pdf_file/0008/253727/64wd14e_FoodNutAP_140426.pdf>, p 9.

ambitions.³⁹ For instance, food producers will not be eager to disclose nutritional information concerning products that are essentially unhealthy.⁴⁰

On the other hand there may be economic incentives for companies to engage in the project of tackling obesity.⁴¹ The demand for healthy food alternatives by consumers pushes food producers to reformulate the composition of the foods they produce.⁴² The development of healthier food alternatives is a fast growing market allowing high revenues for innovative producers.⁴³

3.3.3. The complexity of the choice of policy measures

The implementation of policy measures suffers from legal constraints that may impede prompt action to address the obesity epidemic. More and more legal requirements on the provision of information are being extensively harmonized. As will be demonstrated, the Codex Alimentarius and the European Union have standardized legal requirements in order to facilitate trade. Policy measures that deviate from the harmonized standards are likely to be seen as unnecessary barriers to trade. Therefore this work aims to consider the options that are left to policy makers in the field of food labelling. Various initiatives to counter obesity prevalence will be discussed in the light of these legal complications. Trade law limitations, their justification and the harmonization of food labelling requirements concern the legal interaction between different levels of governance. This will be clarified in the consecutive overview of the institutions which are most relevant for the objective of obesity reduction.

4. Regulatory Actors

4.1. Addressing the global issue

4.1.1. International legal obligations to act

As obesity reached the proportions of a global epidemic the containment of the problem demands for an effective multi-level approach. Governments have recognized their individual

³⁹ David Stuckler and Marion Nestle, "Big Food, Food Systems, and Global Health", 9(6) PLOS Medicine (2012), http://www.foodpolitics.com/wp-content/uploads/PLoS_BigFood_Stuckley_12.pdf, 2.

⁴⁰ Elise Golan, *et al.*, "Economics of food labelling", 24(2) Journal of Consumer Policy (2001), < http://link.springer.com/article/10.1023%2FA%3A1012272504846>, p 129-130 and 137.

 ⁴¹ Linda Marks, "What's in a label. Consumers, public policy and food labels", 9(3) Food Policy (1984),
 http://www.sciencedirect.com/science/article/pii/0306919284900095, p 256.
 ⁴² COM (2007)279 final, "A Strategy for Europe on Nutrition, Overweight and Obesity related health

⁴² COM (2007)279 final, "A Strategy for Europe on Nutrition, Overweight and Obesity related health issues", white paper, 2007, http://ec.europa.eu/health/archive/ph determinants/life style/nutrition/documents/nutrition wp en.pdf

[,] p 10-11.
⁴³ Derek Yach, David Stuckler and Kelly D Brown, "Epidemiologic and economic consequences of the

⁴³ Derek Yach, David Stuckler and Kelly D Brown, "Epidemiologic and economic consequences of the global epidemics of obesity and diabetes", 12 Nature Medicine (2006), http://archive.oxha.org/knowledge/publications/derek-nature-global-burden-obesity-and-diabetes.pdf, 65.

responsibility but realize international cooperation will prove valuable, if not necessary to address the obesity epidemic.44

From a human rights perspective one could argue States even have an obligation to assure the access to healthy food as part of the right to adequate food under the Universal Declaration of Human Rights.⁴⁵ The fundamental idea of the right to adequate food was primarily to assure food security and safety, but human rights are to be interpreted according to the time and context they are applied in. Taking account of the epidemic proportion of obesity, the obligation to assure adequate food for developed States may have shifted to an obligation to intervene in the nutritional quality of the modern food supply.⁴⁶ As earlier stated, from food security to food quality assurance. The obligation emanating from human rights law however remains ambiguous as it does not give any guidance on what measures should be taken and to what extent. The documents issued by the World Health Organization (WHO) and Food and Agriculture Organization (FAO) may help to strengthen the evolutionary interpretation of the human rights obligation of the right to food just as the UNGA Declaration on the Prevention and Control of Non-Communicable Diseases.⁴⁷ Moreover, looking at the epidemic proportion of the obesity crisis the world is faced with, it would be positive to capture the engagement of nations in a framework treaty that creates legal impetus for additional regional or national initiatives.⁴⁸ Treaties are a peculiar international legal instrument able to create binding obligations for States. This could potentially constitute a step forward in comparison to the guidance documents issued by the WHO. It may also help to identify the kind of measures that would not constitute a barrier to trade under global trade law as will become clear in the following paragraphs.

4.1.2. The World Health Organization

The WHO provides important impetus and guidance to policy makers worldwide to address health concerns, including obesity prevalence and related public health impacts. The WHO makes valuable contributions by examining the global impact of obesity and likewise providing guidance to policy makers worldwide on how to contain the epidemic. In the first place, the WHO establishes nutritional recommendations by considering globally available scientific research which will be considered in more detail under Chapter 5. The widely

Practice-on-the-Marketing-of-Unhealthy-Food-and-Beverages-to-Children.pdf> (2012).

⁴⁴ UNGA A/66/L.1, "Political declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases", (2011), ">http://www.un.org/ga/search/view_doc.asp?symbol=A/66/L.1>.

Rights. ⁴⁶ Margaret Vidar, "International legal frameworks for food labelling and consumer rights" in Janice Albert, "Innovations in Food Labelling" FAO-CRC Press (New York, 2010), 19-20.

⁴⁷ UNGA (A/66/L.1), "Political declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases", (2011) http://www.un.org/ga/search/view_doc.asp?symbol=A/66/L.1>.

⁴⁸ The Lancet (ed.), "Urgently needed: a framework convention for obesity control", 378 The Lancet (2011), <http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(11)61356-1.pdf>,

Also see Allyn L. Taylor, Ibadat S. Dhillon, Lenias Hwenda, "A WHO/UNICEF Global Code of Practice on the Marketing of Unhealthy Food and Beverages to Children",5 Global Health Diplomacy, < http://blogs.shu.edu/ghg/files/2012/06/Taylor-Dhillon-Hwenda_A-WHO-UNICEF-Global-Code-of-

accepted guidelines help policy makers around the globe to adopt a science based approach towards the obesity challenge.

Secondly, the WHO takes an important position in the coordination of initiatives that aim to reduce NCD and obesity prevalence.⁴⁹ The Organization has set non-binding goals for the reduction of NCDs by 2025. One of the goals aims at halting the rise of diabetes and obesity. Clearly, the overall goal of 'a 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases' is closely linked to obesity and related health effects. In order to attain the objective, the high prevalence of obesity should be properly addressed.⁵⁰ The WHO has provided guidance to policy makers around the world with a global action plan⁵¹ in order to address the root causes of NCD prevalence, which includes the reduction of obesity prevalence.

Specifically for Europe, another action plan has been adopted by the WHO regional office. In the plan there is a strong focus on cooperation between member states. The plan aims to contribute to the global target of 25% reduction of mortality related to NCD's and barring the rise in obesity levels.⁵² Specifically with regard to food labels containing nutritional information it is stressed that policy initiatives should aim to improve the understanding of such labels by consumers, allowing them to properly use the information that is provided to them.⁵³ The plan thus calls upon States to take concrete action. The international organization, however, has no legal powers to initiate any regulatory action. Though, the guidance of the WHO may help to concretise the international obligations of regional and national authorities to assure the nutritional adequacy of food.⁵⁴ Moreover, the WHO contributes to the harmonization of legal requirements on food as it is at the basis of the Codex Alimentarius. Accordingly, the WHO contributes to both nutritional and legal standard setting where these competences are often split at the European and national governance level over various institutions.

4.1.3. International standard setting by the Codex Alimentarius

The Codex Alimentarius concerns a joint initiative of the FAO and the WHO to assure consumer health protection while at the same time harmonizing legal food standards. The guidelines and standards issued by the Codex Alimentarius Commission aim to define

⁴⁹ UNGA (A/66/L.1), "Political declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases", (2011) < http://www.un.org/ga/search/view_doc.asp?symbol=A/66/L.1>, point 13.

WHO. "Global Status Report non-communicable on diseases", (2014), http://www.who.int/nmh/publications/ncd-status-report-2014/en/, p 2-3.

⁵¹ WHO, "Global Action Plan For The Prevention And Control Of Non- communicable Diseases", (2013), <http://apps.who.int/iris/bitstream/10665/94384/1/9789241506236_eng.pdf?ua=1>. ⁵² WHO Europea, "European Food and Nutrition Action Plan 2015-2020", Regional Committee For

^{(2014),} Europe <

http://www.euro.who.int/__data/assets/pdf_file/0008/253727/64wd14e_FoodNutAP_140426.pdf>, p 1-4. ⁵³ *Ibid.*, 4-5.

⁵⁴ Margaret Vidar. "International legal frameworks for food labelling and consumer rights" in Janice Albert, "Innovations in Food Labelling" FAO-CRC Press (New York, 2010), 19-20.

precise requirements on food products which are to be implemented in legislation by policy makers around the globe. By striving for food that is safe, of good quality and suitable for consumption, the Codex Alimentarius contributes substantially to the protection of consumer health on the international plane.⁵⁵

Even though the Codex standards have no binding force in principle, they are generally complied with by policy makers worldwide.⁵⁶ The use of generally accepted standards avoids legal confrontation between countries in their trade relations while product safety and quality are guaranteed. The Codex Alimentarius Commission requires standards to be based on sound scientific analysis.⁵⁷ What concerns nutrition related standards, the contributions have mainly been based on ad hoc consultations of experts and member states as set up by the WHO and FAO.⁵⁸ Accordingly the guidelines are in line with the periodically reviewed WHO nutritional recommendations.⁵⁹ There used to be an Expert Committee on Nutrition, but it is no longer active.⁶⁰

The standard setting of the Codex Alimentarius Commission is of particular relevance to the harmonization of nutritional information on food labels. The Guidelines on Nutrition Labelling⁶¹ and Guidelines on Claims⁶² recommend concrete standards regarding the labelling of nutritional aspects of foods. As these standards are directed towards policy makers and have no legal effect per se, the standards have to be implemented in actual legislation. Therefore nutrition labelling and claims will be discussed in more detail below when considering the legislative acts. It important to note that the European implementation largely corresponds with the Codex Standards for the aforementioned reasons of legal harmonization.⁶³ This has been explicitly confirmed in the EU Nutrition and Health Claims Regulation (NHCR, Infra 6.1.3).⁶⁴

4.2. Legal restraints under international trade law

One aspect of international law that is much more elaborated than global health policy is international trade law in the ambit of the World Trade Organization (WTO). Even to such an extent that every policy initiative will have to take account of it. Issuing requirements which

⁵⁵ WHO and FAO. "Understanding the Codex Alimentarius". (2006),< ftp://ftp.fao.org/codex/Publications/understanding/Understanding_EN.pdf>, p 2.

UNGA (A/RES/39/248), "Consumer protection", (1985),< http://www.un.org/documents/ga/res/39/a39r248.htm>, point 39.

and FAO, "Understanding the Codex Alimentarius". (2006),WHO < ftp://ftp.fao.org/codex/Publications/understanding/Understanding_EN.pdf>, p 21- 24. ⁵⁸ WHO and FAO, "Report of the Thirty-Eighth Session of the Codex Committee on Food Labelling",

CL 2010/15-FL, < ftp://ftp.fao.org/codex/Reports/alinorm10/al33_22e.pdf>.

⁵⁹ WHO and FAO, "Report of the Seventeenth Session of the Codex Committee on Food Labelling Ottawa", (1983), < http://www.codexalimentarius.org/download/report/134/al85_22e.pdf>, point 67.

⁶⁰ WHO and FAO, "FAO/WHO Framework for the Provision of Scientific Advice on Food Safety and Nutrition", (2007), <ftp://ftp.fao.org/docrep/fao/010/a1296e/a1296e00.pdf>, footnote 4.

Guidelines On Nutrition Labelling (CAC/GL 2-1985)

⁶² General Guidelines on Claims (ČAC/GL 1-1979)

⁶³ Caoimhín MacMaolaín, EU Food Law, Protecting Consumers and Health in a Common Market, Hart Publishing (Oxford, 2007), 171-172.

⁶⁴ Recital 6 of the Preamble to the NHCR

food producers need to comply with, place an administrative and economic burden on market participants. Legal requirements, including rules on labelling, may negatively impact the trade between countries and thus potentially constitute an unjustified barrier to trade.⁶⁵

This is especially the case where diverging requirements exist between countries resulting in hindrance of inter-country trade. Such may have a negative impact on competition which is fundamental for the proper functioning of the free market principles. The chosen policy measures may not distort trade more than is necessary to reach a legitimate objective.⁶⁶ Legitimate objectives include inter alia the protection of consumers and human health.⁶⁷ Demonstrating the necessity of a labelling measure requires proof that the measure posing a barrier to trade is indispensable to reach the attained goal.⁶⁸ This sincerely limits the discretion for policy makers in the choice of means to address the challenges posed by obesity.⁶⁹ Evidently, this is less of an issue with voluntary labelling schemes. The choice to comply remains then with the market participant. Though note that in practice, any form of governmental action or support may potentially constitute a barrier to trade.⁷⁰

However, in case legal requirements are harmonized between countries the hindrances no longer pose a trade issue. For that reason the WTO trade law entails a presumption in article 2(5) stating that national measures conform to international standards are *'presumed not to create an unnecessary obstacle to international trade'*.⁷¹ Thus, ideally international standards are created clarifying what labelling requirements are effective means for the reduction of obesity which are to be implemented by policy makers around the globe. This proves the importance of instances like the Codex Alimentarius that harmonize legal standards while taking consumer health into account. Under WTO law, the Codex Alimentarius standards are even explicitly recognized as international standards in the field of food labelling have largely dictated the legislative boundaries for national and European Union initiatives regarding nutrition labelling and nutrition and health claims. A similar theory applies to trade hindrances in the Europe Union with the free movement of goods (*Infra* 4.4).⁷³

⁶⁵ Main article of international trade law is Article XX of the GATT-Agreement pertaining to the World Trade Organization

⁶⁶ Article 2.2 TBT-Agreement

⁶⁷ Tania Voon and Andrew Mitchell, "International Trade Law" in Tania Voon, Andrew Mitchell and Jonathan Liberman, *Regulating Tobacco, Alcohol and Unhealthy Foods: The Legal Issues,* Rootledge (London, 2014), p 89-91.

⁶⁸ Martin Holle, Enrico Togni and Arianna Vettorel, "The Compatibility of National Interpretative Nutrition Labelling Schemes with European and International Law", 9(3) EFFL (2014), < http://effl.lexxion.eu/data/article/1641/pdf/article.pdf>, p157.

 ⁶⁹ Margaret Vidar, "International legal frameworks for food labelling and consumer rights" in Janice Albert, "Innovations in Food Labelling" FAO-CRC Press (New York, 2010), 25-26 and 31-32.
 ⁷⁰ *Ibid.*, 23-24.

⁷¹ Tania Voon and Andrew Mitchell, *International Trade Law*, in Tania Voon, Andrew Mitchell and Jonathan Liberman, *Regulating Tobacco, Alcohol and Unhealthy Foods: The Legal Issues*, Rootledge (London, 2014), p 93-98.

⁷² Article 3(4) of the SPS-Agreement

⁷³ Article 34 TFEU where the term 'measures having equivalent effect to a quantative restriction' is used instead of trade barriers.

4.3. European Union nutrition policy

4.3.1. Addressing obesity within the EU

The European institutions are increasingly devoted to the health of European citizens. From exclusively national initiatives in the 1980s, public health has been intensively incorporated into EU policy. In principle the European institutions do not have the necessary competences to address obesity through strict regulatory measures as a matter of public health as a consequence of the principle of subsidiarity.⁷⁴

In its first strategy document on nutrition, overweight and obesity related health issues, the Commission recognised that the first line of action lies with the Member States.⁷⁵ As such, policy measures at EU level were mainly limited to coordination and monitoring of member state initiatives. The issued guidance documents at European level constituted mere soft law pushing member states and other relevant stakeholders to action. As a consequence, the efforts remained largely voluntary in nature, including pledges and self-regulation by industry.⁷⁶ Gradually a comprehensive nutrition policy at European level has been established with a particular focus on reducing obesity and NCD prevalence. Moreover, the policy pushes for proper accountability with regard to public health within all relevant European policy fields.⁷⁷ Furthermore, a trend towards actual regulatory action can be identified in European public health policy. Particularly in the field of food labelling the EU has been a rather active regulator in recent years.⁷⁸ Labelling requirements, including nutrition labelling and health claims, have been harmonized to a an extensive level on the basis of consumer protection as part of the proper functioning of the internal market.⁷⁹

4.3.2. EU regulatory competence

The principle of conferral⁸⁰ demands that for the EU to act there needs to be the legal competence in the constituent Treaties to do so. Within the field of public health policy there is no legal ground for the European Institutions to adopt binding legislation. However, public health has not been completely overlooked in the constitutional documents. The Treaty of Maastricht introduced a specific provision on public health which was subsequently fine-

⁷⁹ COM (2007)279 final, p 3.

⁷⁴ Article 168 (2) reads that 'Union action, which shall complement national policies...' and article 168 (5) 'excluding any harmonization of the laws and regulations of the Member States'.

⁷⁵ COM (2007)279 final, "A Strategy for Europe on Nutrition, Overweight and Obesity related health issues", white paper, 2007, chttp://co.ouropa.ou/bac/th/orebivo/ph_determinente/life_stude/outrition/decumente/putrition_up_on.pdf

http://ec.europa.eu/health/archive/ph_determinants/life_style/nutrition/documents/nutrition_wp_en.pdf

⁷⁶ Martin Holle, *Nutrition policy in the European Union*, in Bernd van der Meulen, *EU Food Law Handbook*, Wageningen Academic Publishers (Wageningen, 2014), p 517-519.

⁷⁷ *Ibid*., p 486-501.

⁷⁸ Initiated with Directive 79/112/EEC on the approximation of the laws of the Member States relating to the labelling, presentation and advertising of foodstuffs for sale to the ultimate consumer.

⁸⁰ Article 5(1) TEU

tuned with the Amsterdam Treaty in 1999.⁸¹ The same provision is now to be found under article 168 TFEU. The article reiterates that Union action with regard to Public Health shall be complementary to national initiatives. European public health policy mainly focuses on encouragement and coordination of member state action.⁸² Importantly, however, the European Union itself shall ensure a high level of human health protection in the definition and implementation of all Union policies and activities.⁸³ This implies that public health should be taken into consideration in the adoption of all EU measures.

In a later stadium the Commission specifically considered what could be undertaken at EU level for the purpose of obesity prevalence reduction with the adoption of a 'White Paper on a Strategy for Europe on Nutrition, Overweight and Obesity related health issues'.⁸⁴ The Commission clearly adhered to a preventive approach of the epidemic. One major element concerned the empowerment of consumers through the provision of clear, consistent and evidence-based information.⁸⁵ This has led the Commission to review the rules on nutrition labelling and stress the importance of the Nutrition and Health Claims Regulation.⁸⁶ The Commission deemed the legal initiatives to fall under EU regulatory competence as part of the proper functioning of the internal market. Under the catchall provision of article 114 TFEU, the EU is entitled to adopt measures which harmonize the laws of member states to facilitate intra-union trade while taking a high protection of health and consumer protection into account.⁸⁷ Therefore the Commission considered legislative action in the field of food labelling part of its strategy on obesity reduction.

However, point 5 of article 168 TFEU may create the impression that EU action in the field of public health can only support member state action. The provision provides that the Union regulatory institutions 'may also adopt incentive measures designed to protect and improve human health', though 'excluding any harmonisation of the laws and regulations of the *Member States*^{2,88} Currently, however, the EU has extensively harmonized rules in the field of food labelling law through the adoption of various Regulations. It could be wondered how this harmonized legislation can be reconciled with article 186(5) which excludes the harmonization of regulatory measures with a public health aspect.⁸⁹

The Court of Justice in a case concerning tobacco advertising argued that, even though rules adopted for the protection of human health are excluded from harmonization under article 168(5), Union measures may have an impact on the protection of human health.⁹⁰ The Court further defined the boundaries of legal measures with a potential influence in the field of

⁸¹ Decision 1786/2002 adopting a programme of Community action in the field of public health (2003-2008)

⁸² Article 168 (2) TFEU

⁸³ Article 168 (1) TFEU

⁸⁴ COM (2007) 279 final.

⁸⁵ COM (2007) 279 final, p 4-5.

⁸⁶ COM (2007) 279 final, p 5.

⁸⁷ Article 114 (1) and (3) TFEU

⁸⁸ Amandine Garde, EU law and obesity prevention, Kluwer (Alphen aan de Rijn, 2010), 65.

⁸⁹ Article 168(5) TFEU

⁹⁰ C-376/98, Germany v. Council and the European Parliament [2000] I-08419, par. 77-78.

public health. First, the need or importance for approximation of laws should be demonstrated. Secondly, the legal base of article 114 may not be intentionally used to circumvent the prohibition of article 168(5) TFEU.⁹¹ In a subsequent case on the disputed tobacco advertisement Directive, the Court even widened the discretion for the European legislator. Where the adopted harmonizing measures are actually intended to improve the functioning of the internal market they can only be considered disproportionate in case the measures are manifestly disproportionate to the pursued objective.⁹² Consequently, Union measures with a public health impact, within the set boundaries, are permissible.

Moreover, both article 168(1) and article 114(3) TFEU demand a high level of health protection from the European legislative institutions. By consequence, the prohibition under article 168(5) TFEU has become rather futile.⁹³ Accordingly, the assurance of a high level of protection of human health and consumers as part of the proper functioning of the internal market allows for regulatory initiatives on the EU level.⁹⁴ The two major regulations adopted on this legal basis will be discussed and scrutinized below (*Infra* Chapter 6).

4.4. European Union member states

What concerns public health policy in general, European Union member states have largely retained their regulatory competence as the EU's powers in that field are rather limited. However regarding food labelling legislation, the recent harmonizing regulations have turned the tables. In principle, any deviating national regulations or standards will be contrary to the fundamental principles of the free movement of goods.

Within the European context labelling requirements take an interesting legal position. In the past legal measures demanding the provision of information to consumers seemed to be the preferred option under European free movement law in relation to other regulatory options available to a member state.⁹⁵ Labelling requirements providing information to consumers are considered less trade restrictive then direct market interventions. This logic was confirmed by the Court of Justice in the *Margarine*-case. In the respective case Belgian legislation demanded margarine to be sold in cubic packages in order to avoid confusion with butter. The ECJ agreed that additional legal requirements could be set for the protection of consumers in order to prevent confusion between margarine and butter. Though the Court considered rules on labelling more appropriate. In the view of the Court, labelling measures are as effective as packaging requirements and are deemed to be less trade restrictive.⁹⁶

⁹¹ C-376/98, par. 79.

⁹² C-380/03, Germany v. Council and the European Parliament [2006], par. 80 and 145.

⁹³ Amandine Garde, *EU law and obesity prevention*, Kluwer (Alphen aan de Rijn, 2010), 76-83.

 ⁹⁴ COM (2007) 99 final, "Empowering consumers, enhancing their welfare, effectively protecting them", EU
 Consumer
 Policy
 strategy
 2007-2013
 (2007),
 http://ec.europa.eu/consumers/archive/overview/cons policy/doc/EN 99.pdf>,

⁹⁵ Kai Purnhagen, Beyond Threats to Health: May Consumers's interests in Safety Trump Fundamental Freedoms in Information on Foodstuff? Reflections on Burger v Freistaat Bayern, 38(5) European Law Review (2013), 711.

⁹⁶ C-261/81, Walter Rau Lebensmittelwerke v De Smedt PVBA [1982], par. 16-17.

Nonetheless, with the recent harmonization of food labelling requirements there is little leeway left for member states to make use of labelling legislation as a national policy instrument. The choice of the European legislator for regulations, instead of directives, in the field of food labelling makes that requirements have been harmonized to a maximum level. Consequently, nearly no additional food labelling requirements can be adopted at national level.⁹⁷ Moreover, the constraints posed by European legislation may even prevent voluntary or private labelling initiatives. This will become clear when considering the legal status of specific member state labelling initiatives (*Infra* 7).

5. Guiding dietary principles

5.1. Promoting a healthy lifestyle

Public policy measures should be based on well-founded scientific insights. Concerning labelling initiatives to reduce obesity, this concerns proper consideration of actual developments in nutritional science. Therefore, it is vital to look at dietary recommendations that identify the inadequacies in diets that lead to obesity or the prevalence of related NCD's. At international, European and national level various authorities are involved in formulating nutritional guidelines that advise policy makers what elements to take into account when establishing concrete labelling initiatives.

These authorities, which include the WHO, EFSA and national health councils, consider the available scientific research to assess the relationship between dietary patterns and their health effects. The latter are then embedded into concrete guidelines and recommendations that indicate what constitutes a healthy diet. Eventually, the guidelines and recommendations are fundamental for the establishment science-based policy measures. In the following sections an overview of nutritional recommendations will be given according to three nutritional policy strategies that can be used to promote healthier diets.

5.2. Reducing energy intakes

The most evident dietary rule implies that the intake of energy during a day should not be higher than the energy that is spend in a day. In an ideal situation where one ingests no more energy through food than what is actually needed to perform his daily activities there will be no excess energy, and thus in the long term no weight gain.⁹⁸ In that regard labels which indicate the energy value of a food may facilitate the calculation of how much one can eat without leading to fat accumulation.⁹⁹ An indication of the total energy in a food is commonly indicated on nutrition labels by displaying the amount of kilojoules or kilocalories per 100 grams or 100 millilitres. Within the Europe union the indication (*Infra* 6.1.2.1.2).

⁹⁷ Amandine Garde, EU law and obesity prevention, Kluwer (Alphen aan de Rijn, 2010), p 121-122.

⁹⁸ Health Council of Belgium, "Algemene gids, lekker aanbevolen voor jong en minder jong", < http://www.health.belgium.be/filestore/7496454_NL/gids_general_0_7496454_nl.pdf>, p 7-11.

³⁹ Article 30(1)(a) of the FIR

However there are several important drawbacks to simple energy indication. First, the concerned person needs to assess the amount of energy he burns in a day to get to a reference intake level. In many cases the estimated average requirement is indicated to be 8,400 kJ or 2,000 kcal for women and 1,500 kJ or 2,500 kcal for men.¹⁰⁰ However the exact requirements may differ widely between persons due to numerous factors such as physical activity, physiological determinants or environmental conditions. Not even taking into account the different nutritional requirements for specific groups in the population, like children or elderly. Though, for the purpose of energy intake reduction, it is an interesting strategy to set a relative lower reference value than the estimated energy requirement for the average adult population. In order for a person to lose weight the actual energy intake should be lower than the energy intake requirement of that individual. Therefore the choice has been made in EU labelling legislation to indicate 8,400 kJ or 2,000 kcal as the reference energy intake value.¹⁰¹ The value relates to the average energy requirement for adult women. Accordingly the emphasis on the relative energetic contribution of food is larger than when a higher -averageenergy intake is used.

Secondly, besides the hurdle of an accurate estimation of the energy requirement, the concerned person should also record all the calories of all the food he consumes. Moreover, this should be done on a long term to even continuous basis as obesity substantially concerns the accumulation of body fat over a long period of time. Third, simple calorie reduction logics disregards the complicated metabolic processes or necessity of some nutrients for the human body.¹⁰² For those reasons it may be rather valuable to consider other options than calorie indication alone.

5.3. Nutrient intakes

5.3.1. Macro nutrients and DRI's

Many labelling initiatives focus on the intake of certain nutrients. It is important to take into account that nutrients perform important functions within the human body. Therefore focusing on nutrient intake is a rather complicated matter as it is not only related to weight gain. Regarding overweight and obesity the focus of nutritional research and guidelines is on macro-nutrients.¹⁰³ These include protein, fat, carbohydrates and alcohol, which are the most important sources of energy for the human body. These macronutrients form an essential part of a well-balanced diet, though, in excessive amounts they will lead to fat accumulation.

¹⁰⁰ Stefan Storcksdieck, Bonsmann and Josephine M. Wills, "Nutrition Labeling to Prevent Obesity: (2012). Reviewing the Evidence from Europe", 1 Curr. Obes Rep <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3410024/pdf/13679_2012_Article_20.pdf>, 135.
¹⁰¹ EFSA, "Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies on a request

from the Commission related to the review of labelling reference intake values for selected nutritional elements". 1008 EFSA Journal (2015). chttp://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1008.pdf>, p 7-8. Tim Spector, The Diet Myth, The Real Science Behind What We Eat, Weidenfeld & Nicolson (London, 2015), p 21-23. ¹⁰³ Regarding the issue of NCD's it may be valuable to also consider micro-nutrients

Therefore it is important to create a right balance between the intakes of these different macro-nutrients to improve the general well-being. For that purpose Dietary Reference Intakes (DRI's) can be established providing guidance to consumers on how much of each macro-nutrient they should ingest. DRI's tell us how much of a particular macro-nutrient a particular group of individuals needs to ingest in order to maintain a healthy diet based on average nutrient requirements for that population group. Generally it concerns quantitative values indicating the appropriate consumption amount of a certain nutrient in a day. DRI's are mostly expressed as a percentage of the total energy requirement for a day. For example, a DRI can indicate that the energy intake for male adults from fats should be limited to 31.5% of the total energy intake in a day. With regard to nutrients that may have adverse health effects when consumed in high amounts, like saturated fats, sugar or salt, an upper limit will be established. For other nutrients a lower limit will be established. Note that the actual nutritional requirements of a particular population group.

These values are established by the WHO, EFSA¹⁰⁴ or particular national bodies on the basis of scientific research or evaluations of already conducted research. These scientific insights constitute the basis for policy makers to create intake recommendations or food based dietary guidelines where other factors than the DRI's can be taken into account.¹⁰⁵ For example, the intakes of salt are generally far above established DRI's. Policy makers however generally make the recommendation to only decrease the salt content in foods gradually instead of immediately adhering to the upper limits. In that way consumers can get familiar with the taste of the lower salt content through step-by-step product reformulations. The established intake indications constitute a particular basis for certain labelling initiatives.

5.3.2. Nutrient reference intakes

For the purpose of food labelling, the European legislator has made the choice to make use of reference intakes (RI's) for either the amount of energy or the amounts of nutrients.¹⁰⁶ Not to be confused with DRI's, these RI values are derived from the DRI's established by EFSA. Where DRI's still take account of the specific nutrient requirements of certain population groups, RI's are intended to apply for the general population.¹⁰⁷ In essence, it concerns a simplification of DRI's for labelling purposes because they indicate the consumption thresholds in grams instead of percentages in relation to the daily energy intake. The eventual RI's indicate how many grams of each nutrient can be consumed considering a

¹⁰⁴ EFSA uses the term dietary reference values (DRV's) instead of DRI's as used by WHO and national authorities.

¹⁰⁵ EFSA, "Dietary reference values and dietary guidelines", (2015), ">http://www.efsa.europa.eu/en/topics/topic/drv>.

¹⁰⁶ Codex Alimentarius recommends the use of Nutrient Reference Values (NRV's), but allows of other nutrient reference values, See Point 1 of the Annex to the Codex Guidelines On Nutrition Labelling (CAC/GL 2-1985).

¹⁰⁷ EFSA, "Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies on a request from the Commission related to the review of labelling reference intake values for selected nutritional elements", 1008 EFSA Journal (2009), < http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1008.pdf>, 6.

reference energy intake of 8,400 kJ or 2,000 kcal. The latter relates to the estimated energy requirements of moderately active women.¹⁰⁸ Similarly as with DRI's, the recommended intake amounts and RI's for fat, saturated fat sugars and salt indicate maximum amounts (upper limit), while the RI for carbohydrates concerns a lower limit (reference intake range).¹⁰⁹ Below the table is shown as used in the European Food Information Regulation.

Energy or nutrient	Reference Intake
Energy	8400 kJ (2000 kcal)
Total fat	70 g
Saturates	20 g
Carbohydrate	230 g
Sugars	90 g
Salt	6 g

PART B - REFERENCE INTAKES FOR ENERGY AND SELECTED NUTRIENTS OTHER THAN VITAMINS AND MINERALS (ADULTS)

Figure 1: Annex XIII (Part B) FIR

For fats the limit has been set on 70 grams¹¹⁰ a day in an average diet of 8400Kj a day or 2000kcal per day. The reason to express these values in grams rather than percentages is self-evident as the amount of nutrients in the mandatory nutrition declaration on prepacked foods is to be expressed in grams.¹¹¹ One advantage of the RI's is that the indication can cover all food categories allowing consumers to compare between foods in order to consume adequate levels of the different nutrients.¹¹² The use of RI's to interpret the nutrition declaration will be discussed below (Infra 6.1.2.2.3). Overall, the indication of RI's may help to prevent the excess energy intake or the excess consumption of certain nutrients which may lead to adverse health effects.¹¹³ The latter clarifies why specific recommended intakes per nutrient can be established.

¹⁰⁸ EFSA, "Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies on a request from the Commission related to the review of labelling reference intake values for selected nutritional elements". 1008 EFSA Journal (2015). http://www.efsa.europa.eu/sites/default/files/scientific output/files/main documents/1008.pdf, p 2. ¹⁰⁹ EFSA, "Scientific Opinion on Dietary Reference Values for carbohydrates and dietary fibre", 8(3)

EFSA Journal (2010), 17-18.

¹¹⁰ Relates to the EFSA DRV of 31,5%. Calculation: 31,5% of 8400 diet = 2646 kJ. As fat contributes 37 kJ/gram: ^{2646 kJ}/_{37kJ/gram}= approximately 70 grams (71,51 grams). ¹¹¹ Article 32 (1) of and Annex XV of the FIR

¹¹² WHO, "Preparation and Use of Food-Based Dietary Guidelines", 880 WHO Technical Report Series (1998), <http://apps.who.int/iris/bitstream/10665/42051/1/WHO_TRS_880.pdf?ua=1&ua=1>, 9.

¹¹³ EFSA, "Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies on a request from the Commission related to the review of labelling reference intake values for selected nutritional 1008 EFSA Journal elements". (2015). http://www.efsa.europa.eu/sites/default/files/scientific output/files/main documents/1008.pdf, p 7-10.

5.3.3. The complexities related to macro-nutrients

5.3.3.1. Inherent differences between macro-nutrients

As stated, reality is far more complex than simply looking at the relative intake of the macronutrients for the purpose of energy intake reduction. Regarding the NCD-burden one must also distinguish between the inherent, qualitative differences of macro-nutrients.¹¹⁴ Within the types of carbohydrates, fats, proteins and additionally fibres many differences exist depending on their origin and intrinsic composition. Some nutrients perform essential functions in our bodies, while other have rather adverse health effects. This will be illustrated with regard to fats, sugars, dietary fibre and salt. Although it should be taken into account that similar discourses on qualitative health attributes can be performed for other macro- and micronutrients.¹¹⁵

5.3.3.2. Complexities regarding fats

Just as other nutrients fat performs important biological functions within the human body but is also the highest contributor to calories per gram of all of the macro-nutrients (37 kJ or 9 kcal per gram).¹¹⁶ From data acquired from different WHO countries in Europe it is clear that the intake of fat, and more specifically saturated fats, is above the DRI for individuals in the general population.¹¹⁷ The intakes of total fat should be limited to 35% of the total energy intake.¹¹⁸ Besides, certain types of fats should be consumed in the lowest amount possible. Namely saturated and trans-fats are the particular fats that in excessive amounts may lead to various adverse health effects. Many unsaturated fats, on the other hand, have rather beneficial attributes when consumed in appropriate amounts. The intake of fats from fish and in most cases of plant origin, high in unsaturated fatty acids, can actually be promoted.¹¹⁹ Currently, various health claims under the European Nutrition and Health Claims regulation have been approved which relate to the positive health effects of certain types of unsaturated fats. Food producers are for instance allowed to label that '*Replacing saturated fats with*

¹¹⁴ Note that the health effects of micro-nutrients will not be considered.

¹¹⁵ Teresa Lavecchia, Paolo Petroni, Guiseppe Rodio and Riccardo Pina, "A Nutritional Strategy for Reducing Disease and Obesity Risks", in Maria Teresa Giardi (*et al.*), "Bio-Farms for Nutraceuticals: Functional Food and Safety Control by Biosensors", 698 Advances in Experimental Medicine and Biology, 69-71.

¹¹⁶ Health Council of Belgium, "Algemene gids, lekker aanbevolen voor jong en minder jong", < http://www.health.belgium.be/filestore/7496454_NL/gids_general_0_7496454_nl.pdf>, p 18-20.

¹¹⁷ WHO, "Comparative Analysis of Nutrition Policies in the WHO European Region, A comparative analysis of nutrition policies and plans of action in WHO European.", WHO Regional Office for Europe (2006), http://www.euro.who.int/__data/assets/pdf_file/0004/149782/instanbul_conf_20ebd02.pdf, p 23.

^{23.} ¹¹⁸ EFSA, "EFSA sets European dietary reference values for nutrient intakes", (2010), < http://www.efsa.europa.eu/en/press/news/nda100326>.

¹¹⁹ Joanne Lunn and Hannah E. Theobald, "The health effects of dietary unsaturated fatty acids – Summary" EUFIC, < http://www.eufic.org/article/en/nutrition/fats/rid/health-effects-dietary-unsaturated-fatty-acids-Summary/>.

unsaturated fats in the diet contributes to the maintenance of normal blood cholesterol levels'.¹²⁰

Trans fats are another type of trans fatty acids which take a special position. Trans fats mainly concern partially hydrogenated vegetable oils often found in highly processed foods such as pastries or are formed with severe heating of various oils, depending on their structural heat resistance. Multiple researches show that the increased consumption of trans fats considerably lowers levels of the *good* cholesterol (High Density Lipoproteins).¹²¹ What concerns bad cholesterol or Low Density Lipoproteins trans fatty acids appear to increase levels to a higher extent than saturated fats do at equal amounts of consumption. However it must be noted that intake levels of saturated fats are generally much higher than the intake of trans fats, partly due to the reformulation of food products which used to contain high levels of trans fats.¹²² Many health risks, such as diabetes, are claimed to be induced or increased with the consumption of trans fats, however only for the increased LDL concentration and the manifestation of coronary heart diseases conclusive evidence has been established so far.¹²³ Overall recommendations provide that the consumption of foods high in saturated and trans fatty acids should be substituted as much as possible by healthier unsaturated fats.¹²⁴ Therefore policy initiatives should not only cap the overall intake of fats, but also differentiate between fats. Specific policy options to reduce the use and intakes of trans fats are under currently under consideration by the European Commission (Infra 6.1.2.3.2).

5.3.3.3. The simple carbohydrate sugar

Sugar is a popular ingredient in many processed foods as it serves both a as a preserving agent and in many cases increases palatability. In such case the sugar is often added to the product instead of being naturally present and may have very different names on the ingredient list. The popular added sugars in essence concern the simple carbohydrate

¹²⁰ EU Register on nutrition and health claims.

¹²¹ D Mozaffarian, A Aro and WC Willett, "Health effects of trans-fatty acids: experimental and observational evidence", 63 European Journal of Clinical Nutrition (2009), http://www.nature.com/ejcn/journal/v63/n2s/pdf/1602973a.pdf, 6-8.

¹²² EFSA, "Opinion of the Scientific Panel on Dietetic Products, Nutrition and Allergies on a request from the Commission related to the presence of trans fatty acids in foods and the effect on human health of the consumption of trans fatty acids", 81 The EFSA Journal (2004), < http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/opinion_nda09_ej 81_tfa_en1%2C5.pdf>, 2, 6-8.

¹²³ D Mozaffarian, A Aro and WC Willett, "Health effects of trans-fatty acids: experimental and European observational evidence", 63 Journal of Clinical Nutrition (2009),http://www.nature.com/ejcn/journal/v63/n2s/pdf/1602973a.pdf>, 8-17 and 18-19. Also see, EFSA, "Scientific Opinion on Dietary Reference Values for fats, including saturated fatty acids, polyunsaturated fatty acids, monounsaturated fatty acids, trans fatty acids, and cholesterol", 8(3) EFSA Journal (2010),

http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1461.pdf>, p 27 and 38.

¹²⁴ EFSA, "EFSA sets European dietary reference values for nutrient intakes", (2010), < http://www.efsa.europa.eu/en/press/news/nda100326>.

structures of glucose, fructose (mono-saccharides) and sucrose (di-saccharide). These compounds have increasingly been added to processed foods in the last decades.

The disadvantage of added sugar is that it severely increases the energy value of a food without being any satiating. Moreover, sugar does not perform any essential functions in the human body apart from delivering energy.¹²⁵ These characteristics increase the risk of overeating, which constitutes an important risk factor to obesity. In addition, a high consumption of fructose may adversely affect the capacity of the liver.¹²⁶ Equally, excessive consumption may induce insulin resistance which can lead to diabetes. These findings have even led to the statement that fructose which is often found in many popular foods could be seen as toxic compound.¹²⁷ Though these claims on the detrimental effects of particular sugars are likewise disputed.¹²⁸ The ambiguity on the adverse health effects of different sugars complicates the establishment of DRI's for the intake of sugar.¹²⁹ EFSA considered the available scientific data to be insufficient to set an upper limit for the intake of sugar.¹³⁰ EFSA concluded that the intake of total carbohydrates should be around 45% to 60%, but found itself unable to set an adequate reference level for the consumption of sugar.¹³¹ The WHO on the other hand has taken a more restrictive approach and advises that the intake of sugars should be limited to 10% of total caloric intake.¹³² The WHO DRI would correspond to 50 grams of sugar per day. Moreover the recommendation states that the total daily intake should preferably be less than 5% of the total energy intake.¹³³ Even though it concerns all types of sugars, added sugars are mainly targeted. There are no indications that sugar intake through fresh fruits and vegetables would have the same adverse health effects.¹³⁴ Therefore, it is strongly advised that especially the reduction of added sugars is well embedded in public policy initiatives. A particular challenge in labelling initiatives constitutes how to differentiate between sugars that are naturally present and intentionally added sugars.

¹²⁵ Ellie Whitney and Sharon Rady Rolfes, "Understanding Nutrition", Wadsworth Cengage Learning (Belmont, USA, 2011), p 112-114. ¹²⁶ George A. Bray, "How bad is fructose?, 86 (4) The American Journal of Clinical Nurtition (2007),

<http://ajcn.nutrition.org/content/86/4/895.full.pdf>, 895-896.
¹²⁷ Robert H. Lustig, "Fructose: Metabolic, Hedonic, and Societal Parallels with Ethanol", 110(9)

Journal of American Dietetic Association (2010), 1307-1321.

¹²⁸ Luc Tappy and Bettina Mittendorfer, "Fructose toxicity: is the science ready for public health actions?", 15(4) Curr Opin Clin Nutr Metab Care (2012),http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3695375/>, 357-361.

¹²⁹ Tim Spector, *The Diet Myth*, The Real Science Behing What We Eat., Weidenfeld & Nicolson

⁽London, 2015), p 155-156. ¹³⁰ EFSA, "Scientific Opinion on Dietary Reference Values for carbohydrates and dietary fibre", 8(3) EFSA Journal (2010), 23-27.

¹³¹ EFSA, "EFSA sets European dietary reference values for nutrient intakes", (2010), < http://www.efsa.europa.eu/en/press/news/nda100326>.

[&]quot;Sugars WHO Guideline, children". (2015), intake for adults and < http://www.who.int/nutrition/publications/guidelines/sugars intake/en/>. p 16-17.

WHO, "Healthy diet", (2015), <http://www.who.int/mediacentre/factsheets/fs394/en/>.

¹³⁴ WHO, "WHO calls on countries to reduce sugars intake among adults and children", (2015), <http://www.who.int/mediacentre/news/releases/2015/sugar-guideline/en/>.

5.3.3.4. Salt

Although it is not a macro-nutrient, salt or sodium-chloride is a nutrient of which consumption should be maintained under control. The high consumption of salt concerns a major risk factor to the prevalence of NCD's. Similarly to sugar, salt can be found in high amounts in many convenience foods for the purpose of preservation and palatability.¹³⁵ Increased consumption of salt may adversely impact the adverse health effects related to obesity. Although sodium is also an essential nutrient, consumption levels are generally rather high than insufficient. Average intakes in Europe range between 8 to 12 grams¹³⁶, while the WHO advises to keep salt intakes below 5 grams a day.¹³⁷

The main health issue related to an increased consumption of sodium is high blood pressure. Hypertension constitutes a risk factor to many heart and vascular diseases.¹³⁸ WHO estimates contribute a 1.7 million deaths a year globally due to high sodium intakes.¹³⁹ For those reasons it is crucial to include sodium intake reduction into public policy.

5.3.3.5. The positive contributions of fibre

Different from the previously listed nutrients, fibre concerns a macro-nutrient that may have rather beneficial properties. In essence, dietary fibres are a type of carbohydrates, though, they are non-digestible and accordingly do not raise blood sugar levels.¹⁴⁰ Some of the assumed and the established health effects will be summarized here. There are indications that on the short term the intake of certain fibres may positively affect digestion and satiety. Importantly, this has led to studies showing that on the long term a sufficient daily intake of dietary fibre may contribute to body weight reduction, or body weight maintenance for non-overweight individuals.¹⁴¹ Evidence also suggests that the intake of fibre contributes to normal laxation and thus can prevent constipation.¹⁴² Furthermore there are also indications that fibre may reduce the risk of impaired glucose control and insulin insensitivity, reduce the risk to colorectal cancer and to type 2 diabetes.¹⁴³ The latter health effects have not yet been

¹³⁵ Ellie Whitney and Sharon Rady Rolfes, "Understanding Nutrition", Wadsworth Cengage Learning (Belmont, USA, 2011), p 395-397.

¹³⁶ EU COM., "Survey on Members States' Implementation of the EU Salt Reduction Framework", (2010), http://ec.europa.eu/health/nutrition_physical_activity/docs/salt_report1_en.pdf, p 12-15.

¹³⁷ WHO Guideline, "Sodium intake for adults and children", (2015), < http://apps.who.int/iris/bitstream/10665/77985/1/9789241504836_eng.pdf?ua=1&ua=1>, p 15.

 ¹³⁸ Health Council of the Netherlands, "Richtlijnen Goede Voeding 2015", Gezondheidsraad (2015), http://www.gezondheidsraad.nl/sites/default/files/201524_richtlijnen_goede_voeding_2015.pdf, p 62-62.
 ¹³⁹ WHO "Clobal Status Pepert on poncommunicable diseases" 2014

¹³⁹ WHO, "Global Status Report on noncommunicable diseases", 2014, ">http://www.who.int/nmh/publications/ncd-status-report-2014/en/, xiii.

¹⁴⁰ Health Council of the Netherlands, "Richtlijnen Goede Voeding 2015", Gezondheidsraad (2015), http://www.gezondheidsraad.nl/sites/default/files/201524_richtlijnen_goede_voeding_2015.pdf, p 37-38.

¹⁴¹ EFSA, "Scientific Opinion on Dietary Reference Values for carbohydrates and dietary fibre", 8(3) EFSA Journal (2010),

http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1462.pdf, p 30-32. *Ibid.*, p 27-29.

¹⁴³ *Ibid.*, p 29-35.

demonstrated to a conclusive extent. Overall, for the sake of body weight control and a normal bowel function it can already be considered valuable to include the consumption of fibre in nutritional policies. EFSA found it advisable to establish an adequate intake level of 25 grams for fibre for the purpose of normal bowel function and weight management.¹⁴⁴ Moreover, it noted that higher fibre intakes and the potential health benefits, such as reduced risk of heart disease, type 2 diabetes and improved weight maintenance should be taken into account by public authorities.¹⁴⁵

5.3.3.6. Concluding remark on nutrient complexities

As demonstrated, the evidence on the health effects of certain nutrients are far from unequivocal which complicates the establishment of DRI's and nutritional guidelines. The relationship between the various nutrients and their effects on health are challenging to ambiguous. demonstrate or often Though for most macro-nutrients general recommendations can be identified that can form the scientific background for public policy action to counter obesity. It could be added that the fundamental rule in nutrition holds that every diet should be balanced with a fair intake of different foods and nutrients. Therefore public policy should not only focus on the detrimental effects of particular nutrients but also stimulate the consumption of a balanced diet.¹⁴⁶

5.4. Food choice promotion

The last nutritional policy strategy considers specific foods or food categories instead of highlighting specific elements of the nutritional composition. Focusing on foods rather than calories or nutrients has the major benefit of comprehensiveness. Consumers rather understand the benefits of particular foods rather than nutrients and the complex biological processes.¹⁴⁷ A high consumption of fruit and vegetables is generally known to be beneficial without necessarily understanding the underling scientific rationale. Exact recommendations on the amounts to be consumed differ between European countries.¹⁴⁸ Generally around 5 portions, equivalent to 400 grams of fruits and vegetables should be consumed on a daily basis.¹⁴⁹ A high consumption in fruits and vegetables may contribute to alleviate the adverse health consequences of obesity. Even though many fruits are generally high in fructose, they form an essential part of a balanced and healthy diet, as they equally contain water, fibre and

¹⁴⁴ EFSA, "EFSA sets European dietary reference values for nutrient intakes", < http://www.efsa.europa.eu/de/node/873511>.

¹⁴⁵ EFSA, "Scientific Opinion on Dietary Reference Values for carbohydrates and dietary fibre", (3) EFSA Journal (2010), p 37.

¹⁴⁶ WHO, "Healthy diet", (2015), <http://www.who.int/mediacentre/factsheets/fs394/en/>.

¹⁴⁷ WHO, "Preparation and Use of Food-Based Dietary Guidelines", 880 WHO Technical Report Series (1998), <http://apps.who.int/iris/bitstream/10665/42051/1/WHO_TRS_880.pdf?ua=1&ua=1>, p 2.

^{2.} ¹⁴⁸ EUFIC, "Fuit and Vegetable Consumption in Europe – do Europeans get enough?", (2012), < http://www.eufic.org/article/en/expid/Fruit-vegetable-consumption-Europe/>.

¹⁴⁹ WHO, "Healthy diet", (2015), <http://www.who.int/mediacentre/factsheets/fs394/en/> and National Health Service of the UK, "5 a day", < http://www.nhs.uk/livewell/5aday/Pages/5ADAYhome.aspx>.

contain many essential micronutrients. On the other hand fruits are generally very low in fats or salt.¹⁵⁰

Scientific evidence namely suggests that including vegetables and fruit in the diet lowers the risk of obesity and related NCDs, including type 2 diabetes and coronary heart diseases.¹⁵¹ Accordingly, increased consumption of fruits and vegetables can form an important contribution to tackle obesity¹⁵² and related health issues.¹⁵³ An example of a policy initiative aiming to increase the consumption of fruit and vegetables is the 5 a day campaign (*Infra* 7.1.3.4).

Overall it is advised that a healthy diet should not only be rich in fruits and vegetables but also nuts, whole grains, legumes, fish, oils rich in cis-unsaturated fats and poultry.¹⁵⁴ The consumption of red and processed meats, solid fats and other highly processed food products should be limited.¹⁵⁵ The underlying reasons relate to the nutritional composition of these foods as explained with the example of fruits and vegetables.

Labelling schemes can also help consumers to identify healthier food alternatives within a certain food category. This may for example be a positive indication of whole grain bread instead of bread made of refined grain. In general there are many foods identified that should be consumed in larger amounts in comparison to other popular foods. The evident reason thereof is again that they contain a larger amount of beneficial nutrients in comparison to their counterparts. In what follows different labelling options will be addressed showing how the nutritional recommendations are or can be implemented by policy makers or other stakeholders.

6. EU labelling initiatives

6.1.1. Overview of EU information legislation

Regarding food labelling legislation the EU is the prime legislator. It forms the key part of the EU policy on nutrition, overweight and obesity related issues, to come to better informed consumers enabling them to make a healthy choice in their food consumption.¹⁵⁶ Labels can help to improve the nutritional quality of diets by providing information on the composition of foods. In addition, it aims to facilitate intra-union trade by harmonizing labelling requirements.

¹⁵⁰ Beth Carlton Tohill, "Dietary Intake of fruit and vegetables and management of body weight", CDCC-WHO (2005), <

http://www.who.int/dietphysicalactivity/publications/f&v_weight_management.pdf?ua=1>, p 6-8.

¹⁵¹ WHO and FAO, "Fruits and Vegetables for Health: Report of Joint FAO/WHO Workshop", (2004), < http://www.who.int/dietphysicalactivity/fruit/en/>, p 9.

¹⁵² Beth Carlton Tohill, "Dietary Intake of fruit and vegetables and management of body weight.", CDC-WHO (2005), <

http://www.who.int/dietphysicalactivity/publications/f&v_weight_management.pdf?ua=1>, p 30.

¹⁵³ EUFIC, "Fuit and Vegetable Consumption in Europe – do Europeans get enough?", (2012), < http://www.eufic.org/article/en/expid/Fruit-vegetable-consumption-Europe/>.

¹⁵⁴ Health Council of the Netherlands, "Richtlijnen Goede Voeding 2015", Gezondheidsraad (2015), http://www.gezondheidsraad.nl/sites/default/files/201524_richtlijnen_goede_voeding_2015.pdf, p 69.

¹⁵⁶ COM (2007)279 final, p 5-6.

For that reason, the EU has engaged in the harmonization of labelling legislation while taking nutritional recommendations into account.¹⁵⁷ Under the heading of a high level of consumer protection for the proper functioning of the internal market, the EU is competent to take legislative action in the field of food labelling (*Supra* 4.3.2).

In the following sections the most significant European labelling initiatives will be considered. In accordance with the subject matter of this work, only the particulars will be discussed which have clear links to the policy objective of obesity reduction. The recent Food Information to Consumers Regulation (FIR) concerns the most compelling initiative due to its wide scope and the far reaching legal implications. In second order, the Nutrition and Health Claims Regulation (NHCR) will be considered.

6.1.2. Food Information to Consumers Regulation

6.1.2.1. The introduction of a mandatory nutrition labelling scheme

6.1.2.1.1. The adoption of the FIR

The recently adopted Food Information to Consumers Regulation aims to provide a high level of protection to consumers and equally takes a high level of human health protection into account by implementing mandatory nutrition labelling. The preamble of the FIR states that *'Nutrition labelling is one important method of informing the consumers about the composition of food and of helping them to make an informed choice'* which is *'is essential both to effective competition and consumer welfare'*.¹⁵⁸ In order to facilitate consumer choices the FIR provides for mandatory indication of the nutritional content of prepacked foods.¹⁵⁹ Nutrition information is already widely used in Europe but will only become mandatory by December 2016¹⁶⁰. The FIR will replace the Labelling Directive (90/496/EC)¹⁶¹, where nutrition labelling was of a voluntary nature, except for products holding a nutrition claim.¹⁶²

6.1.2.1.2. Mandatory elements of nutrition labelling

The nutrition labelling scheme elaborated under article 30 of the FIR mandates food producers to disclose the energy value of a food, together with the amounts of fat, saturated fats, carbohydrates, sugars, protein and salt. The indication of the amounts of mono- or polyunsaturated fats, polyols, starch, fibre and vitamins or minerals is optional.¹⁶³ The energy value and amount of nutrients have to be expressed in reference to either 100 grams or 100 millilitres. The indication of the energy content and the amounts of the nutrients have to be

¹⁵⁷ Amandine Garde, EU law and obesity prevention, Kluwer (Alphen aan de Rijn, 2010), p 77-78.

¹⁵⁸ Recital 10 of the Preamble of the FIR

¹⁵⁹ Article 9(1)(L) juncto 12 (2) FIR

¹⁶⁰ Article 55 of the FIR

¹⁶¹ Recital 10 of the Preamble of the FIR

¹⁶² Article 2 of Directive 40/496/EC

¹⁶³ Article 30(2), a-e FIR

displayed in a standard presentation table which is included in Annex XV to FIR. A similar representation is given below.

Energy	kJ/kcal
Fats	g
Saturates	g
Mono-unsaturates	g
Polyunsturates	g
Carbohydrates	g
Sugars	g
Polyols	g
Starch	g
Fibre	g
Protein	g
Salt	g
Vitamins and minerals	g

Figure 2: Nutrition declaration, standard table, Annex XV (FIR)

A particular oddity of mandatory nutrition labelling under the FIR concerns the omission of alcoholic beverages to carry a nutrition declaration.¹⁶⁴ Alcoholic beverages contain energy so are potentially relevant for the objective of obesity reduction. Though, it is foreseen that the Commission was to consider the matter in a report by the end of 2014. Either for the provision of nutritional information or the reasons justifying the omission. To date, no report has been issued however.

6.1.2.2. Limits to the provision of additional nutrition information

6.1.2.2.1. Voluntary food information

Regulations provide maximum harmonization of legal requirements. Accordingly, contentwise, food producers are restricted from disclosing additional information on the food labels because of the FIR. Some messages can be provided on a voluntary basis such as the additional indication of the amounts of non-mandatory nutrients. Where additional information is provided on a voluntary basis it should not be misleading to consumers, should not be ambiguous and has to be based on relevant scientific data.¹⁶⁵

Moreover, for some elements that may be provided on a voluntary basis, the FIR provides for specific requirements. For example regarding the expression of the energy value and the presence of certain nutrients per portion. Food business operators are allowed to additionally express the energy value or the amounts of the listed nutrients per portion as long as the portion size *is 'quantified on the label and the number of portions or units contained in the package is stated*¹⁶⁶ The specific requirements may relate to the nutritional content of the

¹⁶⁴ Article 16 (4) FIR

¹⁶⁵ Article 36 FIR

¹⁶⁶ Article 33 FIR

food or the form of expression and presentation of that content. Overall, both national authorities and food producers are not allowed to display any other nutritional information than what is allowed under the FIR. Under nutritional information is understood the energy value and the presence and amounts of macro-nutrients. Other methods, forms and lay-outs can be permissible within the legal boundaries of the FIR.

6.1.2.2.2. Additional forms of expression and presentation of the nutrition declaration

Although the Regulation aims to extensively harmonize labelling requirements between the European Member States, additional forms of expression and presentation on the nutrition declaration are permissible if the format complies with the set conditions in article 35(1). Additional forms of expression and/or of presentation include the use of words, numbers, graphical forms or symbols. In essence these concern front of package indications regarding the nutritional content of the food. The EU Commission considered it desirable to create a legal framework for front of packaging labelling rather than restricting them. This because front of package labels have the benefit of being more visible and mostly make use of a simplified representation facilitating consumer understanding.¹⁶⁷ Though, note that the initial legislative proposal for the FIR by the Commission included mandatory indication of energy, fat, saturates, carbohydrates, sugars and salt on the front of the pack.¹⁶⁸ Now it has remained voluntary.

Under the current version of the FIR, additional forms of expression and presentation may be provided where they aim to facilitate consumer understanding, they are not misleading and they are supported by scientific research of both nutrition and consumer science.¹⁶⁹ The development of additional requirements also needs to take place through consultation with a wide range of stakeholder groups.¹⁷⁰ And, lastly, being the most contentious requirement, the measure may not constitute a barrier to trade.¹⁷¹

As will be elaborated upon, member states have developed additional –front of packagelabelling schemes containing nutrition information. How they stand in light of the requirements and limitations under the FIR, remains to be examined by the European institutions. In 7.1.3.1 a hypothetical application of the new European rules is made with regard to Traffic Light Labelling in the UK. Alternative front of pack schemes can be welcomed to address the obesity challenge, although different regimes may also create confusion with consumers and potentially constitute hindrances to trade. The latter applies even in the case their use remains of a voluntary nature. To overcome these drawbacks potentially harmonization of additional forms of expression and presentation may take place.

¹⁶⁷ COM (2008) 94, "Impact Assessment Report on Nutrition Labelling Issues", Commission Staff Working Document, http://ec.europa.eu/smart-168 COM (2008) 40 final.

¹⁶⁹ Article 35(1),(c)(d) and (e) FIR

¹⁷⁰ Article 35(1)(b) FIR

¹⁷¹ Article 35(1)(g) FIR

For that reason the Commission is mandated to establish a report evaluating additional labelling schemes and consider amendments to the current Regulation by December 2017.¹⁷²

6.1.2.2.3. Reference intake indication

The Regulation provides for a non-mandatory additional front-of-pack indication with the use of RI's.¹⁷³ The RI's, as displayed under 5.3.2, are derived from general DRI's for specific nutrients in relation to a 8,400 kJ/2,000 kcal diet. They differ from DRI's as they are expressed in grams instead of percentages.¹⁷⁴ Accordingly, the reference intake in the FIR indicates not to consume more than 70 grams of fat per day, while a DRI would state that intake of fats should be limited to 30-35% of the total daily intake of macronutrients. Taking regard of a 8,400kJ per day diet that would both constitute a similar amount of fat.

In addition to the nutrition declaration, the energy value and the amounts of nutrients may be expressed as a percentage to the references intake values as included in the Annex XIII of the FIR. These reference intake values are used as a benchmark to indicate how much energy or amounts of nutrients a particular food contributes to the daily energy and nutrient requirements. The information can be displayed in relation to per 100 g or 100 ml¹⁷⁵ or per portion or consumption unit¹⁷⁶ of the concerned food product.

Reference intake indication can be used in addition to the mandatory nutrition labelling and other additional forms of expression. The scheme provides for indication of either the energy value alone or in combination with the amounts of fat, saturates, sugars and salt. When use is made of this voluntary indication the label should also indicate that the *'reference intake of an average adult' is '(8400kJ/2000kcal)*'.¹⁷⁷

The front of pack indication aims to assist consumers in the interpretation of the nutrition declaration, and overall the nutritional composition of a food.¹⁷⁸ To clarify the use of reference intakes an example is given here regarding the fat content in a Mars bar. At the back of the package it is mandatory to include in the nutrition declaration that it contains 47 grams of fat per 100 gram. When the energy value and the amount of nutrients is repeated on the front of the pack, this information can be given on per 100g/100ml or on a per portion

¹⁷² Article 35(5) FIR

¹⁷³ Article 32 (4) FIR

¹⁷⁴ EFSA, "Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies on a request from the Commission related to the review of labelling reference intake values for selected nutritional elements", 1008 EFSA Journal (2009), <http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1008.pdf>, 6. ¹⁷⁵ Article 32(3) FIR

¹⁷⁶ Article 33(1)(c) FIR

¹⁷⁷Food Drink Europe, "Guidance September 2013 Regulation (EU) No. 1169/2011 on the ProvisionofFoodInformationtoConsumers",2013,<http://www.fooddrinkeurope.eu/uploads/publications_documents/FDE_Guidance_WEB.pdf>, p 30.178InformationInformationInformation

¹⁷⁸ FOODDRINK EUROPE, "Understanding the Label: What's on your front of pack label",<http://referenceintakes.eu/understanding-label.html>.

or consumption unit basis.¹⁷⁹ This would be respectively be 16,9 grams of total fat per 100 grams or 6 grams for a single mars bar with a total weight of 36 grams. The reference intake for fat is 70 grams per day. In case the nutrient amounts are expressed per 100 grams, the front of pack label could indicate that 100 grams of mars contains 24 % of the total amount of fats a person is advised to consume on a daily basis. If the label indicates the information on a per consumption unit basis, then it could show that one single mars bar contains 8,5% of the total amount of fats a person is advised to consume on a daily basis.

Except for the font size¹⁸⁰, there are no requirements with regard to the specific format that has to be used for the front of pack indication. Consequently, the lay-out of the scheme can differ in practice. The requirements have been taken into account in the implementation on the traffic light labelling scheme which is widely used in the UK.¹⁸¹ Though as will be discussed below the traffic light labelling scheme makes additional use of colors. The reference intakes have replaced the formerly used guideline daily amounts.¹⁸²

6.1.2.3. Nutritional aspects of the FIR

6.1.2.3.1. Inclusion of detrimental macro-nutrients

Nutrition labelling clearly focuses on the amounts of mainly macro-nutrients which are present in the concerned foods. By consequence it could be wondered whether nutritional recommendations have been taken into account properly in drafting the FIR. The following notes can be made. It is apparent that the nutrients which have to be listed are those that are the main contributors of energy and/or are those which will most potentially lead to adverse health effects when consumed in excessive amounts. As such, the scheme takes account of the general scientific insights regarding the intake of energy and certain nutrients. However when looking closer to the incorporation of some nutrients, the following shortcomings can be identified.

Regarding the indication of fats it is worrisome that only the total amount of fat and the amounts of saturated fats have to be indicated. Nutritional recommendations provide that saturated and trans fats should be substituted with the healthier unsaturated alternatives.¹⁸³ This advice has been completely neglected as on the one hand the healthier unsaturated fats do not need to be labelled and on the other hand trans fats cannot be labelled.¹⁸⁴ Accordingly in many cases it will not be possible to assess the fatty acids composition from the nutrition label. Indication of trans fats will be elaborated upon in the next section.

¹⁷⁹ Article 34(3)a, article 32(4) and aticle 30(3) FIR

¹⁸⁰ Article 13(2) FIR

¹⁸¹ UK FSA, "Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets", (2013), <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300886/2902158_FoP __Nutrition_2014.pdf>, p 5.

 ¹⁸² Leatherhead Food Research, "Front of pack nutrition labelling – a way of helping the consumer to make informed dietary choices?", ">https://www.leatherheadfood.com/front-of-pack-nutrition-labelling>.
 ¹⁸³ EFSA, "EFSA sets European dietary reference values for nutrient intakes", (2010), <

http://www.efsa.europa.eu/en/press/news/nda100326>.

⁸⁴ COM (2015) 619 final, p. 6.

Also, regarding sugars the current nutrition labelling scheme fails to implement generally accepted nutritional recommendations.¹⁸⁵ In general it is recommended to avoid added sugars and not necessarily those that are naturally present, as is the case with the consumption of fruits. Nutrition labels only indicate the total amount of sugars, but do not reveal how many of those are intentionally added to the food product. Likewise, the ingredient list does not provide how much sugar has been exactly added to a product. Estimations are hard as added sugars can have many different names. For that reason it may be valuable to consider additional indications for added sugar.

It is rather unfortunate that fibre is not included in the list of mandatory nutrients in the nutrition declaration. Nor is it included in the reference intakes of selected nutrients in Annex XIII FIR. Although many of the positive health effects related to fibre have not yet been demonstrated to a conclusive level, EFSA recommends a minimum intake of 25 grams per day.¹⁸⁶ Especially since fibre contributes to body weight maintenance and body weight loss, it is regrettable that fibre indication has not been properly included. Even where a food producer decides to voluntarily provide the amount of fibre in the nutrition table, he is not allowed repeat the information on the front of the pack.¹⁸⁷

The FIR solely focuses on the presence of energy and certain nutrients, but does not pay attention to the choice of particular foods (*Supra* 5.4). The disclosed information may help to identify a product which contains relatively high amounts of a certain nutrient, but does not identify healthier alternatives. Recommendations on food choices, such as the promotion of the consumption of fruits and vegetables, have not been incorporated in the FIR.

6.1.2.3.2. Trans-fats

Within the FIR there is little determined with regard to trans fats.¹⁸⁸ Trans fats are not included in the mandatory nutrition labelling of the FIR. Neither can trans fats be included in the nutrition declaration on a voluntary basis. This is regrettable since the intake of trans fatty acids appears to remain high in various EU member States.¹⁸⁹ Especially the consumption of certain popular foods still leads to high intakes of trans fatty acids leading to increased heart disease risks.¹⁹⁰ This can be seen as a missed chance as already in 2008 binding policy

¹⁸⁵ WHO and FAO , "Report of the Thirty-Eighth Session of the Codex Committee on Food Labelling", CL 2010/15-FL, <ftp://ftp.fao.org/codex/Reports/alinorm10/al33_22e.pdf>, point 34-36.

¹⁸⁶ EFSA, "Scientific Opinion on Dietary Reference Values for carbohydrates and dietary fibre", (3) EFSA Journal (2010), p 27-32.

¹⁸⁷ Article 32 (4) FIR allows that only energy value or energy value and the amounts of fat, saturates, sugars and salt is repeated.

¹⁸⁸ DG for Internal Policies, "Trans Fats: Workshop", European Parliament (2014), http://www.europarl.europa.eu/RegData/etudes/workshop/join/2014/518744/IPOL-ENVI_AT(2014)518744_EN.pdf, p 8.

¹⁸⁹ Steen Stender, Arne Astrup and Jørn Dyerberg, "A trans European Union difference in the decline in trans fatty acids in popular foods: a market basket investigation", 2 BMJ Open (2012), <http://bmjopen.bmj.com/content/2/5/e000859.full.pdf+html>, p 7-8.

¹⁹⁰ Steen Stender, Arne Astrup and Jørn Dyerberg, "A trans European-Union difference in the decline in trans fatty acids in popular foods: a market basket investigation", BMJ open (2012), < http://www.ncbi.nlm.nih.gov/pubmed/22986123>, p 7- 8.

measures on the EU level to reduce trans fatty acids in foods were proposed.¹⁹¹ Currently, the only possibility to assess the presence of trans fats is to look at the ingredient list for partially hydrogenated fats or oils¹⁹² which generally contain trans fatty acids. Though the exact amounts are not identifiable from the label.¹⁹³

The Commission was instructed to submit a report on trans fats taking into account scientific evidence and experiences from the member states by December 2014. The report had to assess the impact of policy measures taken by member states.¹⁹⁴ This would have had to lead to a legislative proposal for the labelling of trans fats, or imposing restrictions on its use. Very recently, on December, 3th, the Commission has come up with the report. One year after the deadline provided in the FIR.

In the report the Commission refers to the nutritional recommendations of both EFSA and the WHO to significantly limit the intake of trans fats.¹⁹⁵ It furthermore considered possible strategies to reduce the intake of trans fats. These include making trans fat indication compulsory, setting an EU limit or ban on trans fat content in food, voluntary efforts in cooperation with the food industry or the development of (national) guidelines on limiting the use of trans fats. The introduction of a ban appears to be the best option in terms of effectiveness, compatibility with the internal market and for the purpose of protecting public health and consumers.¹⁹⁶ Reference is also made to the successful trans fat ban in Denmark.¹⁹⁷ Though the Commission did not yet adopt a legislative proposal as was suggested by the FIR, because it considered that the anticipated measure required further investigation.¹⁹⁸ Regarding the former observations on the adverse effects, the Commission could have at least considered the inclusion of trans fats in the list of mandatory nutrients as a provisional measure. Article 30 (6) FIR namely allows for the addition or removal of particulars to the mandatory nutrition declaration through a delegated act by the Commission. Accordingly, up until now trans fats have escaped European labelling regulation.

6.1.2.3.3. Lack of portion and consumption unit indications

The mandatory indication of the amount of calories or certain nutrients per 100 gram or 100 millilitres in the nutrition declaration sincerely complicates the comparison between products. At first glance, it seems logical to express these amounts in reference to a single reference content for all products but the average consumption amount between food products varies considerably when looking at weight. To put it with a simple example people can easily

¹⁹¹ Alexandra Krettek, Stefan Thorpenberg and Göran Bondjers, "Trans Fatty Acids and Health: A Review of Health Hazards and Existing Legislation", EU Parliament (2008), <http://www.europarl.europa.eu/RegData/etudes/etudes/join/2008/408584/IPOL-JOIN_ET(2008)408584_EN.pdf>, p 20-21.

¹⁹² Annex VII to the FIR

¹⁹³ COM (2015) 619 final, p 9.

¹⁹⁴ Article 30 (7) FIR

¹⁹⁵ COM (2015) 619 final, p 4-6

¹⁹⁶ COM (2015) 619 final, p 13 and 14-15.

¹⁹⁷ COM (2015) 619 final, p 4, 10-11.

¹⁹⁸ COM (2015) 619 final, p 14.

consume 100 grams of rice a meal [around 544 kJ or 130 kcal] which is close to a single meal portion. But they will rather struggle eating 100 millilitres of mayonnaise [around 2845 kJ/680 kcal]. That the indications of energy value cannot be aggregated, severely complicates the counting of the energy ingested. An (additional) mandatory indication, according to a reasonable portion would make more sense. Currently, portion or consumption unit indications can be provided on a voluntary basis. The energy value and the amounts of mandatory nutrients may be provided on a per portion or per consumption unit basis in addition to the per 100g/100ml indication.¹⁹⁹

The sizes of such portions or consumptions units are to be determined freely by food producers as long as they are easily recognizable by the consumer, the portion or unit used is quantified on the label and the number of portions or units in the package is stated.²⁰⁰ The latter may provoke disparities between portion sizes as used by different food producers.²⁰¹ For that reason, the Commission can standardize portion sizes for specific categories of foods.²⁰² Currently the determination of portion sizes are based on various recommendations by governments, industry, industry associations²⁰³ and national authorities. A unified approach can be welcomed for the benefit of consumer understanding.²⁰⁴ In the establishment of portion sizes an interesting strategy would be to determine relatively smaller portion sizes to reduce overall energy intakes.²⁰⁵

6.1.2.3.4. Comments regarding reference intakes of nutrients

The reference intake values as determined can be used to provide a voluntary reference intake indication in addition to the mandatory nutrition declaration (*Supra* 6.1.2.2.3). The values have been derived from DRI's for adult women as determined by EFSA, though they indicate the appropriate intake levels in grams instead of a percentage to the total energy intake of 8400 kJ. As already mentioned there is no reference intake for fibre. This goes in against the recommendations of EFSA where a daily intake of 25 grams of dietary fibre is considered adequate.²⁰⁶

Another element that should be noted is that the reference intake value for sugar is far above the 10% upper limit recommended by the WHO. The reference intake for sugar in Annex XIII

¹⁹⁹ Recital 35 to the FIR

²⁰⁰ Artcle 33(1) FIR

 ²⁰¹ Hannah B. Lewis, Amy L. Ahern and Susan A. Jebb, "How much should I eat? A comparison of suggested portion sizes in the UK", 15(11) Public Health Nutrition (2011), <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3477828/pdf/S1368980012001097a.pdf>, 2115-2117.
 ²⁰² Article 33 (5) FIR
 ²⁰³ COODDINKELIDODE "FoodDrinkEurope guidelines on participation circles" (2012)

²⁰³ FOODRINKEUROPE, "FoodDrinkEurope guidelines on portion sizes", (2012), http://ec.europa.eu/health/nutrition_physical_activity/docs/ev20120209_co08_en.pdf.

²⁰⁴ See EUFIC, "The importance of portion information from a consumer and health perspective", EUFIC Review (2012), http://www.eufic.org/article/en/expid/importance-portion-information-from-consumer-health-perspective/.

Lisa R. Young and Marion Nestle, "Reducing portion sizes to prevent obesity: a call to action", 43(5) American Journal of Preventive Medicine (2012), http://www.ncbi.nlm.nih.gov/pubmed/23079182>, 567.

²⁰⁶ EFSA, "EFSA sets European dietary reference values for nutrient intakes", (2010), <http://www.efsa.europa.eu/en/press/news/nda100326>.

is set on 90 grams which corresponds to 18% of the total energy intake in a 8400kJ or 2000kcal diet. Since it is generally recommended, even by EFSA, to limit the consumption of sugar²⁰⁷, it may be advisable to reconsider the set reference value. The overall reference intake should at least be lowered and preferably even a differentiation is made between naturally present and added sugars.

6.1.2.4. Legal consequences for member states

The introduction of the FIR and the particulars related to the nutrition declaration will have a substantial impact on the labelling of nutritional aspects of foods in Europe. One main advantage to the FIR is the harmonization of both mandatory and certain aspects of voluntary nutrition information. This avoids legal confrontations between different labelling schemes adopted at national level.

On the other hand, this also implies that member states can no longer demand the provision of other additional nutritional information. Neither can they adopt mandatory front of pack labelling schemes. They can only recommend the use of additional forms of expression and presentation, where these comply with the specific requirements.

The FIR reaffirms the preclusion for member states to adopt any additional, mandatory measures in the field of food information to consumers unless they are authorised under EU law and in accordance with the internal market principles.²⁰⁸ Though an exception allowing additional mandatory particulars is provided under article 39. The article stipulates that additional mandatory particulars for specific types or categories of foods can be adopted by member states if notified to the Commission and the other Member States²⁰⁹. They must be justified on one of the specified grounds. Regarding initiatives aimed at obesity reduction, the justification for the protection of human health, or the protection of consumers may be of particular importance. Though regarding the specificity that the nutritional aspects are regulated with under the articles 29 to 35 FIR, it rather appears that not much discretion is left to member states to demand additional nutritional information on food labels. The latter may sincerely limit the opportunity for policy makers to adopt labelling schemes next to the recommended nutrition declaration and conflict with existing national initiatives.

6.1.2.5. Relation to international law

The European legislative institutions have clearly avoided international trade law confrontations as the nutrition labelling requirements of the FIR correspond largely with international standards. The Codex Alimentarius Guidelines on nutrition labelling²¹⁰ contains the same list of nutrients and a similar distinction between mandatory and additional or

²⁰⁷ EFSA, "Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies on a request from the Commission related to the review of labelling reference intake values for selected nutritional elements", 1008 EFSA Journal (2009), http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1008.pdf, p 9-10.
²⁰⁸ Article 38 (1) of the FIR

²⁰⁹ Article 45 of the FIR

²¹⁰ Guidelines On Nutrition Labelling (CAC/GL 2-1985)

'supplementary' information among other similarities. To reiterate, legal requirements which correspond with international standards, such as Codex guidelines, are presumed not to create an unnecessary hindrance to international trade. In all probability, the chances of the current EU Information Regulation to be trade restrictive under WTO-law are very low.

Moreover, the Codex Guidelines actually precludes the use of any additional mandatory labelling requirements. The Codex allows for supplementary nutrition information²¹¹ but this should remain optional for food producers and retailers and may not replace the mandatory nutrient declaration. In other words, the Codex prescribes that additional labelling information should remain voluntary. Accordingly, the European Commission's initial proposal for a mandatory front of pack indication²¹² would have been contrary to the international Codex standards.

6.1.3. Nutrition and Health Claims Regulation

6.1.3.1. Highlighting the positive attributes of food

Certain labelling aspects may attribute positive characteristics to a food with the use of claims. A respective claim may imply particular beneficial nutritional properties or suggest a link between the consumption of a food and a particular positive health aspect.²¹³ These types of claims are likely to fall under the scope of the Nutrition and Health Claims Regulation (NHCR). The use of claims has been harmonized to an extensive level in accordance with the Codex Alimentarius guidelines on nutrition claims^{214,215} Since the definition compromises statements in any form, which includes pictorial, graphic or symbolic representations²¹⁶ the scope of the Regulation is very wide. Importantly however, only positive aspects of foods and nutrients are covered by the European Regulation.²¹⁷ The choice to make use of an approved claim remains with the food producers. Accordingly there are no mandatory particulars as is the case with the nutrition declaration under the FIR.

6.1.3.2. Legal requirements on the use of claims

Allegations about certain nutritional or health attributes of a particular food should be truthful and preferably also understandable by consumers in order to have the desired effect. To ensure the protection of consumers and facilitate their choices, the NHCR imposes certain requirements and constraints on food producers with regard to the use of nutrition and health claims. Regarding the aim to ensure consumer protection, the Regulation provides that claims may not be false or ambiguous together with specific limitations on certain types of claims.²¹⁸ Regarding the understanding by consumers of nutrition or health claims, the

²¹¹ Section 5 of Guidelines On Nutrition Labelling (CAC/GL 2-1985)

²¹² COM (2008) 40 final.

Article 2(1), (4) and (5) of the NHCR

²¹⁴ Codex Alimentarius Guidelines on Nutrition Labelling (CAC/GL 11979).

²¹⁵ Recital 7 of the Preamble to the NHCR

²¹⁶ Article 2(1) of the NHCR

²¹⁷ Recital 6 of the Preamble to the NHCR

²¹⁸ Article 3 (a) and (b) to (e) of the NHCR

Regulation holds that 'claims shall only be permitted if the average consumer can be expected to understand the beneficial effects as expressed in the claim".²¹⁹

Another requirement holds that claims are only permitted if the claim is supported by generally accepted scientific evidence.²²⁰ Moreover, the nutrient or substance on which the claim is based has to be present in an adequate quantity to provoke the alleged nutritional or physiological beneficial effect and be in a form that is readily available to the human body.²²¹ Both nutrition and health claims need to be approved. Though the procedures for both claims differ. The conditions to apply for a health claim are more stringent²²², especially for those who relate to the reduction of disease risk or those which refer to children's development and health.²²³ The approved nutrition claims are included in the Annex of the Regulation. Approved health claims are only held in a special Register (which also includes the nutrition claims).²²⁴

Problematic to the current state of the Regulation is that unhealthy foods are not necessarily precluded from bearing a nutrition claim.²²⁵ To exemplify, the reduction of fat may be labelled where ultimately the energy value has remained similar due to a higher presence of added sugar. For that reason foods should essentially comply with nutrient profiles before they are eligible to bear a nutrition claim.

6.1.3.3. **Nutrient Profiles**

Under article 4 of the NCHR the Commission was mandated to establish nutrient profiles in order to avoid that consumers would perceive certain foods bearing a claim to be beneficial to their health where in fact the composition of such foods has rather a negative nutritional composition.²²⁶ Only foods complying with the established nutrient profiles were supposed to be eligible to bear a claim. In that way food producers would be prevented from masking the overall nutritional content of their foods and be stimulated to reformulate the food to an actual healthier composition. In essence, nutrient profiles would focus on the presence of nutrients that are related to the prevalence of obesity and diet-related diseases.²²⁷ This includes fat, saturated fatty acids, trans-fatty acids, sugars and salt/sodium.²²⁸ For that purpose the Commission would have to establish threshold levels or another score system to evaluate the presence of these nutrients in foods. However the establishment of nutrition profiles has

²²³ Article 14 juncto 15 NHCR

²¹⁹ Article 5 (2) of the NHCR

²²⁰ Article 5 (1)(a) of the NHCR

²²¹ Article 5 (1)(b) NHCR

²²² Article 10 NHCR

²²⁴ Article 20 NHCR

²²⁵ BA Swinburn, I Caterson, JC Seidell and WPT James, "Diet, nutrition and the prevention of excess obesity", gain and 7(1A) weight Public Health Nutrition, http://www.who.int/nutrition/publications/public_health_nut3.pdf>, 137. See also recital 10 and 11 of the Preamble to the NHCR

²²⁷ EFSA, "The Setting of Nutrient Profiles for Foods Bearing Nutrition and Health Claims pursuant to Article 4 of the Regulation (Ec) ° No 1924/2006", 644 The EFSA Journal (2008), < http://www.efsa.europa.eu/sites/default/files/scientific output/files/main documents/nda op ej644 nut rient%20profiles_en,3.pdf>, p 10, 13-16. ²²⁸ Article 4(1)(a) of the NHCR

proven to be a challenging endeavour. The categorization of foods as 'healthy' or 'unhealthy' concerns a sensitive issue in the eyes of food producers which has prevented the Commission from adopting nutrient profiles.²²⁹ Though, the Regulation already provides for two major exceptions for nutrition claims.²³⁰ Where a nutrition claim refers to a reduction of one of the aforementioned nutrients, nutrient profiles will not apply provided that the claim complies with the specific requirements under the NHCR.²³¹ Secondly, in case only one of the nutrients exceeds the set thresholds, the nutrition claim will still be permitted if a statement is included indicating the high presence of that nutrient.²³² The nutrient profiles were to be established by January 2009, however to date the Commission has not yet adopted them. This might be due to EFSA's findings that there are various challenges and limitations to nutrient profiling.²³³

6.1.4. Evaluation

6.1.4.1. Nutritional evaluation

As long as there are no nutrient profiles established, the nutrition claims in the Annex to the NHCR can be used in so far they comply with specific nutritional requirements regarding the nutrient they refer to. The nutrient claims, included in Annex to the NHCR, relate to energy content or to the amounts of particular nutrients.²³⁴ The former include the authorized claims of 'low in energy', 'energy reduced' and 'energy-free'. Concerning the latter the indications 'light', 'low fat', 'reduced fat', 'with no added sugars' or 'salt-free' are well established examples that have been regulated by the Regulation. Specific requirements for every claim are included in the Annex. For example, the nutrition claim of 'low in energy' can only be used for solid foods with no more than 170 kJ [40 kcal] per 100 grams or for liquids containing no more than 80 kJ or [20 kcal] per 100 grams.

Moreover, the list of approved nutrition claims also includes statements regarding fibre and the presence of beneficial unsaturated fats. The list in annex to the NHCR even allows the indication 'increased' or 'reduced' presence of any nutrient, other than vitamins or minerals, where the increase or decrease is at least 30% compared to a similar product.

Moreover, positive links between the particular composition of a food and its health effects can be highlighted with the use health claims as found in the special Register. Especially with regard to fibre this may prove interesting considering its 'contribution to the maintenance or

²²⁹ Miguel Fernandes da Silva, "The EU Regulation on Nutrition and Health Claims: Current and Future Trends", EAS, http://nabc.cals.cornell.edu/Publications/Reports/nabc_22/22_5_3_Silva.pdf, 167-168. ²³⁰ Amandine Garde, EU law and obesity prevention, Kluwer (Alphen aan de Rijn, 2010), 150-155.

²³¹ Article 4(2)(a) NHCR

²³² Article 4(2)(b) NHCR

²³³ EFSA, "The Setting of Nutrient Profiles for Foods Bearing Nutrition and Health Claims pursuant to Article 4 of the Regulation (EC) ° No 1924/2006", 644 The EFSA Journal (2008), < http://www.efsa.europa.eu/sites/default/files/scientific output/files/main documents/nda op ej644 nut rient%20profiles en,3.pdf>, p 27.

 $^{^{234}}$ See also definition in article 2(4) of the NHCR.

achievement of a normal body weight. Unfortunately however, to date this health claim related to various types of fibre has not yet been approved.²³⁵

As nutrition and health claims are essentially related to the nutritional composition they have a strong connection with the improvement of dietary quality.²³⁶ A positive consequence is that reformulation of the nutritional composition of the concerned foods is promoted. Food producers potentially make the effort so the products are eligible for a nutrition claim. However, the current legislation suffers from the lack of nutrient profiles. The regulation should preclude energy dense foods from bearing a nutrition claim.²³⁷ As will be demonstrated other initiatives have undertaken the challenge of nutrient profiling to differentiate between food according to their nutritional composition (*infra* 7.1.3.1.5 on Traffic Light Labelling, 7.1.3.3.3 on the Choices logo and 8.3 on Nutritional Warnings).

6.1.4.2. Legal consequences of the NHCR

European legislation provides for maximum harmonization of claims. Both mandatory and voluntary initiatives that wish to highlight the positive nutritional attributes of food will have to take account of the provisions of the NHCR. Member states that intent to adopt any related legislation are bound to notify the Commission.²³⁸ For voluntary measures , the responsibility lies with food producers to align their statements with the requirements under the NHCR or to apply for approval.²³⁹ No other claims, than those which are included in the Register, are permitted. From an international point of view, the NHCR is the legal implementation of the Codex guidelines on claims.²⁴⁰ Though the scope of the Codex guidelines is wider as it includes both non-beneficial and beneficial claims.

7. European member state labelling initiatives

7.1.1. Little leeway for creative labelling options

National authorities have come forward with various labelling initiatives in order to help consumers make a more informed –healthy- choice. The disadvantage of many different schemes is that it complicates the comparison between products for consumers, and may even create frustration.²⁴¹ Then, there are also the legal constraints to avoid trade hindrances. An important issue concerns how additional national schemes can be reconciled

²³⁵ EU Register on nutrition and health claims (Last consulted on 10-01-2016).

²³⁶ Recital 19 of the Preamble to the NHCR

 ²³⁷ BA Swinburn, I Caterson, JC Seidell and WPT James, "Diet, nutrition and the prevention of excess weight gain and obesity", 7(1A) Public Health Nutrition, < http://www.who.int/nutrition/publications/public_health_nut3.pdf>, 137.
 ²³⁸ Article 23 NHCR

²³⁹ Harry Bremmers and Bernd van der Meulen, *Food Labelling and Beyond*, in Bernd van der Meulen, *EU Food Law Handbook*, Wageningen Academic Publishers (Wageningen, 2014), p. 399-400.

²⁴⁰ General Guidelines on Claims (CAC/GL 1-1979) and Recital 6 to the NHCR

²⁴¹ Stefan Storcksdieck, Bonsmann and Josephine M. Wills, "Nutrition Labeling to Prevent Obesity: Reviewing the Evidence from Europe", 1 Curr Obes Rep (2012), <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3410024/pdf/13679_2012_Article_20.pdf>, p . 137.

with the recent harmonization initiatives at the EU level.²⁴² Since the 2007 White Paper on Nutrition, Overweight and Obesity related health issues the EU has been active in various policy fields to address the challenge posed to public health.²⁴³ In the field of food labelling, the EU legislator exploited extensively its internal market competences²⁴⁴ to come up with a unified approach. Regulations have direct effect and principally deviations by member states are not allowed.²⁴⁵ The following sections will consider the little leeway that is left to member states to come up with additional labelling schemes that aim to improve diets. The comprehensive set of labelling requirements under the FIR and the NHCR complicates the use of both mandatory and voluntary labelling schemes. Alternative forms of expression or representation of the caloric value or the amount of nutrients are not entirely precluded as article 35 FIR provides that additional forms of presentation can be permissible when they comply with the set conditions. Accordingly, different voluntary front of pack schemes can be developed and used across the EU if they comply with these requirements.²⁴⁶

7.1.2. Nutritional aspects of national labelling schemes

Another interesting matter to consider, concerns the nutritional aspects of the national labelling initiatives. The aim is to look at the elements that are relevant from a nutritional point of view to reduce obesity and health related issues. Consequently, it can be assessed how these schemes can form a valuable contribution to the harmonized European labelling rules.

7.1.3. Member State Specific Initiatives

7.1.3.1. Traffic light labelling

7.1.3.1.1. An interpretative labelling scheme

In the UK a labelling scheme was adopted that intents to assist consumers to consider the nutritional attributes of food products with the use of colours. The colour coded indication of the presence of certain determined nutrients has been developed by the UK Food Standards Agency. In practice it concerns a red, orange or green indication where the food is

respectively high, medium or low in the depicted nutrients. The use of the three colours explains why the regime is more commonly known as traffic-light labelling.

²⁴² Lorenzo Cuocolo, "The Questionable Eligibilit http://heinonline.org/HOL/LandingPage?handle=he



of an adult's reference intake Typical values per 100ml: Energy 260kJ / 62kcal

Figure 3: Example (UK FSA)

overview:

For non-exhaustive http://ec.europa.eu/health/nutrition_physical_activity/policy/strategy_en.htm>. ²⁴⁴ COM (2007)279 final, p 3.

²⁴⁵ Emphasised in article 38 FIR

²⁴⁶ Alison Fynes, "The Role of Mandatory Nutrition Labelling in Combating Obesity in the EU", Trinity <http://www.undergraduatelibrary.org/2012/law/role-mandatory-nutrition-labelling-College (2012), combating-obesity-eu>.

The scheme largely corresponds with the front of pack requirements provided under the FIR. The repetition of the mandatory particulars of the nutrition table, the percentages related to the reference intakes (Supra 6.1.2.2.3) and the expression per portion or consumption unit (serving) and the placing on the front of the pack are a rather accurate implementation of the respective articles 30(3)(b), 32(4), 33(1) and 34(3) of the FIR.

In essence, the only addition concerns the use of colours relating to the amounts of nutrients. There is no colour coding for the energy value per portion or consumption unit.²⁴⁷ With the use of colours, the scheme aims to facilitate consumer understanding of the nutritional composition.²⁴⁸ Interpretative schemes, such as colour coding, cannot be made mandatory by a member state. Their exact position under EU law is rather complicated as will be discussed further on.²⁴⁹ Assuming it concerns an additional form of expression or presentation, member states can only recommend the use of the scheme, and the recommended scheme has to be notified to the Commission.²⁵⁰

As it concerns a voluntary labelling scheme manufacturers decide freely to participate in the scheme or not and whether they wish to deviate from the FSA guidelines. Accordingly, the exact the exact presentation as well as the portion sizes are determined by the manufacturers or retailers who apply the labelling scheme. By consequence various versions of traffic light labelling currently exist within the UK.

7.1.3.1.2. A *de facto* barrier to trade

Although being of a voluntary nature, the traffic light scheme has been disputed. Italy had raised a complaint with the Commission as the labelling scheme would particularly affect many traditional Italian foods. The member state considered the regime to needlessly discriminate between foods.²⁵¹ Consequently, Italy resorted to the EU because the alleged discriminatory approach could potentially create a hindrance to intra-Union trade. Even though there is no legal obligation under UK law to apply the labelling scheme, various parties considered the labelling scheme to form a *de facto* barrier to trade.²⁵² The claim is supported by the Court of Justice's findings in the buy Irish-case where it concluded that 'even measures adopted by the government of a member state which do not have binding

²⁴⁷ UK FSA, "Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets", (2013), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300886/2902158_FoP

_Nutrition_2014.pdf>.²⁴⁸ Martin Holle, Enrico Togni and Arianna Vettorel, "The Compatibility of National Interpretative Nutrition Labelling Schemes with European and International Law", 9(3) EFFL (2014), < http://effl.lexxion.eu/data/article/1641/pdf/article.pdf>, 149.

²⁴⁹ Sara Lewis, ""No legal action" against UK over traffic lights", EU Food Law (2015), http://www.eurofoodlaw.com/labelling/health-and-nutrition/no-legal-action-against-uk-over-traffic- lights-105740.htm>.

Article 35(2)

Lizzy Davies, "Italy claims 'traffic-light' labelling unfair on Mediterranean food", The Guardian (2013), <http://www.theguardian.com/world/2013/oct/21/italy-traffic-light-food-labels-unfair>.

EU Parliament E-011011-13. 208. OJ С "http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+WQ+E-2013-

⁰¹¹⁰¹¹⁺⁰⁺DOC+XML+V0//EN".

effect may be capable of influencing the conduct of traders and consumers in that state'.²⁵³ Accordingly guidance documents issued by the FSA can also constitute a measure equivalent to a barrier to trade in the sense of article 34 TFEU.

The UK Food Standards Agency recommends the use of the labelling scheme. In practice, all major food producers and retailers in the UK have adopted the scheme.²⁵⁴ Latter practice may potentially affect the conduct of traders and consumers as it creates a difference between UK and non-UK goods. This contributes to the consideration that the traffic light labelling may constitute a de facto barrier to trade. Therefore, the Commission had sent the UK a letter of formal notice to inquire about the matter requiring clarification from the UK authorities. However, it appears the Commission will not initiate an infringement procedure against the UK authorities.²⁵⁵ To assess whether the UK traffic light initiative constitutes a measure equivalent to a barrier to trade it is required to consider its accordance with EU harmonized labelling legislation.

7.1.3.1.3. Accordance with the FIR

According to the UK FSA, the traffic light labelling scheme concerns an additional form of expression in the sense of article 35 of the FIR. Though some authors consider the scheme to rather fall under the scope of nutrition claims as will be discussed in the next section (7.1.3.1.4). Additional forms of expression and presentation are permissible under the FIR if the comply with the conditions set out in the first paragraph of article 35. Moreover, the additional schemes can only be recommended by a member state²⁵⁶, but not be made mandatory. Forms of expression can include graphical forms or symbols in addition to words or numbers. Whether colour coded indications are included in this description is not entirely certain. Assuming it would, the scheme has to comply with the following conditions.²⁵⁷

First of all, the scheme has to be based on sound and scientifically valid consumer research. This concerns a rather challenging requirement because trails will have to be composed to assess the effectiveness with consumers. Secondly, the scheme has to be developed with the input of a wide range of stakeholders. This requirement can be considered to be complied with as the UK government had launched a big open consultation campaign with various stakeholders.²⁵⁸

Thirdly, the scheme should facilitate consumer understanding of the nutritional composition of the food and its contribution to the energy and nutrient content of a diet. The overall aim of

²⁵³ C-249/81, Commission of the European Communities v Ireland ('*Buy Irish'*) [1982], par. 28.

²⁵⁴ Fratini Vergano, "EU Commission initiates infringement proceeding against the UK over its 'traffic light' nutrition labelling scheme", 19 Trade Perspectives (2014),chttp://www.fratinivergano.eu/static/upload/1/1/14.10_.17_TP_lssue_19_.pdf>.

Sara Lewis, ""No legal action" against UK over traffic lights", EU Food Law (2015), <http://www.eurofoodlaw.com/labelling/health-and-nutrition/no-legal-action-against-uk-over-trafficlights-105740.htm?origin=internalSearch>.

Article 35 (2) FIR

²⁵⁷ See article 35(1) (a-g) FIR

²⁵⁸ labellina UK Department of Health, "Food consultation launched". (2012), < https://www.gov.uk/government/news/food-labelling-consultation-launched>.

the colour coding is to help consumers in interpreting the nutrition declaration. Moreover, the scheme also includes the reference intake indication of the FIR. Though it remains uncertain whether the colour coded information is well understood by consumers, which concerns the fifth requirement under article 35 FIR. But the same can actually be wondered of the reference intake indication as suggested by the FIR.

The last two requirements interrelate. The additional schemes must be objective, nondiscriminatory and not create an obstacle to the free movement of goods. This is where the discussion on a *de facto* barrier to trade comes into play. The traffic light scheme being widely applied in the UK may imply that the measure contravenes the free movement of goods principles. The actual evaluation of the scheme posing a hindrance to trade will have to be made by the Court of Justice taking account of factual circumstances. Though presumably, the current phrasing of article 35 TFEU precludes any national initiatives on additional forms of expression and presentation. Potential justifications are excluded due to the wording of the requirement that measures may not create obstacles to the free movement of goods. The latter requirement should rather have stated the measure may not create an *unnecessary* obstacle to trade.

Moreover, the requirement on the involvement of a wide range of stakeholders and the requirement for the measure not to create an obstacle to the free movement of goods are contradictory when applying the theory of a *de facto* barrier to trade. As in practice the more food producers or retailers that agree with the scheme and implement the voluntary scheme as recommended by the government, the more likely it is the measure will constitute a *de facto* barrier to trade. Because the measure is then obviously *'capable of influencing the conduct of traders and consumers in that state'* because of the large involvement of food producers and retailers in that member state.

7.1.3.1.4. Accordance with the Nutrition and Health Claims Regulation

The colour coded indication of the energy value and the amounts nutrients indicates whether the food has a rather positive, neutral or negative nutritional composition. Red indicates the high presence of energy or nutrients and thus should be avoided when choosing between food products. Amber indicates medium presence so should be consumed moderately. The green lights on the other hand can be seen as a positive attribute. The latter can be compared to a nutrition claim stating the presence of a certain nutrient in the food is low. Messages and representations in any form implying that a food has particular characteristics may fall under the scope of the NHCR.²⁵⁹

However, the NHCR exclusively applies to messages and representations which relate to the positive attributes of the concerned foods.²⁶⁰ Accordingly, the assumption that the traffic light

²⁵⁹ Article 2(2)(1) of the NHCR

²⁶⁰ Recital 6 to the NHCR

labelling scheme has to be considered under the NHCR²⁶¹ would only apply to the particulars in green. Consequently, the green lights should be in accordance with the requirements of the NHCR. The red or amber indications, within the same cadre, should not, as they are non-beneficial. Do note that this is not the case with the international Codex Guidelines on claims, where claims are not only beneficial.

7.1.3.1.5. Nutritional aspects

The UK front of pack labelling scheme repeats the mandatory nutritional elements as included in the FIR as it intends to facilitate the interpretation of the mandatory nutrition declaration. Due to the extensive harmonization of nutritional information under the FIR no other nutrients, not even the supplementary, can be included in the front of pack scheme.²⁶² Accordingly the presence or amounts of trans fats, fibre, unsaturated fats cannot be displayed on the front of the pack.

The front of pack label contains an indication of the energy value together with information on the amounts of fat, saturates, sugars and salt. The energy value is expressed in both a portion or serving size, and per 100 grams or 100 millilitres. The recommendation advises portion sizes to be easily identifiable and meaningful to the consumer. Currently, the percentages found below the energy value and each nutrient relate to the reference intakes as determined under the FIR. They replace the formerly used guideline daily amounts.²⁶³

The exact use of colours has been determined by the UK FSA recommendation. Criteria are established to assess whether the amount of certain nutrients is low, medium or high. Colour coding is not to be applied for the energy value of the foods. The symbol indicating the content of total fat, saturated fats, sugars or salt will be respectively green, amber or red. There is no categorization of food products except that different thresholds apply for solid foods and drinks.²⁶⁴ In fact, this concern a simplified version of nutrient profiling. The indicated levels in the FSA recommendations are displayed in the presented tables.

²⁶⁴ UK FSA, "Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets", (2013), <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300886/2902 158_FoP_Nutrition_2014.pdf>, p 14-15.

²⁶¹ Martin Holle, Enrico Togni and Arianna Vettorel, "The Compatibility of National Interpretative Nutrition Labelling Schemes with European and International Law", 9(3) EFFL (2014), < http://effl.lexxion.eu/data/article/1641/pdf/article.pdf>, 154-155.

²⁶² Article 30(3) FIR

²⁶³ UK NHS, "Reference intakes on food labels explained", (2014) <http://www.nhs.uk/Livewell/Goodfood/Pages/reference-intakes-RI-guideline-daily-amounts-GDA.aspx>.

Text	LOW	MEDIUM	HIGH	
Colour code	Green	Amber	Red	
Fat	≤ 3.0g/100g	> 3.0g to ≤ 17.5g/100g	> 17.5g/100g	> 21g/portion
Saturates	≤ 1.5g/100g	> 1.5g to ≤ 5.0g/100g	> 5.0g/100g	> 6.0g/portion
(Total) Sugars	≤ 5.0g/100g	> 5.0g and ≤ 22.5g /100g	> 22.5g/100g	> 27g/portion
Salt	≤ 0.3g/100g	> 0.3g to ≤ 1.5g/100g	>1.5g/100g	>1.8g/portion

Text	LOW	MEDIUM	HIGH	
Colour code	Green	Amber	Red	
Fat	≤ 1.5g/100ml	> 1.5g to ≤ 8.75g/100ml	> 8.75g/100ml	>10.5g/portion
Saturates	≤ 0.75g/100ml	> 0.75g to ≤ 2.5g/100ml	> 2.5g/100ml	> 3g/portion
(Total) Sugars	≤ 2.5g/100ml	> 2.5g to ≤ 11.25g/100ml	> 11.25g/100ml	> 13.5g/portion
Salt	≤ 0.3g/100ml	>0.3g to ≤0.75g/100ml	> 0.75g/100ml	> 0.9g/portion

Figure 4: Colour Coding Criteria - UK FSA

The thresholds applied for green light indications correspond with the specific requirements under the NHCR Annex regarding low fat, low saturated fat and low sugar, but not for salt. Furthermore, the colour accorded to a food helps to identify whether the amounts of a particular nutrient are relatively high. In that way the colour coded scheme differs from simple nutrient declarations as it provides an evaluation on the nutritional quality of a food rather than simply indicating what is in the food.²⁶⁵ Some may argue that the red indication may create the perception that some foods are inherently unhealthy. Accordingly the scheme may suggest not to consume certain foods.

The argument is put forward that some foods with 'many' reds could have their place in a well-balanced diet.²⁶⁶ It is true that this approach may be a little unfortunate for some foods. Take oils for example, they will evidently be assigned with a red colour regarding their fat content per 100 grams. Even though, they may form an essential part of our diet in small amounts, the more where they are high in cis-unsaturated fatty acids. Therefore differentiation per food category with thresholds per reasonable portion would have made more sense.

The determination of portion sizes is left to food producers as the application of the scheme is voluntary. The UK FSA guidelines state that the determination of portion sizes should be

²⁶⁵ Lorenzo Cuocolo, "The Questionable Eligibility of Traffic Light Labelling", 9(6) EFFL (2014), < http://heinonline.org/HOL/LandingPage?handle=hein.journals/effl2014&div=63&id=&page=>, 386-387
²⁶⁶ Martin Holle, Enrico Togni and Arianna Vettorel, "The Compatibility of National Interpretative Nutrition Labelling Schemes with European and International Law", 9(3) EFFL (2014), < http://effl.lexxion.eu/data/article/1641/pdf/article.pdf>, 153 and 156.

based on what is generally accepted or identifiable and meaningful to the consumer.²⁶⁷ As there are no general serving or portion sizes established, food producers have the freedom to determine the reference serving/portion. For the purpose of colour coding this does not constitute a problem since the colours are rewarded on a 100g/100ml basis of the concerned product. So whether or not the portions/servings are relatively large or small, the relative coloured indication of the presence of a certain nutrient will stay the same. But this leaves the issue of depicting some products unnecessarily with red indications.

Overall, for many composite foods the use of the scheme may help to identify relatively healthy or healthier foods and potentially even lead to food reformulations. Though the main downside is that the scheme remains voluntary with the risk that food producers will not apply it on foods which nutritional composition surpasses the set limits.

7.1.3.2. High salt content indication in Finland

As in general levels of salt intake are much higher than the recommended daily intakes it proves valuable to consider labelling measures that aim to reduce the intakes of salt (*Supra* 5.3.3.4). In Finland various policy initiatives were taken to reduce the high intakes of approximately 12 grams per day in the 1970's. Labelling of high salt content was included in the arsenal of measures. Finnish national legislation provides for compulsory labelling of the high salt content where certain products exceed the set limits for salt. On the other hand, products with reduced levels of salt in comparison to *normal* products may use the indication of *'reduced salt'*.²⁶⁸ The latter being a beneficial attribute concerns a nutrition claims as regulated by the NHCR. Accordingly products will need to comply with the requirement of a minimum 25 % difference with similar products. The nutrition claim can be used on all products.

A warning containing the message 'high in salt' does not attribute a beneficial characteristic to the food product. Accordingly, the warnings do not fall under the scope of the NHCR. Moreover, the mandatory indication of a high salt content only applies for food products which generally contain high amounts of Salt. In total eight food categories are included in the mandatory labelling scheme. The categories compromise bread, sausages, butter, breakfast cereals, rye crisp bread, processed fish products and soups and broths.²⁶⁹ The policy efforts have led to significantly lowered estimated intakes of salt.²⁷⁰ Apart from general reduction of sodium intakes by informing consumers, the scheme influenced the use of

²⁶⁷ UK FSA, "Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets", (2013), <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300886/2902158_FoP _Nutrition_2014.pdf>, p. 7 and 9.

²⁶⁸ Pirjo Pietinen, Liisa M Valsta, Tero Hirvonen and Harri Sinkko, "Labelling the salt content in foods: a useful tool in reducing sodium intake in Finland.", 11(4) Public Health Nutrition (2007), < http://www.ncbi.nlm.nih.gov/pubmed/17605838>, 336.

²⁶⁹ Jane E. Henney, *et al.*, *Strategies to Reduce Sodium Intake in the United States*, The National Academies Press (Washington D.C., 2010), p 242-244.

²⁷⁰ *Ibid.*, p 359-261

sodium by food producers in their products.²⁷¹ The initiative drives food producers to reformulate their products. Overall, the salt warning labels in Finland can be seen as a success story. From a European perspective salt reduction forms an integral part of the EU strategy on nutrition, overweight and obesity related health issues, though the actual policy initiatives have mainly remained with the Member States.²⁷² It remains to be seen how the labelling scheme is to be considered under the FIR. Finland had notified the legal initiative²⁷³ for the labelling of salt content. However at that moment, the FIR had not been adopted yet. The opinion was shared that the measure could better be considered under the new information regulation (FIR).²⁷⁴ Since nutrition labelling and front of pack indications have been extensively harmonized by the FIR, mandatory indication of high salt content is not allowed in principle because of article 38 FIR precluding additional national legislation on the use of nutrition information.²⁷⁵ Though, potentially the measure could be justified under article 39 FIR on the basis of public health or consumer protection as the measure is limited to specific categories of food.

7.1.3.3. Qualitative interpretation logos

7.1.3.3.1. Facilitating healthy food choice

A simple front of pack logo identifying healthy or healthier food products to facilitate consumer choice. That is the basic idea behind various initiatives where products that comply with certain nutritional requirements are eligible to bear a specific logo. Inter alia, the heart and check mark in the United States developed by the American Heart Association, the Green Keyhole logo developed in Sweden and also applied in Norway and Denmark, the Heart Symbol of Finland and the International Choices Programme, originally from the Netherlands. Within these initiatives there are differences regarding the nutritional requirements and the governmental support the schemes receive. For example, the Green Keyhole logo differs somehow as it has been developed by public authorities while the other schemes have been developed by non-governmental associations.²⁷⁶ In the next section, the International Choices Programme will be discussed in more detail.

²⁷¹ Pirjo Pietinen, Liisa M Valsta, Tero Hirvonen and Harri Sinkko, "Labelling the salt content in foods: a useful tool in reducing sodium intake in Finland.", 11(4) Public Health Nutrition (2007), < http://www.ncbi.nlm.nih.gov/pubmed/17605838>, 337-338.

 ²⁷² COM OJ (2010)
 C-305/04, "Implementation of the EU Salt Reduction Framework", Directorate-General Health and Consumers (2012),

 <http://ec.europa.eu/health/nutrition_physical_activity/docs/salt_report1_en.pdf>, p 5.
 273

 273
 2007/257/FIN

 274
 COM

²⁷⁴ COM, Agenda of 25 june 2007, <http://ec.europa.eu/food/safety/reg_com/archive/sc_genfood_sum_25062007_en.pdf>, p 2. ²⁷⁵ Article 38(1) FIR

²⁷⁶ Martin Holle, Enrico Togni and Arianna Vettorel, "The Compatibility of National Interpretative Nutrition Labelling Schemes with European and International Law", 9(3) EFFL (2014), < http://effl.lexxion.eu/data/article/1641/pdf/article.pdf>, p149-150.

7.1.3.3.2. The Choices Programme

The Choices Programme originates from the Netherlands. The initiative aims to provide an alternative for the complications surrounding governmental initiatives. Furthermore, it intends to address the industry's call for harmonization and eliminate the disparities between initiatives which complicate consumer understanding.²⁷⁷ Formerly two different labels were in place, but following an evaluation of the schemes by the Dutch health Council on the existing schemes, the decision had been made to create a single logo and set of criteria for the benefit of consumers.²⁷⁸ Afterwards, the labelling framework has been extended under the International Choices Programme with the aim of introducing the labelling scheme outside of the Netherlands.

The current logo received official recognition by both European and Dutch authorities. The use of the voluntary scheme has been approved by the European Commission.²⁷⁹ Where after, the Dutch government formally recognized the use of the logo in a governmental decision.²⁸⁰

To date, the Choices Programme makes use of two different stamps. The green stamp indicates 'the healthier choice' within the 'basic' product group. The basic group contains exclusively categories of food that are considered fundamental to the human diet. Foods within this basic product group are perceived to contribute significantly to the intake of essential nutrients. Subcategories include fruits and vegetables, beans and legumes, sources of carbohydrates, meat, fish, poultry, eggs, and meat substitutes, dairy products, oils, fats and fat-containing spreads, nuts, water and main meals. Included are soups, meal and other sauces and snacks.



 ²⁷⁷ Annet J.C. Roodenburg, *et al.*, "Development of international criteria for a front of package food labelling system: the International Choices Programme", 65 European Journal of Clinical Nutrition (2011), http://www.nature.com/ejcn/journal/v65/n11/pdf/ejcn2011101a.pdf>, 1190-1191.
 ²⁷⁸ Healthy Choices Programme website, "A single food choice logo for The Netherlands", (2012),

²⁷⁸ Healthy Choices Programme website, "A single food choice logo for The Netherlands", (2012), http://www.choicesprogramme.org/news-updates/news/a-single-food-choice-logo-for-the-netherlands>.

²⁷⁹ Nathan Gray, "Healthy logo: Netherlands 'Choices' logo confirmed as first government-backed scheme in EU", Food Navigator (2013), http://www.foodnavigator.com/Policy/Healthy-logo-Netherlands-Choices-logo-confirmed-as-first-government-backed-scheme-in-EU.

²⁸⁰ Besluit van de Minister van Volksgezondheid, Welzijn en Sport (107657-101400 VGP), "houdende goedkeuring van het Vinkje als voedselkeuzelogo en van de gebruiksvoorwaarden ervan", (2013).

In order for products to carry the logo, they need to comply with nutritional standards as set by independent scientific committees of the Choices Programme. In general, the international criteria for Choices front of pack labelling will apply. Though, for various countries, including the Netherlands and Belgium, national criteria have been developed.²⁸¹ The scheme aims to encourage food producers to reformulate the nutritional composition of energy dense foods or foods which contain high amounts of detrimental nutrients. It is claimed that categorization of foods with separate thresholds would foster innovation more than general threshold applying to all foods would.²⁸²

Moreover the Choices Programme also aims to increase the consumption of specific food categories which are considered to be beneficial because they contain relatively high amounts of essential nutrients or have other beneficial properties. The concerned foods are always rewarded with the green label in case nothing has been added. These include water, fresh fruit, vegetables and fresh potatoes.

7.1.3.3.3. Nutritional consideration

Where the Finnish salt indication initiative had set criteria per food category for the salt content, the Choices programme goes a step further with the establishment of nutrient profiles per food category. As such the scientific committee of the Choices Programme has taken up the challenge to set nutrient criteria for certain product groups. Something the Commission has failed to do up until now (*Supra 6.1.3.3*). The nutritional composition differs substantially between foods products which in fact makes the use of general thresholds for all foods rather impractical. Therefore the choices programme established a comprehensive framework of thresholds which may differ according to the category a food belongs to.²⁸³

For all of the subcategories thresholds are established regarding the amounts of saturated fats, trans fatty acids, sodium and added sugars. The choice of the respective nutrients has been based on the international nutrient recommendations from the WHO and FAO.²⁸⁴ In essence, the scheme takes account of nutrients of which the general intakes should be lowered according to nutritional recommendations. The set criteria include mainly upper limits on the present amounts of the detrimental nutrients in certain foods. For instance unprocessed meat may not contain over 3,2 grams of saturated fatty acids, 0,1 grams of trans fatty acids, 100 milligrams of sodium or no added sugars per 100 grams product.

²⁸¹ Choices International Foundation, "Product Criteria", http://www.choicesprogramme.org/about/product-criteria.

²⁸² Annet J.C. Roodenburg, *et al.*, "Development of international criteria for a front of package food labelling system: the International Choices Programme", 65 European Journal of Clinical Nutrition (2011), http://www.nature.com.ezproxy.library.wur.nl/ejcn/journal/v65/n11/pdf/ejcn2011101a.pdf, 1198.

²⁸³ Choices International Foundation, "International Product Criteria", (2015), < http://www.choicesprogramme.org/public/criteria/international-product-criteria-2015-def.pdf>.

²⁸⁴ Léon Jansen and Annet J.C. Roodenburg, "The use of food composition data in the Choices International Programme", 193 Food Chemistry (2016) 196–202 <http://ac.elscdn.com/S0308814615009747/1-s2.0-S0308814615009747-main.pdf?_tid=2df90dc6-a98d-11e5-94fb-00000aacb35f&acdnat=1450886133_5be6dcbf181a03ceb97718ea3889ffca>, 199.

Otherwise the product is no longer eligible to have the green healthier choice label. In addition, for the non-basic product group (blue logo - conscious choice logo) also energy limits are applied. Soups, for example, may not contain over 100 kcal per 100 gram product.

Depending on the specific categories different nutrients are taken into account. Noteworthy, occasionally fibre is being taking into account for some food categories. Irrespective of the acknowledgement that some evidence on the health effects is inconclusive, dietary fibre forms part of the set criteria.²⁸⁵ For example with regard to breads.²⁸⁶ Even more remarkable is the inclusion of added sugars in the criteria. The scheme allows for sugars which are naturally present in foods, such as fruits, or salads but does not allow or severely limits the use of added sugars for the eligibility criteria.²⁸⁷ This is a very accurate implementation of nutritional recommendations of the WHO aiming to lower the intakes of added sugar.

Cis-unsaturated fats are not included in the scheme. This should however not necessarily constitute an issue since a limit on both trans and saturated fats applies instead of a general upper limit for all fats. A specific nutritional objection on the scheme raised by the Commission concerned that the criteria for fish would not allow oily fishes to bear the Choices logo.²⁸⁸ Some fish are particularly high in unsaturated fats of which a higher intake as substitute for saturated fats is recommended according to nutritional recommendations (Supra 5.3.3.2). Though they equally may contain saturated fatty acids. Therefore they fish will generally surpass the established threshold for saturated fats of 0.1 g/100 g.²⁸⁹

The idea is that food producers would be stimulated to reformulate their foods in order to make them eligible to carry the logo. The actual healthiness of a choices approved diet is rather hard to assess. A recent study claims the Choices programme has a positive impact on the intake of trans fats, saturated fats, sodium and sugar.²⁹⁰ Though it must be said this findings are not free from bias as the research was conducted by the chairman of the Choices programme.

Accordance with EU law 7.1.3.3.4.

The Choices international scheme, other than the other front of pack logos, received approval from the European Commission.²⁹¹ The logo somehow relates to the use of nutrition claims as it only highlights beneficial aspects of the concerned foods. Accordingly the Dutch

²⁹¹ COM (2013) 686 final.

²⁸⁵ Annet J.C. Roodenburg, *et al.*, "Development of international criteria for a front of package food labelling system: the International Choices Programme", 65 European Journal of Clinical Nutrition (2011), <http://www.nature.com/ejcn/journal/v65/n11/pdf/ejcn2011101a.pdf>, 1191-1192.

[&]quot;International Choices International Foundation, Product Criteria", (2015), < http://www.choicesprogramme.org/public/criteria/international-product-criteria-2015-def.pdf>, p 2. lbid.

²⁸⁸ COM (2013) 686 final. Not publicly available, therefore included in Annex 1.

Stichting Bewust, "Productcriteria" lk Kies (Nederland, 2015), < http://www.hetvinkje.nl/site/assets/files/1989/productcriteria versie 2015 v2.pdf>,

Léon Jansen and Annet J.C. Roodenburg, "The use of food composition data in the Choices International Programme". 193 Food Chemistrv (2016) 196-202 <http://ac.elscdn.com/S0308814615009747/1-s2.0-S0308814615009747-main.pdf?_tid=2df90dc6-a98d-11e5-94fb-00000aacb35f&acdnat=1450886133 5be6dcbf181a03ceb97718ea3889ffca>, 200.

authorities had notified the Commission about a national decree recognizing the scheme according to article 23 NHCR. The Commission in its opinion argued it did not consider the scheme to be contrary to the Nutrition and Health Claims regulation.²⁹² Do note the wording. The logo has not been approved as a nutrition claim but the scheme is considered not to contravene the NHCR. The statement made by choices international that the logo has been approved as a nutrition claim²⁹³ is thus incorrect. Because nutrition claims have to be included in the Regulation's Annex. That would imply all food producers and retailers can make free use of the logo.

The task of establishing nutrient criteria for different foods can be of particular relevance for the nutrient profiling as required under the NHCR. The work and experiences of the choices foundation can be used an example. The methodology²⁹⁴ may potentially be copied for the establishment of nutrient profiles on a European level.

In order to assess the healthier alternatives in a certain food category, food composition data was acquired so they could differentiate between foods in one product group.²⁹⁵ For most nutrients the data can easily be gathered by reading the label, more exactly the nutrition declaration. Though for trans fatty acids and added sugar the amounts are not discernible because of limitations of current European legislation (*Supra* 6.1.2.3.1), so assumptions or other methods were used.

It could be wondered whether the scheme could also form an alternative form of expression in the sense of article 35 FIR. For the following reason it could be concluded such is not the case. The logo provides no specific nutritional information on the product, but only rewards products with an overall positive nutritional composition.²⁹⁶ The FIR provision specifically applies to additional forms of expression and presentation of the energy value and the amounts of nutrients. The choices logo does not indicate the energy value, nor any amount or name of a nutrient on the package. Consequently, the scheme does not need to comply with the stringent requirements like is the case with colour coding of (*Supra*, 7.1.3.1).

By consequence the use of healthy choice logos, such as the choices international logo has not been explicitly regulated under EU food labelling law. Interestingly, this allows for voluntary and potentially even mandatory labelling opportunities. National authorities can

²⁹² "Besluit van de Minister van Volksgezondheid, Welzijn en Sport van 8 april 2013, 107657-101400 VGP, houdende goedkeuring van het Vinkje als voedselkeuzelogo en van de gebruiksvoorwaarden ervan", (2013).

²⁹⁴ Annet J.C. Roodenburg, *et al.*, "Development of international criteria for a front of package food labelling system: the International Choices Programme", 65 European Journal of Clinical Nutrition (2011), http://www.nature.com.ezproxy.library.wur.nl/ejcn/journal/v65/n11/pdf/ejcn2011101a.pdf>.

²⁹⁵ Léon Jansen and Annet J.C. Roodenburg, "The use of food composition data in the Choices International Programme", 193 Food Chemistry (2016) 196–202 , 197-198.

²⁹⁶ Martin Holle, Enrico Togni and Arianna Vettorel, "The Compatibility of National Interpretative Nutrition Labelling Schemes with European and International Law", 9(3) EFFL (2014), < http://effl.lexxion.eu/data/article/1641/pdf/article.pdf>, p150.

implement a mandatory healthier choice logo scheme. The scheme entails a rather impressive framework of different food categories with specific thresholds, though this in principle should not undermine consumer understanding as this is simply translated to a green or blue logo.

7.1.3.4. 5 a day campaign

Nutritional recommendations, both international and national, advise to increase the general consumption of fruits and vegetables to an adequate intake of 400 grams per day (*Supra* 5.4). To encourage the overall consumption, the UK authorities among other worldwide²⁹⁷ initiated a *5* portions *a day* campaign to promote the fruit and vegetable intake. The campaign also includes the labelling of fruits and vegetables. Therefore its relevance to this work.

Different from the other labelling schemes is that the initiative is limited to one single category of food. Moreover it does not differentiate between the nutritional composition of food products within the category like the choices programme does, but attributes the positive characteristics to all the foods within that category. However, the extend of the category compromising fruits and vegetables appears no to be univocal as other countries with similar initiatives allow potatoes to be included as vegetables, while the UK scheme does not.²⁹⁸ Also, not taking account of the specific nutritional characteristics may have its downsides. For example, what to do with fruit juices which are rather high in sugar



Figure 7: 5 a day label -UK NHS

and lower in fibre? Under the UK scheme fruit juices count as one of the five portions, but the consumption of fruit juices should be limited to one glass (150 ml) per day.²⁹⁹

The label can only be used on pure fruit and vegetable products. Accordingly, ready to eat meals are not eligible to bear the logo even though they may provide fruit or vegetables in the amount of one of the five portions. For packs of fruit or vegetables that contribute less than a portion, an explanation should be provided of how many of the concerned fruit or vegetables constitute a single portion.³⁰⁰ Within the scheme, a portion is generally seen as 80 grams of fruits or vegetables.³⁰¹ No product is allowed to bear any statement that the

²⁹⁷ Corinna Hawkes, "Promoting healthy diets through nutrition education and changes in the food environment: an international review of actions and their effectiveness.", FAO (2013), <<u>http://www.fao.org/docrep/017/i3235e/i3235e.pdf>, p 12-15.</u>

²⁹⁸ J.V. Woodside, C. Rooney and M.c. McKincley, "The 5-a-day message – should we aim higher?", 39 Nutrition Bulletin (2014), 39.

²⁹⁹ UK NHS, "Rough guide – fruit & vegetable portion sizes", (n.d.), <<u>http://www.nhs.uk/livewell/5aday/documents/downloads/5aday_portion_guide.pdf>, p 1</u>

³⁰⁰ UK NHS, "5 A DAY portion sizes", (2015), http://www.nhs.uk/Livewell/5ADAY/Pages/Portionsizes.aspx, p 4.

³⁰¹ Sam Montrel, "External Reference Group - 5 A Day logo", (2011) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/370505/5_A_day_background_Paper_4_11_14.pdf>, p 2-3.

product contributes more than 1 portion out of 5 as the 5 a day scheme aims to promote a varied consumption of fruits and vegetables.

From a nutritional perspective, the scheme specifically implements a generally accepted nutritional recommendations so little can be brought into against the campaign.³⁰² Health effects of increased fruit and vegetable consumption have sufficiently been established. There are even calls to increase the recommended portions from 5 to 7 a day.³⁰³

Legally, there are no indications the scheme has been disputed as forming a barrier to trade. The scheme forms part of a governmental campaign but has remained voluntary.³⁰⁴ The question essentially regards whether it concords with European food labelling legislation. It could be argued that logos take a special position under EU law as was dealt with describing the Choices logo. The a day label highlights the positive nutritional attributes of foods, so it could potentially fall under the scope of the NHCR. No specific claim on a certain nutrient is made, rather the entire product is perceived as healthy through the use of the label. Nor does it suggest any link towards positive health effects. It contains no specific nutritional information, making assume that the FIR does not apply on this scheme.

8. The influence of international trade law on national initiatives exemplified

8.1. Nutritional warning signs in Chile

An interesting legal labelling initiative to consider is the Chilean Law on the Nutritional Composition of Foods and their Marketing. The legislation includes labelling aspects which mandate food producers to apply front of package warnings on foods which are relatively high in calories, fats, sugars and/or salt. The labelling scheme displays a stop sign on the concerned foods indicating the high presence of the concerned nutrients in relation to a set of established thresholds. The new labelling scheme will take effect by June 2016, although a transitional period of three years is foreseen. The application of warning signs is considered very progressive, but at the same time it is very controversial.³⁰⁵



Figure 7: Nutritional Warnings (Chile, Decreto 13)

³⁰³ Chris Kypridemos, Martin O'Flaherty and Simon Capewell, "Fruit and vegetable consumption and non-communicable disease: time to update the '5 a day' message?", 68 J Epidemiol Community Health (2014), < http://jech.bmj.com.ezproxy.library.wur.nl/content/68/9/799.full.pdf+html>.
 ³⁰⁴ WHO, "Fruit And Vegetable Promotion Initiative", (2003, <

http://www.who.int/dietphysicalactivity/publications/f&v_promotion_initiative_report.pdf>.

³⁰² J.V. Woodside, C. Rooney and M.c. McKincley, "The 5-a-day message – should we aim higher?", 39 Nutrition Bulletin (2014), 39.

Verónica Marín Rebolledo , "Nuevo etiquetado de alimentos: La ley con que Chile pretende terminar con la obesidad", Emol (2015), http://www.emol.com/noticias/Nacional/2015/06/26/723383/Nuevo-etiquetado-dealimentos.html.

The Chilean initiative demonstrates the influence international trade law can have on policy makers aiming to address the obesity epidemic. International law can be used as a valuable instrument to make policy makers reconsider their actions, but may also limit creative solutions to address the issue of obesity and NCD prevalence.

8.2. Legal complications regarding the warning signs

The original Chilean labelling scheme raised various legal concerns under WTO law as it was not in line with generally accepted international standards. Remind the Codex standards and their harmonizing effect on legislation (Supra 4.1.3). Therefore they could potentially constitute an unnecessary trade barrier. As a consequence, trade concerns were raised with the WTO. In total eight WTO members, among which the EU, argued the measure would constitute an unnecessary trade barrier as it was not based on the relevant Codex Alimentarius standards and the measure had not been notified to the WTO.³⁰⁶

The Chilean authorities on the other hand argued that the measures were necessary to cope with the obesity epidemic, as a means to provide easily understandable information to consumers.³⁰⁷ The legitimate objective was recognized, though the adopted measures were considered to be inadequate. Moreover, the legal initiative received sincere opposition from the food industry, mainly from those who import food into Chile.³⁰⁸ Accordingly, under the international pressure, the Chilean government repealed the initial governmental decree three days before its entry into force.³⁰⁹ Subsequently, various changes were introduced to please the opponents. For instance, Mexico had raised the argument that the Chilean nutritional warnings were not in in line with the Codex Alimentarius guidelines on claims.³¹⁰ Do note that Codex guidelines, different from the NHCR, can include both positive and negative messages on the nutritional composition of foods. So the legal acceptance of the scheme should be considered under the Codex guidelines on claims rather than the guidelines on nutrition labelling.

Within earlier legal proposals the label had to state 'excess in' calories or a certain nutrient. The Codex guidelines on claims on the other hand recommend to use 'high' instead for nutrition claims. According to Mexico this would potentially have created unnecessary fear among consumers about the characteristics of the concerned foods.³¹¹ Therefore the current

³⁰⁶ WTO. "Members discuss guidelines for trade-friendly regulation and STOP sign for 'junk food'", (2013), <https://www.wto.org/english/news_e/news13_e/tbt_13mar13_e.htm#concernslist1>.

³⁰⁷ *Ibid.* ³⁰⁸ Organización de Panamericana de la Salud, "Respaldo de la OPS/OMS y FAO al Reglamento Sanitario de los Alimentos para la aplicación de la Ley 20.606 en Chile", (2015), < http://www.paho.org/chi/index.php?option=com_content&view=article&id=636:respaldo-de-la-opsomsy-fao-al-reglamento-sanitario-de-los-alimentos-para-la-aplicacion-de-la-ley-20606-enchile&Itemid=1005>.

³⁰⁹ Fratini Vergano, "Chile adopts warning statements in the form of a black STOP sign for 'HFSS foods' (i.e., foods high in fat, salt or sugar)", 16 Trade Perspectives http://www.fratinivergano.eu/static/upload/1/1/15.09_.11_TP_Issue_16_.pdf. (2015),

³¹¹ Committee on Technical Barriers to Trade, "Chile - Food Health Regulations", (G/TBT/W406) WTO (2015), <http://web.wtocenter.org.tw/DownFile.aspx?pid=264085&fileName=GTBTW406.doc>.

decree demands to indicate when a product is 'high in' calories or certain nutrients instead of 'excess in'.³¹² The most apparent change is that the categorization of food products was abandoned which will be discussed in the next section.

Having addressed some of the concerns raised by various WTO members, the legal issue appears not to have been solved yet to the fulfillment of some complainants.³¹³ The scheme thus remains disputed under international law.³¹⁴ Recently however, the initiative received official support from the WHO and FAO.³¹⁵ The latter being the founding fathers of the Codex Alimentarius this story is on an interesting edge between consumer health protection and legal harmonization requirements under trade law.

8.3. Nutritional consideration of the warnings

The Chilean authorities in collaboration with scientific experts have had initially undertaken the precarious challenge of nutrient profiling.³¹⁶ The first implementing decree³¹⁷ implemented a vertical approach by introducing thresholds per food category similar to the Choices foundation initiative. The decree determined that certain categories of pre-packaged foods which exceeded the limits set in the included table needed to include a message informing the consumer of that fact.³¹⁸ The table consisted of 20 different categories of food accompanied with threshold levels in relation to a reference portion. For example breakfast cereals exceeding one of the set limits of 135 kilocalories, 1,5 grams of saturated fats, 5 grams of total sugar or 150 milligrams of salt in a portion of 30 grams were to bear a warning indicating the food product is respectively high in calories, high in saturated fats, high in sugar or high in salt.

The new legislation differs from the earlier proposal in the sense that the set thresholds apply for all foods. Only a distinction has been made between solid and liquid foods. Subsequently

³¹² Note: Different from European legislation (NHCR) there is no requirement under the Codex guidelines that claims can relate to beneficial characteristics only. ³¹³ Sofía Boza Martínez, "Ley de Alimentos: Chile a examen ante la Organización Mundial de

³¹³ Sofía Boza Martínez, "Ley de Alimentos: Chile a examen ante la Organización Mundial de Comercio", Universidad de Chile (2015), < http://www.portaluchile.uchile.cl/noticias/113443/ley-de-alimentos-chile-a-examen-ante-la-org-mundial-de-comercio>. ³¹⁴ WTO, "Activities of the WTO SPS Committee and other Relevant WTO Activities In 2014 And The

³¹⁴ WTO, "Activities of the WTO SPS Committee and other Relevant WTO Activities In 2014 And The First Quarter Of 2015", (2015), <ftp://ftp.fao.org/codex/meetings/CAC/cac38/if38_03e.pdf>, point 2.10-2.16.

^{2.16. &}lt;sup>315</sup> Organización de Panamericana de la Salud, "Respaldo de la OPS/OMS y FAO al Reglamento Sanitario de los Alimentos para la aplicación de la Ley 20.606 en Chile", (2015), < http://www.paho.org/chi/index.php?option=com_content&view=article&id=636:respaldo-de-la-opsoms-y-fao-al-reglamento-sanitario-de-los-alimentos-para-la-aplicacion-de-la-ley-20606-en-chile&Itemid=1005>.

³¹⁶ Instituto de Nutrición y Tecnología de Los Alimentos, "Estudio "Propuesta de Criterios y Recomendación de Límites Máximos de Nutrientes Críticos para la Implementación de la Ley de Composición de Alimentos Y su Publicidad", Universidad De Chile (2011),<http://www.dinta.cl/wp-dintacl/wp-content/uploads/Estudio-Propuesta-Criterios-Y-recomendacion-L%C3%ADmites-m%C3%A1ximos-de-Nt-Criticos.pdf>, p 87.

³¹⁷ Decreto Número 12 de 17 de Diciembre de 2013, "Modifica Decreto Nº 977, de 1996, que aprueba el Reglamento Sanitario De Los Alimentos", (Núm. 40.734), accesible at http://www.dinta.cl/wp-dintacl/wp-content/uploads/Diario-Oficial-Decreto-12-y-28.pdf>.

³¹⁸ Article 1(6) of the implementing decree.

the warning has to be provided on all foods that exceed the thresholds in table below.³¹⁹ The use of serving sizes has also been abandoned for thresholds applying to a per 100g/100ml reference. Regarding the nutrients taking into account, they generally concur with other labelling schemes. By consequence the actual framework of thresholds is very similar to the one used by the UK FSA for the colour coding. The distinction between solid and liquid foods also applies for traffic light labelling. Unfortunately limits on trans fats are not included.

	Energía kcal/100 g	Sodio mg/100 g	Azúcares totales g/100 g	Grasas saturadas g/ 100 g
Límites en Alimentos sólidos. Valores mayores a:	275	400	10	4
	Energía kcal/100 ml	Sodio mg/100 ml	Azúcares totales g/100 ml	Grasas saturadas g/ 100 ml
Límites en alimentos líquidos. Valores mayores a:	70	100	5	3

Figure 7: table with thresholds for the application of nutritional warnings (Chile, Decreto 13)

Overall, the nutritional thresholds for the warning labels are relatively low making that many popular products will have to bear the warning label.³²⁰ Most of the thresholds are far stricter than those set by the UK FSA for the application of a red colour. The scheme can potentially help consumers to avoid the excess consumption of detrimental nutrients. Besides, the initiative may have a particular positive effect regarding food reformulation. The strict thresholds may push food producers to adapt the overall nutritional composition of their foods in order to avoid the mandatory use of the warning label. For example where the saturated fat content of a product is lowered this cannot be compensated that much by the use of sugar as equally a limit to the energy value and the sugar content applies to the food.

Other than with traffic light labelling no limit is set on the total amount of fats, but only saturated fats (*Supra* 5.3.3.2). However this does not necessarily overcome the issue of negatively affecting products high in healthy unsaturated fats. Some food products which consumption is promoted will still be depicted with a warning sign. Vegetable and fish oils or nuts, generally high in unsaturated fats, will equally surpass the limit set for the amount saturated fat per 100 gram. Again, a differentiation per food category would have been more sensible.

³¹⁹ Decreto Número 13 de 26 de junio de 2015, "Modifica decreto supremo N° 977, de 1996, Reglamento Sanitario de los Alimentos" (Núm. 41.193), accesible at http://www.dinta.cl/wp-dintacl/wp-content/uploads/Decreto-13_Ley-super8_do-20150626.pdf>.

Verónica Marín Rebolledo , "Nuevo etiquetado de alimentos: La ley con que Chile pretende terminar con la obesidad", Emol (2015), http://www.emol.com/noticias/Nacional/2015/06/26/723383/Nuevo-etiquetado-dealimentos.html.

8.4. Potential implementation of the warnings by European Union member states

It can be wondered whether the scheme would be feasible for introduction in the European ambit. Therefore it must be assessed how it relates to the harmonized legal requirements under the FIR and the NHCR. The scheme does not relate to any beneficial attributes of food, making that the NHCR does not apply³²¹, different from the case with the international Codex guidelines on claims. The FIR, on the other hand, provides certain specific requirements regarding front of pack indications (*Supra* 6.1.2.2.2). Other indications then the energy value and the amounts of the mandatory nutrients together with percentages in relation to the reference intakes are not allowed. Accordingly, the indication of a 'high' presence of any of these nutrients is not possible under the FIR. Remind, however, as is potentially the case with the Finnish salt warnings, that an exception for mandatory particulars is provided in article 39 FIR. However, such measures are limited to specific types or categories of foods. In case of the Finnish salt labels, thresholds are established for eight categories foods making potential justification of the measure possible. The Chilean scheme however abandoned the thresholds per food category approach. General thresholds applying for all foods will not justifiable.

Accordingly under current European legislation there is very little room for creative labelling solutions focusing on the nutritional composition of foods. Where room appears to have been left under article 39 or for front of pack schemes under article 35 FIR, the provided discretion seems to be very narrow when considering various labelling schemes currently in place.

9. Discussion

- 9.1. Considerations on currently applicable labelling legislation
 - 9.1.1. Specific comments regarding European labelling legislation
 - 9.1.1.1. European responsibilities and commitment

At the European level the FIR particulars regarding the nutrition declaration still need to enter into force, while the labelling requirements of the NHCR have already been in place for various years. Considering the anticipated entry into force and wide applicability the FIR it proves valuable to summarize its limitations and deficiencies.

The European harmonized labelling requirements intent to provide a high level of consumer protection while at the same time facilitate trade between the member states. A unified approach does clearly overcome the hurdles associated with disparities due to different labelling standards in the member states. A single set of labelling requirements benefits consumer understanding and at the same time lowers the transaction costs for European food producers. With the current state of the European FIR and NHCR it can be wondered whether the high level of protection of consumers actually has been satisfied with. The European harmonization efforts in food labelling have created important responsibilities for

³²¹ Recital 6 to the NHCR.

the European institutions regarding food labelling requirements. The European Commission however appears to be struggling with the tasks it is assigned with.

The report on trans fats was submitted one year after the deadline provided in the FIR³²² regulation and no still no solution has been implemented yet (*Supra* 6.1.2.3.2). Regarding the indication of portion sizes or consumption units, the Commission has been mandated to adopt rules on the expression per portion or consumption unit for specific categories of foods, taking actual consumer behaviour and nutritional recommendations into account. So far, no initiative has been taken by the Commission. Accordingly, the indication of portion or consumption unit sizes are not regulated.

Another demonstrated issue with the FIR concerns the application of front of pack indications. The current approach is rather ambiguous. On the one hand, the FIR aims to leave discretion to national policy makers to recommend additional schemes on the expression and presentation of the energy value and the amounts of mandatory nutrients. Do note that only voluntary measures recommended by the member states are allowed. It is provided that such schemes are to evaluated by December 2017 by the Commission in order to assess whether they are feasible for harmonization through European legislation. However, when considering the conditions that front of pack schemes need to comply with it becomes clear that few initiatives will pass the test. When the theory of *de facto* barriers is applied, no voluntary scheme recommended by public authorities is likely to pass the condition of not forming an obstacle to the free movement of goods. The FIR provision leaves no room for justifying such measures and the obligatory involvement of a wide range of stakeholders is evidently 'capable of influencing the conduct of traders and consumers in that state' (Supra 7.1.3.1.3).

Also concerning the NHCR a striking shortcoming can be named. Namely the still absent nutrient profiles for the application of nutrition and health claims (*Supra* 6.1.3.3). Under the NHCR the Commission was mandated to adopt nutrient profiles by 19 January 2009. There appear to be little acceptable excuses for exceeding the deadline for that many years. The Choices programme and the repealed Chilean legislation prove that nutrient profiles can be established for various categories of foods. The failure is most likely more linked to political and industry pressure than to the inherent complications, as is demonstrated with the case of Chile.

These elements allow to question the commitment of the Commission to the goal of reducing overweight, obesity and related health issues. Harmonizing food labelling requirements while restricting member states policy discretion in that field demands for the Commission to live up to its responsibilities. A unified approach in food labelling can only be beneficial where the high protection of consumers and health is assured. In that regard various nutritional concerns with regard to the FIR have been raised.

³²² Article 30(7) FIR

9.1.1.2. Nutritional shortcomings of the FIR

In the provided review of labelling measures, with a main focus on the FIR, various shortcomings have been identified that essentially should be addressed in order to make the labelling requirements comply with nutritional recommendations.

Currently, the indication of the amounts of present trans fats is not allowed. The European Commission is considering various policy options but could have provisionally allowed the inclusion of trans fats in the nutrition declaration. Secondly, it is widely agreed that the intakes of added sugar should be limited as much as possible (*Supra* 5.3.3.3). Therefore it is advisable to distinguish between the two types of sugars in the nutrition declaration or provide for other policy measures. Another issue regarding sugar concerns the reference intake for sugar in the FIR. The reference intake of 90 grams a day is very high when compared with DRI's established by most authorities other than EFSA.

Apart from the nutrients that may lead to or aggravate adverse health effects, also macronutrients with beneficial characteristics can be identified and should have been adequately included in the European food labelling regulations. For the purpose of weight maintenance, fibre constitutes an important nutrient to be included in the daily diet. Though its importance has been severely overlooked in the FIR. The same accounts for cis-unsaturated fats. The indication of these nutrients will depend on the efforts by food producers and retailers, equally as for the use of nutrition or health claims highlighting their presence.

9.2. Potential policy initiatives

9.2.1. Best placed authorities

Considering the issue of obesity we are faced with a global epidemic (*Supra* 1.1). Improvement of dietary quality has become an objective for policy makers at the international, regional and national level. Initiatives therefore are developed at all three levels of governance and there are obvious trends towards harmonization of these policy efforts. Harmonizing efforts in the field of food labelling for the protection of consumer health have been undertaken by the Codex Alimentarius Commission (*Supra* 4.1.3). Though, international efforts do not stand on their own. They need to be implemented through legislative authorities at European or national level. Regarding the division of competences between European and national authorities, food labelling regulation has since recently become a showpiece of European legal harmonization.

The room for labelling initiatives regarding nutrition information and claims appears to have been exhausted. In essence, considering what institutions are best placed to adopt labelling initiatives rather involves the question what policy makers still can or are allowed to do in the field of food labelling law.

European member states are precluded from adopting additional labelling schemes to what has been regulated under the FIR and the NHCR. However some room for labelling initiatives still exists. Firstly, within the ambit of the FIR additional mandatory particulars can

be permissible for specific categories of foods when they can be justified on one of the grounds specified. This could potentially allow for specific initiatives such as salt warning labelling as is in place in Finland (*Supra* 7.1.3.2).

A second unique labelling option left at the disposal of national authorities would be the use of logos. Namely the use logos which attribute beneficial characteristics to certain categories of foods. The mentioned examples included the Choices logos and the 5 a day logo. As the logos make no explicit reference to the energy value or the amounts of nutrients they have not been regulated by the FIR. Even in the case they would, the use of both logos can potentially be justified on the basis of article 39 FIR, as they apply only to specific categories of food.

Regarding their compliance with the NHCR, the Commission formally recognized the Choices logo not to be contrary to the NHCR. Consequently, as logos are not explicitly regulated under EU law, they can be adopted as a voluntary labelling scheme and potentially even as mandatory measures by member states. Regarding limitations under international law a similar discourse can probably be made, since the European food labelling regulations implement the Codex guidelines on nutrition labelling and claims.

9.2.2. Logos identifying healthy food choices

Above three nutritional strategies were considered, namely the reduction of energy intake, establishing a fair balance between nutrients and lastly healthy food choice promotion (*Supra* Chapter 5). The first two strategies have been extensively implemented into Codex standards and European harmonized food labelling legislation regarding nutrition labelling, which includes the indication of energy value, and the use of claims. Though various nutritional shortcomings have also been identified. The 5 a day label is a particular example of the third nutritional strategy, promoting the consumption of fruits and vegetables.

Interestingly, the Choices logo implements all three strategies as it applies an energy limit, specific limits on the amounts of certain nutrients and stimulates the consumption of fruits, vegetables, water and nuts. Moreover, it takes account of particular food characteristics by applying different thresholds. In essence, it succeeded in the establishment of nutrient profiles. With regard to nutrients it addresses many of the issues raised with the FIR. It differentiates between naturally present sugars and added sugars. It considers the presence of fibre for the relevant food categories which is an important factor to the maintenance or loss of body weight. And, there are limits established for trans fats. No other approach considered is that comprehensive.

9.2.3. Voluntary versus mandatory labelling implementation of logos

The next question then regards whether like initiatives should be recommended as voluntary schemes or should be adopted through actual legislation. Considering the fact that both mandatory and voluntary schemes can form barriers to trade there is no immediate legal preference.

Voluntary schemes however have the downside that they cannot be enforced and disparities may exist in their application by different food producers. Moreover the chances are real that the suggested labelling scheme will not be applied to products that are rather unhealthy in order not to harm the image of the product. The non-inclusion of certain foods may undermine the overall effectiveness of the initiatives (*Supra* 3.3). Moreover, innovative reformulation of products is all the more true when companies are both driven by economic incentives and forced by law. Though to overcome disparities between member states, such schemes should be monitored by the public authorities and eventually even be harmonized on the EU level for the sake of consumer protection, and, to avoid hindrances to intra-Union trade.

9.2.4. Identification of a unified European approach

The major contribution of the European Union in addressing obesity and health related issues has been the harmonization of food labelling requirements. A high level of consumer protection is claimed to have been taken into account. When considering the recent harmonization efforts, the dedication of the European institutions is however poor and the actual implementation of nutritional strategies shows its deficiencies. An epidemic affecting 1 out of 6 European adults demands prompt and adequate action. Therefore the suggestion is made to come up with a new particular labelling strategy. Currently, there is the room for national authorities to develop logos that identify healthier foods on the basis of nutritional thresholds that take particular characteristics of foods into account by dividing them into categories. All these elements can be translated into a single logo identifying the healthy foods or healthier alternatives for consumers. The Choices logo can be used a particular example. Though, such schemes should be made mandatory to guarantee their success. Moreover, the European authorities should monitor their application and ultimately implement them on the European level to come to one single logo benefiting consumer understanding and the functioning of the internal market.

10. Recommendations

The conducted research has been limited to a focus on the average adult population, while in essence it might advisable to take the particular nutritional requirements of certain specific population groups into account. Especially children have peculiar dietary needs which may potentially undermine the nutritional adequacy of the discussed and suggested labelling schemes for this or other groups. This work aims to address the issue of obesity and therefore the research focuses on the nutritional aspects that contribute to obesity prevalence. Further research could focus on foods or nutrients that are particularly relevant to prevent childhood obesity in case the suggested labelling schemes would have no substantial or not the required impact to this regard.

Furthermore, the suggested use of logos has its strengths, being capable of taking account of many nutritional recommendations and peculiar to defined food categories. Though the criteria as used for the given example of the Choices programme have not been considered to an sufficient extent in this analysis. Therefore it is recommended to analyse the adequacy of the set criteria per food category and of the food categories currently included in the scheme. In other words, it should be properly assessed what effect a diet based on the established criteria would have on the health of an individual.

A latter element that needs to be considered is the impact that the considered and suggested food labels may have on consumers. Consumer behaviour analysis did not form part of this research, however, will prove crucial for the effectiveness of food labels on the prevention or reduction of obesity.

Conclusion

Nutrition policy focusing on obesity reduction concerns a three level approach. International, European and national institutions are increasingly devoted to the improvement of dietary quality. International efforts, however, lack binding force as they are imprecise or depend on actual implementation by other regulators. European efforts on the other hand lack proper commitment of the European institutions towards the implementation of the harmonized labelling legislation. Furthermore, various nutritional shortcomings of the European regulations should be addressed in order to make the European answer to the obesity epidemic prompt and adequate. Specifically, fibre, trans fats and added sugars being largely overlooked in the use of nutrition information and claims undermines the nutritional adequacy of the policy efforts. Consideration of national labelling initiatives demonstrates the limited discretion that is left to member state authorities in the adoption of additional labelling schemes due to the European harmonization efforts. The benefits of a unified approach are apparent for the proper functioning of the internal market and a disputable high protection of consumers. Though, it proves equally valuable to allow the development of additional labelling schemes that can constitute creative and comprehensive solutions to the challenges posed by inadequate diets. If properly notified to the European institutions which can monitor their application and consider their feasibility, this could eventually lead to a new harmonized labelling scheme for Europe. A concrete suggestion has been made for the use of particular logos which avoid legal confrontations and can adequately implement the provided nutritional strategies.

References

Legislation and related documents

Besluit van de Minister van Volksgezondheid, Welzijn en Sport (107657-101400 VGP), "houdende goedkeuring van het Vinkje als voedselkeuzelogo en van de gebruiksvoorwaarden ervan", (Netherlands, 2013).

COM (2007) 279 final

COM (2007) 99 final

COM (2008) 94

COM (2013) 686 final. (Not publicly available, therefore included in Annex 1).

COM (2015) 619 final

Decreto Número 12 de 17 de Diciembre de 2013, "Modifica Decreto Nº 977, de 1996, que aprueba el Reglamento Sanitario De Los Alimentos", (Núm. 40.734), accesible at http://www.dinta.cl/wp-dintacl/wp-content/uploads/Diario-Oficial-Decreto-12-y-28.pdf>.

Decreto Número 13 de 26 de junio de 2015, "Modifica decreto supremo Nº 977, de 1996, Reglamento Sanitario de los Alimentos" (Núm. 41.193), accesible at http://www.dinta.cl/wp-dintacl/wp-content/uploads/Decreto-13_Ley-super8_do-20150626.pdf>.

General Guidelines on Claims (CAC/GL 1-1979)

Guidelines On Nutrition Labelling (CAC/GL 2-1985)

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

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

Treaty on European Union and the Treaty on the Functioning of the European Union

Books

Albert, J., Innovations in Food Labelling, FAO-CRC Press (New York, 2010), 174 p.

Amandine Garde, EU law and obesity prevention, Kluwer (Alphen aan de Rijn, 2010), 358 p.

Bernd van der Meulen, *EU Food Law Handbook*, Wageningen Academic Publishers (Wageningen, 2014), 692 p.

Caoimhín MacMaolaín, EU Food Law, Protecting Consumers and Health in a Common Market, Hart Publishing (Oxford, 2007), 285 p.

David E. Sahn, The Fight against Hunger and Malnutrition: The Role of Food, Agriculture, and Targeted Policies, Oxford University Press (Oxford, 2015), 493 p.

Ellie Whitney and Sharon Rady Rolfes, *Understanding Nutrition*, Wadsworth Cengage Learning (Belmont, USA, 2011), 704 p.

Franco Sassi, Obesity And The Economics Of Prevention: Fit Not Fat, Edward Elgar Publishing, (Cheltenham, UK, 2010), 277 p.

Maria Teresa Giardi (*et al.*), *Bio-Farms for Nutraceuticals: Functional Food and Safety Control by Biosensors*, 698 Advances in Experimental Medicine and Biology, 328 p.

Tania Voon, Andrew Mitchell and Jonathan Liberman, *Regulating Tobacco, Alcohol and Unhealthy Foods: The Legal Issues,* Rootledge (London, 2014), 394 p.

Tim Spector, *The Diet Myth, The Real Science Behind What We Eat*, Weidenfeld & Nicolson (London, 2015), 318 p.

Internet Sources

Alexandra Krettek, Stefan Thorpenberg and Göran Bondjers, "Trans Fatty Acids and Health: A Review of Health Hazards and Existing Legislation", EU Parliament (2008), http://www.europarl.europa.eu/RegData/etudes/etudes/join/2008/408584/IPOL-JOIN_ET(2008)408584_EN.pdf>, 22 p.

Alison Fynes, "The Role of Mandatory Nutrition Labelling in Combating Obesity in the EU", Trinity College (2012), http://www.undergraduatelibrary.org/2012/law/role-mandatory-nutrition-labelling-combating-obesity-eu.

Allyn L. Taylor, Emily Whelan Parento and Laura A. Schmidt, "The Increasing Weight of Regulation:Countries Combat the Global Obesity Epidemic", 90 Indiana Law Journal (2015), < http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2422508>, 35 p.

Allyn L. Taylor, Ibadat S. Dhillon, Lenias Hwenda, "A WHO/UNICEF Global Code of Practice on the Marketing of Unhealthy Food and Beverages to Children", 5 Global Health Diplomacy (2012), < http://blogs.shu.edu/ghg/files/2012/06/Taylor-Dhillon-Hwenda_A-WHO-UNICEF-Global-Code-of-Practice-on-the-Marketing-of-Unhealthy-Food-and-Beverages-to-Children.pdf>.

Annet J.C. Roodenburg, *et al.*, "Development of international criteria for a front of package food labelling system: the International Choices Programme", 65 European Journal of Clinical Nutrition (2011), http://www.nature.com/ejcn/journal/v65/n11/pdf/ejcn2011101a.pdf, 1190-1200.

BA Swinburn, I Caterson, JC Seidell and WPT James, "Diet, nutrition and the prevention of excess weight gain and obesity", 7(1A) Public Health Nutrition, < http://www.who.int/nutrition/publications/public_health_nut3.pdf>, 132-146.

Beth Carlton Tohill, "Dietary Intake of fruit and vegetables and management of body weight", CDCC-WHO (2005), < http://www.who.int/dietphysicalactivity/publications/f&v_weight_management.pdf?ua=1>, 39 p.

Catherine Keating, Kathryn Backholer and Anna Peeters, "Prevalence of overweight and obesity in children and adults.", http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(14)62367-9.pdf, 384 Lancet (2014).

Choices International Foundation "Productcriteria" (Nederland, 2015), < http://www.hetvinkje.nl/site/assets/files/1989/productcriteria_versie_2015_v2.pdf>,

Choices International Foundation, "A single food choice logo for The Netherlands", (2012), http://www.choicesprogramme.org/news-updates/news/a-single-food-choice-logo-for-the-netherlands>.

Choices International Foundation, "A single food choice logo for The Netherlands", (2012), http://www.choicesprogramme.org/news-updates/news/a-single-food-choice-logo-for-the-netherlands>.

Choices International Foundation, "International Product Criteria", (2015), < http://www.choicesprogramme.org/public/criteria/international-product-criteria-2015-def.pdf>.

Choices International Foundation, "Press Release: Dutch Choices logo receives national and EU approval", (2013), http://www.choicesprogramme.org/news-updates/news?page=8>.

Choices International Foundation, "Product Criteria", http://www.choicesprogramme.org/about/product-criteria.

Chris Kypridemos, Martin O'Flaherty and Simon Capewell, "Fruit and vegetable consumption and noncommunicable disease: time to update the '5 a day' message?", 68 J Epidemiol Community Health (2014), < http://jech.bmj.com.ezproxy.library.wur.nl/content/68/9/799.full.pdf+html>.

COM OJ (2010) C-305/04, "Implementation of the EU Salt Reduction Framework", Directorate-General Health and Consumers (2012), http://ec.europa.eu/health/nutrition_physical_activity/docs/salt_report1_en.pdf, 24 p.

COM, Agenda of 25 june 2007, http://ec.europa.eu/food/safety/reg_com/archive/sc_genfood_sum_25062007_en.pdf>, 5 p.

COM. , "Strategy on nutrition, overweight and obesity-related health issues", http://ec.europa.eu/health/nutrition_physical_activity/policy/strategy_en.htm

Committee on Technical Barriers to Trade, "Chile - Food Health Regulations", (G/TBT/W406) WTO (2015), <http://web.wtocenter.org.tw/DownFile.aspx?pid=264085&fileName=GTBTW406.doc>.

Corinna Hawkes, "Promoting healthy diets through nutrition education and changes in the food environment: an international review of actions and their effectiveness.", FAO (2013), <http://www.fao.org/docrep/017/i3235e/i3235e.pdf>, 50 p.

D Mozaffarian, A Aro and WC Willett, "Health effects of trans-fatty acids: experimental and observational evidence", 63 European Journal of Clinical Nutrition (2009), http://www.nature.com/ejcn/journal/v63/n2s/pdf/1602973a.pdf, S5-S21.

David Stuckler and Marion Nestle, "Big Food, Food Systems, and Global Health", 9(6) PLOS Medicine (2012), http://www.foodpolitics.com/wp-content/uploads/PLoS_BigFood_Stuckley_12.pdf, 4 p.

Derek Yach, David Stuckler and Kelly D Brown, "Epidemiologic and economic consequences of the global epidemics of obesity and diabetes", 12 Nature Medicine (2006), http://archive.oxha.org/knowledge/publications/derek-nature-global-burden-obesity-and-diabetes.pdf>, 62-66.

DG for Internal Policies, "Trans Fats: Workshop", European Parliament (2014), http://www.europarl.europa.eu/RegData/etudes/workshop/join/2014/518744/IPOL-ENVI_AT(2014)518744_EN.pdf>, 49 p.

EFSA, "Dietary reference values and dietary guidelines", (2015), http://www.efsa.europa.eu/en/topics/topic/drv.

EFSA, "EFSA sets European dietary reference values for nutrient intakes", (2010), < http://www.efsa.europa.eu/en/press/news/nda100326>.

EFSA, "Opinion of the Scientific Panel on Dietetic Products, Nutrition and Allergies on a request from the Commission related to the presence of trans fatty acids in foods and the effect on human health of consumption of trans fatty acids". 81 The EFSA Journal (2004).the < http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/opinion_nda09_ej 81 tfa en1%2C5.pdf>, 1-49.

EFSA, "Scientific Opinion of the Panel on Dietetic Products, Nutrition and Allergies on a request from the Commission related to the review of labelling reference intake values for selected nutritional

elements", 1008 EFSA Journal (2015), <http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1008.pdf>, 1-14.

EFSA, "Scientific Opinion on Dietary Reference Values for carbohydrates and dietary fibre", 8(3) EFSA Journal (2010), <

http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1462.pdf>, 77 p.

EFSA, "Scientific Opinion on Dietary Reference Values for fats, including saturated fatty acids, polyunsaturated fatty acids, monounsaturated fatty acids, trans fatty acids, and cholesterol", 8(3) EFSA Journal (2010), < http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/1461.pdf>, 107 p.

EFSA, "The Setting of Nutrient Profiles for Foods Bearing Nutrition and Health Claims pursuant to Article 4 of the Regulation (Ec) ° No 1924/2006", 644 The EFSA Journal (2008), < http://www.efsa.europa.eu/sites/default/files/scientific_output/files/main_documents/nda_op_ej644_nut rient%20profiles_en,3.pdf>, 1-44.

Elise Golan, *et al.*, "Economics of food labelling", 24(2) Journal of Consumer Policy (2001), < http://www.ers.usda.gov/media/532216/aer793.pdf>, 49 p.

EU Parliament – (E-011011-13), OJ C 208, "http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+WQ+E-2013-011011+0+DOC+XML+V0//EN".

EUFIC, "Fuit and Vegetable Consumption in Europe – do Europeans get enough?", (2012), < http://www.eufic.org/article/en/expid/Fruit-vegetable-consumption-Europe/>.

EUFIC, "The importance of portion information from a consumer and health perspective", EUFIC Review (2012), http://www.eufic.org/article/en/expid/importance-portion-information-from-consumer-health-perspective/.

Food Drink Europe, "Guidance September 2013 Regulation (EU) No. 1169/2011 on the Provision ofFoodInformationtoConsumers",2013,<http://www.fooddrinkeurope.eu/uploads/publications_documents/FDE_Guidance_WEB.pdf>, 97 p.

FOODDRINK EUROPE, "Understanding the Label: What's on your front of pack label", http://referenceintakes.eu/understanding-label.html.

FOODRINK EUROPE, "FoodDrinkEurope guidelines on portion sizes", (2012), http://ec.europa.eu/health/nutrition_physical_activity/docs/ev20120209_co08_en.pdf.

Fratini Vergano (ed.), "Chile adopts warning statements in the form of a black STOP sign for 'HFSS foods' (i.e., foods high in fat, salt or sugar)", 16 Trade Perspectives (2015), <http://www.fratinivergano.eu/static/upload/1/1/15.09_.11_TP_Issue_16_.pdf>.

Fratini Vergano (ed.), "EU Commission initiates infringement proceeding against the UK over its 'traffic light' nutrition labelling scheme", 19 Trade Perspectives (2014), http://www.fratinivergano.eu/static/upload/1/1/14.10_17_TP_Issue_19_.pdf>.

Furniaki Imamura et al., "Dietary quality among men and women in 187 countries in 1990 and 2010: asystematicassessment",3LancetGlobalHealth(2015),<http://www.thelancet.com/pdfs/journals/langlo/PIIS2214-109X(14)70381-X.pdf>, 132-142.

George A. Bray, "How bad is fructose?, 86 (4) The American Journal of Clinical Nurtition (2007), <http://ajcn.nutrition.org/content/86/4/895.full.pdf>, 895-896.

Hannah B. Lewis, Amy L. Ahern and Susan A. Jebb, "How much should I eat? A comparison of suggested portion sizes in the UK", 15(11) Public Health Nutrition (2011), <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3477828/pdf/S1368980012001097a.pdf>, 2110-2117.

Health Council of Belgium, "Algemene gids, lekker aanbevolen voor jong en minder jong", < http://www.health.belgium.be/filestore/7496454_NL/gids_general_0_7496454_nl.pdf>, 63 p.

Health Council of the Netherlands, "Richtlijnen Goede Voeding 2015", Gezondheidsraad (2015), <http://www.gezondheidsraad.nl/sites/default/files/201524_richtlijnen_goede_voeding_2015.pdf>, 93 p.

Instituto de Nutrición y Tecnología de Los Alimentos, "Estudio "Propuesta de Criterios y Recomendación de Límites Máximos de Nutrientes Críticos para la Implementación de la Ley de Composición de Alimentos Y su Publicidad", Universidad De Chile (2011),<http://www.dinta.cl/wp-dintacl/wp-content/uploads/Estudio-Propuesta-Criterios-Y-recomendacion-L%C3%ADmites-m%C3%A1ximos-de-Nt-Criticos.pdf>, 254 p.

J.V. Woodside, C. Rooney and M.c. McKincley, "The 5-a-day message – should we aim higher?", 39 Nutrition Bulletin (2014), < https://www.researchgate.net/publication/261257244_Fruit_and_vegetable_consumption_and_noncommunicable_disease_Time_to_update_the_'5_a_day'_message>, 2 p.

James Fry and Willa Finley, "The prevalence and costs of obesity in the EU", 64 Proceedings of the Nutrition Science (2005), http://www.ncbi.nlm.nih.gov/pubmed/16048669>, 359-362.

Jane E. Henney, *et al.*, "Strategies to Reduce Sodium Intake in the United States", The National Academies Press, http://www.ncbi.nlm.nih.gov/books/NBK50956/> (Washington D.C., 2010).

Joanne Lunn and Hannah E. Theobald, "The health effects of dietary unsaturated fatty acids – Summary" EUFIC, < http://www.eufic.org/article/en/nutrition/fats/rid/health-effects-dietary-unsaturated-fatty-acids-Summary/>.

Leatherhead Food Research, "Front of pack nutrition labelling – a way of helping the consumer to make informed dietary choices?", https://www.leatherheadfood.com/front-of-pack-nutrition-labelling.

Léon Jansen and Annet J.C. Roodenburg, "The use of food composition data in the Choices International Programme", 193 Food Chemistry (2016) , 196–202.

Linda Marks, "What's in a label. Consumers, public policy and food labels", 9(3) Food Policy (1984), < http://www.sciencedirect.com/science/article/pii/0306919284900095>, 252-258.

Lisa R. Young and Marion Nestle, "Reducing portion sizes to prevent obesity: a call to action", 43(5) American Journal of Preventive Medicine (2012), http://www.ncbi.nlm.nih.gov/pubmed/23079182, 565-568.

Lizzy Davies, "Italy claims 'traffic-light' labelling unfair on Mediterranean food", The Guardian (2013), http://www.theguardian.com/world/2013/oct/21/italy-traffic-light-food-labels-unfair.

Lorenzo Cuocolo, "The Questionable Eligibility of Traffic Light Labelling", 9(6) EFFL (2014), < http://heinonline.org/HOL/LandingPage?handle=hein.journals/effl2014&div=63&id=&page=>, 382-390.

Luc Tappy and Bettina Mittendorfer, "Fructose toxicity: is the science ready for public health actions?",15(4)CurrOpinClinNutrMetabCare(2012),<</td>http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3695375/>, 357-361.

MarieNg, et al. "Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the Global Burden of Disease Study 2013", 384 Lancet (2014), http://ac.els-cdn.com/S0140673614604608/1-s2.0-S0140673614604608-main.pdf?_tid=01450cf4-519e-11e5-aa8b-

00000aacb362&acdnat=1441217657_55ae24ecf6394749e1aad674a0b72069>, 766-781.

Marion Devaux and Franco Sassi, "Social inequalities in obesity and overweight in 11 OECD countries", 23 European Journal of Public Health (2011), < http://eurpub.oxfordjournals.org/content/eurpub/23/3/464.full.pdf>, 464-469.

Marion Nestle, "Regulation does change eating behavior", Hastings College Press (2014), http://www.foodpolitics.com/wp-content/uploads/Hastings_Regulation_14.pdf>, 156-158.

Martin Holle, Enrico Togni and Arianna Vettorel, "The Compatibility of National Interpretative Nutrition Labelling Schemes with European and International Law", 9(3) EFFL (2014), < http://effl.lexxion.eu/data/article/1641/pdf/article.pdf>,148-160.

Miguel Fernandes da Silva, "The EU Regulation on Nutrition and Health Claims: Current and Future Trends", EAS, http://nabc.cals.cornell.edu/Publications/Reports/nabc_22/22_5_3_Silva.pdf, 155-170.

Nathan Gray, "Healthy logo: Netherlands 'Choices' logo confirmed as first government-backed scheme in EU", Food Navigator (2013), http://www.foodnavigator.com/Policy/Healthy-logo-Netherlands-Choices-logo-confirmed-as-first-government-backed-scheme-in-EU.

OECD, "Health at a Glance: Europe 2014", (2014), http://dx.doi.org/10.1787/health_glance_eur-2014-en, 140 p.

OECD, "Obesity And The Economics Of Prevention: Fit Not Fat", http://www.oecd.org/els/health-systems/46044572.pdf, (2010), 8 p.

Organización de Panamericana de la Salud, "Respaldo de la OPS/OMS y FAO al Reglamento Sanitario de los Alimentos para la aplicación de la Ley 20.606 en Chile", (2015), < http://www.paho.org/chi/index.php?option=com_content&view=article&id=636:respaldo-de-la-opsoms-y-fao-al-reglamento-sanitario-de-los-alimentos-para-la-aplicacion-de-la-ley-20606-en-chile&Itemid=1005>.

Peter T. Campbell, "Obesity: a certain and avoidable cause of cancer", 384 Lancet (2014), < http://www.ncbi.nlm.nih.gov/pubmed/25129326>, 727-728.

Pirjo Pietinen, Liisa M Valsta, Tero Hirvonen and Harri Sinkko, "Labelling the salt content in foods: a useful tool in reducing sodium intake in Finland.", 11(4) Public Health Nutrition (2007), < http://www.ncbi.nlm.nih.gov/pubmed/17605838>, 335-340.

Ray Antonelli and Anthony J. Viera, "Potential Effect of Physical Activity Calorie Equivalent (PACE) Labeling on Adult Fast Food Ordering and Exercise", 10(7) PLoS One 2015, http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0134289, 11 p.

Robert H. Lustig, "Fructose: Metabolic, Hedonic, and Societal Parallels with Ethanol", 110(9) Journal of American Dietetic Association (2010), www.ncbi.nlm.nih.gov/pubmed/20800122; 1307-1321.

Sam Montrel, "External Reference Group - 5 A Day logo", (2011) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/370505/5_A_day_back ground_Paper_4_11_14.pdf>, 13 p.

Sara Lewis, ""No legal action" against UK over traffic lights", EU Food Law (2015), <http://www.eurofoodlaw.com/labelling/health-and-nutrition/no-legal-action-against-uk-over-traffic-lights-105740.htm>.

Sofía Boza Martínez, "Ley de Alimentos: Chile a examen ante la Organización Mundial de Comercio", Universidad de Chile (2015), < http://www.portaluchile.uchile.cl/noticias/113443/ley-de-alimentos-chile-a-examen-ante-la-org-mundial-de-comercio>.

Steen Stender, Arne Astrup and Jørn Dyerberg, "A trans European Union difference in the decline in trans fatty acids in popular foods: a market basket investigation", 2 BMJ Open (2012), <http://bmjopen.bmj.com/content/2/5/e000859.full.pdf+html>, 9 p.

Stefan Storcksdieck, Bonsmann and Josephine M. Wills, "Nutrition Labeling to Prevent Obesity: Reviewing the Evidence from Europe", 1 Curr. Obes Rep (2012), http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3410024/pdf/13679_2012_Article_20.pdf, 134-140.

The Lancet (ed.), "Urgently needed: a framework convention for obesity control", 378 The Lancet (2011), http://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(11)61356-1.pdf,

UK Department of Health, "Food labelling consultation launched", (2012), < https://www.gov.uk/government/news/food-labelling-consultation-launched>.

UK FSA, "Guide to creating a front of pack (FoP) nutrition label for pre-packed products sold through retail outlets", (2013), <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/300886/2902158_FoP _Nutrition_2014.pdf>, 24 p.

UK NHS, "5 A DAY portion sizes", (2015), <http://www.nhs.uk/Livewell/5ADAY/Pages/Portionsizes.aspx>.

UK NHS, "Reference intakes on food labels explained", (2014) http://www.nhs.uk/Livewell/Goodfood/Pages/reference-intakes-RI-guideline-daily-amounts-GDA.aspx.

UK NHS, "Rough guide – fruit & vegetable portion sizes", (n.d.), < http://www.nhs.uk/livewell/5aday/documents/downloads/5aday_portion_guide.pdf>.

UNGA (A/66/L.1), "Political declaration of the High-level Meeting of the General Assembly on the Prevention and Control of Non-communicable Diseases", (2011) < http://www.un.org/ga/search/view_doc.asp?symbol=A/66/L.1>.

UNGA (A/RES/39/248), "Consumer protection", (1985), < http://www.un.org/documents/ga/res/39/a39r248.htm>.

Verónica Marín Rebolledo , "Nuevo etiquetado de alimentos: La ley con que Chile pretende terminar con la obesidad", Emol (2015), http://www.emol.com/noticias/Nacional/2015/06/26/723383/Nuevo-etiquetado-dealimentos.html>

WHO and FAO , "Report of the Thirty-Eighth Session of the Codex Committee on Food Labelling", CL 2010/15-FL, <ftp://ftp.fao.org/codex/Reports/alinorm10/al33_22e.pdf>,192 p.

WHO and FAO, "FAO/WHO Framework for the Provision of Scientific Advice on Food Safety and Nutrition", (2007), <ftp://ftp.fao.org/docrep/fao/010/a1296e/a1296e00.pdf>.

WHO and FAO, "Fruits and Vegetables for Health: Report of Joint FAO/WHO Workshop", (2004), < http://www.who.int/dietphysicalactivity/fruit/en/>, 46 p.

WHO and FAO, "Report of the Seventeenth Session of the Codex Committee on Food Labelling Ottawa", (1983), http://www.codexalimentarius.org/download/report/134/al85_22e.pdf, 55 p.

WHO and FAO, "Understanding the Codex Alimentarius", (2006), < ftp://ftp.fao.org/codex/Publications/understanding/Understanding_EN.pdf>, 40 p.

WHO Europe, "European Food and Nutrition Action Plan 2015-2020", Regional Committee For Europe (2014), <

http://www.euro.who.int/__data/assets/pdf_file/0008/253727/64wd14e_FoodNutAP_140426.pdf>, 24 p.

WHO, "Comparative Analysis of Nutrition Policies in the WHO European Region, A comparative analysis of nutrition policies and plans of action in WHO European.", WHO Regional Office for Europe

(2006), <http://www.euro.who.int/__data/assets/pdf_file/0004/149782/instanbul_conf_20ebd02.pdf>, 93 p.

WHO, "Fruit And Vegetable Promotion Initiative", (2003, < http://www.who.int/dietphysicalactivity/publications/f&v_promotion_initiative_report.pdf>.

WHO, "Global Action Plan For The Prevention And Control Of Non- communicable Diseases", (2013), http://apps.who.int/iris/bitstream/10665/94384/1/9789241506236_eng.pdf?ua=1.

WHO, "Global Status Report on non-communicable diseases", (2014), http://www.who.int/nmh/publications/ncd-status-report-2014/en/, 298 p.

WHO, "Healthy diet", (2015), <http://www.who.int/mediacentre/factsheets/fs394/en/>.

WHO, "Preparation and Use of Food-Based Dietary Guidelines", 880 WHO Technical Report Series (1998), http://apps.who.int/iris/bitstream/10665/42051/1/WHO_TRS_880.pdf?ua=1&ua=1, 102 p.

WHO, "Sodium intake for adults and children", (2015), < http://apps.who.int/iris/bitstream/10665/77985/1/9789241504836_eng.pdf?ua=1&ua=1>, 42 p.

WHO, "WHO calls on countries to reduce sugars intake among adults and children", (2015), <http://www.who.int/mediacentre/news/releases/2015/sugar-guideline/en/>.

WTO, "Activities of the WTO SPS Committee and other Relevant WTO Activities in 2014 and the First Quarter of 2015", (2015), <ftp://ftp.fao.org/codex/meetings/CAC/cac38/if38_03e.pdf> , 14 p.

WTO, "Members discuss guidelines for trade-friendly regulation and STOP sign for 'junk food'", (2013), https://www.wto.org/english/news_e/news13_e/tbt_13mar13_e.htm#concernslist1.

Case law

C-249/81, Commission of the European Communities v Ireland ('Buy Irish') [1982].

C-261/81, Walter Rau Lebensmittelwerke v De Smedt PVBA [1982].

C-376/98, Germany v. Council and the European Parliament [2000] I-08419.

C-380/03, Germany v. Council and the European Parliament [2006]

Other

Kai Purnhagen, Beyond Threats to Health: May Consumers's interests in Safety Trump Fundamental Freedoms in Information on Foodstuff? Reflections on Burger v Freistaat Bayern, 38(5) European Law Review (2013), 711.

ANNEX 1 - COM (2013) 686 final



EUROPEAN COMMISSION

Brussels, 13.2.2013 C(2013) 686 final

Your Excellency,

<u>Subject</u>: Opinion of the Commission, pursuant to Article 23 of Regulation (EC) No 1924/2006, on the notification 2012/414/NL concerning the authorisations of two variants of the "Blue Tick Mark" food-choice logo

In accordance with Article 23 of Regulation (EC) No 1924/2006¹, the Dutch government notified to the Commission and the other Member States on 4 July 2012 a draft decree approving the "Blue Tick Mark" food-choice logo and associated criteria for a period of three years. The food-choice logo is approved within the meaning of Article 11a of the Commodities Act Decree on Nutritional Value Information for Foodstuffs, which is part of a revision of the Commodities Act Decree on Nutritional Value Information already provided an opinion (C(2011) 5709 on 11.8.2011).

The Commission has examined the measures envisaged by the Dutch government and the reasons justifying them. The Standing Committee on the Food Chain and Animal Health was consulted on 15th October 2012 and, while some comments were made by certain Member States, especially with regard to the compatibility of the measures with the nutrient profiles to be established, no objection was raised.

The Commission notes that these measures are approving two variants of a food choice logo, which, within defined food categories, emphasises the better choice of foods based on their nutritional content.

The ultimate aim of the draft measures, namely to allow consumers to select the healthier choice when purchasing foods, is in line with the Union's work on the matter.

The measures envisaged by the Dutch government are not contrary to any of the provisions of Regulation (EC) No 1924/2006, nevertheless give rise to the following comments:

Mrs drs. E.I. Schippers Minister of Public Health, Welfare and Sport Ministry of Public Health, Welfare and Sport PO Box 20350, 2500 EJ The Hague, The Netherlands

¹OJ L 404 30.12.2006 p. 9-25.

- Article 4 (1) of Regulation (EC) No 1924/2006 provides for the establishment of nutrient profiles at EU level. The Commission reiterates that such logo and its conditions of use would need to be in line with such profiles, once those will have been established.
- The Commission notes that criteria for fresh and processed fish set out in Table 1 "Criteria for basic product groups" will have the consequence of not allowing oily fish such as herring, mackerel and sardine to be covered by the scheme. These oily fish, which are recommended by nutritionists on account of their long-chain fatty acids are not likely to meet the 'significant threshold' which the scheme requires (indicated by the # sign and corresponding footnote), i.e. containing less than or equal to 1.1 g/100g of saturated fats. In addition cooked mussels and, at certain times of their life cycle/spawning cycle, species such as albacore (*Thunnus alalunga*) will not meet the criterion "saturated fats to be less or equal to 30% of total fats." Taking into account the above remarks, the Commission considers that the criteria for fresh and processed fish should be amended by the scheme owners so as not to exclude oily fish whose consumption is recommended by nutritionists.
- The document entitled "Product criteria of the "Ik Kies Bewust" Foundation, 01/07/2012, Version 4.4" referred to in Article 1, paragraph 2, point (c) of the draft decree enumerates the food categories for which the logo will not be used. This suggests that meat and meat products will be able to bear the logo. The European Commission would like to remind the Dutch authorities that Regulation (EC) No 1760/2000 of the European Parliament and the Council establishing a system of identification and registration of bovine animals and regarding the labelling of beef and beef products lays down general rules for the voluntary labelling system of beef meat². According to its Article 16(1) for labels containing indications other than those provided for in section I (Compulsory Community beef labelling system), operators must send a specification for approval to the competent authority of the Member State concerned.

In conclusion, subject to the comments made here above, the Commission hereby delivers a favourable opinion on the draft decree notified by the Dutch Government.

> For the Commission Tonio Borg Member of the Commission

² OJ L 204, 11.8.2000, p. 1-10.