

# Qualitative research on reformulation with food manufacturers in Northern Ireland

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## Northern Ireland

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## Executive Summary

In support of the Food Standards Agency's (FSA's) wider objective of promoting healthier and more sustainable food, Ipsos UK in Northern Ireland was commissioned to conduct qualitative research to investigate food manufacturers' engagement, views and challenges around food reformulation. Fifteen one-to-one depth interviews were conducted with food manufacturers in Northern Ireland.

## Key Findings

- Awareness of the [UK Government's guidelines on sugar, salt and calorie reduction](#) is mixed across food manufacturers in Northern Ireland. Awareness is impacted by business size, with larger and medium-sized businesses holding more knowledge about the specific guidelines due to employing staff with more technical expertise, and working with retail sector customers who often encourage reformulation.
- The extent to which businesses have engaged with, or are currently engaging with reformulation varies, and those who have engaged in reformulation have done so with varying success. Those who have made previous attempts to reformulate food products have faced challenges with regards to overall product quality, including changes to taste, texture or mouth feel. Motivations to reformulate are individual to each business but are largely driven by end cost of the product, exploring healthier product lines to meet consumer demand, or adhering to retail customers' guidelines.
- Several enablers to reformulation were identified, including perceptions of retail customer demand, perceptions of changing consumer preferences, and support and partnership working with suppliers, retail customers and experts in nutritional and technical fields.
- It is clear that the reformulation journey for each business is individual and multi-faceted. Generally, where reformulation has taken place, there is a commercial drive underpinning reformulation efforts. Perhaps unsurprisingly, food manufacturers must consider financial viability of any significant change to their activities. Where health benefits of reformulation

exist, in some cases this is secondary to increasing profit or retaining retail, wholesale, or consumer business.

- Barriers to food reformulation vary based on business size and the types of food product manufactured. Key barriers include a perceived lack of need to reformulate any food products (for example, that foods manufactured are not suitable for reformulation); wide-ranging cost implications such as food wastage, redundant stock and purchase of new ingredients; impact on product quality and integrity; consumer acceptance; and time and resourcing challenges. The extent to which these barriers are relevant to businesses depends on the size of the business (with larger businesses more likely to have additional resource or budget to undertake reformulation), expertise within individual businesses, and individual motivations or goals to undertake reformulation.
- Targeting guidance which aims to support businesses to include reformulation as a key business goal or priority, and increases awareness and knowledge of the UK Government guidelines, may benefit businesses of all sizes, but may be more crucial for micro and smaller-sized businesses. This may take the format of summarised written communications which signpost businesses to relevant organisations or representatives that can support with reformulation.
- Personalised support may be useful for businesses, including connecting food manufacturers with external bodies such as local technical colleges, funding bodies and/or business support. This would mean they can access a dedicated representative with knowledge on reformulation, who can provide tailored advice based on the individual business, their business plans and manufacturing capability. Where financial support is available to enable businesses to engage in reformulation, this may particularly benefit smaller and medium-sized businesses.

## Acknowledgements

We would like to express our sincere gratitude to all the organisations and individuals who generously gave their time to participate in this research and provided their expertise on the subject of reformulation. Your invaluable contribution made this research possible and significantly enhanced its quality.

## Introduction

Ipsos UK in Northern Ireland was commissioned by the Food Standards Agency (FSA) in Northern Ireland to conduct a qualitative research project as part of the Making Food Better (MFB) programme, to investigate food manufacturers' engagement, views and challenges around reformulating food to reduce calories, sugar, saturated fat and salt.

The MFB programme seeks to improve the food environment whereby consumers have access to healthier food. This programme of work supports Northern Ireland food businesses to make the food environment healthier through reformulation to reduce calories, sugar, saturated fat and salt in the food they produce, sell or serve, reducing portion size, providing nutritional information and delivering responsible promotions.

This research aligns with the FSA's wider objective of promoting healthier and more sustainable food and complements the Making Food Better Consumer Tracker<sup>1</sup>, a quantitative survey with consumers in Northern Ireland that monitors perceptions of healthy eating, healthier options and reformulation, the use of traffic light labels and knowledge and understanding of the recommended daily calorie intake. Indeed, the FSA recognises that dietary health and sustainability are growing priorities for consumers in Northern Ireland.

To date, research has not been conducted with businesses to understand food reformulation.

This research begins to build the evidence base with regards to views across the food manufacturing sector in Northern Ireland. The findings of this research will help to develop an in depth understanding of how the FSA can best support food businesses with food product

improvement, specifically in relation to food reformulation. The findings aim to provide unique insights from the perspective of food manufacturers, and will play a key role in informing the FSA's policy in this area.

## Research objectives

The main objectives of this research were to understand Northern Ireland food manufacturers' awareness, participation and attitudes towards healthier food reformulation, their views on front of pack nutritional labelling, and to understand how they can be best supported to partake in reformulation.

More specifically, this research project aimed to investigate the following areas with food manufacturers in Northern Ireland:

- Awareness and understanding of the [UK Government's sugar, salt and calorie reduction guidelines](#);
- Participation in reformulation (self-reported) and reasons for participating or not participating in reformulation to understand potential enablers and barriers to reformulation;
- Support required to participate in reformulation (from FSA and in collaboration with other Government departments, external funding organisations or technical colleges);
- Reduction of portion sizes;
- Display of traffic light labelling on products;
- Business priorities to understand engagement with / importance of reformulation;
- Communication of food product improvement messaging to consumers following changes (e.g. changing ingredients; reducing calories, saturated fat, sugar and salt; increasing fibre; adding vitamins), approaches to messaging (e.g. via health claims, nutrition claims or ingredient claims) and how messaging is sourced.

## Methodology

### Methodology overview

A qualitative approach was adopted for this research using one-to-one depth interviews to gather insight on reformulation among food manufacturers in Northern Ireland. This method was chosen over a quantitative survey due to the small number of businesses available and a desire to gather in-depth information on the topic under investigation. The full methodological approach along with the limitations and challenges is detailed in Appendix F.

### Sample

Data was collected from various food manufacturers with a scope for reformulation as identified through the following [Standard Industry Classification \(SIC\) codes](#):

- Manufacturing of vegetable and animal oils and fats;
- Manufacturing of dairy products;
- Manufacturing of grain mill products, starches and starch products;
- Manufacturing of bakery and farinaceous (starchy) products; and,
- Manufacturing of other food products.

The purchased sample universe consisted of 136 food manufacturers across various sectors, of which only 55 had email addresses. To boost the sample, researchers added businesses that were not included in the original sample, resulting in 134 email contacts.

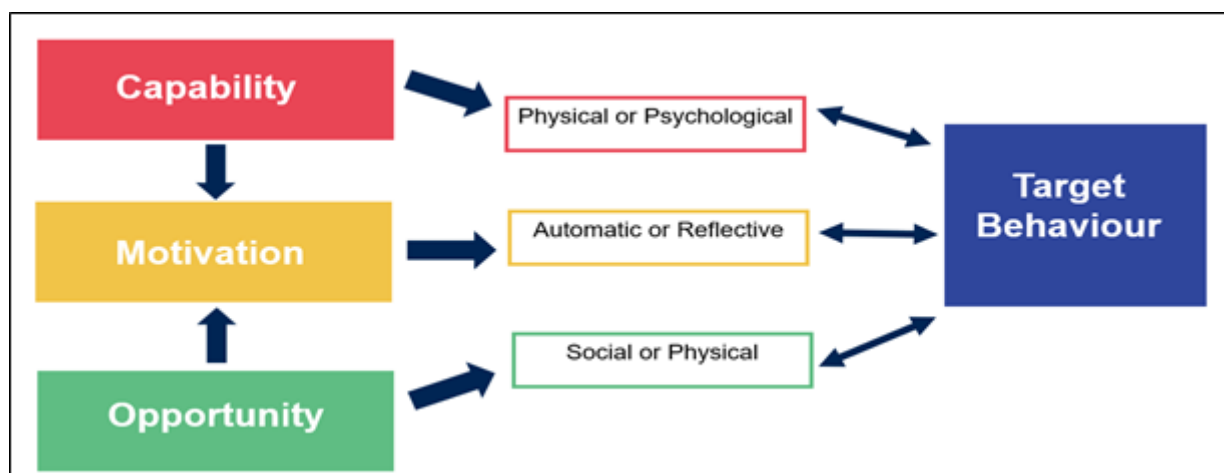
### Recruitment and fieldwork

The Ipsos research team managed recruitment, aiming to encourage participation from senior employees in food businesses. The research team contacted businesses by email and phone, and despite challenges in scheduling and reaching potential participants, the team persisted with follow-up attempts. The initial recruitment and fieldwork phase ran between 16th October 2023 and 23rd November 2023, resuming on 15th January 2024 following a pause for the busy Christmas period faced by businesses, and ending on 22nd March 2024. Additional efforts were made to maximise participation, including adding a full-time recruiter in January. Face-to-face recruitment was also attempted at a specialty market in Belfast, resulting in four successful interviews out of 13 eligible businesses.

## Research materials

A discussion guide was created to understand food manufacturers' awareness and understanding of the UK Government's guidelines around reformulation, and their opinions, attitudes, barriers, and enablers related to food reformulation. The COM-B behaviour model was also used to design the discussion guide with questions to identify any processes or external drivers or barriers to reformulation as a Behaviour related to Capability, Opportunity and Motivation (see Figure 1 and Appendix F for more detail)<sup>2</sup>. A total of 15 interviews were conducted either online or via telephone with representatives from various food manufacturers. The interview duration was around 45 minutes to accommodate busy schedules, and participants were carefully selected based on their role and knowledge of food reformulation within their organisations.

**Figure 1. COM-B model of behaviour change**



## Data analysis

A case study approach was used to report research findings due to the unique nature of each business' experience with reformulation. In that regard, all participating businesses were unique in size, operation and manufacturing activities, with some businesses taking part in reformulation while others were not currently engaging in or considering reformulation. Thematic analysis, an inductive approach seeking to identify themes from the data rather than code data into a pre-existing thematic framework, was also used to identify common themes across all interviews. The COM-B framework and the Theoretical Domains Framework (TDF) guided data interpretation.

## Ethical considerations

All participants were informed about the research and consented to participate. They were assured their responses would be kept confidential and anonymised. Additionally, they were reminded that participation was voluntary, and they could withdraw at any time.

## Research findings

This chapter provides an overview of the research findings, and includes individual case studies for each business who participated in the study.

This has been selected as the most appropriate approach to present the findings, to allow for any unique motivators and challenges to be captured for specific business cases. This section first presents a number of overarching themes that emerged from the research and analysis using the COM-B framework where appropriate.

Supporting evidence in the form of quotes from food manufacturers, are provided throughout the case studies in section 5.5. An overview of the business profiles of the individual case studies can be found in Appendix G.

### Awareness and understanding of the UK Government's sugar, salt and calorie guidelines

Awareness of the [UK Government's guidelines on sugar, salt and calorie reduction](#) is mixed across food manufacturers in Northern Ireland. Generally, businesses are aware that the guidelines are in place but familiarity with the guidelines varies. This variation appears to be driven by several factors.

Business size appears to impact awareness levels to some extent, with larger and medium-sized businesses holding more knowledge about the specific guidelines. They are also more likely to have specialist teams working on product development and technical elements of food production, as they typically manufacture a wider range of products which are subject to quality control and testing.

Larger-sized businesses who supply their manufactured products to the retail sector (including supermarkets) or hospitality sector, may also hold a more in-depth understanding of the guidelines due to the requirements set out by their customers. Food manufacturers may be required or encouraged to engage in reformulation to adhere to their retail customer requirements, and as such, there has been a commercial drive for these businesses to understand the UK Government guidelines, which seem to be considered and utilised more widely by the retail sector they supply to.

Within larger organisations, awareness among the representatives interviewed also varies depending on their job role within the business, with some noting that colleagues involved in the more technical side of the business would hold more specific knowledge on guidelines relating to different nutritional components.

Generally, smaller and micro-sized enterprises are less familiar with the UK Government guidelines, as they may not have considered reformulation and are likely to have a much smaller workforce. Therefore, they tend to have competing priorities to consider with the time and resource available to the business.

While there is general awareness among businesses that guidelines exist around the reduction of salt, sugar and calories, familiarity with specific recommended values of these nutrients is relatively low among the representatives interviewed. It may be the case however, that individuals within the business who are closer to the technical elements of food production, hold more knowledge on recommended nutrient values.

### Participation in food reformulation

Similar to awareness levels on the UK Government guidelines, the extent to which businesses have engaged with, or are currently engaging with reformulation, varies.

Generally, few businesses in this research have participated in reformulation. Among businesses who have engaged in reformulation, products have been reformulated to reduce sugar, salt and calories with varying success. Those who have made previous attempts to reformulate food products have faced challenges with regards to overall product quality, including changes to

taste, texture or mouth feel. Successful reformulation is largely linked to the type of food product being reformulated and the scale of operation of any individual business. Where a food manufacturer has a larger operation or a wider range of food products, reformulation is more likely to be successful.

Motivations for reformulation are mixed and individual to each business, but include factors such as reducing overall cost to the consumer through the cost-of-living crisis, exploring 'healthier' food product alternatives in line with consumer demand, adhering to guidelines provided by retail and wholesale customers, and attempting to innovate in a particular product category to offer healthier alternatives to popular food items.

Reformulation activities that have been explored more relate to the reduction of specific nutrient categories such as salt and sugar, rather than changes to portion size. Across food manufacturers, there is a general reluctance to reduce portion size due to the perception that consumers will be dissatisfied or feel they are no longer receiving value-for-money. In some instances, changing the portion size of a product is not perceived to have any meaningful health benefit to the consumer, depending on the type of product a business sells. Furthermore, there is a sense among some businesses that changing portion sizes may not change overall consumer food behaviours and that it is the responsibility of the consumer to decide if they want to purchase a particular food product.

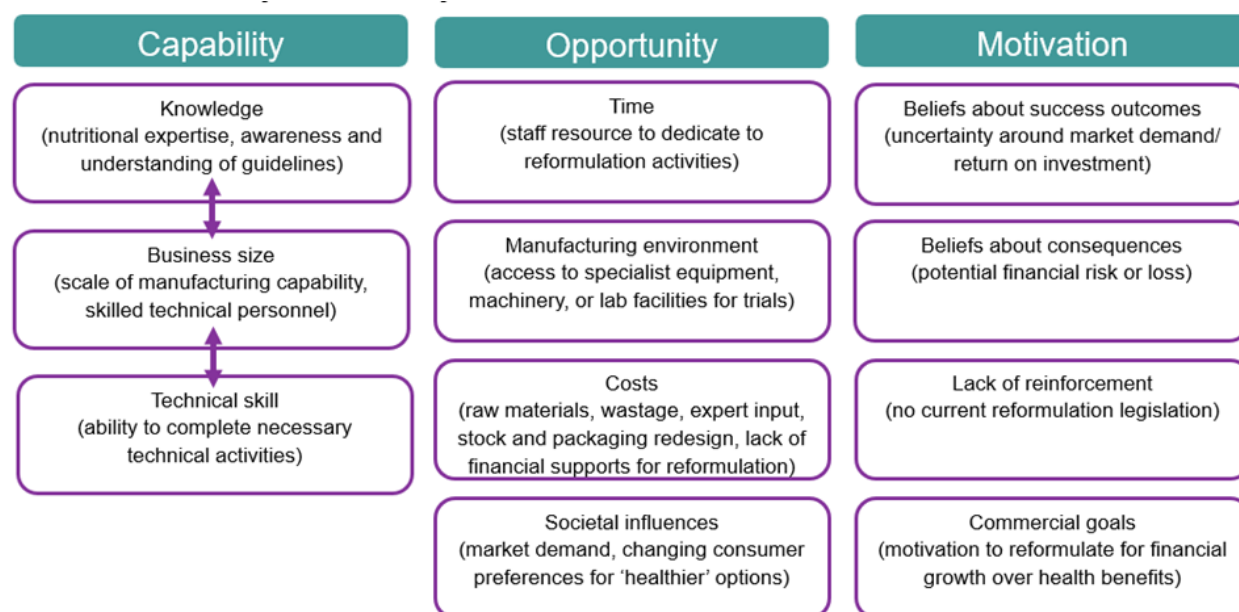
A lack of legislation around reformulation to reduce levels of salt, sugar, saturated fat and calories in food products, is perceived by some businesses as a reason not to focus efforts on engaging in reformulation at this time. Without a legal requirement to do so, some businesses are unwilling to prioritise reformulation due to the time, resource and costs required.

Further detail on individual business reformulation journeys is explored later in this chapter within the individual case studies.

## Key enablers and barriers to reformulation

A number of themes were identified in relation to enablers and barriers to reformulation, using the COM-B model to determine the potential influence of each of the domains (Capability, Opportunity, and Motivation) on food reformulation engagement. Figure 2 presents an overall summary of the key enablers and barriers under the COM-B framework, which are then explored further in the next section.

**Figure 2. COM-B analysis: Barriers and enablers to reformulation**



Please note that the arrows in Figure 2 denote the relationships between business size, knowledge, and technical skill. While each of these three elements relate to a business' capability to undertake reformulation, business size directly influences the extent to which a business may have the knowledge or technical skill required to undertake reformulation.

## **Key enablers to food reformulation**

Enablers to food reformulation include perceptions of retail customer demand, perceptions of changing consumer preferences in the general population, and support and partnership working with suppliers, retail customers and experts in nutritional and technical fields.

### **Perceived market demand for reformulated products**

The main drivers of food reformulation tend to be centred around retail customer demand and therefore a perceived 'need' to reformulate existing product lines. As highlighted above, some larger-sized manufacturers are contractually required by retail or wholesale customers to reformulate certain food products, and do so to retain business and ensure profitable growth. For some businesses, reformulation would be considered in the future if they were required to do so to retain retail or wholesale customers, and in some cases if there were financial supports and technical guidance available.

### **Perceptions of changing consumer preferences**

Consumer preferences for certain product categories is another key consideration. Some businesses noted that they have attempted to reformulate their products to meet consumer demand for lower calorie or higher protein options, but with limited success. There is a perception among some businesses that products which are lower calorie or higher in protein are growing in popularity among consumers, particularly those who are more health focused. However, this type of reformulation is only perceived as relevant to foods such as pre-prepared meals or foods which are not considered by consumers to be 'treat foods', and therefore, manufacturers with food products that are typically higher in sugar or saturated fats generally do not cite consumer demand for healthier products as a motivator for reformulation, as they perceive those purchasing 'treat foods' to not desire healthier alternatives.

### **Partnership working with relevant organisations**

Working in partnership with suppliers, retail customers – and for some businesses, colleges or food technicians and nutritional specialists – is key to reformulation success among those who have identified a need or desire to reformulate a product. As businesses often require additional knowledge or expertise to support reformulation efforts, access to organisations who can share this knowledge is crucial.

Additionally, in cases where it is not possible to perform reformulation or food trials in-house, the access to the appropriate physical environment of a manufacturing facility can influence a business' opportunity to reformulate food products.

## **Key barriers to food reformulation**

There are several barriers to food reformulation, which vary based on business size and the types of food product manufactured. Key barriers include a perceived lack of need to reformulate any food products (for example, a perception that foods manufactured are not suitable for reformulation); wide-ranging cost implications; product quality and integrity; consumer acceptance; and time and resourcing challenges.

### **Perceived lack of need to reformulate**

Among manufacturers who do not perceive a need to reformulate their food products, this is often due to opposing beliefs about the healthiness of their primary product. For example, businesses who believe they sell a product or product lines that are relatively healthy, and can be considered to be comprised of whole, fresh and natural ingredients that are naturally lower in added sugars, salt and saturated fat, do not feel that reformulation is necessary or feasible for such products. This is tied to perceptions that the companies' values and goals may be synonymous with healthy eating, and therefore, reformulation efforts would be fruitless.

Conversely, manufacturers of food products which are naturally higher in sugar, saturated fat and calories struggle to understand how reformulation could be achieved without impacting the overall appeal of the product, or changing the product substantially. These types of businesses often note that their key products may be considered a 'treat', and it is well understood that certain products are higher in sugar, fat or calories, and that it is up to the consumer to decide if they wish to buy the product as part of wider dietary choices. It is evident that some products, which could be considered less healthy, are considered more challenging to reformulate than others while ensuring the product is still appealing to consumers. Similar to perceptions that some consumers are increasingly seeking healthier alternatives, there is also a perception that foods higher in sugar, fat, and calories remain in demand in the context of consumers' overall food preferences.

### **Concerns around product quality**

Another barrier to reformulation is linked to business concerns around product quality and consumer acceptability. The overall quality of a product is of key importance and was a prominent theme across all manufacturers who participated in the research. Among businesses who have engaged in reformulation and those who have not, there is an acknowledgement that irrespective of the time, resource and cost required to develop and test new products, if a reformulated product does not meet the quality standards set out by the business, it will not be a viable product. Depending on the type of reformulation undertaken, changing the nutritional make-up of a product can change the taste, texture, mouth feel or shelf life of a product, all factors which may impact consumer acceptance and likelihood to purchase.

### **Time and resourcing challenges**

Engaging in reformulation requires time commitment from individuals in the business which takes resource away from other business activities. Additionally, some businesses including medium and larger sized businesses, note that they do not have the opportunity to focus on reformulation due to the 'down time' that would be required to do so, which would take away from important and profitable activities elsewhere in the business. 'Down time' to explore reformulation may redistribute staff resource to reformulation trials, for example, which are not guaranteed to produce a successful result.

Furthermore, depending on the business size and their manufacturing operations, the expertise required to successfully execute reformulation may be limited. Where a business does employ staff who are skilled in the relevant technical requirements, there may still be a resourcing or cost barrier to utilising this expertise for reformulation.

This is likely to be a more prominent issue for smaller and micro-sized businesses who employ fewer staff members, however, there is a general sense across food manufacturers that time is precious and often limited.

### **Cost considerations**

Finally, cost is a significant barrier to reformulation and is noted across all food manufacturing sectors in this research. There are various cost considerations across a reformulation journey that a business takes into account when assessing if reformulation is feasible. Research and development into a new or reformulated product can have both a time and resource cost (as outlined in the previous section) and also a financial cost. Product trials can be costly due to food



wastage, purchase of new ingredients (including more expensive ingredient alternatives) and redundant stock which may no longer be sold if changing to a new product. Reprinting of labels or packaging can also be a significant cost.

For some product reformulations, businesses would require new machinery or equipment to undertake a specific manufacturing process, which is extremely costly to the business without additional financial support. This kind of financial outlay can deter businesses, particularly medium and smaller-sized businesses, from engaging in reformulation.

## **Views on support required to participate in reformulation**

Larger-sized enterprises seem to be more knowledgeable on available support, but in some cases lack time or resources to further explore reformulation and utilise support they have identified.

There is appetite among businesses for information on reformulation that is easy to understand and breaks down or summarises the UK Government guidelines in a digestible format. This is particularly important for businesses who have a busy time schedule as some highlight that current documentation can be lengthy, and key information can be difficult to locate in relation to specific reduction guidelines.

Enhanced technical support and guidance would be welcomed, particularly where a business lacks in house technical departments or expertise. While colleges, universities, food laboratories and technicians have been cited as valuable sources of support for some businesses, it appears that across food manufacturing sectors, there is mixed awareness on which organisations or resources would be most useful to engage with to support reformulation.

Engagement with the FSA, including online resources and contact with individuals is also considered to be very helpful. Some business representatives indicated that they have regular contact with the FSA or have a contact that they can reach out to for guidance where needed. Other businesses highlight that where they have key personnel who are focused on the technical aspects of food development, they regularly use the FSA website for information and to keep up-to-date with any guidance.

## **Case study overview**

The remainder of this chapter presents individual case studies for each of the 15 business interviews conducted. Please note that in some cases, due to the business size, resource and skills, and the extent to which businesses feel that reformulation is possible for the products they manufacture, the level of detail in each case study varies. It is also important to note that care has been taken with regards to the inclusion of information or quotes which may potentially identify an individual business, to ensure anonymity.

It is also important to note that while all key areas in the discussion guide were covered, where a business has been unable to fully discuss an area of reformulation or has not shared their views on an element, this has been omitted from the case study. For example, some questions on experiences with reformulation were only asked to businesses who indicated they had previously, or currently undertake reformulation.

Please note, the reformulation status of each business has been listed under one of the following three categories:

- Currently reformulating products (case studies 1-3, colour code green);
- Previously reformulated (case studies 4-9, colour code blue);
- Not currently reformulating products (case studies 10-15, colour code purple).

Individual case studies have been colour coded according to the above three categories. Please note, where a business has “previously reformulated”, in some cases reformulation attempts did not progress past trial stages and may not have resulted in a reformulated product

going to market. Further detail is provided within each case study.

### **Case study 1: Food manufacturer of pre-packed meals**

Sector: Manufacturer of prepared meals and dishes

Business size: Large-sized enterprise

Reformulation status: Currently reformulating products

A long-standing business developed over several decades from a family farmland where it started, into the larger-scale food manufacturing business it is today. This business saw a gap in the market for pre-packaged versions of products that they produced, and from this, began to supply smaller, independent retailers, before growing their operation into a large-scale business.

#### **Awareness and understanding of the UK Government's sugar, salt and calorie reduction guidelines**

The business believes it has a good understanding of the guidelines. Due to limited internal resources, they often rely on their own business customers that they supply to, to inform them of any upcoming changes to these guidelines. However, further support or technical advice would be beneficial for the business, such as summaries of legislation and guidance on updating technical processes for specific ingredients or additives.

“We’re aware that there are the guidelines, and we are working to the standards especially for our customers, I suppose you can get lost in the noise a little bit whenever it’s your own product but when you are working to another customers’ standards there is that engagement.”

#### **Views on reformulation**

Reformulation is a top priority for the business. There has been a focus on re-engineering product lines in the past two years, and they cite changes to cost and consumer preferences post Covid-19 and throughout the cost-of-living crisis, as influencers on reformulation decisions. The key drivers of reformulation for the business are twofold: to reduce the price point for the customer, and to appeal to customer demand for healthier products. Although cost was identified as a driver of reformulation, it is also considered a barrier as the cost of healthier alternative ingredients are significantly more expensive for the business to acquire and implement into their products.

“We have seen a real driver for consumers being more aware of the health benefits of food post-Covid.”

#### **Participation in reformulation**

Reformulation is currently undertaken to improve the healthiness of product lines – but has largely been used over time to reduce costs. Cost reduction has been the primary driver of reformulation due to increased price of raw materials from suppliers. While the business shares that it is ‘easier’ to reformulate products they have complete control over, i.e. those which are not subject to further manufacturing, costs associated with ‘redundant stock’, reprints of product labels, and revising nutritional information are key considerations. If a recipe is to be changed, the business would ideally plan to run down their stock across different clients before introducing new products.

Reformulation of any product manufactured by the business needs to meet set criteria of internal taste panels, where factors such as visual appearance, taste and texture are considered. If a product is trialled for reformulation and the new recipe does not match the standards on these elements, this could be a barrier to reformulation.

“We would need to uphold the integrity of the product ourselves before we would even look at offering that reformulated product.”

### **Additional support needed for reformulation**

There are various types of support that could assist reformulation efforts, including summarised information of key points for businesses from lengthy legislative documentation. Advice on how to improve reformulation processes to make them more efficient, and any guidance on updating technical processes for specific ingredients/additives that change the texture and shelf-life of foods, would also benefit the business as they consider future reformulation efforts.

The business already works closely with suppliers to gain knowledge and skills to support them to make certain technical changes to reformulated recipes, which allows them to change the final selling price of a product without compromising on taste or quality for the customer.

“We have worked closely with our suppliers, so those [people] that are the experts of their product...they’ve given us indications of reformulated recipes that we could do, that would give us the same nutritional profiles but pull back the higher value ingredients.”

“A lot of the past 2 years’ worth of work has been reengineering all products from a cost and a health perspective.”

### **Case study 2: Manufacturer of dairy products**

Sector: Manufacturer of dairy products

Business size: Micro-sized enterprise

Reformulation status: Currently reformulating products

This small, family-run business was established in 2020, focusing on a product which they distribute to retailers and sell directly. Reformulation is a core focus of the business, with an aim to reduce the amount of sugar in the product to create a healthier alternative in the market. The business notes that they want to be “ahead of the curve” in reformulation for this market.

### **Awareness and understanding of the UK Government's sugar, salt and calorie reduction guidelines**

There is a focus on sugar reduction, however, the business does not have an in-depth understanding of salt and calorie reduction guidelines. Additionally, despite reducing sugar levels in their product, the business is unfamiliar with the exact terminology outlined in the sugar reduction guidelines.

### **Exploring reformulation**

The business enlisted the help of a mentor to discuss market opportunities, where they identified the need for a healthier product which falls within the regulations of sugar reduction. Despite creating a product that meets reduction regulations, the business is disappointed that supermarkets do not want to market the product, due to profit perception regarding sales of the reformulated product.

There is a sense of frustration with supermarket apprehension to stock this product, which relates to feedback that the lower sugar alternative will result in reduced taste or flavour. This paradoxical situation means that this business has felt restricted, as they followed the regulations to make a healthier product, but they receive limited support from their target retail audience, due to reluctance from supermarkets.

“We need a market leader to adopt the principle and then [it would be] easier for us to come in behind.”

“He [the mentor] pointed us in the direction of a sugar replacement product - we purchased samples and then the sugar replacement product we thought was a good idea.”

### **Reformulation messaging**

The business attends events to promote their reformulated low sugar product and for consumers to test their product samples. This provides a baseline of consumer acceptance and success of the product. Feedback from consumers has been positive, and the reformulated product taste does not seem to be negatively impacted by lower sugar levels.

### **Case study 3: Manufacturer of dairy products**

Sector: Manufacturer of dairy products

Business size: Small-sized enterprise

Reformulation status: Currently reformulating products

This manufacturer is a small, family-run enterprise in Northern Ireland that has been in existence for many years. They develop dairy-based products, in multiple flavours, and sell their products through retail channels and also to the hospitality trade, within Northern Ireland. They also export to the Republic of Ireland and Great Britain.

### **Awareness and understanding of the UK Government's sugar, salt and calorie reduction guidelines**

The business owner has a very clear and comprehensive understanding of the guidelines. It is clear that the guidelines are not a key driver to reformulating their main product line, and instead this is based on recognition and understanding of customer needs and feedback they have received on future product expectations.

### **Reformulation process**

Previously, the business had one main product line in multiple flavour profiles, and has attempted on several occasions to reformulate this product to a low sugar, low fat, low calorie formula. However, repeated attempts over a 15 year period proved fruitless, as they struggled to deliver a high-quality product with the same taste and mouthfeel, which they know is crucial for mass market appeal.

“We found that it was extremely difficult to combine all those criteria and it changed the mouthfeel and the composition of the product as a commercial attraction to the consumer. We were finding that products we were coming up with were really quite bland.”

### **Participation in reformulation**

This business has engaged in considerable reformulation efforts. Upon accepting that reformulation, in line with Government guidelines would not be possible, they explored alternative product options. This resulted in addition of a new product to their portfolio which would naturally be a lower calorie, lower fat and reduced sugar option, based on the ingredients being used, and this has been very popular among its customers.

### **Barriers faced during reformulation**

This business highlighted several barriers encountered in their reformulation journey. Costs incurred were significant while attempting to adapt their main product and to develop their new product, with new machinery and equipment required.

In addition, the nutritional and scientific knowledge was not present in-house and this led the business to sourcing external specialists who could advise on all aspects of these activities. In this case, the business received funding through a grant scheme to help offset some of the direct costs incurred and used the services of food scientists to assist in the development of their new product to ensure commercial viability.

They also praised the FSA's guidance and website which was also used throughout the reformulation and new product development journey.

### **Future reformulation plans**

Further reformulation efforts are ongoing, as the business attempts to develop an additional product, which appeals to those who favour protein-enhanced products.

Based on demand from customers, this manufacturer creates various sizes of its main product and now produces individual servings, alongside larger containers. They do not intend to reduce the individual portion sizes any further.

"From time to time, we get requests from customers, and indeed we are working on a portfolio for a new customer. The potential customer, I should say, is looking at enhanced levels of protein in [Redacted product]. We are about to commence trials to see how far they can go in terms of enhancing protein content without damaging the quality or mouthfeel of the product."

"Well the background to [redacted product] was some years before low fat, low sugar became the priority. Initially we had started out with a standard range of [redacted product range]. And it wasn't that long until customers were asking, 'well why don't you have a [redacted low sugar product] in your range?' ... That [the product range] sort of grew and grew."

### **Case study 4: Food manufacturer of baked products**

Sector: Manufacturer of bakery and farinaceous (starchy) products

Business size: Medium-sized enterprise

Reformulation status: Previously attempted reformulation

A manufacturer of bakery and farinaceous products, focusing on production of baked goods. A distributor of a baking product in Northern Ireland which is supplied to Great Britain. The business has sidelined other products focusing on production and distribution of the main product instead, due to its success and market demand.

The dual focus on environmental and market sustainability underscores the business' commitment to a holistic and forward-thinking approach to sustainability.

### **Awareness and understanding of the UK Government's sugar, salt and calorie reduction guidelines**

The business acknowledges that its understanding of the guidelines is not as comprehensive as it could be. Nonetheless, the guidance is perceived to be 'imposed upon' the business to a certain extent, and somewhat beyond their control, as it is primarily a supermarket-oriented business and the supermarkets they supply require the business to engage in reformulation.

“So as these [guidelines] come in and supermarkets are trying to make this more appealing to Government guidelines, these things are more forced upon us.”

“Again, these things [reformulation] are forced on us really by the supermarkets. You know probably earlier than what the Government was even requiring at that point.”

### **Views on reformulation**

The business is not currently prioritising any further reformulation. Although there has been successful reformulation in the past, this was a result of “a lot of trial and error”. The quality of the product is considered to be “the most important factor” for the business, as the product needs to remain a solid, high-quality option that allows them to remain competitive in the market. However, this business has a skilled Quality Assurance team, ensuring quality standards are upheld. While the business holds mixed feelings on reformulation as a result of previous efforts, they are committed to adapt to the market and “reformulate as necessary” if required to do so. It points out that reformulation is a “trend” initiated by supermarkets, and in order to stay competitive in the product supply chain, manufacturers must adhere to the criteria laid out by these supermarkets.

### **Barriers to reformulation**

Although the business understands there are wider health benefits to its customer base by reducing salt content, there are disadvantages to them doing so. The main drawbacks are the cost implications to invest in Research and Development of the product, the trial-and-error process of ensuring the product is feasible, and the rising cost of acquiring new lower-salt variants of ingredients. Furthermore, “unseen costs” such as food wastage and the impact of ‘downtime’ on profits must be considered as they impact the business undertaking reformulation.

“Well, typically, the product you are looking to replace it with is more expensive. It can have implications on cost for reformulating the rest of it. On top of that you have a higher level of down time and a higher level of wastage until you get your product right again.”

### **Support required for reformulation**

Knowledge received from external suppliers has been imperative to the business’ reformulation efforts. However, they did not know where else to go to for support or information surrounding food reformulation.

The business would appreciate additional support from specialist food technicians, which would help with reformulating products, but it is currently unaware where such support is available. However, the business is confident in the suppliers it uses and the externally offered expertise on reformulation which has enabled the business to make the necessary changes.

“It is technical expertise, [that] is the type of support that we need. People that know the ins and outs [of reformulation] ... So, it is guys that have that level of food technology that can potentially help you reformulate your recipes.”

### **Portion sizes**

Portion sizes have not been reduced as the business believes its consumer base would perceive the product as being less value for money. The business has a strong belief that if they reduced product size, consumers would turn to competitors to get more for their money. “It [not reducing portion sizes] is more from a marketing strategy” – there is a sense that portion sizes could only be changed if there is a change in the market perspective and consumer demand.

### **Traffic light labelling**

Although the business displays traffic light labelling on all their products, they do not feel it would be feasible to reformulate their product (allowing for a subsequent change to green traffic light symbols), without jeopardising the quality of the product. This would also be perceived to have a negative impact on consumer demand for the product.

### **Case study 5: Food manufacturer of baked products**

Sector: Manufacturer of bakery and farinaceous (starchy) products

Business size: Medium-sized enterprise

Reformulation status: Previously reformulated

This business has previously attempted reformulation of its products three to five years ago in order to create a sugar-free baked product, but highlighted this product did not get past the trial process and they have not looked into reformulation since this. Products from this company are distributed in Northern Ireland and exported to the Republic of Ireland.

“I was aware that we had tried to make a sugar free [redacted product], but it didn’t get as far as the trials. We had done some trials and it had not worked for the things. It sort of never picked up and we never went back to it again. That was reducing sugar.”

#### **Awareness and understanding of the UK Government’s sugar, salt and calorie reduction guidelines**

The guidelines are generally understood, especially in relation to sugar. The business has developed a ‘quality control manual’, which is based on the sugar reduction guidelines and information regarding limits of sugar per 100g ratio before a product could be called ‘low in sugar.’ However, the business is less familiar with salt and calorie reduction guidelines.

“We would sort of have them [sugar guidelines] built into our Quality Control procedural manual and stuff, but it is not something that [I know] off the top of my head at the minute.”

“Obviously, I am aware of calorie intake [guidance], how much calorie intake a man and woman are supposed to have. But, in terms of reduction guidelines, I’m not very sure to be honest.”

#### **Reasons for not reformulating**

The business has developed a healthier product line, which serves as a reduced calorie alternative for their customer base – but this was not an outcome of reformulation. The lack of reformulation results from a combination of technological, business and skill related issues. Time constraints and the nature of the product itself means that reformulation is a very delicate and complex process, which may jeopardise the quality of the product, impacting market demand by suppliers and consumers.

“One of the things is that we currently don’t have an NPD [New Product Development] team or an NPD person. Maybe if we had one of them, you know, that would be something you could challenge them with. To give them a task like this and ask them to reformulate to reduce sugar.”

#### **Technological barriers**

Technological issues also present challenges, specifically when trying to access laboratories for helping to test the product. The business identified that they did not have a lab on-site because they do not produce any “high-risk” products – foods which could allow bacteria to grow and thrive – and thus there was no justification for establishing this facility. Access to a laboratory was crucial for this business with attempting reformulation. The business tests products in a lab

occasionally, but the location of this facility is a challenge for the business.

### **Skills and cost barriers**

The business acknowledges that it would benefit from additional skills and knowledge about reformulation. The cost of raw materials and cost of living were also highlighted, and the impact that these factors have on the financial status of the business and thus their ability to participate in reformulation.

### **External and internal factors to the business**

A combination of external and internal factors also influence decisions around engaging in reformulation. The business feels there needs to be a clear market demand from consumers which would justify investment into reformulating products.

Reformulation over the next 2 years is unlikely for the business as too many internal factors influence their ability to invest in reformulation, including the capacity of the workforce (and production capability), and opening of a new site and potential relocation of premises.

The business has previously created new recipes to offer healthier products, and promote this range to their customer base. It has also reached an agreement to produce baked goods for a supermarket, who have provided specific requirements for this product, such as limited E-numbers and no modified oils.

### **Portion sizes**

The business would consider reducing portion sizes, but they have not previously considered or attempted this. Customer perception of value for money would be a critical factor influencing the decision to move forward with this activity.

“If we went and reduced the size of a [redacted product], I wouldn’t be surprised if complaints started to come in. If you are going to reduce the portion size then you’re going to have to alter the price.”

### **Traffic light labelling**

Although they are aware of the traffic light labelling system, the business does not currently use this, as it has pre-printed labels which contain information on the ingredients used. The addition of traffic light labels is being considered, in line with potential rebranding of the existing product labelling.

## **Case study 6: Wholesaler and manufacturer of other food products**

Sector: Wholesaler and manufacturer of other food products

Business size: Large-sized enterprise

Reformulation status: Previously reformulated

Several years ago, this business took part in reformulation of its products. However, the main rationale for this was not to reduce sugar, salt and calories for health reasons, but rather to improve the taste and quality of their foods. They produced a low-fat, healthy meal line three to four years ago. However, the business found that this range performed poorly. Despite this, they are currently developing a new low-fat meal range.

### **Awareness and understanding of the UK Government’s sugar, salt and calorie reduction guidelines**



Although this business does not have a comprehensive overview of UK Government guidelines, it works to set targets to lower these nutrients in their products, where possible.

### **Reasons for not reformulating**

Previously, there has been a lack of clear market demand for reformulated products, alongside a lack of legal enforcement of the guidelines in Northern Ireland. There are also cost implications of redesigning their product ranges. Instead, this manufacturer focuses on what customers are asking for, which more recently has included higher protein options, which the business produces itself and stocks similar ranges from suppliers.

“Within the team, we have the nutritional advice and have external resources we can use.”

### **Support required for reformulation**

Additional funding for reformulation and ‘realistic timelines’ for product testing and redesign would be valuable in order to consider reformulation. The business currently receives external technical advice from university food science experts, who provide data and guidance for reformulation.

### **Portion sizes**

Although there is currently no legislation which influences decisions to alter portion sizes, the primary reason for reducing portion sizes at present, is to increase profit margins.

“This [portion reduction] was in line with the rest of the supply and the customers didn't notice.”

“We move to what the market is doing size wise, and the predominant reason is based on cost.”

## **Case study 7: Wholesaler and manufacturer of other food products**

Sector: Wholesaler and manufacturer of other food products

Business size: Large-sized enterprise

Reformulation status: Previously reformulated

This case study involves a Quality Assurance lead in a department for the business who engaged in the research in Case Study 6. Akin to those findings, several points are echoed surrounding reformulation. They believe they do not need to reformulate products for health reasons, as there is no legislative requirement within Northern Ireland to do so.

### **Awareness and understanding of the UK Government’s sugar, salt and calorie reduction guidelines**

Although the QA lead is not overly familiar with sugar and calorie guidance, the business has made a conscious effort to reduce salt content in their products. They offer lower calorie variations of meals, however, this is influenced by market need rather than legislation or nutritional guidelines.

### **Reasons for not reformulating**

Product taste is a key determinant in the decision not to reformulate. The business could be encouraged to reformulate if there was clear and concise guidance on the UK Government guidelines, as it can be challenging to read and digest the relevant documentation due to time constraints. Market demand would also influence decisions to reformulate, and the business notes an increase in recent consumer interest in high protein and lower calorie food products, so offering more of these options is a consideration.

“If the competition are not doing it [reformulation], then why would you?”

### **Support required for reformulation**

Again, financial support would be beneficial for the development of reformulated products to help buffer the monetary impact on the business and to encourage efforts. Additionally, this business would like clear, easy to access information, along with legislation or enforced regulations which would make it easier for businesses to understand what is required of them, and follow through with reformulation.

### **Portion sizes and traffic light labelling**

The business has reduced portion sizes previously, however, this was purely a financial decision to reduce costs, rather than a nutritional change to benefit the health of consumers. Some product ranges sold within the business use traffic light labelling. However, different products have different branding guidelines which determine whether or not traffic lights are displayed.

### **Case study 8: Manufacturer of other food products**

Sector: Manufacturer of homogenised food preparations and dietetic food

Business size: Micro-sized enterprise

Reformulation status: Previously reformulated

This is a micro-sized enterprise, which specialises in creating different flavours of a sugary treat product. Due to the nature of this product, reformulation would be incredibly challenging, as sugar is a primary ingredient and substituting this component jeopardises its quality and taste.

### **Awareness and understanding of the UK Government’s sugar, salt and calorie reduction guidelines**

The UK Government’s sugar, salt and calorie reduction guidelines have not been a key focus of business activities. The nature of the product is being high in calories and sugar and, as such, understanding of the guidelines is not something that the business is overly concerned with. Being a micro business, their main focus is generating profit and keeping their business operating.

“No I really don't [know about the guidelines]. I can't take sugar out of [redacted product].”

### **Reasons for not reformulating**

The business previously attempted to reformulate their product with a natural alternative, however this impacted its quality and taste, and it was deemed as not palatable. Therefore, the decision was taken that reformulation was not commercially viable. It was indicated, that if there was a proper alternative to sugar that would result in a high quality, similar tasting product, with no effects on the consumer, reformulation would be considered.

“We cannot reduce sugar - if sweetener was put into [redacted product] you would have a strong laxative effect. Product is [redacted], and you need the sugar for taste.”

### **Support needed for reformulation**

Unlike other food manufacturers, the business is unable to identify what support could be provided to assist in reformulation, as sugar is a key ingredient in this signature product.

## **Case study 9: Manufacturer of other food products**

Sector: Manufacturer of other food products

Business size: Small-sized enterprise

Reformulation status: Previously reformulated

This company sells food at a number of market and festival sites around Northern Ireland. The current aim of the business is to introduce more products; however this process has been slow. The business highlights that its focus is less on reformulation and more on making more fresh, unprocessed meal options.

### **Awareness and understanding of the UK Government's sugar, salt and calorie reduction guidelines**

Understanding of the guidelines is mixed. The business is "more or less" familiar with sugar reduction guidance, however, less so with the specific guidance on salt and calorie reductions. They feel that there is a push through media and advertising to promote healthier eating. There is a perception that people are generally time-poor now and this has a direct influence on the quality of the food they are eating, as they are less likely to have the time to prepare fresh meals. The business highlights that trying to strike a balance between offering a healthy product and satisfying customer needs is a challenge.

"We don't know exactly what's the terms they use for the reduction of salt, but we know the fact that the government is trying through TV programmes, through news and other things, to [encourage] people to start eating a bit healthier."

### **Reformulation attempts**

The business has taken measures to reduce the overall fat content in the food, through altering ingredients used in recipes as well as the quantities of oil used. They use mainly fresh ingredients to produce traditional recipes, and when comparing their product to other cuisines or takeaway food options, which may contain different additives, sugars, salts or saturated fats in their sauces, they feel that their primary product is already quite healthy.

There are additional food options such as fried side dishes or sugary drinks, that are deemed unhealthy but the business feels they must offer due to customer demand.

"About 70% of our food [has] no high salt, plenty of vegetables...but the other 30%, the customers demand it. So at the end of the day, it's a business and we have to make some money from that."

### **Barriers to reformulation**

Cost is the primary factor which impacts the business in relation to making a "quality" or "healthy" product, as the price of raw ingredients is perceived to be costly. The business understands the importance for people to eat healthily and they would love to promote healthy eating. However, due to consumer demand this is not possible.

"You try good quality food, with natural ingredients – the prices, everything is going up and up, it's getting difficult to buy quality. There's quality food on the market, there's plenty of quality food on the market, don't get me wrong, with no additives or no preservatives, but the price is going up, up, up, up."

"As a business you need to find the business. So if you wanted to go 100% healthy, we would honestly have to close the business. Because the people, there is no demand for it."

The key factors that influence their ability to reformulate or consider this as an option are two-fold: the current nutritional make-up of the food products that are sold are already considered quite healthy; and the food mentality/ customer demand for food products that indicate a preference for higher salt, fat and calorie dense meals. Above all the business feels that reformulation is not necessary for its key product which uses fresh, whole foods and is low in salt and sugar.

“As a business we don’t put sugar in them [products they sell], but some of the products we buy to cook our food, they all have sugar, you know what I mean.”

“It’s a good benefit [reducing sugar and salt]. If you eat healthier, they always say you’re going to live a better life, you have less issues, less doctors. Like the phrase an apple a day keeps the doctor away.”

### **Portion sizes**

There is no intention of reducing portion size, as they already have small, medium and large variations, which allows the customer to choose.

“We have a system.... people can choose whatever they want. We have three different sizes. Small [portion], medium and the large, so it’s customer choice.”

### **Case study 10: Food manufacturer of baked products**

Sector: Manufacturer of bakery and farinaceous (starchy) products

Business size: Medium-sized enterprise

Reformulation status: Not currently reformulating products

This business supplies wholesalers with their products and is committed to producing fresh, high quality products which have been hailed as their “main selling point”. Staff levels within the business mean that they are constantly operating at capacity, while trying to ensure that they are operating at a profit, which makes reformulation a challenge.

### **Awareness and understanding of the UK Government’s sugar, salt and calorie reduction guidelines**

The representative from this business claims to be unaware of the reduction guidelines, and the business has not made any attempts to reformulate the products that they produce.

“I suppose, we’re kind of looking at costing our [redacted product] and always being competitive whilst trying to make as much of a profit in the items, I suppose.”

### **Reasons for not reformulating**

Several factors have influenced their decision not to reformulate. These range from a lack of a skilled and qualified workforce, the workforce operating at maximum capacity in recent times, expectations from customers about the quality of products, and the cost and time investments required when attempting reformulation of products.

“Cost and time [implications]. Our employees are already working their contracted hours and more and there is no one really available to take time out to reformulate anything.”

“So, over the last few years we have had to kind of employ people that have limited experience and teach them from scratch.”

### **Encouragement to reformulate**

Several external factors would motivate this business to consider reformulation. For example, if customers specifically requested a change to the ingredients within the products they purchase. The business highlighted that reformulation would also depend on what their customers want to see and if they wanted products to change. There would need to be an obvious market for reformulation, in order for it to be financially viable to invest in this activity.

“I probably don’t see our business undertaking reformulation in the next 24 months, because of our products that we sell. Our customers are not asking us for anything different, so our team wouldn’t invest the time reformulating them.”

### **Support required for reformulation**

Technical expertise was identified as the most important area of support that the business would need. Due to the lack of time availability from staff, this could take the form of a seminar or a technical video about reformulation, which lays out necessary information, as well as signposting to specific individuals for support.

Access to a dedicated expert in reformulation would be valuable to the business, and face-to-face support would be more helpful than written guidance, due to time pressures in the business.

The business occasionally reaches out to a specialist who conducts inspections and who provides information and advice. However, it is challenging to access support from this individual on a consistent basis, to further understand specific steps involved in reformulation.

“We would probably need someone that has that expertise to kind of advise us on what changes should be made. Someone who would work along with us. Someone like a person, or a contact.”

“We would need some form of seminar I suppose. Some type of information for a basic understanding but it would also need to be kind of, a reason like a reason to change.”

### **Portion size**

The business holds a strong view that they will not reduce portion size due to ‘customer acceptability’ and the need to remain competitive. There was a fear that reducing portion sizes, without reducing wholesale or retail pricing, would negatively impact the market demand of their product from consumers, driving their customer towards alternatives offered by competitors in this market.

Furthermore, adjusting portion sizes would in turn create an additional expense to the business, as they would be required to replace moulds and cutters which they are not prepared to do due to cost.

“The consumer acceptability, I mean at the end of the day, if we’re not competitive with our kind of peers, and you know if there is lots of other products on the market and our consumers aren’t happy with the product then we’re not going to sell them.”

### **Traffic light labelling**

Despite being aware of the traffic light system, the business does not list this information their products, as they are not required to. Instead, they detail the ingredients used and the nutritional information of the product, including information on allergens.

## **Case study 11: Manufacturer of other food products**

Sector: Manufacturer of homogenised food preparations and dietetic food

Business size: Small-sized enterprise

Reformulation status: Not currently reformulating products

This is a small, family-run business, which focuses mainly on gluten-free and no sugar products. The business has won awards for certain products and the success of these products was due to their goal of focusing on creating goods which use natural ingredients with no added preservatives. They currently supply local shops and distributors across the island of Ireland, with the hopes of expanding and moving into bigger premises.

### **Awareness and understanding of the UK Government's sugar, salt and calorie reduction guidelines**

The business is aware of the reduction guidelines, although they are unsure if their product is compliant. They are determined to produce 'nutritional and healthy products'. However, they feel there needs to be more clarity on nutritional labelling, as they claim there is nothing to distinguish between artificial and natural sugars in a product.

"There needs to be education from the FSA - about the labelling and the realism of what is in the product and health."

### **Views on reformulation**

This business has not reformulated, as it believes its products are healthy and support a balanced lifestyle, and only natural ingredients are used. The business highlights that their consumer market are typically more conscious about eating healthily, and customers are purchasing this product with their health in mind.

### **Portion size**

There is a perception that reducing portion size is often a commercial decision made by companies to increase profits. This business has not reduced portion size as they indicate that their product is already quite small.

"It is a trick with smaller portions, but again [it is] not driven by health conscious decisions. [It is] Driven by the process and having to make them smaller to make a profit. It is a myth about health. People might be eating less but the reason is about commercial, not health."

### **Traffic light labelling**

Again, the business is critical of traffic light labelling, as they believe it does not account for the natural sugars in a product like their own. Their primary product contains only natural ingredients and reformulating to reduce sugars would 'include an artificial ingredient and a chemical to keep it in the regulations.'

## **Case study 12: Manufacturer of baked goods**

Sector: Manufacturer of bakery and farinaceous (starchy) products

Business size: Small-sized enterprise

Reformulation status: Not currently reformulating products

Selling at stalls at pop-up markets, this small business also manages home deliveries by themselves. They do not supply local shops or supermarkets and are an independent seller, focusing on creating multiple products. Reformulation is something that they would not consider.

### **Awareness and understanding of the UK Government's sugar, salt and calorie reduction guidelines**

While they have heard of the guidelines, there is no real awareness or understanding of what these looked like. The key products manufactured by this business would not be classified as healthy, are relatively high in sugar and could be considered a 'treat'. Therefore, this business is not currently considering the UK Government's nutritional guidelines, as they do not fit with what the business is offering.

"For my business, I am not changing things as my product is eye-catching and people want to treat themselves. I would make it bigger rather than cut it down."

### **Reasons for not reformulating**

Consumer demand is the main barrier to reformulation. If the business was to reformulate, it would require altering the recipes of their popular products and there is a strong belief that sales would be negatively impacted. They do not feel they could be encouraged to undertake reformulation as they are "happy with the way things are".

"People want to have a treat and that is what I give them."

There is no motivation for the business to look at altering their recipes at this current moment, nor is there any appetite or demand from their customers for reformulation based on feedback which they received from this consumer base. Should this perception and demand change in the future the business may look into the possibility of reformulation.

### **Case study 13: Manufacturer of baked goods**

Sector: Manufacturer of bakery and farinaceous (starchy) products

Business size: Small-sized enterprise

Reformulation status: Not currently reformulating products

This business focuses solely on one product, which they sell at pop-up stalls at markets and festivals throughout Northern Ireland. Reformulation has not been on the radar; however, they have tried to compensate with healthier alternatives by adding fresh fruit to their products and selling healthier beverages.

"I would be happy giving my kids a healthier drink and they are reasonably priced and cheaper than [drink brand]. People [customers] didn't buy it. At festivals we are told what to sell and if [drink brand] is the sponsor we have to sell [drink brand] products - it is not healthy and why can't something be done."

### **Reasons for not reformulating**

Consumer demand is the core reason for lack of focus on reformulation. The business stresses that it is more important that the Government highlights the importance of healthy eating and increasing education efforts about nutrition and diet, particularly about the negative impacts of high sugar, salt and calorie foods, and why these should be limited. Furthermore, the business highlights that it uses healthier, all natural ingredients when preparing their product but that customers still consider this product as a sweet treat.

### **Traffic light labelling**

At present, this business does not use traffic light labelling because it is not required to by legislation and because the product is sold without any packaging, making this a challenge. However, the business feels that the introduction of traffic light labelling would be beneficial to customers' overall health and would increase awareness on nutritional values and calorie

consumption.

“I think for customers it would be excellent if everyone had to do it. [It] Would be good to know what calories people are eating and [for them] be more aware of it. [It] Might make them feel better and then move everyone’s hand to lower the calorie.”

#### **Case study 14: Manufacturer of dairy products**

Sector: Manufacturer of dairy products

Business size: Medium-sized enterprise

Reformulation status: Not currently reformulating products

Focusing on a dairy-based product, the business prides itself on how it differs from its competitors, as it does not add any artificial ingredients into its natural product. They do not offer a lower fat variation of the product, as competitor brands do, as they would ‘have to add stabilisers and things like that into it’ which would take away from the natural product. Reformulation is not a current focus for the business, whose current priorities include increasing Return on Investment, further business expansion and market growth.

“We’re looking at expanding further into the UK.... on the back of that we still have to maintain our quality. We are seen as a very high-quality product.”

#### **Awareness and understanding of the UK Government’s sugar, salt and calorie reduction guidelines**

With an experienced Technical Department that looks at reducing sugar content, the business is in-tune with the Government’s reduction guidelines and has a firm grasp of what is required. While the business has an understanding of both the salt and calorie guidelines, the decision has been made not to reduce these elements for two reasons: the product does not contain salt, so reduction is not possible; and the business does not want to use stabilisers and artificial ingredients.

“Our counter to that is that the fats that [are] in our product are better for you than what you get in the low fat product as they’re adding stabilisers and all sorts of rubbish to the [redacted product] in order to give them a thicker, finer [redacted product] whereas ours is remaining completely natural which is better for you.”

#### **Reasons for not reformulating**

The business has not undertaken any food reformulation activities, as their core product is all natural and does not require any additional ingredients or combining of different ingredients to achieve a final product.

#### **Barriers to reformulation**

The business claims that it does have the technical expertise to undertake reformulation with its technical department being “very much up on the FSA website and monitoring that” but argues that the cost of introducing new machinery, redesigning the product, new labelling and unseen expenses in developing the product all inhibit exploration into reformulation.

#### **Support required for reformulation**

Financial support is key for this business when thinking about reformulation. They hold a perception that there is good support in Northern Ireland, noting available support from Invest Northern Ireland and Intertrade Ireland. However, it also highlighted a lack of specific budget



available for them to engage in the type of reformulation they have examined.

“If you can get 25% funding on a [redacted] project that’s obviously a big help to you, and if you’re having to spend [redacted value] on your own that might deter you, or at least delay it.”

### **Portion size**

This business has not made attempts to reduce the portion sizes of their products. The cost of living has impacted their consumer base who are now more sensitive to value for money on their food spend, and the business argues that there has been a shift in market demand for larger product containers over smaller versions of the same product, as this is deemed better value for money. Changes to portion sizes would also incur a cost to redesign the packaging and labelling of the products.

“It’s very much households driving us, you know, as I say, people are finding the squeeze. It’s really hitting people hard now the cost of living. People are through their savings, and maxing their credit cards, I suppose. And they’re looking more value for money.”

“The cost of living is having a big impact in driving us in that direction [towards larger sized packs].”

### **Traffic light labelling**

Traffic light labels are displayed on all products, with the majority labelled as green or amber.

## **Case study 15: Manufacturer of pre-prepared meals**

Sector: Manufacturer of pre-prepared meals

Business size: Small-sized enterprise

Reformulation status: Not currently reformulating products

A family-owned, online food company with a history of butchery; their journey towards healthier food options was ignited by a personal struggle within the family. This prompted the business to venture beyond traditional butchery and create low-fat meat products marking their first step towards healthier food alternatives. As the food industry evolved and ready meals gained popularity, they adapted to meet this demand. They began producing fresh, low-calorie meals that were rich in nutritional value and free from additives.

“This was never about making money, this was never about anything like that, this was about making a change.”

### **Awareness and understanding of the UK Government’s sugar, salt and calorie reduction guidelines**

The owner admits not being particularly familiar with the specific health guidelines set by the UK Government. However, the team includes individuals who have a comprehensive understanding of these guidelines, and they also use a program that calculates the nutritional outputs for their meals, ensuring every product meets Government health standards. Notably, they do not add any salt or sugar to their meals - a testament to their commitment to health and wellness.

### **Reasons for not reformulating**

The company understands the importance of staying up-to-date with industry changes and consumer demand. They are committed to continued improvement and product development, focusing on creating healthier versions of existing products.

Product improvement is not without its challenges. Cost is a significant factor in food product innovation. Recent rises in energy costs has led to increased costs in the manufacturing of existing products.

### **Support required for reformulation**

The company recognises the value of external support in their journey towards reformulation and product development. They have found valuable resources in Invest NI and local colleges, which provide expertise in developing food products.

### **Portion sizes and traffic light labelling**

Currently, there are no reductions in portion sizes, as they believe they are providing healthy, nutritionally balanced meals. The company adheres to the traffic light labelling system on all meals. However, while they do not add salt to their products, the salt content comes from secondary ingredients such as stock cubes, for which they have no suitable replacement.

## **Discussion**

The findings from this research provide key insights into the views, engagement and challenges around reformulation of food products among food manufacturers in Northern Ireland.

Overall, awareness of the UK Government guidelines in relation to the reduction of salt, sugar and calories is high, however, individual knowledge of the guidelines and specific recommendations varies across businesses. While the benefits of reformulation of certain food products (particularly those higher in salt, sugar and calories) is well understood in relation to the potential health benefits, the execution of food reformulation is more complex.

Few businesses involved in this research have engaged in reformulation activities, in part due to variation in the knowledge and necessary skills to undertake food reformulation. Medium and larger-sized enterprises are more likely to have explored or undertaken food reformulation, as they often employ a larger number of personnel, including in some cases, technical experts or those with a higher level of nutritional expertise. Smaller and micro-sized businesses generally lack capability for reformulation with regards to the skills or expertise required, often managed by specialist personnel.

Where a business lacks the skills or capabilities to undertake reformulation in-house, it seems that medium and larger-sized enterprises are more knowledgeable on which organisations to seek support from to assist reformulation efforts. This may be for nutritional guidance, advice on specific reformulation processes, or for technical assistance with food trials or testing.

Cost has been identified as a key consideration and barrier to reformulation across businesses, predominantly driven by concerns over buying expensive new raw ingredients, product wastage, research or input from nutritional experts, redundant stock and design and production of new labelling or packaging. Unless businesses are required to reformulate by law or through demand from retail or wholesale customers, they are hesitant to invest in reformulation due to the perceived high cost.

Further barriers to reformulation include a lack of available time to dedicate to reformulation activities, available staff resource, and access to the relevant environments required in some instances for reformulation (for example, manufacturing equipment, machinery and laboratory facilities). In some cases, businesses simply do not have the financial means to engage in reformulation as it could have a detrimental impact on the business financially. Some businesses are not motivated to invest time and resource in reformulation due to the perception of risk or potential loss to the business for a gain or benefit that is not guaranteed, for example if a reformulated product does not move past the trial stage, or is unsuccessful at market.

While limited financial support or incentive to reformulate may exist, some businesses discussed grants that had once been available through Invest NI or Intertrade Ireland. Any future financial support made available to businesses may encourage food manufacturers to explore how

reformulation could be undertaken within their own business.

It is clear that the reformulation journey for each business is individual and multi-faceted. As such, there are varying levels of motivation across food manufacturers when it comes to current or future reformulation plans as part of wider business goals or priorities.

Generally, where reformulation has taken place, there is a commercial drive underpinning reformulation efforts. Perhaps unsurprisingly, food manufacturers must consider financial viability of any significant change to their activities. Where health benefits of reformulation exist, in some cases this is secondary to increasing profit or retaining retail, wholesale, or consumer business.

### **Limitations of the research**

The research team faced some challenges during this project. It was vital to ensure a broad range of perspectives were heard from different food manufacturers to avoid bias in the interviews.

While every effort was made to achieve this, the application of quotas to achieve a fully representative spread of businesses was not possible. Therefore, caution should be taken when extrapolating the findings to other food manufacturers in Northern Ireland.

The number of contact details within the sample was limited, with an email address for only 55 out of the 136 companies for initiating contact through an email invitation. In order to boost the number of food manufacturers receiving the email invite, the Ipsos team conducted a desk research exercise to secure additional email addresses. The sample was further boosted through face-to-face recruitment of businesses who met the inclusion criteria for the research.

Due to time constraints of the business participants and other commitments, there was some attrition as participants who had originally agreed to take part, were no longer available after follow-up calls were made. In addition to general recruitment challenges, additional time was required by the research team to employ efforts to replace any businesses who did not proceed to interview after initial contact.

### **Recommendations for encouraging reformulation**

Individual businesses face unique issues in relation to food reformulation engagement, and as such, determining the barriers and enablers which are most prominent across all businesses is challenging.

Appendix F presents the COM-B behavioural framework and analysis of findings, with reference to potential interventions or policy categories which may be considered to encourage reformulation in the future. It is clear that Capability, Opportunity and Motivation drivers and barriers to reformulation exist, and these vary among individual businesses in relation to factors such as business size and operations.

Targeting guidance which aims to support businesses to include reformulation as a key business goal or priority may benefit businesses of all sizes. Targeting factors which influence awareness and knowledge will also benefit businesses, but may be more crucial for micro and smaller-sized businesses who generally have lower awareness of the UK Government guidelines.

To overcome inconsistencies in knowledge, skill and technical capability, it may be beneficial for food manufacturers in Northern Ireland to receive simplified or summarised written communications on the UK Government guidelines, the benefits of reformulation, any nutritional or technical factors which may need to be taken into consideration, as well as clear signposting to the relevant organisations or representatives that can support in this area. Indeed, this level of support has been identified as potentially valuable by food manufacturers, through their participation in this research.

To overcome time challenges which exist across the food manufacturing sector, it may be important to consider the need for personalised support. It may be useful to connect food manufacturers with external bodies such as local technical colleges, funding bodies and/or business support so they can access a dedicated representative with knowledge on reformulation, who can provide tailored advice based on the individual business, their business plans and manufacturing capability.

Where financial support is available to enable businesses to engage in reformulation, this may

particularly benefit smaller and medium-sized businesses, who are less likely to have capital to invest in reformulation.

The findings of this research, in conjunction with the results of the Making Food Better Consumer Tracker Survey, may be explored in tandem to better understand where there are commonalities in the views of the general public and the views of businesses in relation to 'healthier food products' or reformulated versions of standard food products.

## **Appendices**

### **Appendix A - Sample frame (SIC codes)**

#### **10.1 Processing and preserving of meat and production of meat products**

10.13 Production of meat and poultry meat products

#### **10.3 Processing and preserving of fruit and vegetables**

10.31 Processing and preserving of potatoes

10.32 Manufacture of fruit and vegetable juice

10.39 Other processing and preserving of fruit and vegetables

#### **10.4 Manufacture of vegetable and animal oils and fats**

10.42 Manufacture of margarine and similar edible fats

#### **10.5 Manufacture of dairy products**

10.51/9 Manufacture of milk products (other than liquid milk and cream, butter, cheese) n.e.c.

10.52 Manufacture of ice cream

#### **10.6 Manufacture of grain mill products, starches and starch products**

10.61 Manufacture of grain mill products

10.61/1 Grain milling

10.61/2 Manufacture of breakfast cereals and cereals-based foods

#### **10.7 Manufacture of bakery and farinaceous products**

10.71 Manufacture of bread; manufacture of fresh pastry goods and cakes

10.72 Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes

10.73 Manufacture of macaroni, noodles, couscous and similar farinaceous products

#### **10.8 Manufacture of other food products**

10.82 Manufacture of cocoa, chocolate and sugar confectionery

10.82/1 Manufacture of cocoa, and chocolate confectionery

10.82/2 Manufacture of sugar confectionery

10.84 Manufacture of condiments and seasonings

10.85 Manufacture of prepared meals and dishes

10.89 Manufacture of other food products n.e.c.

### **Appendix B - Invitation letter**

Dear <insert salutation>

Re. RESEARCH ON FOOD REFORMULATION ON BEHALF OF THE FOOD STANDARDS AGENCY IN NORTHERN IRELAND

Ipsos UK Northern Ireland has been commissioned to conduct a programme of research by the Food Standards Agency to better understand food manufacturers' experiences of healthier food reformulation in Northern Ireland. This important study will explore experiences of both successful and unsuccessful attempts of food reformulation within your business, alongside attitudes towards food reformulation, and motivators and barriers towards reformulation from your business perspective. In addition, the study aims to investigate the support food manufacturers require to reformulate their products.

We are writing to you to invite you to participate in this exciting study, as we believe your insights and experiences would be extremely valuable and could aid in informing policies and strategies to maximise food reformulation practices in Northern Ireland.

Participation in this research will take the form of a one-on-one interview with a researcher from the Ipsos team. This interview can take place via Microsoft Teams or via phone, whichever is more suitable for you. The interview will last between 30 and 45 minutes to enable us to cover sufficient detail about your views on this subject.

During the interview, everything you tell the Ipsos researcher will be treated in the strictest confidence and anonymity is guaranteed, as Ipsos adheres to the principles of the Market Research Society (MRS) Code of Conduct and the General Data Protection Regulation (GDPR). Your participation would be greatly appreciated. The Ipsos team will be making contact, by phone or email in the coming weeks, to offer you the opportunity to participate. However, should you wish to arrange an appointment or would like additional information on this important study, please do not hesitate to [Redacted Information].

We look forward to speaking with you.

Yours sincerely,

[Redacted Information]

### Appendix C - Invitation call outcomes

Call outcome	Call attempt 1	Call attempt 2	Call attempt 3
No answer	76	75	68
Requested call back/ email follow-up	33	22	38
Opted-out	9	3	15
Line inactive	6	31	0
Interviews arranged	3	2	1
Total	127	133	122

### Appendix D - Business sample breakdown

SIC Code	Business classification	Available telephone number	Available e-mail address
1013	Production of meat and poultry meat products	13	6
1031	Processing and preserving of potatoes	3	2

1032	Manufacturer of fruit and vegetable juice	2	1
1039	Other processing and preserving of fruit and vegetables	11	5
1052	Manufacturer of ice cream	9	3
1061	Manufacturer of grain mill products	3	2
10611	Grain milling	1	-
10611	Production of flour	1	1
10710	Manufacturer of bread; manufacture of fresh pastry goods and cakes	10	1
1082	Manufacturer of cocoa, chocolate and sugar confectionery	4	2
10822	Manufacturer of sugar confectionery	1	-
1084	Manufacturer of condiments and seasonings	2	1
1085	Manufacturer of prepared meals and dishes	6	4
1089	Manufacturer of other food products not elsewhere classified	34	14
1051	Operation of dairies and cheese making	9	4
10511	Liquid milk and cream production	1	-
10511	Cheese production	1	-
1071	Manufacturer of bread; manufacture of fresh pastry goods and cakes	23	7

Total	-	136	55
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## Appendix E - Discussion guide

Please note that colour coding was used in this document to allow the interviewer to easily distinguish moderation notes and to highlight questions that were essential areas of discussion.

<b>10 mins</b>	<b>1. Introduction and consent</b>
----------------	------------------------------------

Thank you very much for agreeing to take part in this interview. My name is [xxx], and I will be conducting the interview with you.

To begin with I'll tell you a bit about who I am, the purpose of this interview, and what to expect. After that you can ask me any questions before we make a start. I work for an independent research organisation called Ipsos UK, and today I would like to discuss your views and feedback on reformulating food and drink products within your business for a programme of research we are conducting for the Food Standards Agency. The overall aim of this research is to explore Northern Ireland food manufacturers attitudes to and engagement with reformulation to reduce calories, saturated fat, sugar, salt and/or portion size.

Please be reassured that the purpose of this interview is not to scrutinise you as an individual nor to sell you anything.

Information shared during interviews will be collated and reported in an anonymised report which will be shared with the Food Standards Agency. We will be creating some case studies based on some of these interviews, but we will not release any information that would identify you or this business.

We may include some quotations in our report to illustrate key points. Any quotes that we use will be completely anonymous, with any identifying details omitted. Only the Ipsos UK project team will have access to your information, and this will be securely stored and deleted once the research has been completed.

I do have a set of questions to guide us through this conversation, but we are mostly interested in your opinions so we will let this conversation be led by you and what you have to say. Please note that this interview will take up to 45 minutes, as discussed at the recruitment stage of this process.

This interview is completely voluntary, and so you are free to pause or end the interview at any point if you wish to. You can also decline to answer any question if you wish to or ask to come back to it later in the interview.

If it is okay with you, I'd like to audio record the interview, no video or images will be captured, so that I can listen back to make sure that my notes accurately reflect what you have said. In line with MRS Code of Conduct, the recording will be stored on our secure servers and no one outside of the research team will have access to this.

Now that I have talked through the approach, do you have any questions?

- If you don't right now, please do feel free to ask me any that come to your mind as we go through the discussion.

Are you currently in a comfortable and quiet space to start the discussion?  
If not, I am happy to call back in 5 minutes once you are.

Are you happy for me to make this recording? **TURN ON RECORDING**

Can I confirm that you are happy to proceed with the interview?

Can you introduce yourself and tell us a little about the business that you run/work for? **PROBE FULLY**

- What types of food products does your business manufacture?
- What is your role within the business/organisation? What specifically are you responsible for?
- What size is the business i.e. number of employees?
- What are the top three key priorities for your business in the next 12 months?



<p><b>5 mins</b></p>	<p><b>2. Awareness and understanding of the UK Government's sugar, salt and calorie guidelines</b></p>
	<p>MODERATOR READ OUT: I'd now like to look at your understanding of the UK Government guidelines related to sugar, salt and calories. I'd like to take each nutrient group and explore your understanding of the UK Government's guidelines on each of these.</p> <p>Firstly, can you tell me what you know about the UK Government's sugar reduction guidelines formerly overseen by Public Health England, now known as Office of Health Improvement and Disparities?</p> <p>PROBE IF NEEDED WITH:</p> <ul style="list-style-type: none"> <li>• How familiar with these guidelines are you?</li> <li>• What do they specifically say about sugar reduction?</li> </ul> <p>And now thinking about salt, can you tell me what you know about the UK Government's salt reduction guidelines?</p> <p>PROBE IF NEEDED WITH:</p> <ul style="list-style-type: none"> <li>• How familiar with these guidelines are you?</li> <li>• What do they specifically say about salt reduction?</li> </ul> <p>And now thinking specifically about calories, can you tell me what you know about the UK Government's calorie reduction guidelines?</p> <p>PROBE IF NEEDED WITH:</p> <ul style="list-style-type: none"> <li>• How familiar with these guidelines are you?</li> <li>• What do they specifically say about calorie reduction?</li> </ul>
<p><b>10-15 mins</b></p>	<p><b>3. Exploring participation in food reformulation</b></p>

MODERATOR READ OUT: Now I would like to explore your experiences within the business of reformulating food products.

For clarity, it is important that when we are thinking about reformulation during this interview, we want to ensure that reformulation relates to reformulating food products for health reasons, and not for any other reasons, such as cost or something else. Reformulation for health involves altering a recipe, through reduction and/or substitution of ingredients and could also involve reducing portion size, to reduce calories, saturated fat, sugar and salt in food.

Has your business ever undertaken reformulation of any food products to reduce:  
PROBE FULLY FOR EACH OF THE FOLLOWING

- Calories
- Saturated fat
- Sugar
- Salt

IF NO REFORMULATION UNDERTAKEN, GO TO SECTION 4.

What product/s did your business decide to reformulate?

FOR EACH PRODUCT OR CATEGORY TYPE PLEASE ASK THE FOLLOWING THREE QUESTIONS (A-C) FOR A MAXIMUM OF 2 PRODUCTS. IF MORE THAN 3 PRODUCTS, PLEASE ASK ABOUT THE MOST RECENT PRODUCT REFORMULATIONS

A. How long ago was this? PROBE FULLY TO UNDERSTAND EXACT TIMELINES FOR REFORMULATION. IF REFORMULATION EFFORTS UNDERTAKEN IN THE LAST FIVE YEARS, ASK FOLLOW-UP QUESTIONS

B. Why did the business decide to reformulate this product/category? PROBE FULLY TO UNDERSTAND DECISIONS TO PRIORITISE REFORMULATIONS OF SOME PRODUCTS OR CATEGORIES OVER OTHERS

- Why this product over another?
- Why this category over another?

C. To what extent were the UK Government's guidelines on <insert nutrient> reduction considered in the reformulation process, if at all?

- How did you go about this?
- How do you feel this went?
- Were reformulation activities aligned to any other internal metrics?

PLEASE NOW ASK FOLLOWING QUESTIONS ON REFORMULATION OVERALL

How did your business find the process of reformulation? PROBE FULLY

- Did you encounter any barriers during this journey?
- What were they?
- How did you overcome these?
- What did you find helpful during the process?

MODERATOR BE MINDFUL OF THE FOLLOWING CATEGORIES WHEN DISCUSSING WITH BUSINESS. IMPORTANT TO EXPLORE DRIVERS AND BARRIERS TO REFORMULATION AND THE PROCESS INVOLVED IN THE CONTEXT OF COM-B

- Capability of businesses to adapt to reformulation: e.g. technical expertise (knowledge and skills required to develop healthier food products),
- Opportunities for reformulation: e.g., resources (sufficient financial, human and technological resources to support and access to these); market demand (consumers / retailers demand), regulatory environment, industry collaboration;
- Motivation: health concerns, beliefs about reputation and brand image

**10  
mins**

**4. Understanding why manufacturers have not undertaken reformulation at all - only ask Section 4 to those who have not undertaken reformulation**

MODERATOR BE MINDFUL OF THE FOLLOWING CATEGORIES WHEN DISCUSSING WITH BUSINESS. IMPORTANT TO EXPLORE BARRIERS TO REFORMULATION IN THE CONTEXT OF COM-B.

MODERATOR READ OUT: I'd like to explore the reasons why your business has not undertaken any reformulation of food products.

What, factors have discouraged your business from taking part in reformulation of food products to reduce calories, sugar, saturated fat or salt? PROBE FULLY, IN THE CONTEXT OF COM-B. FOR EXAMPLE (BUT NOT LIMITED TO)

- If multiple factors, what are the biggest factors?
- Cost implications?
- Taste and consumer acceptance?
- Technical or technological challenges?
- Lack of knowledge or skills?
- Regulatory consideration?
- Insufficient financial, human, technological resources?
- Perception of product quality?

What factors within your business would encourage your business to reformulate food products? PROBE AROUND INTERNAL DRIVERS, FOR EXAMPLE:

- To improve labelling?
- Cost reasons?
- Anything else?

What other factors, if any, that are external to your business would encourage your business to reformulate food products?

PROBE AROUND EXTERNAL DRIVERS, FOR EXAMPLE:

- Retailers?
- Consumers?
- Government?
- Any others?
- And how much of an impact do they have on decision making within the business?

Would your business consider reformulation in the next 24 months?

- Why/why not?

What, if any, health-related food product improvement activities has your business taken part in? PROBE ON:

- Increasing fibre;
- Increasing protein
- Adding vitamins or minerals not required by legislation.

IF YES TO ABOVE QUESTION:

- How did your business go about this?
- How do you feel it went?
- Why do you think your business took part in these activities but not reformulation through reduction of sugar, fat, salt or calories?

<p><b>5 mins</b></p>	<p><b>5. Support required to participate in reformulation</b></p>
	<p>MODERATOR READ OUT: Now I'd like to explore sources of support and advice on reformulation...</p> <p>What type of support would you need to take part in reformulation to reduce calories, saturated fat, sugar or salt? PROBE FULLY FOR EACH OF THE OPTIONS BELOW:</p> <ul style="list-style-type: none"> <li>• Technical written guidance – what type of guidance?</li> <li>• Financial support – what type of financial support?</li> <li>• Nutrition expertise – what type of nutritional expertise would you need? What would that look like?</li> <li>• Technical expertise – what type of technical expertise would you require?</li> <li>• Any other support or expertise you feel you would need?</li> </ul> <p>IF NO REFORMULATION UNDERTAKEN IN BUSINESS: Where would you go to access support and information if you wanted to progress reformulation in your business? PROBE FULLY</p> <ul style="list-style-type: none"> <li>• FSA website?</li> <li>• Invest NI?</li> <li>• FDF?</li> <li>• Colleges?</li> <li>• MUST ASK: Are you aware of the FSA's reformulation funding resource?</li> </ul> <p>IF REFORMULATION UNDERTAKEN IN THE BUSINESS ASK INSTEAD: What, if any, sources of support, information or advice did you use when undertaking reformulation?</p> <ul style="list-style-type: none"> <li>• Was this helpful?</li> <li>• What was particularly useful / not useful?</li> <li>• Did this include everything you need or do you feel anything was missing?</li> <li>• Do you have any suggestions to improve this?</li> <li>• MUST ASK: Are you aware of the FSA's reformulation funding resource?</li> </ul>
<p><b>5 mins</b></p>	<p><b>6. Reformulation messaging</b></p>

	<p>MODERATOR READ OUT: I'd now like to explore your experiences of messaging around reformulation of food products.</p> <p>How do you communicate with consumers about the food products you reformulate? PROBE FULLY</p> <ul style="list-style-type: none"> <li>• Through packaging – probe specifically on any claims that they make about a certain percentage reduction of fat, sugar or calories.</li> <li>• Through advertising</li> <li>• Through social media</li> </ul> <p>What, if anything, prevents you from communicating nutritional improvements to consumers? PROBE FULLY IN THE CONTEXT OF COM-B TO EXPLORE CAPABILITIES, OPPORTUNITES AND MOTIVATIONS</p> <ul style="list-style-type: none"> <li>• Costs of changing packaging</li> <li>• Consumer acceptance</li> </ul>
<p><b>5 mins</b></p>	<p><b>7. Portion size</b></p>
	<p>MODERATOR READ OUT: Thank you for answering the questions on reformulation in your business. I'd now like to talk about a couple of other topics. Firstly, I'd like you to think about portion sizing of the food products your business manufactures.</p> <p>Has your business ever reduced portion size of any food products to reduce calories, saturated fat, sugar or salt?</p> <ul style="list-style-type: none"> <li>• Why/why not?</li> </ul> <p>IF BUSINESS REDUCED PORTION SIZE What benefits to the business, if any, have you experienced as a result of reducing portion size?</p> <p>IF BUSINESS NEVER REDUCED PORTION SIZE Is this something your business would consider doing in the future?</p> <ul style="list-style-type: none"> <li>• Why are you considering this in the future?</li> </ul> <p>TO BE ASKED OF ALL BUSINESSES What, if anything, might prevent your business from reducing portion sizes of your food products? PROBE, for example:</p> <ul style="list-style-type: none"> <li>• Consumer acceptability</li> <li>• Costs of changing packaging (e.g. labelling)</li> <li>• Costs of changing entire product</li> <li>• Technical challenges</li> </ul>

<p><b>5 mins</b></p>	<p><b>8. Traffic light labelling</b></p>
	<p>MODERATOR READ OUT: Now I would like to ask you about front of pack nutrition labelling.</p> <p>Do you display traffic light labelling on any of your food products?</p> <p>MODERATOR: SHARE SCREEN TO SHOW STIMULUS 1 OR IF A TELEPHONE INTERVIEW, ASK PARTICIPANT TO PULL UP IMAGE OF THE TRAFFIC LIGHT LABEL ON SCREEN</p> <p>IF PARTICIPANT DOES DISPLAY TRAFFIC LIGHT LABELLING ASK:</p> <p>Please tell us more about this. PROBE FULLY ON:</p> <ul style="list-style-type: none"> <li>• Is traffic light labelling on all products?</li> <li>• What proportion of the food and drink products you sell to Northern Ireland consumers do you display traffic light labelling?</li> <li>• Do you reformulate your products to achieve better traffic light colours? For example, to change from amber to green?</li> </ul> <p>IF PARTICIPANT DOES NOT DISPLAY TRAFFIC LIGHT LABELLING ASK:</p> <p>What, if anything, prevents your business from displaying traffic light labelling on food products? PROBE FULLY</p>
<p><b>2 mins</b></p>	<p><b>9. Wrap up</b></p>
	<p>Thank you for your time and answering the questions. Is there anything else on the topic of reformulation that you would like to discuss that you haven't raised so far today?</p> <p>Finally, just to wrap up, is there anything else you would like to pass back to the Food Standards Agency when it comes to food reformulation?</p> <p>Thank and close</p>

**Stimulus material**

**Figure 3. Traffic light label**

Each grilled burger (94g) contains



of an adult's reference intake

Typical values (as sold) per 100g: Energy 966kJ / 230kcal

## Appendix F - Methodology

### Methodology overview

Several methodologies were considered when designing this research project. Initially, a quantitative survey was considered, taking into account alignment with the existing MFB Consumer Tracker Survey. However, due to the nature of the audience and the limited number of businesses available, it would not have been possible to conduct a quantitative survey and achieve a sufficiently robust sample. Further information on the sample universe is provided in the sampling section.

Adopting a qualitative approach allowed the researchers to gather detailed insights on the subject of reformulation and capture the nuances of food production processes, challenges faced, and the rationale behind certain business decisions. More specifically, one-to-one depth interviews with food manufacturers were deemed the most suitable methodological approach. Given that research projects on reformulation have not been undertaken with food manufacturers in Northern Ireland to date, the open-ended nature of the interviews allowed the researchers to explore the topic in depth and to adapt their questions based on the interviewee's responses, and the individual nature of each business interviewed.

### Sampling and sample size

This research aimed to engage with food manufacturing businesses located in Northern Ireland. In particular, the FSA wanted to gather data from businesses representing a variety of different food manufacturing sectors, as identified through Standard Industry Classification (SIC) codes, a four-digit numerical coding system classifying industries by their primary business activities (Appendix A). More specifically, only food manufacturers who produce food with potential for reformulation were included in the research, including businesses in the following categories:

- Processing and preserving of fruit and vegetables;
- Manufacturing of vegetable and animal oils and fats;
- Manufacturing of dairy products;
- Manufacturing of grain mill products, starches and starch products;
- Manufacturing of bakery and farinaceous (starchy) products; and,
- Manufacturing of other food products.

### Sample

The sample was obtained from Ipsos' approved sample provider, Sample Solutions, who identified that they held the information for 136 food manufacturers which met the specified



criteria.

Appendix C shows a more detailed breakdown of the initial sample with information on the business classifications included in the research, alongside the number of contacts available for each classification.

The number of contact details within the sample was limited, with an email address for only 55 out of the 136 companies for initiating contact through an email invitation. However, all companies identified had phone numbers. In order to boost the number of food manufacturers receiving the email invite, the Ipsos team conducted a desk research exercise, which was intended to secure additional email addresses for the remaining 81 companies without email addresses.

Following discussions between Ipsos and the FSA, both parties agreed to boost the sample by adding additional names of food manufacturers that met the criteria of the study, but had not been received through the purchased sample.

Through these combined approaches, the sample was boosted considerably, and overall, 134 email contacts were secured.

## **Recruitment**

All recruitment was undertaken by the Ipsos research team who had both a strong understanding of the project requirements and the skills to encourage participation from busy professionals. To ensure a comprehensive data collection window and accommodate the scheduling needs of participants, recruitment continued throughout the fieldwork period, which included provisions for rescheduling interviews as needed.

Initially, businesses were sent an email inviting them to participate in the study, with details about the research, the importance of their participation and assurance of confidentiality (see Appendix B).

Following the initial email, the Ipsos research team implemented a robust follow-up process. Telephone calls to food manufacturers provided an opportunity to address any queries, foster relationships, and encourage participation.

While no financial incentives were offered to participating businesses for this study, this decision was made for two primary reasons. Firstly, since participants represented their respective businesses, offering incentives could lead to ambiguity regarding the intended recipient - the individual or the company. Secondly, accepting incentives could create complications for participants who conducted interviews in a professional capacity, potentially requiring them to declare the incentive as taxable income.

In total, five attempts were made to contact each food manufacturer over the course of the data collection period. Initially, three attempts were agreed with FSA to maximise participation, however, reaching businesses often necessitated five attempts. Engagement challenges included limited availability for interviews, lack of interest, company policies restricting participation in research projects, and difficulties connecting with potential participants who had initially expressed interest in participation.

The initial recruitment and fieldwork period took place between 16th October 2023 and 23rd November 2023. Due to recruitment challenges, a joint decision was made to pause fieldwork on 23rd November 2023, given the busy Christmas lead-in period that food businesses would likely be facing in the following weeks. Fieldwork resumed on 15th January 2024, as agreed with the FSA, and concluded on 22nd March 2024.

Appendix C details the outcomes from the three initial call attempts undertaken between 15th January – 31st January 2024. To maximise participation upon resuming fieldwork, Ipsos added a full time member to the research team to focus solely on recruitment, with an aim of securing as many interviews as possible during the two-week period in January and to complete the agreed three call attempts. The outcomes from this exercise were monitored and recorded, whereas the decision to make any additional attempts was made on a case by case basis. These figures demonstrate a high number of unanswered calls and a low number of arranged interviews. However, as evidenced in this table, persistent follow up calls significantly contributed to encouraging businesses to take part. Any further limitations of the research are detailed in the Discussion chapter.

## Face to face recruitment

In addition, there was an attempt to recruit food manufacturers at speciality markets in Northern Ireland. A highly trained Ipsos interviewer was tasked with completing face-to-face recruitment at St. George's Market in Belfast. The FSA and Ipsos agreed a screening questionnaire to ensure that food manufacturers who were approached met the criteria for participation in the research. In total, 13 food manufacturing businesses met the inclusion criteria, and were invited to participate. The outcome of this exercise was as follows:

- Successful interviews – four exhibitors;
- Not interested/refused – three exhibitors;
- Opted-out during follow-up – four exhibitors; and,
- Contact unsuccessful during follow-up – two exhibitors.

## Development of research materials

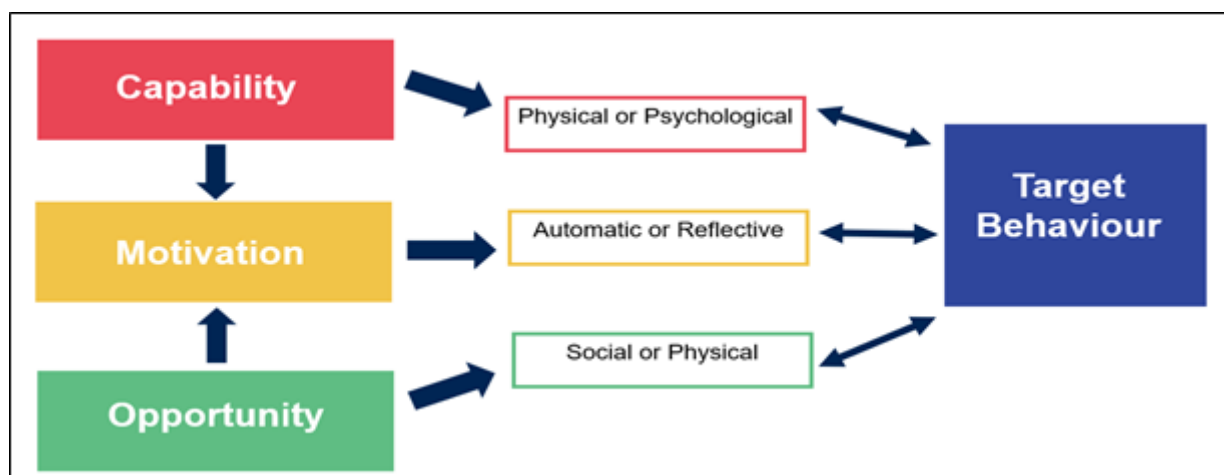
In partnership with the FSA, Ipsos designed a discussion guide to align with the specific objectives of the research (Appendix E).

In order to adequately address the research aims and objectives, Ipsos incorporated a behavioural science component to the design of the discussion guide, using the COM-B behavioural model<sup>2</sup>. The COM-B framework (see Figure 3) suggests that for any behaviour (B) to take place, there must be Capability (ability to undertake the behaviour), Opportunity (the person or organisation's environment facilitates it) and Motivation (a desire to enact the behaviour). COM-B principles were applied in the discussion guide design to ensure that we could explore issues of capability, opportunity and motivation related to food reformulation efforts.

The discussion guide was designed to ascertain food manufacturers' opinions and attitudes towards food reformulation in a broader sense, their understanding of the UK Government's guidelines around reformulation and any barriers and enablers to reformulation. Questions were designed to identify any processes and any external factors which drive reformulation in line with the areas of capability, opportunity and motivation. For example, in this context, the likelihood that businesses will engage in food reformulation, may be influenced by the extent to which they have the capability (knowledge, skills and resources), opportunity (time, financial and material resources, suitable environment) or motivation (goals or intentions) to do so.

The COM-B is the system of behaviour at the heart of the Behaviour Change Wheel (BCW), developed by Susan Michie and colleagues. The BCW is a comprehensive, theory-based and evidence backed system, which links the behavioural problem to intervention design. The COM-B framework suggests that for any behaviour (B) to take place, there must be Capability (ability to undertake the behaviour), Opportunity (the person or organisation's environment facilitates it) and Motivation (a desire to enact the behaviour).

Figure 4. COM-B model of behaviour change



## **Conducting the depth interviews**

In total, 15 interviews were conducted with a range of food manufacturers across Northern Ireland. The interviews were conducted either online via Microsoft Teams, or via telephone, with the needs and preferences of individual participants considered. An original target of 25 interviews was set at the beginning of the research. However, due to challenges with recruitment and business engagement, outlined in this section, a final number of 15 interviews was achieved, after multiple strategies were employed to boost the available sample and maximise participation.

Given the busy schedules among food manufacturers, the interview was designed to last no longer than 45 minutes. Interviews were conducted with a representative from each food manufacturing organisation. In one instance, the Ipsos team interviewed two representatives from one large food manufacturer, as the size and complexity of their operation required both perspectives to be heard.

To ensure that the most suitable employee within a company was identified for the interview, procedures were put in place before interviews were arranged. For example, individuals were screened to ensure they had a degree of responsibility and decision making power within the organisation, understood the process of food reformulation and were aware of any attempts to reformulate. A screening criteria survey was not used as potential employees and participants were selected on a case-by-case basis. This ensured that the most suitable employee within a company was identified for an interview and allowed for a degree of flexibility when approaching different businesses. Information about the scale of the operation and the type of food products associated with the businesses was also captured. This allowed researchers to categorise businesses by size and type of food produced/sold/served and monitor the progress against business types selected for this research.

## **Data analysis**

It was agreed that research findings would be reported using a case study approach, due to the individual nature of each business' experience with reformulation. More specifically, a case study approach has been adopted for several reasons. Firstly, each business is unique in size, operation and manufacturing activities, with some businesses taking part in reformulation while others have never considered this, or do not currently engage in reformulation. Additionally, each business produces different types of food products, with some manufacturing a wider range of products, while others produce a specific standalone product. Finally, a smaller number of interviews were achieved (N=15) compared to the original target of 25 interviews.

Once the interviews had been completed, the full set of interviews were analysed using a thematic analysis approach<sup>3</sup>, as this was deemed the most appropriate analytical method to identify common themes across the individual business journeys.

Thematic categories were identified following in-depth engagement with summary notes, audio recordings and completed case studies. We identified patterns, commonality and consistent connections that emerged from the business interviews. This was an inductive approach, whereby we sought to identify themes from the data rather than code data into a pre-existing thematic framework. Analysis was completed collaboratively by the Ipsos research team, which mitigates the risk of over-subjectivity or researcher bias.

The COM-B framework has been used throughout the analysis to guide interpretation of the data in relation to the key areas of Capability, Opportunity and Motivation. Each of the three overarching COM-B constructs were identified in the research findings and interpretation of the findings in relation to the COM-B model may provide opportunities to better understand the challenges faced by the food manufacturing sector with regard to reformulation of food products. Additionally, where appropriate, we have drawn upon the constructs outlined in the Theoretical Domains Framework (TDF)<sup>4</sup> when interpreting the themes produced by this research.

## **Ethical considerations**

All participants consented to take part in the research at the start of the interview, and were informed of how Ipsos UK would handle their data, including the retention of contact details, audio recordings and interview responses.

Participants were reminded that Ipsos UK work in accordance with the Market Research Society (MRS) Code of Conduct. They were also assured that participation was on a voluntary basis and that they could withdraw from the interview at any time, or decline to answer any questions.

The selected businesses participating in the research are not identified in this report. Participants were assured that all responses provided would be treated as completely confidential, and that all responses provided to FSA would be anonymised to ensure that individual businesses could not be identified. As standard practice, participants were informed of their right to withdraw from the research without having to give a reason.

## Appendix G - COM-B analysis

Domain	COM-B component	Theme	Barrier*	Enabler*	Potential intervention/policy categories
Capability	Physical	Business Size	x	x	Environmental restructuring; Enablement
Capability	Psychological	Awareness of UK Government guidelines	x	x	Education
Capability	Psychological	Knowledge required to reformulate (nutritional/technical)	x	x	Education
Capability	Psychological	Skills required to reformulate (nutritional/technical)	x	x	Training
Opportunity	Physical	Manufacturing environment/access to facilities	x	-	Environmental restructuring; enablement
Opportunity	Physical	Costs to reformulate	x	-	Enablement
Opportunity	Physical	Time (staff resource to dedicate to reformulation)	x	-	Environmental restructuring (to reduce time demands or competing time demands for reformulation)

Opportunity	Social	Societal influences (changing consumer preferences/social norm emerging for healthier products)	-	x	Modelling, Incentivisation
Motivation	Reflective	Beliefs about success outcomes (market demand, RoI, product quality)	x	-	Modelling, Incentivisation, Persuasion
Motivation	Reflective	Beliefs about financial consequences	x	-	Persuasion; Modelling
Motivation	Reflective	Commercial goals	x	x	Goals; Persuasion; Modelling
Motivation	Automatic	Lack of reinforcement	x	-	Reinforcement; Coercion; Restriction

\*Please note a barrier for one business may be an enabler for another business, for example, individual knowledge and skills, or business size.

## Appendix H - Case study profile overview

Case study	Sector	Size of business	Reformulation status
Case study 1	Manufacturer of prepared meals and dishes	Large-sized enterprise	Currently reformulating products
Case study 2	Manufacturer of dairy products	Micro-sized enterprise	Currently reformulating products
Case study 3	Manufacturer of dairy products	Small-sized enterprise	Currently reformulating products
Case study 4	Manufacturing of bakery and farinaceous (starchy) products	Medium-sized enterprise	Previously reformulated

Case study 5	Manufacturing of bakery and farinaceous (starchy) products	Medium-sized enterprise	Previously reformulated
Case study 6	Wholesaler and manufacturer of other food products	Large-sized enterprise	Previously reformulated
Case study 7	Wholesaler and manufacturer of other food products	Large-sized enterprise	Previously reformulated
Case study 8	Manufacturer of homogenised food preparations and dietetic food	Micro-sized enterprise	Previously reformulated
Case study 9	Manufacturer of other food products	Small-sized enterprise	Previously reformulated
Case study 10	Manufacturing of bakery and farinaceous (starchy) products	Medium-sized enterprise	Not currently reformulating products
Case study 11	Manufacturer of homogenised food preparations and dietetic food	Small-sized enterprise	Not currently reformulating products
Case study 12	Manufacturing of bakery and farinaceous (starchy) products	Small-sized enterprise	Not currently reformulating products
Case study 13	Manufacturing of bakery and farinaceous (starchy) products	Small-sized enterprise	Not currently reformulating products
Case study 14	Manufacturer of dairy products	Medium-sized enterprise	Not currently reformulating products
Case study 15	Manufacturer of pre-prepared meals	Small-sized enterprise	Not currently reformulating products

## References

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