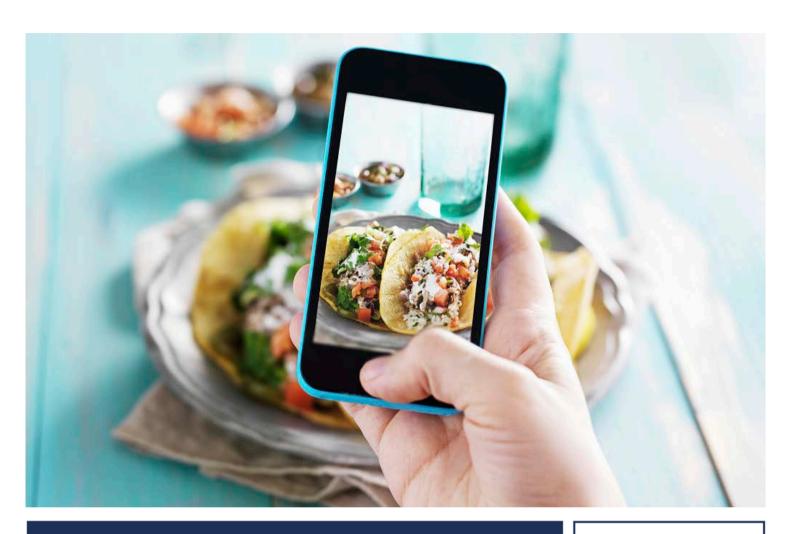
leatherhead food research



Trends 2016: Protein, Health to-go Products and Personalised Nutrition

A Leatherhead Food Research white paper

Food and Drink Industry Trends 2016

Emma Gubisch

Industry Trends 2016: Protein, Health to-go Products and Personalised Nutrition

From ingredient demonisation, to the rise of micro meals onthe-go, to the opportunities for technology, Emma Gubisch explores the key trends impacting the food and drink industry in 2016 and beyond.

'Share of stomach' rages online

While the amount an individual can eat remains fairly finite, where and how we spend on food and drink is changing dramatically. A physical, weekly shop at the same supermarket as the focal point of food and drink expenditure is disappearing¹ and there are now myriad food providers wying for consumer attention or a 'share of our stomach'. It isn't just a simple choice between whether to eat in or out either. We are seeing food providers interpreting consumer needs in innovative ways, such as home-delivered meal kits to take the thinking out of cooking for timepoor consumers, or retailers taking online shopping to the next level by offering virtual retail portals where people can order groceries while waiting for their train.

In 2016 and beyond, we'll see the fiercest battles fought online. Manufacturers are looking at opportunities to bypass retailers and go straight to the consumer. Retailers are desperately looking for ways to make online profitable while not losing audience share.

Meanwhile, the newcomer to this space,
Amazon Fresh, promises to disrupt the current

ecosystem further, offering significant competition to the grocery offering online.

Small but mighty meals

Consumers are crying out for food and drink solutions that resonate with the way they live their lives. It is becoming increasingly difficult to fit three square meals into the day. Busy lifestyles spent away from the home means there is less time to prepare traditional meals. Also, the rise in single person households² means there is less desire to cook at home.

People want convenience, portability and optimum nutrition from meals. We are seeing the rise of micro meals, often eaten outside the home or on-the-go. Perhaps you already enjoy a 'two-stop' breakfast: a quick breakfast at home and then part two on the way to the office or at your desk. Companies that respond to this trend by packaging up attractive, healthy meals are on to a winner.

Snacking is morphing from being an unhealthy and unnecessary ingestion of empty calories, to being an important way to refuel.

Consumers want 'health to-go' snacking options: healthy product alternatives which mean they don't have to fall back on products

¹ IGD

² Office for National Statistics

high in fat, salt and sugar. High protein, low GI and satiety-inducing snacks which make you feel full for longer are all gaining traction with consumers.

The age of ingredient demonisation

Sugar was the big story of 2015 and will continue to make headlines in 2016. Reformulation remains a huge focus for innovation, but presents many technical difficulties. Stevia, marketed as a natural alternative to sugar, has offered the industry a good option for sugar substitution. There are now a range of commercial stevia solutions available for use in a number of food and drink categories, including those which have traditionally presented more reformulation challenges, such as dairy. Monk fruit, while not yet approved in Europe, is a sugar alternative to watch. Other alternatives, such as honey, agave syrup and date syrup, are also proving popular with consumers and manufactures alike because they are often advertised as 'natural'. In the not too distant future, however, the nutritional properties of these syrups may come under scrutiny, because despite the health halo, they have a similar calorie content to sugar.

Reformulating products by investigating and re-building their microstructure is another successful approach adopted by manufacturers, particularly in the snacks industry. Exploiting enzymes to alter the structure of products, for example, can improve the product's health benefits, as discussed in one of Leatherhead's recent white papers.

The media focus on particular ingredients is fuelling the global market for free-from foods, such as gluten-free and lactose-free. These markets continue to expand at a healthy rate³ as free-from foods are not only purchased by people with medically diagnosed allergies and intolerances, but also consumers who believe excluding particular ingredients from their diet will improve their health and wellbeing.

2016 is likely to witness the emergence of more free-from options in a greater variety of products sectors, in response to rising consumer demand – examples include snack foods and convenience foods.

But what goes up must come down ...
eventually. It is predicted that growth rates of
free-from foods will start to tail off towards the
end of the current decade. Analysts already
believe the growth rate of the gluten-free
market in the US is falling³. Behavioural
research shows that many consumers (without
medically diagnosed allergies and
intolerances) are turning away from the glutenfree diet because products are expensive and
do not always deliver on taste. In the
meantime, however, there is plenty of growth
in the free-from markets to come.

Manufacturers have increasing stake in public health

The rise of eating on-the-go means the burden of responsibility is falling on the food industry to provide the healthy products consumers require to eat a nutritionally balanced diet.

Life in the 'free-from' markets yet

³ Mintel

With the rise in obesity, the need for consumers to understand and act upon healthy eating messages is more important than ever before. Here too, the food industry has a growing role to play in translating health messages for consumers.

A Leatherhead survey with UK consumers from 2015 highlighted the extent to which consumers need help to make sense of nutritional messages. The survey explored consumer views of the UK's Scientific Advisory Committee on Nutrition (SACN) recommendation that 'free sugars' should make up no more than 5% of daily calories. Four in 10 found the recommendation difficult to understand. Seven in 10 wanted more information about the definition of free sugars and nine in 10 agreed that they would struggle to keep to the recommendation.

The results from this survey indicate the reliance consumers have on the food industry to help them understand how much sugar they should be eating and how to better manage their sugar intake.

Protein packs a punch

By 2018, the global market value of the protein ingredients market is forecast to increase to \$31 billion⁵. The multi-functional opportunities offered by protein are the secret behind its success; appropriate products can carry claims covering 'satiety' (making consumers feel full for longer) as well as the more traditional 'weight/muscle gain'.

With this in mind, manufacturers are now creating protein products for a more

mainstream audience unconnected to the sports market. They are also expanding the target market for energy products to include fit and active consumers, as well as professional and semi-professional sportspeople.

Growth in vegetable proteins is a particular area to watch, because it hits a number of key consumer trends, including eating less meat, the rise in 'free-from' or 'allergen-free' products and the desire for products positioned as 'healthy' and 'natural'. Approximately a third of the protein ingredients market currently comes from plants/vegetables⁵. Conservative estimates suggest plant proteins will take a 40% share of the protein ingredients market by 2018⁵.

Although other plant proteins, such as soy and wheat, are more common in food and drink launches, pea protein continues to be one of the fastest-growing plant-based proteins in new food and drink launches³. Food and drink product launches using pea protein increased 49% between 2013 and 2014³.

Technology puts us in the nutritional picture

Technology presents a huge opportunity enabling consumers to make sense of nutritional information. Technology can do the thinking for us, so instead of reading the back of the product pack and having to assess the nutritional information of a product, a consumer might be able to scan a QR code with their phone. Activity trackers or sports bands, which tell us about activity done and calories burned, could also incorporate

whole fruit or vegetables

5 Based on estimates by Frost & Sullivan and Grand View Research



⁴ Free sugar is defined as any form of sugar or sweetening agent, except sugars naturally found in milk and sugars from the consumption of whole fruit or vegetables

information about products eaten. A fridge has already been developed by Samsung that can order food from the supermarket to replenish supplies, but perhaps it could also order food based on our nutritional needs.

Technology not only takes away the hard work and time needed to process product-specific nutritional information, it also has the potential to help consumers make sense of individual products in the context of their whole diet and their exercise level. Consumers want to be able to understand what a chocolate bar means nutritionally in relation to everything they will eat that day.

Personalised nutrition

While products manufactured to match an individual's personal preferences might still seem the stuff of science fiction, a huge amount of innovation is happening in the area of personalisation.

There is a lot of focus on researching microbes in the gut and how they impact people's ability to digest foods, as well as their propensity towards developing certain intestinal diseases.

It is already known that a particular gene influences fat perception in certain adults, affecting their fatty food preferences.

Leatherhead has set up a Genetics Taste Panel of consumers who have been genetically profiled for three key genes impacting taste perception. Manufacturers can use this panel to help understand consumer food preferences.

There are also developments in how products are supplied directly to individuals, with growing interest in vending, 3D printing and

now 4D printing (objects that reshape themselves over time).

In the not too distant future, we will understand how an individual's genetic and microbial make-up impacts their food choices, the quality of their diet and ultimately their health. In time, manufacturers will be able to respond with more personalised products to suit individuals' needs.



How Leatherhead can help

Leatherhead can advise on maximising the health benefits of products. Specific areas of expertise, include:

- GI response and insulin response testing to help understand how products impact consumers' blood sugar
- Understanding protein functionality, consumer acceptability and regulatory status of new proteins
- Re-building the microstructure of products to maximise health benefits, for example using enzymes to create satiety-inducing products and low GI products
- Consumer and trained panel sensory testing to understand how product reformulation impacts taste perceptions

About the author

Emma Gubisch's experience is in delivering insight projects for a range of social and commercial clients, covering consumer attitudes and behaviour, concept development, product marketing and market trends. Emma's particular expertise is in understanding and interpreting the viewpoints of key audiences, from the consumer who picks the product off the shelf to the journalist who writes about the latest food and drink trends.



About Leatherhead Food Research

Leatherhead Food Research provides expertise and support to the global food and drink sector with practical solutions that cover all stages of a product's life cycle from consumer insight, ingredient innovation and sensory testing to food safety consultancy and global regulatory advice. Leatherhead operates a membership programme which represents a who's who of the global food and drinks industry. Supporting all members and clients, large or small, Leatherhead provides consultancy and advice, as well as training, market news, published reports and bespoke projects. Alongside the Member support and project work, our world-renowned experts deliver cutting-edge research in areas that drive long term commercial benefit for the food and drink industry.

Leatherhead Research is a Science Group (AIM:SAG) company. Science Group provides independent advisory and leading-edge product development services focused on science and technology initiatives. It has six offices globally, two dedicated, UK-based R&D innovation centres and more than 350 employees. Other Science Group companies include Oakland Innovation, Sagentia and OTM Consulting.

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Science Group plc offers independent advisory and leading-edge product development services focused on science and technology initiatives. Its specialist companies, Sagentia, Oakland Innovation, OTM Consulting and Leatherhead Food Research, collaborate closely with their clients in key vertical markets to deliver clear returns on technology and R&D investments. Science Group plc is listed on the London AIM stock exchange and has more than 350 employees, comprised of scientists, nutritionists, engineers, mathematicians and market experts.

Originally founded by Professor Gordon Edge as Scientific Generics in 1986, Science Group was one of the founding companies to form the globally recognised Cambridge, UK high technology and engineering cluster. Today Science Group continues to have its headquarters in Cambridge, UK with additional offices in London, Guildford, Epsom, Boston, Houston and Dubai.

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