An Roinn Sláinte
Department of Health

Healthy Ireland

A Roadmap for Food Product Reformulation in Ireland

Obesity Policy Implementation Oversight Group (OPIOG) Reformulation Sub-Group

Rialtas na hÉireann
Government of Ireland

Foreword by Stephen Donnelly, T.D. Minister for Health

Overweight and obesity are one of the major public health challenges in this country. To help to combat this multi-faceted societal problem, my Department developed "A Healthy Weight for Ireland: Obesity Policy and Action Plan 2016-2025" (OPAP) under the overall Healthy Ireland Framework. The actions under the OPAP are grouped under 'Ten Steps Forward' to be taken to prevent overweight and obesity. Step 3 is to "Secure appropriate support from the commercial sector to play its part in obesity prevention" and one of the actions under this is to "Agree food industry reformulation targets and review progress".

Food reformulation (reducing the levels of fat, salt and sugar in everyday foods) was identified as a priority action by the Obesity Policy Implementation Oversight Group (OPIOG) established to oversee the OPAP implementation. Food reformulation is a key action to help change the obesogenic environment - offering healthier food choices to the Irish population. A Reformulation Sub-Group was established to take forward the EU Health Council Conclusions on reformulation in 2016, which called for Member States to develop a Reformulation Roadmap. Food Reformulation is also a key action in the EU Farm to Fork Strategy and in Ireland's new Food Vision 2030 strategy which was recently launched by Government. The Roadmap also delivers on a 2021 key action in the Healthy Ireland Strategic Action Plan.

Food that is high in fat, sugar and salt is easily accessible, affordable and heavily promoted. This is contributing to poor dietary choices and an unacceptable rate of non-communicable disease in Ireland. Foods that are high in sugar and fat contribute to people being overweight or obese, which increases their risk of type 2 diabetes, cardiovascular disease, respiratory disease, several types of cancer, pain and musculoskeletal disorders. Foods that are high in salt contribute to people suffering from hypertension, which increases their risk of heart disease and stroke.

Dietary advice provided by my Department seeks to provide people with information to make healthier food choices. However, it is difficult for people to change their behaviour in an obesogenic environment, and the findings from national health surveys confirm that overweight and obesity are prevalent in the Irish population. Unless the nutritional content of foods sold in Ireland improves, healthy eating targets will remain unattainable for most Irish people, leading to significant rates of non-communicable disease. These diseases have significant implications for the health and wellbeing of the population, increased health care costs and reduced economic productivity.

As Minister for Health, I am very glad to welcome the Roadmap for Food Product Reformulation in Ireland, and thank the Reformulation Sub-Group chaired by Professor Ivan Perry, School of Public Health, UCC.

In order to achieve the targets set out in the Roadmap, we are establishing, in partnership with the Food Safety Authority of Ireland, a dedicated, resourced Reformulation Task Force, as the most effective way to implement the recommendations in the Roadmap designed to work with the food industry towards reformulating food for healthier diets. I believe this is an enormously positive development, which has the potential to achieve significant improvements in our nutritional environment, and underlines this Government's commitment to combat obesity in a meaningful way.

Foreword by Frank Feighan, T.D. Minister of State for Public Health, Wellbeing & the National Drugs Strategy

Overweight and obesity are conditions that develop over a number of years in both children and adults. The determinants are multiple and include the environment, access to healthy and affordable food, physical activity, exercise and leisure activity, cultural and societal norms, education and skill levels, genetic makeup and lifestyle choices. Efforts to address overweight and obesity therefore require a cross-sectoral approach. It is not solely the job of the health sector or services. Cross-Government policy and action can impact upon most of the determinants of obesity.

Overweight and obesity are significant risk factors for many chronic non-communicable diseases. The links between obesity and heart disease, cancers, type 2 diabetes, mental ill-health, respiratory problems and musculoskeletal conditions are well established. The burden of adult obesity in financial terms has been estimated as €1.13 billion per annum. The lifetime cost of childhood obesity has been estimated at €4.6 billion, and obesity in childhood often carries a higher risk of bullying and poor physical and mental health. Overweight and obesity levels are highest in socially disadvantaged areas, and food reformulation has an important role to play in addressing this, as it is often the cheapest foods that have the highest levels of fat, sugar and salt.

The Food Safety Authority of Ireland has been working with the food industry on a salt reduction programme for many years, and it will be on salt that the initial prioritisation of the Reformulation Task Force will focus. It will also continue the work at EU level on the reformulation work package of the Best-ReMaP Joint Action, which will continue until late 2023. More broadly, the Task Force will allow for a dedicated resource to engage at a detailed category level with industry to work towards a healthier food offering for our people.

I very much welcome the publication of this Roadmap, which fulfils a key element of the Obesity Policy and Action Plan, and am delighted at the establishment of the Food Reformulation Task Force to drive its implementation. I want to add my thanks to Professor Perry and all those involved in the report, and look forward to progress being made under the Roadmap and the Task Force in this vitally important area in combatting overweight and obesity.

Preface

A Healthy Weight for Ireland, the Obesity Policy and Action Plan, was approved by the Government and launched in September 2016 under the auspices of the Healthy Ireland agenda. The Policy identified *'Ten Steps Forward'* that will be taken to prevent overweight and obesity over the duration of the plan from 2016 to 2025, including Step 3- *"Secure appropriate support from the commercial sector to play its part in obesity prevention and agree food industry reformulation targets and review progress"*. Ireland had previously endorsed the EU Roadmap for Action on Food Product Improvement in 2016, and the Obesity Policy Implementation Oversight Group (OPIOG) established a Reformulation Sub-Group to prepare a report with recommendations on the effective implementation and monitoring of reformulation in Ireland in the light of national and international policy and experience and relevant scientific evidence. The Sub-Group has drawn on policy, practice and academic expertise in the Food Safety Authority of Ireland (FSAI), *safe*food, Teagasc, the Northern Ireland Food Standards Agency, University College Cork, School of Public Health and the Department of Health. The Sub-Group, which was chaired by Professor Ivan Perry, University College Cork, has also engaged with and received submissions from representatives of the food industry in Ireland.

The Roadmap provides the opportunity for an annual forum with industry to review and implement best practice initiatives towards a healthy food environment.

It is now understood that food reformulation is a critical element in achieving population nutrient goals consistent with the prevention of obesity and chronic disease and the promotion of health and wellbeing. In this context, the protection of infants and children from unhealthy food products through reformulation and related food policy measures is of particular importance. We believe that with engagement and support from all relevant stakeholders, the recommendations on reformulation presented in this report can initiate a process that will gain momentum over time and ultimately contribute to the prevention of overweight and obesity and the promotion of health and wellbeing in the population. While this Roadmap marks progress towards voluntary agreements with the food industry to further improve the food choice environment for Irish citizens, we need to retain the option of statutory or fiscal approaches to reformulation, given the personal, economic and broader societal costs of obesity and nutrition-related chronic disease.

Contents

1.0 Introduction

The prevalence of overweight and obesity in adults and children is a major public health concern in Ireland, with significant implications for the health and wellbeing of the population, health care costs and economic productivity [1]. The findings from the annual Healthy Ireland Survey show that almost two-thirds of adults are overweight or obese. In addition, 28% of young people aged 15 to 24 [2] and approximately one in five children are overweight or obese, with higher rates in socially disadvantaged children [3,4].

The health consequences and societal impacts of overweight and obesity in adults and children are well documented [1, 5]. In the Republic of Ireland, the current costs of overweight and obesity (both direct health care costs and indirect societal costs) were estimated for 2009 at 1.13 billion euros per annum for adults [1]. The total lifetime cost of childhood obesity (discounted to 2015 rates) is estimated at 4.6 billion euros or €16,036 per person [5].

A healthy diet is of critical importance in maintaining a healthy body weight and minimising the risk of chronic disease including cardiovascular disease, diabetes and common cancers. The fundamental components of a healthy diet are now well defined - a diet rich in wholegrains, vegetables and fruit and low in saturated fat, trans fat, sugar and salt. The findings from national nutrition surveys indicate that the majority of the Irish population are not currently meeting these dietary guidelines [6] and based on the 2017 Global Burden of Disease study, poor diet is now the single most important contributor to premature death and chronic disease in Ireland [7]. This burden of diet related disease provides the main impetus for reformulation. The impact of the COVID-19 pandemic, and the indications that obesity and associated chronic conditions lead to an increased risk of hospitalization with a more severe form of the disease, has further underlined the critical importance of reducing obesity rates and the role of a healthy diet in promoting healthy weight [8].

Reformulation is defined as changing the nutrient content of a processed food product to either reduce the content of negative nutrients such as sodium, saturated fat, trans fat or energy (kilojoules) or to increase the content of beneficial nutrients such as dietary fibre, wholegrains, fruit, vegetables and unsaturated fats. The definition does not include the addition of vitamins, minerals or nutrients through fortification processes.

1.1 Obesity Policy and Action Plan

A Healthy Weight for Ireland, the Obesity Policy and Action Plan (OPAP) (2016) covers a ten year period up to 2025 [8] and aims to reverse trends in overweight and obesity, prevent the health complications of excess weight and reduce the overall burden for individuals, families, the health system, wider society and the economy. The OPAP emphasises the extent to which every sector of our society has a role in reducing the burden of obesity.

The OPAP prescribed 'Ten Steps Forward' that would be taken to prevent overweight and obesity. The first step is to: *"Embed multi-sectoral actions on obesity prevention with the support of government departments and public sector agencies."*

In line with this action, an Obesity Policy Implementation Oversight Group (OPIOG) was established under the Chair of the Department of Health. It is comprised of representatives from the following Departments and Agencies:

- Department of Agriculture, Food and the Marine;
- Department of Children, Equality, Disability, Integration and Youth;
- Department of Social Protection;
- Department of Education;
- Department of Housing, Local Government and Heritage;
- Food Safety Authority of Ireland;
- *safe*food;
- School of Public Health, University College Cork;
- Health Service Executive.

Step three in the OPAP identifies priority actions in relation to food reformulation: *"Secure appropriate support from the commercial sector to play its part in obesity prevention and agree food industry reformulation targets and review progress."*

Ireland endorsed the EU Roadmap for Action on Food Product Improvement in 2016 and food reformulation was identified as a priority action at the first meeting of the Obesity Policy Implementation Oversight Group in 2017. The Group recognised that while several Irish food business operators have taken up the challenge and have shown responsibility by improving the composition of their products, Government requires this action

to take place at a faster pace and involving a wider range of food products. The work of the Food Safety Authority of Ireland in guiding and driving food reformulation on salt since 2004 is also recognised.

In order to augment this work, the OPIOG agreed to establish a Reformulation Sub-Group and Ivan Perry, Professor of Public Health at University College Cork and a member of the OPIOG, was chosen to chair the Reformulation Sub-Group. Details of the membership of the Reformulation Sub-Group are provided in Appendix 1.

Work on improving the composition of food products is not only important in the context of making the healthy choice the easy choice for the consumer, it also provides innovation and business opportunities for the food and related sectors.

This Roadmap provides a framework and targets for voluntary reformulation of the food industry in the Republic of Ireland. The nutritional standards and reformulation targets proposed in the Roadmap will be closely aligned to those applying in both the UK and the EU, where reformulation efforts are also underway and which share markets to a large extent with Ireland.

There are also developments underway at EU level which will influence Ireland's work in the area of reformulation. Under the Third EU Health Programme, Ireland is participating in a new EU Joint Action called Best-ReMaP (which stands for Best practice in Reformulation, Marketing and Public Procurement) [9]. Within this Joint Action, which commenced in October 2020, Ireland is involved in the work package on reformulation, which should assist in achieving progress towards the targets in this Roadmap. The European Commission's *"A Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system"*, known as "Farm To Fork" and published in May 2020, places an emphasis on sustainable food production and consumption, as part of which it proposes actions on reformulation of processed food [10].

Within this broader policy context, the actions taken in implementing this Roadmap will also need to take cognisance of the likelihood that it will be operating in a potentially turbulent economic environment, with the ultimate consequences of the Brexit process, both economically and in terms of its impact upon the food and drinks market, currently uncertain, as well as the impact and aftermath of the COVID-19 pandemic.

1.2 Reformulation Sub-Group - & Terms of Reference

The Reformulation Sub-Group adopted the following Terms of Reference with the overall objective of proposing a Roadmap for Food Reformulation for Ireland:

- To review relevant national and international research evidence on the rationale for reformulation and the critical elements in the development of an effective reformulation programme;
- To review current EU and UK food and drink reformulation programmes and targets for salt, saturated fat, added sugars, calories and portion size reduction;
- To make recommendations on a food and drink reformulation strategy for Ireland including targets for specific nutrients, calories and portion size reduction and consider the approach to be taken in choosing food and drink product categories.
- To consider options for implementing recommendations, in particular, monitoring and validation procedures;
- To devise a mechanism for engagement and consultation with the Food & Drink Industry;
- To report within one year.

Reformulation Sub-Group process and details of engagement with the Food Industry

The Sub-Group held its first meeting in February 2018 and subsequently convened in the Department of Health or by conference call at 6-8 week intervals during 2018 and 2019. In late 2019 a consultation took place where the Food Industry and other key players such as the Department of Agriculture, Food and the Marine were provided with a draft of the Roadmap for comment. A review of the comments was considered in 2020 and incorporated into the Roadmap as appropriate. COVID-19 impacted on the work of the Reformulation Sub-Group and they met again in May 2021 to develop an implementation plan and estimate the resources needed over the next 5 years until the end of the OPAP timeframe. The implementation plan developed by the Reformulation Sub-Group underpins the workplan for a new dedicated Reformulation Task Force being formed to drive the food industry towards reformulating food for healthier diets. The details of the Reformulation Task Force are outlined in Section 7.

The mechanism agreed for engagement and consultation with the Food & Drink Industry was a series of workshops, the first of which was held in Teagasc on September 20th, 2018 with a further meeting in the Department of Health on February 25th, 2019.

Appendix 2 provides details of the industry stakeholder workshops and attendees, together with details of additional meetings with industry representatives in relation to the Reformulation Roadmap.

2.0 The rationale and wider context for reformulation and the critical elements in the development of an effective reformulation programme

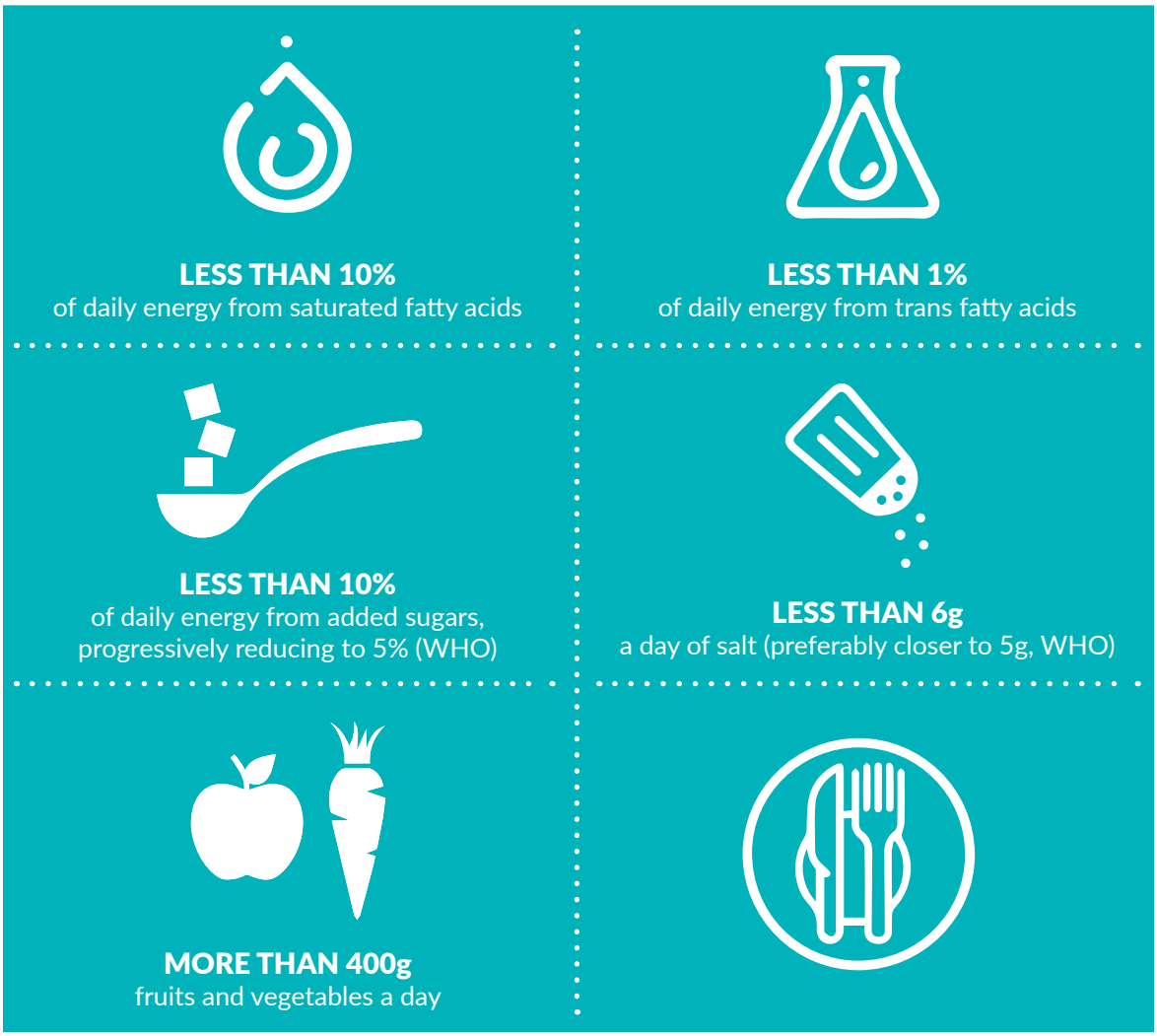
In its review of the rationale, context and strategic approach to reformulation, the committee considered the following issues:

(i) current dietary guidelines and population exposure to unhealthy food products in Ireland,
(ii) current evidence on the effectiveness of food reformulation as a strategy to improve population health,
(iii) the role of calorie menu labelling as an important adjunct to reformulation,
(iv) issues and opportunities for food caterers in the public and private sector in relation to reformulation,
(v) consumer acceptability of food reformulation, and
(vi) the critical elements in the development of a reformulation programme.

2.1 Current dietary guidelines and population exposure to unhealthy food products

While the exact composition of a diversified, balanced and healthy diet will vary depending on individual characteristics, including age, gender, lifestyle and degree of physical activity, the basic principles of what constitutes a healthy diet are now well defined. Current Nutritional Targets for the Irish Population are summarised in Table 1.

Table 1 Current Nutritional Targets for the Irish Population aged 5 years and over



Foods and drinks that are high in fat, salt and sugar such as sugar sweetened beverages, cakes, biscuits, confectionery and crisps are currently staples in the Irish diet. Among children aged 5-12 years and teenagers (13-17 years), these foods contribute between 18% to 23% of energy from food and 22% to 26% of total fat intake. Based on the findings from the Healthy Ireland Survey 2018 it is estimated that 60% of the population aged 15 years or older eat high fat, salt and sugar (HFSS) snacks every day with a majority (42% of the population) eating 6 or more portions daily. In addition, 14% of the population consume sugar sweetened drinks daily, rising to 22% of those aged 15 to 24 [6].

Recent nutrition food composition studies in Ireland
In 2017, the FSAI conducted detailed nutrition surveys of the nutrition composition of food products in the breakfast cereals and yogurts categories in Ireland [11]. Inappropriately high levels of saturated fat and sugar, well in excess of Healthy Eating Guidelines, were documented in a significant proportion of food products in these two important categories. A similar survey of all foods targeting older infants, excluding milks, was undertaken during 2012 and repeated in 2018. This survey has provided a valuable overview of the appropriateness of baby foods on the market, with 15% of products deemed inappropriate due to sugar and/or fat content.

Sugar Content of Energy Drinks
*safe*food reviewed the sugar content of energy drinks in 2002 and 2016 [12]. As part of these reports comprehensive surveys of the market were conducted and the caffeine content of these products were reported. In 2016 the sugar content of all energy drink products on the market (including products without caffeine) were included, in recognition of the fact that sugar sweetened drinks are a risk factor for overweight and obesity in adults and children. A further snapshot survey of the energy drinks market on the island of Ireland was conducted in 2019 [13]. It indicated that the average sugar content of energy drinks has reduced since 2016 and that there were more diet versions on the market. This reformulation has most likely been driven by the tax on sugar sweetened beverages introduced in 2018. However, there were less favourable trends in portion size with a higher proportion of larger bottles/cans available on the market. This work provides an early indication of reformulation activities in response to the Sugar Sweetened Drinks Tax.

Trans fatty acids (TFAs) are found at low levels in foods on the Irish market (FSAI) and current intakes are estimated at levels below the WHO's recommendation of less than 1% to prevent diet-related chronic diseases.

The majority of food and drink that the Irish population consumes is prepared at home but in the Healthy Ireland Survey 2018, it was found that 37% of people eat a takeaway at least once a week [6]. Surveys of takeaway foods in Ireland conducted by *safe*food indicate that many products are high in fat, salt and sugar with serving sizes that are often multiples of servings recommended in Healthy Eating Guidelines.

2.2 Effectiveness of reformulation

In 2012, the National Heart Foundation of Australia conducted a rapid review of the scientific literature on the effectiveness of reformulating commonly consumed processed foods as a way of improving dietary intakes and population health, with an emphasis on cardiovascular outcomes [14]. This rapid review drew on the evidence from 123 relevant studies, including peer-reviewed original scientific research (primarily observational studies, scenario modelling exercises and food composition studies) and grey literature including government and non- government reports, case studies, position statements and media articles. A range of effects of reformulation programmes have been documented, including positive impacts on the food supply and population dietary intakes with linked beneficial effects on cardiovascular disease and other health outcomes.

The overall findings from this review suggest that reformulation of processed foods provides a realistic opportunity to improve the health of a population through improving the nutritional characteristics of commonly consumed processed foods. Furthermore, there is evidence that food reformulation has the potential to reduce absolute health inequalities, with disadvantaged groups likely to benefit proportionately more than the general population. In a more recent study (January 2019) the impact of food reformulation on nutrient intakes and health was assessed in a systematic review of mathematical modelling studies [15]. The authors identified 33 modelling studies with 20, 5 and 3 studies addressing sodium, sugar and fats reformulation respectively, and 5 studies addressing multiple nutrients. As expected, the evidence on the positive effects of reformulation on consumption patterns and health outcomes was stronger for sodium interventions than for interventions targeting sugar and fats.

There is also compelling evidence on the cost effectiveness of reformulation, especially for interventions focused on sodium/salt. In a modelling study drawing on population based studies of sodium excretion in urine and employing standard chronic disease modelling methods, it is estimated

that the 2003 to 2018 salt reduction program in England (which was heavily reliant on reformulation) achieved an overall salt intake reduction of 1 gram/day in the adult population, from 9.38 grams/day per adult in 2000 to 8.38 grams/day per adult in 2018. Compared with a scenario of persistent 2000 levels and assuming that the population-level salt intake is maintained at 2018 values, by 2050, the program is projected to avoid 83,140 (95% CI, 73,710–84,520) premature ischemic heart disease cases and 110,730 (95% CI, 98,390–112,260) premature strokes, generating 542,850 (95% CI, 529,020–556,850) extra quality-adjusted life-years and £1,640 million (95% CI, £1,570–£1,660) health care cost savings for the adult population of England [16].

Nutrition signposting

Signposting programmes such as the Australian Heart Foundation's and the New Zealand Heart Foundation's respective Tick Programs have demonstrated reduction of sodium and trans fat from commonly consumed products such as bread, breakfast cereals, sauces, processed meats, soups and margarines [14]. France has implemented a five colour Front-of-Pack (FOP) nutrition signposting programme based on *Nutri-Score* to orient consumers towards healthier food choices at the point of purchase and as an incentive for manufacturers to reformulate their products towards healthier alternatives [17]. *Nutri-Score* is a 'whole food nutrient score' system.

The results of validation studies suggest that the UK Food Standards Agency nutrient profiling system (FSA-NPS index) underlying *Nutri-Score* can adequately characterize the nutritional quality of foods, and that an individual score on the index adequately summarises the nutritional quality of their diet. As with other nutrient quality scores (such as the Alternative Healthy Eating Index or the DASH diet score), the FSA-NPS index is associated with risk of chronic diseases. Of particular importance in the context of reformulation, the format of *Nutri-Score* appears well-perceived and understood and the use of *Nutri-Score* was associated with a higher nutritional quality of purchases in experimental studies and large-scale trials [17]. A number of other EU countries are now using the *Nutri-Score* system. On 20 May 2020, the Commission announced in its Communication *'A Farm to Fork Strategy - for a fair, healthy and environmentally-friendly food system'* that it will propose, at the end of 2021 and 2022, harmonised mandatory front-of-pack nutrition labelling, set-up nutrient profiles to restrict the promotion of foods high in fat, sugars and salt, and consider a proposal to extend the requirement of mandatory origin or provenance indications to certain products [10].

Portion size

Portion size is an important determinant of energy intake. Data exists from studies ranging from well controlled laboratory environments to studies of adults and children in free living settings. It consistently shows that when humans are presented with larger portions they eat more. In a Cochrane review and meta-analysis of 72 randomised controlled trials, it was concluded that moderate quality evidence exists that people consistently consumed more food and drink when offered larger portions or tableware, e.g. plates and bowls, than when offered smaller sizes [18]. It was estimated that the effect of reducing the portion sizes for all foods and tableware on all eating occasions could reduce the average daily energy intake from food among UK adults by between 12-16%. These findings highlight the potentially important effects of reducing portion size, especially for food products designed to be consumed as single servings. It should also be noted that for some HFSS foods there may be technical barriers to reformulation, and for these products the focus should be on reducing portion size. Portion size will be integrated into the methodology for measuring progress on the Roadmap. Research by the Food Standards Agency in Northern Ireland showed lower acceptance of portion size changes than other types of reformulation among consumers. Collective efforts to educate consumers on portion size will be a key driver of impact.

In 2019 the ESRI carried out behavioural research, commissioned by the Department of Health, on visual cues as a guide to portion size to help inform portion size recommendations. This research, which was published in November 2020, found that clearly marked portion sizes reduced consumption among people inclined to consume the most, and that consumers were much more likely to notice portion size markings than the portion size printed in the standard nutritional information table [19].

2.3 Calorie menu labelling

Calorie menu labelling is a potentially important adjunct to reformulation and it should be noted that the Department of Health is considering legislation for a national mandatory calorie menu labelling programme. There is emerging evidence that calorie menu labelling may be associated with reductions in calories consumed per meal, although the impact on calories consumed is relatively small, tends to diminish over time and is variable across different settings [20]. Aside from the effect on calories consumed there is evidence from countries where calorie posting at the point of purchase has been implemented to suggest that there are additional positive effects on food choices.

In 2018 the Department of Health commissioned the ESRI to carry out behavioural research to help inform calorie menu labelling legislation to ascertain the best place on the menu to put calories for maximum impact.

2.4 Food consumed in the workplace - issues and opportunities for food caterers in relation to reformulation

A significant proportion of out of home eating occurs in the workplace environment in both the public and private sector, and we now have evidence from observational and interventional studies to suggest that there are significant opportunities to work with caterers and other workplace stakeholders to (i) increase offerings of fresh, unprocessed food, (ii) replace and reduce unhealthy fats, sugar and salt during cooking and serving, (iii) promote consumer awareness of healthier options through calorie menu labelling and traffic light menu labelling for saturated fat, sugar and salt [21].

2.5 Consumer Acceptability of Food Reformulation

Consumer acceptability of public health interventions such as food reformulation is very important and a concern for both government and industry partners. For government, it provides a key indicator of the potential effectiveness of interventions and the readiness of the general public for policy implementation. In a 2013 survey of 501 adults in Ireland, high levels of support (% approval) was evident for child-focused interventions such as promotion of healthy eating in schools (93%), informational policies such as food labelling (92.0%), rewarding companies for healthy food innovations (85.2%), Government and food industry co-operation such as food reformulation (87%) and subsidies for healthy foods (86%). Comparatively lower levels of support were evident for policies that may be viewed as restricting personal choice e.g. restricting portion sizes in food outlets (53%) [22].

For industry, the impact of reformulation on taste and texture is of central importance together with the issue of clean labels – the use of as few ingredients as possible and the need to ensure that the replacement ingredients are recognised by consumers and regarded as wholesome.

2.6 Critical elements in the development of a reformulation programme

The impact of mandatory programmes is generally greater than that of voluntary programmes. However, within the framework of a voluntary programme, such as that currently envisaged for Ireland, there are a number of elements critical to the success of the programme. These include strong government leadership with dedicated staff and resources; targets that are challenging but feasible within defined time frames; regular monitoring; extensive, category specific and detailed consultation and engagement with the food sector and other stakeholders but with well-defined, transparent and independent governance and accountability mechanisms [23].

The issues of transparency, governance and accountability are of particular importance. Shama and colleagues have examined food industry self-regulation in the context of self-regulatory successes and failures in other industries and defined nine standards that should be met if self-regulation / achievement of voluntary targets is to be effective (Table 2) [23].

Recent experience with salt reduction in the UK, within the framework of the UK Public Health Responsibility Deal, highlights the importance of governance and related issues in the successful implementation of a national food reformulation programme [24]. The Public Health Responsibility Deal - a public private partnership (PPP) in operation in England from 2011–2017, aimed to engage government, the voluntary sector and the commercial sector to work in partnership to improve population health. Prior to the Responsibility Deal, from 2003 to 2010 the independent Food Standards Agency (FSA) undertook a multicomponent strategy to reduce salt intake, including the use of agreements with the food industry to reformulate processed foods, increase public awareness and improve food labelling. While the FSA strategy was also a Public Private Partnership, it differed in important ways from the Responsibility Deal. Industry had almost no role in the formulation of policy and specific strategies to reduce population-level salt intake and targets were set by the FSA for reductions to be achieved within 4 years, with a mid-point review at 2 years alongside independent monitoring. Additionally, while agreements with the food industry were technically 'voluntary', they were backed with the repeated Ministerial threat of mandatory imposition in the event of poor compliance. Between 2003 and 2010 mean salt intake was falling annually by 0.20 grams/day among men and 0.12 g/d among women. Upon implementation of the Responsibility Deal in 2011, annual declines in salt intake slowed statistically significantly, to 0.11 g/d among men and 0.07 g/d among women. Using an established non-communicable disease micro-simulation model, it was estimated that the change from the earlier FSA led salt reduction programme to the Responsibility Deal has been responsible for approximately 9900

Table 2 Proposed Standards for Self-Regulatory Activities of the Food Industry [15]

AIM	STANDARD
Transparency	Transparent self-regulatory standards created by a combination of independent scientists and representatives of leading nongovernmental organizations.
	No one party given disproportionate power or voting authority.
Meaningful objectives and benchmarks	Specific codes of acceptable behaviours based on scientifically justified criteria
	Predefined benchmarks to ensure the success of self-regulation.
Accountability and objective evaluation	Mandatory public reporting of adherence to codes, including progress toward achievement of full compliance with pledges and attainment of key benchmarks.
	Built-in and transparent procedures for outside parties to register objections to self-regulatory standards or their enforcement.
	Objective evaluation of self-regulatory benchmarks by credible outside groups not funded by industry to assess health, economic, and social outcomes.
	Periodic assessments/audits to determine compliance and outcomes
Oversight	Possible oversight by an appropriate global regulatory or health body (e.g. the World Health Organization or the FSAI in Ireland)

additional cases of CVD and 1500 additional cases of Gastric Cancer in the UK between 2011 and 2018 [24].

In the context of a discussion on the critical elements in the development of a reformulation programme, it should also be noted that there is a clear need to combine reformulation strategies with front of pack (FOP) labelling and nutrition signposting initiatives and with public awareness campaigns.

3.0 Current EU and UK food and drink reformulation programmes

In this section we present a brief overview of EU initiatives on reformulation and a more detailed summary of the ongoing Public Health England Reformulation Programme.

3.1 EU initiatives on reformulation

In 2007, the EU established a High-Level Group on Nutrition and Physical Activity involving government representatives from all Member States. This Group focused initially on the development of an EU Framework on Salt Reduction. This Framework was built on five key elements aimed at maximising the impact of reformulation and changing portion sizes offered [25]:

i. interrogation of available national level data on dietary intakes and food composition,
ii. prioritisation of food categories that represent major sources of the nutrients of concern in diets,
iii. the need for broad endorsement of a common vision with food stakeholders on reduction of nutrients of concern and/or of portion sizes,
iv. the need for measures at national level to raise public awareness of the nutrient composition of different food products and appropriate portion sizes and
v. the need for ongoing monitoring of (i) activities on reformulation including modification of portion sizes, (ii) public awareness and (iii) the actual intake of the nutrients of concern in the population.

Some foods, particularly those high in fat, sugar and salt may be more challenging to reformulate. Therefore, one of the strategies employed in reformulation programmes for foods such as these, especially those likely to be consumed as single servings, is to reduce the portion size of the single serve. This is a key recommendation in the EU Framework for National Initiatives on Selected Nutrients (2011) developed by the EU High-Level Group on Nutrition and Physical Activity. [26] This Framework set targets for reformulation of saturated fats and added sugars. Work started on reducing saturated fat by setting a target of 5% by 2016 and a further 5% reduction by 2020. In 2015, the EU High Level Group agreed on an Added Sugars Annex promoting a voluntary reduction of 10% in added sugars in processed food by 2020.

In 2016, the Netherlands Presidency chose reformulation as its nutrition priority during its EU Presidency. The EU *Roadmap for Action on Food Product Improvement* was endorsed by Ireland and plans to develop a Roadmap for Ireland were agreed. [27].

The 2016 EU Roadmap highlighted the need for a shared long-term agenda to reduce the levels of salt, saturated fats, added sugars and calories in foods throughout the EU. The Roadmap aims to accelerate concerted action from national governments, food business operators, the European Commission, WHO and NGOs.

3.2 Public Health England reduction and reformulation programme

Public Health England (PHE) have been working on food reformulation for a number of years and have set targets for salt, sugar and more recently calories [21]. Work on saturated fat and product ranges targeted explicitly at babies and young children is in preparation.

Salt: The salt reduction programme in England, which was formerly led by the Food Standards Agency in consultation with the food industry, is now being led by Public Health England as part of their sugar reduction and wider reformulation programme. The current PHE targets were originally published in 2014 as part of the Public Health Responsibility Deal. They cover 76 specific food groups that contribute most to people's salt intakes and were set to be achieved by December 2017. The eating out of home sector is also expected to make every effort to procure and/or make products that meet the relevant targets and maximum per serving salt targets have been designed specifically for this sector.

In December 2018 PHE reported on progress towards the targets [28] and an updated assessment was published in September 2020, when revised targets were also published (to be achieved by 2024) [29].

Sugar: PHE is working with all sectors of the food industry (retailers, manufacturers and the out of home sector) to reduce the amount of sugar in the foods that contribute most to children's diets, with a target of a 20% reduction in the amount of

sugar in the relevant foods by 2020 from a 2015 baseline. There are nine food categories in the sugar reduction programme and these are: yogurts and fromage frais, biscuits, cakes, morning goods (e.g. buns and pastries), puddings, ice-cream, lollies and sorbets, breakfast cereals, confectionery – split to separate sweet and chocolate confectionery – and sweet spreads and sauces. The programme covers children up to the age of 18 years so all foods in each category are included, not just those that are manufactured for or marketed to children. Category specific sales weighted average targets per 100g of product were set for achievement by 2020. In addition, calorie or portion size caps were set for single serve products. The programme focuses predominantly on reducing the levels of total sugars as they are declared on the nutrition panel of food labels.

The sugar reformulation programme allows businesses to use three methods to reduce the sugar in their products: (i) product reformulation to lower sugar levels present per 100g/ml; (ii) reduction in the portion size and/or the number of calories, in products that are likely to be consumed by an individual at one time; and (iii) a shift in consumer purchasing towards lower/no added sugar products. Two main metrics were used to set guidelines for the sugar reduction programme and have also been used to measure progress: total sugar per 100g in all products, and calories in products likely to be consumed on a single occasion. The latter has been estimated by PHE through analysis and consumption information – it is not always the same as information provided by retailers or manufacturers for product portion sizes. PHE recommend that the reductions in sugar should also be accompanied, where possible, by reductions in calories, no increases in saturated fat and the achievement of the salt targets set for 2017 [30].

Saturated fat: The UK Government's Scientific Advisory Committee on Nutrition published a draft report on saturated fat for consultation in 2018 and the final report was published in 2019 [31]. This document will inform the reformulation strategy for saturated fat.

Calories: PHE have set a target of a 20% reduction in calories by 2024 from a 2017 baseline in product categories that contribute significantly to children's calorie intakes (up to the age of 18 years), and where there is scope for substantial reformulation and/or portion size reduction.

Product ranges targeted explicitly at babies and young children: PHE's reduction and reformulation programme is now moving to consider baby, weaning and toddler foods (those targeted at children aged 4/6 months to around 3 years). Work on the initial scoping and development of the ambition for the programme is in progress.

PHE Reformulation programme - data sources and analytical methods: PHE uses a commercially available dataset (Kantar Worldpanel) to set guidelines for reduction and reformulation and monitor progress for the food manufacturing and retail sectors. Kantar Worldpanel collect nutrition data from food labels on individual products via fieldworkers who visit retail stores on a rolling 6 monthly basis. Where nutrition data have not been collected for a product, Kantar Worldpanel imputes nutrition values based on similar products in their dataset.

The out of home sector poses significant challenges for reformulation programmes in relation to target setting and monitoring. PHE currently uses data provided by MCA, a UK market intelligence company. MCA's Eating Out Panel is a monthly tracker of consumer behaviour in relation to eating and drinking out of home. Respondents are recruited from a panel of over 600,000 UK consumers and 72,000 in-depth online interviews are conducted each year (6,000 per month). The panel is representative of the adult population in the UK in terms of age, gender and region. It is a continuous tracker with interviewing every day of the year but not a continuous set of the same panel members.

As with all population survey data, the data from Kantar Worldpanel and MCA are subject to sampling error and neither company currently provides data with 95% Confidence Intervals. This is a significant limitation in the interpretation of trend data on the impacts of the reformulation programme to-date.

PHE reduction and reformulation programme progress: The PHE programme is a large and ambitious programme involving wide-ranging, category specific and detailed consultation and engagement with the food sector and other stakeholders, and drawing on extensive resources in terms of staffing and budgets. For example, during the period 2016 to 2019 PHE have spent £931,352 on data purchased from commercial sources. Despite this level of investment, progress to-date has been relatively modest. During the first year of the sugar programme, it is estimated that retailers and manufacturers achieved a 2% reduction in both sugar and calories, short of the 5% Year-1 target [30]. There were significant gaps in the Year-1 data, although these are likely to be addressed in future years. Progress on the drinks covered by the UK Government's Soft Drinks Industry Levy (SDIL) was also assessed in the Year-1 report. In this category, it was estimated that the sugar content had been

reduced by 11% and average calories per portion by 6% in response to the Soft Drinks Industry Levy. There was also a shift in volume sales towards products with sugar levels below 5g per 100ml, i.e. products not subject to the Levy. In September 2019, PHE published a further report providing an assessment of progress by industry, over the first 2 years of the sugar reduction programme, towards the 20% reduction ambition [32]. It is estimated that between 2015 and 2018 there has been an overall 2.9% reduction in average sugar content (sales weighted average in grams per 100 grams) among retail and manufacturer branded products (in-home sector). In commentary on the headline findings, PHE have noted that there is a great deal of variation in the change in the sugar and calorie content of products at business and brand level, with some businesses moving towards or doing more than the guidelines set, while others have not changed or have seen an increase in sugar and/or calorie content [23]. In October 2020, PHE reported that overall there had only been a 3% reduction in sales weighted average total sugar per 100g between 2015 and 2019 [33].

There are significant technical and statistical issues in the interpretation of the data on progress to-date (acknowledged by PHE) and there has been significant criticism from the food sector on the process of target setting which is regarded (for some, specific food products) as arbitrary and unachievable, and on the monitoring process which (for some products) is regarded as unfair and inaccurate. There is also concern from some industry sources that previous work by industry leaders in reformulation has not been adequately recognised in the data and measurements.

The programme has also attracted criticism within the wider public health and food policy NGO sector, in particular, in relation to the reliance on a voluntary as opposed to a mandatory approach, the modest (at best) effects on intakes of the relevant nutrients and calories and the lack of ambition and sense of urgency in the targets set to-date.

4.0 OPIOG Reformulation Sub-Group Observations and Recommendations

In this section we address:

(i) the overall strategic approach to food and drinks reformulation in Ireland within the broader context of the Obesity Policy and Action Plan and

(ii) targets for salt, saturated fat, added sugars, calories and portion size reduction including the details of the approach to be taken in choosing food and drink product categories.

4.1 Reformulation – overall strategic approach

Food system approach: The overall food system should be considered in developing an effective reformulation programme. Successful reformulation depends on the adaptability of the production processes all the way down the supply chain including the cultivation, harvest and supply of raw ingredients. Work on reformulation should also be considered within the broader context of the global sourcing of ingredients, production of foods and the need for more transparent supply chains to address issues of food fraud and integrity.

Potential impact of reformulation: Reformulation is not a "magic bullet" in the prevention of obesity and diet- related disease, but we should not underestimate its impact to date on the burden of disease in Ireland (including contributing to the declines in incidence and mortality from heart disease and stroke in recent decades) and its potential impact in the future, especially when combined with well targeted public awareness campaigns and labelling initiatives.

Leadership: There is a need for strong Government leadership with dedicated staff and resources in the relevant agencies to ensure the sustained commitment required over the next decade to provide an independent, viable and effective food and drinks reformulation programme in Ireland.

Governance: An Oversight and Monitoring Group is recommended for the National Reformulation Programme to increase the level of transparency and accountability in the governance of the Programme.

Collaboration with the food & drinks sector: In the context of the current voluntary framework, it is important to acknowledge the effort and commitment to-date, from some sectors of the food and drinks sector in Ireland. It is clear that with the appropriate level of engagement and collaboration between the food and drinks sector, relevant state agencies and other stakeholders, there are significant benefits from reformulation for both population health and the food and drinks sector. It is accepted that special supports for small to medium size enterprises (SMEs) and micro/ artisan producers in Ireland will be needed to support engagement with reformulation.

Out of home food services: Out of home food services present a particular challenge in the development, implementation and monitoring of a food reformulation programme and in this setting the case for a mandatory framework possibly linked to existing food safety regulations is strong.

Voluntary versus mandatory frameworks: Given the scale of the obesity epidemic in children and adults, the burden of diet related disease and the available evidence on dietary intakes in Ireland, there is a clear and urgent need to achieve further substantial reductions in the salt, sugar, saturated fat content, calorie density and/or single serving portion size across a wide range of major food and drink products in Ireland. It is also important to ensure that sectors of the food and drinks industry that embrace reformulation and calorie reductions are not at a competitive disadvantage relative to other sectors who have not engaged with the process. While the scientific and public health case for a mandatory as opposed to a voluntary food reformulation framework is compelling, the Reformulation Sub-Group is recommending voluntary action as a first step, in line with Step 3 of the Obesity Policy and Action Plan. However, the issue of whether the current voluntary framework will need to be supplemented with additional fiscal and/or mandatory reformulation measures (with robust and transparent monitoring) should remain under review.

Priority foods: It is important to focus on foods which contribute most in absolute terms to dietary intakes of the relevant nutrients based on dietary survey data, but there is a need for equal emphasis on top shelf foods, given the data on high intakes of top-shelf food among children and adults in Ireland. Priority foods will also be linked to work at EU level on priority food groups.

FOP labelling & Public awareness: To maximise the effectiveness of the Reformulation Roadmap, it

needs to be combined with food labelling initiatives on front of pack to signpost the consumer towards healthier food choices, and with appropriately designed public awareness campaigns. Health halo effects need to be considered if reformulation is the focus of consumer awareness campaigns – in some instances the advantage of reformulation may be eroded if it forms part of a consumer evaluative process in food choice. In this context, it should be noted that reformulation may be most effective when it is achieved primarily by stealth design (i.e. reformulation not for the purpose of commanding a differentiated position in the marketplace) through marketing and communication/claims linked to the changed nutritional profile.

Nutritional Signposting: The potential impact of a nutritional signposting initiative such as *Nutri-Score* should be considered. This could be introduced initially on a voluntary basis. *Nutri-Score* is currently being promoted and supported at EU level based on evidence of its positive effects on consumer behaviour/dietary intakes. Up to 6 EU Member States are now actively looking to implement *Nutri-Score* in their respective countries and in May 2019, the European Commission approved the launch of a European Citizens' Initiative petition seeking support for the EU to roll out France's *Nutri-Score* scheme across the EU in an effort to have clearer food labels. This approach reflects movement away from nutrient-based food labelling, like the UK traffic light system to a whole of food labelling approach. Under the EU Farm to Fork Strategy launched in May 2020, there is a provision to bring forward a proposal on mandatory front-of-pack nutrition labelling.

Public Procurement: The potentially significant role of public procurement (in the health sector and in other public sectors such as local government) as a driver of food and drinks reformulation needs to be acknowledged, and Ireland should seek to be an exemplar of best practice in the area at EU level. Action on this issue is relevant to the broader occupational health strategy in the public sector and is part of the EU Joint Action 2020-2023 Best-ReMaP, where the P stands for Public Procurement. Additionally, the EU Farm to Fork Strategy includes plans to "determine the best modalities for setting minimum mandatory criteria for sustainable food procurement to promote healthy and sustainable diets, including organic products, in schools and public institutions".

Resources for the Reformulation Roadmap: Work on the proposed targets for reformulation, including selection of relevant product categories, engagement with industry, monitoring of progress, public awareness and labelling initiatives (as set out below in this section and the following sections) have significant budgetary implications. The implementation plan developed by the Reformulation Sub-Group underpins the workplan for a new dedicated Reformulation Task Force being formed to drive the food industry towards reformulating food for healthier diets.

North-South collaboration on food reformulation: Given the proposed close alignment with the Public Health England (PHE) Reformulation Programme, and based on the high level of support and engagement with the Food Standards Agency in Northern Ireland in the preparation of this report, there is a strong case for establishing mechanisms for ongoing collaboration with colleagues in Northern Ireland. This is a potentially important area for North-South collaboration, with potential to consolidate existing links established under the Good Friday Agreement, involving *safe*food and the Institute for Public Health in Ireland.

Technical challenges: The technical challenges of reformulation for some food and drink products (including the requirements to preserve shelf-life, volume and palatability) and the time required to reformulate some products is acknowledged. There is a need for ongoing support for SMEs to assist them in addressing these challenges, working within existing state support systems such as those provided by Enterprise Ireland and Teagasc. This type of support will also be important for micro/artisan food producers.

Research on reformulation Roadmap: There is a need to support research at national level and participate in EU level research on the short and long term impacts, outcomes and cost-effectiveness of reformulation.

4.2 The Roadmap for food product reformulation in Ireland

Currently a high proportion of Irish food companies and food companies operating in Ireland are selling into the UK market in Britain and Northern Ireland and working towards achieving the Public Health England (PHE) targets. In Northern Ireland, the Food Standards Agency is also working within this framework. While it is understood that the level of resources and infrastructure in the Public Health Nutrition arena in Ireland are limited relative to PHE, the Sub-Group recommends that the Reformulation Programme in Ireland align with the broad Public Health England framework. This concept had been welcomed by the food industry as larger indigenous Irish food manufacturers have been working towards the PHE targets for their UK retail customers. It is understood and acknowledged that

the Reformulation Programme in Ireland can and should be adapted to ensure that we fully utilise and leverage the high-level expertise and outputs from the FSAI on food reformulation over two decades. This includes their work with the food sector on salt reformulation, and recent detailed work on the nutritional composition of breakfast cereals and yogurts categories in Ireland and on foods targeting older infants.

However, the alignment with the PHE approach is not without its own challenges, as outlined in section 5.1.

Rather than using 2021 as the baseline for reformulation work, the proposed baseline year for the Roadmap programme is 2015 in order to reflect ongoing work, although it is accepted that relevant baseline data will not be available for all products. It is envisaged that the first phase of the Roadmap (focused on the targets as set out below and summarised in **Table 3**) will run until 2025, subject to any relevant emerging evidence or regulations, and with ongoing monitoring as addressed in the relevant section below. The programme targets branded products, retailer own brands and out of home products, although additional work is required on implementation and monitoring in the out of home sector. The strategy for subsequent phases of the reformulation programme will be guided by the extent of progress during the initial period up to 2025.

Table 3 The Roadmap for Food Production Reformulation in Ireland: Food and Drink Reformulation targets for Ireland 2015 – 2025

NUTRIENT	TARGET
Salt	10% reduction focused on the 76 food groups that contribute most to people's salt intakes
Sugar	A 20% reduction is proposed in the sugar content of nine food categories* that are currently the focus of the PHE sugar reduction programme
Saturated fat	A 10% reduction in the saturated fat content of processed foods that contribute most to saturated fat intakes in Ireland is proposed.
Calories	A 20% reduction in calories is proposed, focused on product categories that contribute significantly to children's calorie intakes.
Products targeted explicitly at babies and young children:	The FSAI will develop targets for this category based on its previous work in this area (2012 and 2018).

*Breakfast cereals, Yogurt and fromage frais, Biscuits, Cakes, Morning goods (buns, pastries etc), Puddings, Ice cream, Iollies and sorbets, Chocolate confectionery, Sweet confectionery, Sweet spreads and sauces.

Salt target 2015-2025: A 10% reduction in salt is proposed, focused on the 76 food groups that contribute most to people's salt intakes and that are addressed under the current PHE salt reformulation and reduction programme. The targets for the food groups are set according to mg sodium that should be present and include all sources of sodium. The sodium figures are multiplied by 2.5 to give the salt equivalent figure. The targets should therefore be met for both sodium and salt.

Consistent with the PHE programme, two types of average will be used to assess progress: a processing average that is used to account for ranges of salt levels that occur in a single product (e.g. bacon and tuna) and a range average that is used to take account of a range of different flavours (e.g. standard potato crisps) or products (typical breakfast foods) covered by a single target. All range averages should be calculated on a sales weighted basis.

This relatively modest salt target has been set in response to initiatives by the food industry to reduce the salt content of processed food over the past decade. The FSAI funded a population study of urinary sodium excretion that was due to report in 2020. Unfortunately, the fieldwork for this study has been delayed due to pandemic related restrictions and the report is unlikely to be available before 2022. The proposed 10% reduction target will be reviewed and may need to be increased, depending on the findings from this study. As in the UK, the eating out of home sector is expected to procure and/or make products that meet the relevant targets and maximum per serving salt targets will be developed for this sector, drawing on experience from Northern Ireland and Great Britain. Insofar as possible the work on salt reduction will continue to be aligned with the PHE reformulation programme.

Sugar target 2015-2025: A 20% reduction is proposed in the sugar content of nine food categories that are currently the focus of the PHE programme. Working within the PHE framework, category specific, sales weighted average targets/100g of product will be set for achievement by 2025 and calorie or portion size caps will be set for single serve products, all aligned insofar as possible with PHE published targets.

Saturated fat 2015-2025: A 10% reduction in the saturated fat content of processed foods that contribute most to saturated fat intakes in Ireland is proposed. The FSAI will produce a list of the relevant food categories and review the 10% target in the light of the UK Government's Scientific Advisory Committee's ongoing work on saturated fat.

Calories target 2015-2025: A 20% reduction in calories is proposed, focused on product categories that contribute significantly to children's calorie intakes (up to the age of 18 years) and where there is scope for either substantial reformulation and/or portion size reduction. These will be in line with PHE targets.

Product ranges targeted explicitly at babies and young children: 2025 targets will be developed for this category, based the FSAI's work in 2012 and repeated in 2018 addressing the nutritional composition and quality of products in this category. Infant milk formula is not included in the Roadmap.

5.0 Towards implementation, monitoring and validation procedures

The implementation, monitoring and validation of a national reformulation Roadmap involving branded products, retailer own brands and out of home products poses considerable technical and practical challenges. It depends on a sophisticated, well-resourced public health nutrition infrastructure, with extensive capacity in terms of the collection and analysis of data on population level dietary intakes and nutritional composition, capacity in the interpretation of food product market share data and data on consumer awareness and behaviour, all linked with the resources required for detailed, category by category engagement with the food and drinks sector and engagement with relevant NGOs, state agencies and consumers.

To define a percentage reduction target for any particular food category requires data on nutritional composition of the full range of products within the category, the market share of each brand and brand sub-types and a definition of optimal composition based on the marketplace (which ensures this optimal composition is technologically possible).

The Sub-Group have therefore given careful consideration to the interrelated issues of implementation, monitoring and validation of the Reformulation Roadmap, in the context of the extensive engagement of the FSAI with these issues over many years, EU developments and the ongoing PHE Reformulation Programme. In keeping with the decision to align with the broad Public Health England targets, the recommendation is for Ireland to align with the PHE approach to implementation, monitoring and validation of the reformulation programme, augmented with the 2017-2018 FSAI baseline assessments of three major food categories (breakfast cereals, yogurts and foods targeting babies and young children) and supported over the first three year period of the programme with EU funded work on reformulation of foods and drink composition in Member States.

The EU have announced a new Joint Action on Nutrition - Best-ReMaP, with three main Work Packages: Reformulation, Marketing and Public Procurement [9]. Interested Member States, including Ireland are participating in the Reformulation Work Package to support reformulation work for 2020-2023. Participation in this EU work, funded at 80%, has been agreed by the Department of Health with the FSAI and the lead country, France, and work on the Joint Action officially commenced on 1st October 2020.

The EU funded work will focus on five priority food groups :

- Breakfast cereals
- Soft drinks
- Bread products
- Delicatessen meats and similar
- Fresh dairy products and desserts.

This EU Joint Action is particularly important and timely in the context of achieving progress on the Reformulation Roadmap. However, additional resources at national level will be needed to ensure progress on the Action Plan continues up to 2025 in line with the Roadmap timeframe.

This EU – wide approach has the added advantage of ensuring that the Roadmap is cognisant of EU rules and latest developments as well as helping to achieve a sustainable supply base of healthier food products suitable for the Irish market.

Additionally, in May 2020 the European Commission launched the Farm to Fork Strategy for a fair, healthy and environmentally-friendly food system under the European Green Deal [10]. Among the proposed initiatives under the Farm to Fork Strategy are to “launch initiatives to stimulate the reformulation of processed food, including the setting of maximum levels for certain nutrients”, and to “set nutrient profiles to restrict promotion of food high in salt, sugars and/or fat”. The Strategy also envisages bringing forward a proposal on mandatory harmonised front-of-pack nutrition labelling. In October 2020, Council Conclusions on the Farm to Fork strategy stressed “the importance of promoting the reformulation of foods in line with guidelines on a healthy and sustainable diet”.

5.1 Concerns in relation to the proposed alignment with PHE approach to monitoring and validation

A number of significant caveats should be noted in relation to the current proposed alignment with the PHE approach, including concerns about the ability of this approach to provide a comprehensive and reliable assessment of product reformulation in various food categories marketed in Ireland. It should also be noted that the verification approaches

used by PHE are expensive and that the KANTAR consumer panel data used by PHE is much more detailed than that available in the Republic of Ireland or Northern Ireland. The current FSAI approach to monitoring reformulation uses market surveys to collect labelling data, including all nutrition information, on a comprehensive range of food products that are on the market at a particular time point. A sub-sample of products is selected for direct laboratory analysis to verify labelled data. With consumer panel data, food companies with the largest market share will determine the results of different food categories and those of SMEs with a smaller share of the market will be hidden. In addition, this approach does not allow for identification of healthier options that exist within each food category – it primarily reflects the nutritional profile of the market leaders. The accuracy and timeliness of consumer panel data poses additional concern in relation to some products.

Many of these concerns will be addressed by using the EU Joint Action approach of

1. looking at two to three food categories over the next three years and
2. by the collection of data on nutritional composition of foods and drinks on Irish supermarket shelves.

An important aim of the Roadmap is to encourage SMEs to engage in reformulation, and a welcome advance is the innovation LAB at Teagasc Ashtown, part of the Prepared Consumer Foods Centre, which is a valuable resource to support these smaller indigenous enterprises in product reformulation and development.

In Ireland, we face additional significant challenges in relation to the assessment of reformulation in the non-prepacked food sector, including bakery products (cakes, pastries, croissants, Danish pastries, doughnuts, muffins, bagels, scones, buns, fruit loaves etc.) and out-of-home Take Away foods (chips, burgers, pizzas and global regional foods - Chinese, Thai foods etc.). These foods present a significant challenge regarding the monitoring of reformulation as no information on ingredients, weights or nutrition composition are currently available. An approach will need to be developed for monitoring food reformulation for this sector in Ireland.

6.0 Mechanism for engagement and consultation with the Food and Drinks Industry

Food Industry led initiatives on reformulation

The Food and Drinks Industry in Ireland has undertaken a number of initiatives to reformulate their products and in the context of the current report, this work should be acknowledged. Reformulation is acknowledged by industry representatives as *"one of the most effective ways in which the sector can contribute to reducing obesity and improving public health"* and based on our engagement with representatives from the food and drinks industry, it is clear that some food producers and retailers have accepted the need for an ambitious and effective reformulation programme and are already working on achieving the PHE targets.

In recent data from the Industry (*The Evolution of Food and Drink in Ireland 2005 – 2017*, January 2019) the impact of reformulation initiatives since 2005 on nutrient intakes in the Irish population has been estimated [34]. This report presents research conducted on behalf of 15 Food Drink Ireland (FDI) member companies. These companies' data on product reformulation and innovation was collected and its impact on Irish diets was assessed using statistical modelling techniques. The latter (modelling estimates) were based on FDI food composition data, estimates of population level dietary intakes from four Irish University Nutritional Alliance (IUNA) surveys conducted between 2003 and 2011, and sales data from a market research company (Euromonitor). The findings suggest that between 2005 and 2017, sugar and saturated fat intake in the average Irish diet has decreased, while sodium, total fat and energy intake remained stable. Of the products analysed, the small sub-set of 235 products on the market in both 2005 (baseline) and 2017 showed average reductions in all of the nutrients of interest: energy (1.6%), total fat (0.3%), saturated fat (10%), sodium (28%) and sugar (8%).

This report represents a significant effort to estimate the impact of Industry led reformulation on dietary intakes in Ireland, within the constraints of available data. However, for the purpose of the current report, it should be noted that the work has not yet been subject to standard scientific peer review. The data are derived from a relatively small segment of the food and drinks industry in Ireland, and the models employed rely heavily on approximations and simplifying assumptions with associated uncertainty and imprecision in the reported estimates of dietary intakes. Thus, there is a need for caution in drawing conclusions from these data on the effects of industry- led reformulation on dietary intakes in Ireland to-date.

Following on from the consultation in 2019, the Department of Health welcomes the commitment of the FDI and its member companies to engage at category level with the FSAI or other relevant bodies.

Ongoing engagement and consultation with the Food & Drinks Industry

Clearly, we are now at the start of a process that needs to gain momentum over the lifetime of the Obesity Policy and Action Plan.

The Task Force will engage in further discussions with the food industry at category level and provide advice on methodologies for establishing a baseline and calculating progress. Ongoing engagement with retailers is also important for "own brand" products and distribution channels for their reformulated branded products.

This is aligned with current international guidelines proposed for the management of food industry self-regulation programmes (as summarised in Section 2.6, Table 2).

7.0 Food Reformulation Task Force

A dedicated Reformulation Task Force, situated within the FSAI, has been established to implement and drive the actions in the Roadmap covering the period to the end of 2025.

The Reformulation Task Force will be overseen by an Oversight and Monitoring Group chaired by the Principal Officer of Health and Wellbeing Programme, Department of Health, and including representatives of the Department, FSAI and OPIOG.

Deliverables have been agreed for the Task Force including the following areas of work:

- Set out a programme of reformulation work activities and timings within the timescale of the Obesity Policy and Action Plan to 2025, to include the reduction of salt, sugar and saturated fats.
- Initial prioritisation of salt reduction
- Continued participation in the reformulation work of the EU Joint Action Best-ReMaP
- Engagement in discussions with the food manufacturers at category level, including retailers with respect to 'own brand'
- Develop 2025 reformulation targets for foods and drinks explicitly aimed at babies and young children based on FSAI work
- Develop a program of work addressing reformulation of food in the out of home (OOH) eating sector
- Annual Reformulation for Health workshops involving the food industry and other relevant stakeholders to review progress
- Leverage and coordinate outputs from research on reformulation funded at EU and national level.
- An annual report to be presented and discussed at the OPIOG (commencing with a 2022 annual report)

8.0 Conclusion

It has already been acknowledged that this Roadmap is a first step towards helping to change the food environment in Ireland, as one of a suite of measures to be implemented under the OPAP. It is also acknowledged that reformulation involves costs to the food industry. However, these costs must be weighed up against the costs of obesity to the economy as a whole and to society, and in the context that the OPAP has been endorsed as a whole-of -government commitment. The Roadmap is a 'living' document that can be amended as new information, evidence or behavioural research becomes available. The Reformulation Task Force is tasked with driving these actions towards reformulating food for healthier diets.

Appendix 1 – OPIOG Reformulation Sub-Group Membership

Prof Ivan Perry, Dean, School of Public Health UCC (Chair).

Dr Janas Harrington, Senior Lecturer, School of Public Health UCC.

Dr Fiona Geaney, Chief Executive Officer, Food Choice at Work, UCC.

Ms Ursula O'Dwyer, Health Promotion Policy Advisor, Department of Health.

Mr Seamus O'Reilly /Mr Liam McCormack, Assistant Principal Officer, Department of Health.

Ms Kathleen Mooney /Ms Joanne Casey, Company Nutritionist & Registered Dietician, Food Standards Agency, NI.

Ms Sharon Gilmore, Head of Standards & Dietary Health, Food Standards Agency, NI.

Dr Marian O'Reilly, Chief Specialist in Nutrition, Safefood.

Dr Mary Flynn, Chief Specialist, Public Health Nutrition, Food Safety Authority of Ireland.

Dr Sinead McCarthy, Research Officer, Teagasc.

Mr Niall Mc Keown, Department of Agriculture, Food and the Marine.

Appendix 2 - Reformulation Sub-Group engagement with the Food Industry

Appendix 2.1 Obesity Policy Implementation Oversight (OPIOG) Reformulation Sub-Group

Workshop with Food Sector Stakeholders

Thursday 20th September, 2018

Brief Overview of Obesity Policy and Action Plan 2016-2025

Reformulation in the United Kingdom, Issues and challenges

Breakfast Cereals and Yogurts vs. Crumbled Biscuits and Desserts: setting a baseline for reformulation towards healthier products in Ireland (FSAI activities in relation to reformulation).

Prepared consumer foods: supports and incentives

Agriculture Food Sector, related strategies and DAFM funded research.

Reformulation Roadmap

Workshop Groups — Food industry engagement to achieve targets.

Appendix 2.2 OPIOG Reformulation Sub-Group Food Industry Workshop 2

Meeting between Reformulation Sub-Group members and Food Drink Ireland IBEC

25th February, 2019

Overview of Roadmap to date, outlining targets and timeline.

Food Industry Feedback

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