The future of frozen food
About this report

This report has been produced in association with The Futures Company, and explores opportunities for the frozen food sector over the next five to ten years.

Since the analysis for this report was completed, the context for the frozen food category and (to some extent) consumer attitudes towards it have been affected by the discovery of porcine and equine DNA in processed meat products.

Although leading food regulators confirmed that the issue posed ‘very little’ risk to human health, the impact on perceptions of the category is harder to measure. However, the analysis for this report has been carried out with a long term view in mind. Hence, the opportunities outlined represent significant new sources of growth for the frozen food category.

This report is based on analysis of the macro-, meso- and micro-level trends shaping consumer behaviour and the future of the category. Our understanding of these trends has been informed by expert interviews, consumer and market data, and qualitative insight.

Futures techniques have been used to identify and explore potential opportunities as drivers of change, and to see how they combine to influence the frozen food sector in different ways. The report highlights opportunities in 10 key markets: the US, the UK, Ireland, Germany, France, Brazil, Japan, Sweden, India and China.
Setting the scene
Shifts in global economic, social and demographic trends will continue to put pressure on food supplies — creating new challenges for food manufacturers and consumers. These changes will significantly reshape the context for frozen food and consumer perceptions of the category going forward.

As global populations grow and incomes increase in emerging markets, demand for food and other resources will reach unprecedented levels and significantly affect availability and price.

In rapidly developing markets such as China and India, diets will change to include more meat and dairy products — foods that are resource- and land-intensive to produce.

Climate change is likely to exacerbate these challenges, as extreme weather and water shortages affect crop patterns and production. In the longer term, consumption patterns may need to change radically.

Rising and more volatile energy costs will continue to push up prices for transport and cold storage. Increasing costs will also put manufacturers under pressure to look for new suppliers or substitute ingredients. In the future, frozen food could be crucial in providing people with access to the food they need at an affordable price.

Resource challenges will intensify our focus on waste — both from an economic and environmental perspective.

So far in 2013, a lot of media and NGO attention has highlighted the fact that 50% of all food globally is allowed to spoil or is thrown away.

Reducing negative impacts on the environment will continue to be an imperative for food manufacturers. Again, the frozen food category can lead the way, championing and aiding waste reduction from farm to plate.

Manufacturers, brands and retailers will continue to come under pressure to minimise their broader impact on the environment and communities. People will increasingly ask how companies use resources, manage their supply chains and contribute to wider society.
As more women enter the workforce and lifestyles change, global demand for frozen meals and ingredients will grow.

In emerging markets in Latin America, South East Asia and Eastern Europe, relatively buoyant income growth is creating a new middle class, eager to experience new goods and services. China, India and Brazil will become the second, fourth and ninth largest consumer markets in the world, worth €2.9 trillion, €1.14 trillion and €0.61 trillion respectively by 2025. This will mean increased demand for richer and more varied diets and, importantly, increased demand for large domestic appliances such as freezers.

The growth of the service sector and increasing female participation in the workforce are changing family and household dynamics. Globally, up to one billion women are expected to enter the workplace in the next decade. Greater economic participation is creating a new need for convenience, particularly in food shopping and preparation.

In developed markets, the desire for convenience will remain strong, but it will need to be offset by budgetary constraints.

In Western Europe, incomes are not projected to surpass their 2010 peak levels until at least 2015. This will increase the need for affordable, nutritious food — again, a huge opportunity for the frozen category.

The growing desire for convenience and the changing retail landscape will continue to have an impact on how, when and where people shop.

The growth of convenience retail in emerging markets is widening access to new products and services. Meanwhile in mature economies, more people are shopping for food online. This is a significant opportunity for the frozen category. In the UK, online baskets show a 25% increase in frozen sales compared with store shopping. Online consumers are younger and wealthier — the kind of shoppers traditionally harder to reach for frozen.

Sources: Deloitte; ONS, Kantar Retail, CNBC
Greater consumer knowledge of food and a desire to understand its origins is driving a desire to reconnect with the food we consume. For the frozen food category, this has been reinforced by the equine DNA issue.

In many markets, trends in convenience are being counterbalanced by the desire to ‘reconnect’ with the food we consume, from understanding origin and provenance, to cooking more from scratch.

This is also driving greater scrutiny of food manufacturers and retailers, and consumer calls for more information about ingredients and production processes. Food brands will increasingly be required to be more transparent about the contents of their products, providing information in a way that people can easily understand.

Recent issues concerning the presence of porcine and equine DNA in some processed foods has challenged consumer trust in the category. Transparency has become even more critical for the frozen food category; and openness and integrity around ingredients, and the management of supply chains will be critical in rebuilding trust.

Greater health consciousness, resulting from the increase in lifestyle-related diseases, will continue to influence food and ingredient choices made by both consumers and manufacturers.

This is not simply a developed world issue: in Mexico, obesity rates have tripled in the last three decades. Governments and food companies are coming under intensifying pressure to act. For manufacturers, this could mean rethinking the ingredients and the composition of products.

In 2012, researchers writing in the journal Nature called for strict government controls on sugar levels in food. Many countries have implemented or are considering taxation on ‘unhealthy’ foods, though an unsuccessful attempt to launch a ‘fat tax’ in Denmark suggests that practical implementation of such measures can be a challenge. However, concern about artificial ingredients and additives, particularly in children’s food and drink, is likely to increase. This will augment the drive for transparency.

For consumers, this means making smarter food choices and increasingly balancing nutrition with price, convenience and enjoyment.

Source: Nature
The projected outlook for the frozen food sector is promising, with significant opportunities for new growth in emerging markets.

The global frozen prepared food industry is experiencing strong growth and is expected to reach sales of €142 billion by 2015. Significant growth is likely to come from emerging markets in Asia, Latin America and Eastern Europe. Rising incomes, changing lifestyles and interest in ethnic and international cuisine will continue to drive the success of the category.

A good example is China, the fastest growing market for frozen foods in Asia. As the pace of life has increased, sales of frozen dumplings have experienced double digit yearly growth, reaching over €152 million in 2011.

Crucially, in markets where the category is establishing itself, there is huge potential for frozen food to define the role it can play in people’s lives.

Challenges persist in markets where frozen food is established. Here, re-defining the category will be key in underpinning its long-term success.

Though significant strides have been made to improve quality and expand the premium part of the category, in certain markets consumer perceptions lag behind. Efforts to improve the perceived healthiness of frozen foods will need to continue, particularly as trends in health and wellness gather pace. Retailers will also need to consider how to make shopping for frozen foods an exciting and enjoyable experience.

The industry is making strides in new freezing and processing technologies that will support new growth in the future. More efficient freezing processes will reduce costs and environmental impacts, whilst preserving quality and nutritional content. However, technologies that are already being used to extend the shelf life of chilled and fresh foods (such as high pressure processing) mean frozen food will need to work even harder to keep up.

Many of the longer term drivers of change outlined in the previous pages will create huge opportunities for the frozen food sector.
Leading the way for frozen food

Re-inventing frozen food through innovative product and retail environments

Frozen food manufacturer, distributor and retailer, Picard, is leading the way in redefining frozen food and changing consumer attitudes about the category in France. Picard is one of a small number of premium frozen food brands in the world, and has few competitors — even in Europe, where perceptions of frozen food have been improving.

Innovative products and tailored marketing have helped the brand succeed with middle- to high-income consumers in a nation where good food is an essential part of the culture. The majority of Picard’s products have origins in French cuisine, though new lines are being added that tap into the growing desire for more ethnic and international foods.

In the UK, frozen food manufacturer and retailer Cook is challenging the stereotypical image of frozen food by offering more premium, home-made style family-favourite foods. The boutique feel of its stores, with the use of warm colours, bunting, wood panelling and old-fashioned signage reflects the authentic, rustic feel of its products.

In-store tastings help bring its products to life for shoppers and introduce the smells of freshly cooked meals into the store. Every product in the shop has the name of the person who made it on the packaging.

Launched in 2013, this line of party food from Picard appeals to people’s sense of fun. This pack contains two flavours: foie gras with raspberry jelly, and cheese with basil and sweet peppers.

Cook’s marinated chicken breast pieces in a harissa sauce of cumin, cinnamon and honey, winner of multiple awards, including the Gold Great Taste Award.
Frozen food companies are reaching new audiences through social media

From a relatively small base, the frozen food market is growing by between 20% to 25% year on year in Brazil, as lifestyles and demographics change, and manufacturers engage with new audiences through new channels.

Companies that are established in the market, such as Congelados da Sônia, are using social media to reach new audiences and stand apart in an increasingly competitive market. Eager to appeal to new socially connected audiences, the company hired an agency to help build its presence on social media platforms such as Facebook, Twitter and the photo-sharing site, Flickr.

It posts new recipes, product launches and competitions in an attempt to engage with younger consumers coming to the category for the first time. The brand currently has over 2,000 ‘likes’ on Facebook.

On its Flickr pages, Congelados da Sônia posts ‘behind the scenes’ pictures of its staff and people on its production line, building consumer trust through transparency.
Exploring opportunities

The next section of the report outlines a number of different opportunities for the frozen food category in the next five to ten years, under four platforms for growth: cool living; preserving goodness; responsible choices; new frontiers.

These platforms and the opportunities within them have emerged from an analysis of the key trends and uncertainties shaping the frozen food category, and how they might combine to shape the future.

Some of the opportunities can be leveraged by companies now. Others are further out, and require more investment or engagement.

The longer term opportunities are more likely to depend on the speed of technological change in the sector and companies’ ability to harness it.
Platforms for growth

Cool living

Preserving goodness

Responsible choices

New frontiers

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How the platforms are explored in this report

Each area or platform for growth is discussed in the context of emerging consumer needs and the factors that will shape their development. A snapshot of evidence accompanies each area.

Where does each market sit in relation to each opportunity?

Markets are mapped using a qualitative assessment on two dimensions: importance (y axis) and dynamism (x axis).

Importance depends on the current maturity of the frozen category and the existing competitive landscape for frozen food. It also captures the potential strength of consumer needs that underpin different dimensions of the platform.

Dynamism reflects the potential rate of change in the market and the speed at which opportunities in that platform might emerge. It’s determined by factors such as: the rate of innovation in the frozen food category; the speed at which consumer lifestyles and needs are evolving; and the pace at which innovations can be turned into commercial products.
Mapping opportunities

Under each platform lies a number of distinct opportunity areas. The timeline below gives an indication of close, or how far away, key opportunities are for frozen food manufacturers. Those that are closer in represent potential territories for ‘quick-wins’. Those that are further out are more reliant on scientific or technological progress, and are areas where consumer needs are still emerging.
Food choices increasingly reflect changing lifestyles, needs and aspirations. Time-poor consumers will continue to look for ways of preparing meals that allow them to take shortcuts, while still feeling they’ve created something from scratch. There is a significant opportunity for frozen food to deliver truly innovative solutions to help people create appealing and nutritious food every day.

At the same time, more time spent on the go means less time for ‘formal’ meals, so people will increasingly look for fast, flexible and healthy food options. Frozen foods need to overcome barriers to immediate consumption to ensure they remain relevant in people’s lives.

With growing exposure to new tastes, flavours and cuisines, demand for more diverse food will grow and raise the bar for the frozen category.

The increase in allergies and intolerances will accelerate the need for frozen food to reflect the realities of people’s changing requirements.
Sophisticated shortcuts

Reframing the role of frozen as a convenient meal solution
The competing demands of work and home leave people with little time to cook; they increasingly value simple, convenient solutions.

Quality, however, remains important. People are demanding solutions that enable them to create tasty, enjoyable meals easily or impress guests with restaurant-quality dining experiences.

They are looking for frozen foods that offer convenience, which stretches beyond the ‘ready meal’ to solutions that streamline meal preparation, reducing the effort required, and giving them greater control and flexibility when cooking.

**Early indicators**

**Frozen meal kit, USA**
The Coles ‘That’s Dinner’ brand offers a complete meal kit for four people, promising great taste and convenient preparation, without the stigma attached to frozen dinners.

‘The opportunity for frozen is the cake-mix, just-add-an-egg approach. People want to feel they are doing a bit of cooking, and have the ability to do some customising, making it right for their family. This isn’t just about the in-between of pre-made and scratch cooking to a recipe, but about something you can make your own.’

Dr Jonathan Deutsche, culinary academic and chef

**Pop Up Pantry, US**
This brand offers gourmet meals in a subscription model club for food lovers. After chefs have cooked the food, each item is blast-chilled to bring it down to -40 degrees celsius, which maintains food safety and ensures food quality by locking in freshness and flavour.
Sophisticated shortcuts

What might this mean for frozen in the future?
• Reframing the role of frozen in the convenience market by: deconstructing menus; providing prepared ingredients, customisable pre-assembled kits and meal accompaniments; tailoring products to different meal ‘occasions’.
• Rethinking the placement of frozen foods in the retail environment (in store and online), so that people start planning ‘blended’ menus combining ambient, chilled and frozen ingredients.

Emerging opportunities

In the shorter term
• Produce more frozen ingredients and meal components, e.g., pre-cut herbs and vegetables or slow-cooked meat.
• Offer more advice on how to cook easily and to perfection on pack or through websites and apps.

In the longer term
• Packaging solutions that ensure perfect cooking from frozen.
• Streamlined cooking solutions — packaging with integrated heat-sensitive cues that time release ingredients and mimic multi-stage cooking processes.
New diets

Reflecting new dietary needs and aspirations through frozen food
New diets

Demographic and lifestyle changes, combined with improved understanding of individual food needs, mean diets are becoming more diverse, and the food market more fragmented.

New needs are emerging based on lifestyle choices, life stage shifts and dietary requirements. The number of allergies and intolerances is on the rise, driving the need for greater innovation from the frozen category to remain relevant in the broader food landscape.

At the same time, changing demographics such as ageing populations and growing migration mean frozen food will increasingly have to address the needs of evolving palates and tastes.

As exposure to new types of cuisines and flavours grows, food will continue to be a way of exploring different facets of identity. Again, frozen food must ‘step up’, positioning itself as the gateway to easier exploration and experimentation.

Early indicators

**Tailored cuisine, US**

Frozen food brand Saffron Road in the US specialises in authentic ethnic cuisines that also meet specific dietary requirements. This Thai basil and chilli tofu entrée is gluten free, vegan and halal and made with an authentic blend of Thai spices.

**Around 17 million Europeans suffer from food allergies. The number of children with allergies has doubled in the last ten years**

Source: The European Academy of Allergy and Clinical Immunology (EAACI), 2011

**Easier experimentation, Brazil**

D’aucy, the frozen food brand, has released a range of frozen wok vegetables themed as Chinese, Japanese and Thai mixtures, to make experimenting with more diverse cuisines easier.
New diets

What might this mean for frozen in the future?

• Frozen food can be given new relevance in people’s lives by addressing a broadening set of needs and meeting new demand for tailored products.

• At a category level, frozen food needs to take significant steps to reflect the link between food and the way people express identity (particularly as other categories are raising their game here), in an authentic and meaningful way.

• Facilitating greater experimentation with new types of foods, cuisines and flavours will help position frozen food as an aspirational choice.

Emerging opportunities

In the shorter term

• Create new formulations that remove key allergens such as wheat, soya or dairy.

• Introduce a broader range of ethnic foods to help people experiment, explore and express their identities.

In the longer term

• Create formulations that appeal to the changing palates of consumers, for example, older people.

• Stay one step ahead of taste and flavour trends to deliver market-leading innovation.
Anywhere, anytime

Portable frozen food solutions for ‘on the go’ consumption
Anywhere, anytime

Increasingly hectic lifestyles mean eating habits are changing. Meal patterns have become more fluid, with many people often grabbing something to eat as they leave the house or are ‘on the go’.

Health- and value-conscious consumers are looking for convenient and ‘better for you’ alternatives to the fast food and snacks they currently turn to when they don’t have time to cook.

Since few foods can be eaten from frozen, the freezer cabinet has not historically been the obvious place to meet this need. However, innovations in defrosting technologies are creating new opportunities for frozen food to be consumed instantly, both inside and outside the home.

Early indicators

**Packaging that cooks, Russia**

Gogol Mogol is a new portable packaging invention that cooks an egg in two minutes. The pack contains a layer that self heats when an activating tab is pulled, effectively cooking the egg on demand.

Globally, nearly a third of people say ‘I eat on the go much more than I used to’, with 28% of Irish and 26% of UK consumers agreeing with this statement.

Source: The Futures Company, Global MONITOR 2011

**Toast from frozen, Germany/UK**

Toast Me is a straight-from-frozen toastable meat snack, marketed as being a world first. It’s been launched in the UK, following massive success in Germany.
What might this mean for frozen in the future?

- The need to create a broader range of instantly consumable ‘straight from the freezer’ snacks.
- Expansion of the market for frozen ‘indulgence’ and ‘impulse’ food, beyond ice-cream. (Use of quick defrost, mini-formats and ‘easy-heat’ packs will make this possible.)
- A new model of time-specific defrosting could emerge where products are slowly defrosted and potentially cooked once taken out of the freezer, ready for when they are needed, e.g., a meal taken out of the freezer before leaving for work defrosts in time for lunch at work.

Emerging opportunities

In the shorter term

- Explore formats that allow for rapid defrost (e.g., higher surface area, removable insulating packaging).
- Widen the range of ‘ready to eat’ frozen food beyond ice-cream; ‘re-stock’ the freezer cabinets of convenience stores.

In the longer term

- Innovations in packaging that actively heat and defrost products.
- Deeper exploration of foods best suited to ‘on the go’ defrosting, e.g., ones with a low water content.
Urbanisation and the rise of women in the workplace in emerging markets is driving the need for convenience, which is a significant opportunity for frozen food. For Chinese and Indian consumers, traditional cooking is often time- and labour-intensive, so ingredient or meal preparation shortcuts will hold strong appeal.

In more developed markets, convenience needs are well established, and shortcuts that enable faster scratch cooking will become more important in future.

Meal occasions are often highly fragmented on this platform, with eating on the move and snacking expanding in markets such as the US, UK and Ireland. This represents a significant untapped opportunity for the frozen category, if it is able to harness innovation in packaging that enables ‘on the go’ defrost.

Rapidly ageing populations in markets such as Japan, the US and Western Europe will drive the opportunity for innovation in tastes and flavours to suit older palates.
Preserving goodness

KEY OPPORTUNITIES

**Wholesome kids**
The role of frozen food in providing the best nutritional start in life

**Positively frozen**
Building stronger emotional bonds with the frozen category by promoting positive food values

**Safeguarding nutrition**
Maximising the nutritional benefits of food and ingredients by freezing

Consumers are looking for more goodness from the foods they eat, their families eat and, increasingly, their wider communities eat.

As lifestyles become more sedentary, and fears about childhood obesity grow, healthy and affordable nutrition will continue to be a priority for parents. Frozen food will be a key way of delivering tasty, convenient goodness, which is naturally preserved.

This natural preservation allows food to be captured at its nutritional best. As awareness of the health benefits of specific nutrient-rich food grows, consumers will look for easy ways to integrate these into their daily diets. Again, frozen food is uniquely placed to meet this growing need.

People will continue to think about how their purchases affect others. The origin and provenance of food and responsible sourcing will become more important as they look to ‘reconnect’ with the food they eat and do good at the same time. Transparency about ingredients and production processes will continue to be key markers of trust.
Wholesome kids

The role of frozen food in providing the best nutritional start in life
Wholesome kids

Parents, worldwide, are getting busier and many of them are facing constrained incomes in the short to medium term.

Nevertheless, the desire to provide wholesome, nutritious and tasty food for their children remains, and the frozen food category is well placed to offer affordable goodness that supports a good start to life.

As concern about artificial additives increases, the focus on natural foods will remain very strong. This will be reinforced by worries about childhood obesity; parents will increasingly choose well balanced, low-fat and low-salt food for their children from manufacturers and brands they feel they can trust to deliver the best for their families.

However, as chilled foods continue to make strides in this market, the frozen food category will need to focus on ways of differentiating and elevating children focused offerings in order to succeed in an increasingly crowded competitive space.

Early indicators

Kid-friendly, easy veg, US
Rapidly growing frozen food brand Peas of Mind offers child-friendly ways of getting the family eating more vegetables, which are also GMO free. These include chips made from broccoli – a product that’s won a wide range of consumer and professional awards since 2012.

In the UK, the total market for infant ready meals is seeing year-on-year growth of around 33%, prompting brands such as Annabel Karmel to expand product lines to include greater diversity in tastes, flavours and formats. American style flavours are showing year-on-year growth of around 46% in the category.

Source: FoodBev, January 2013

Appealing to kids, UK
McCains has launched ‘Jacket Smiles’ specifically for kids aged ten and under.

Prepared from whole potatoes, with a drizzle of sunflower oil, each potato features its own smiley face stamped into the skin.
What might this mean for frozen in the future?

- As concerns about additives and artificial ingredients in children’s food grow, frozen food can champion its credentials as a reassuring ‘all natural’ method of preservation.
- The category could rapidly become ‘mum and dad’s best friend’ by cutting the time and expense required to feed children healthy meals.
- New formats and flavours that appeal to young palates could transform perceptions of the healthiness of the frozen food category, without compromising on taste.

Emerging opportunities

In the shorter term

- Understand the nutritional requirements of children of different ages and tailor frozen offerings to meet their needs.
- Create healthy frozen snacks for children that defrost in a lunchbox or school bag.

In the longer term

- Consider whether it might be possible to fortify certain frozen foods to boost children’s nutritional intake (e.g., omega-enhanced fish products), particularly in markets where deficiencies still persist.
Positively frozen

Building stronger emotional bonds with the frozen category by promoting positive food values
Positively frozen

People’s desire to protect their communities and to know more about the food they consume will grow. This will fuel the demand for local sourcing and local food as people look for products and ingredients they know, understand and can trust.

Freezing provides the perfect solution to move food from the farmer’s market and into the supermarket, improving affordability and accessibility, while supporting communities and growers.

At the same time, there are opportunities to tap the broader demand for greater transparency and more responsible sourcing and production across the supply chain. Consumer demand for ethical trading and sourcing will not diminish — and frozen is best able to meet it without the price premium.

Early indicators

Bringing Fairtrade to frozen, North America

Village Harvest’s range of frozen grains such as quinoa is Fairtrade. The Canadian company gives back to the communities it sources its grains from by supporting social development projects and fundraising efforts.

‘The progress that’s been made elsewhere in terms of food provenance (whether something is organic, free-range, fair-trade or local) hasn’t translated on to frozen food packaging. Frozen food manufacturers, or perhaps buyers, seem stuck in a time warp.’

Simon Parkes, The Food Programme, BBC Radio 4, March 2012

Local frozen spinach, Japan

This frozen spinach from Japan is sold in supermarkets in the same prefecture it was grown in. It is labelled as ‘locally grown’, without the use of pesticides that could damage the environment. It is cheaper than imported equivalent products.
Positively frozen

What might this mean for frozen in the future?

• Frozen food must work harder at building stronger emotional connections with consumers if it is to succeed in the face of increasing competition from chilled and fresh foods.

• Demonstrating the origins and provenance of ingredients, the stories of producers or the way the brand ‘gives something back’ to society could be a key way of strengthening connections with consumers and creating positive values for frozen food.

Emerging opportunities

In the shorter term

• Tap into broader food trends by celebrating and communicating food and/or ingredient origin.

• Provide more information about production or cooking processes to reinforce trust and build positive ‘relationships’ with people.

• Consider ways to support local causes or initiatives that tie in with brands and resonate with consumers.

In the longer term

• Look at ways to support more responsible sourcing of ingredients (e.g., Fairtrade).

• Consider how local suppliers could be integrated into supply chains to support interests closer to home.

• Consider new retail models for frozen food that create greater emotional engagement with shoppers.
Safeguarding nutrition

Maximising the nutritional benefits of food and ingredients by freezing
People are paying closer attention to diet and nutrition as part of their strategies for securing good long-term health.

As their understanding of the nutritional benefits of certain foods grows, their focus on consuming ‘quality calories’ will increase.

Emphasising the unique properties of the freezing process that ‘lock in’ the nutritional goodness of foods will be a powerful ‘easy win’ for the category.

It will become increasingly important as interest in nutrient-rich ‘new’ foods, such as marine vegetables, grows. Freezing technologies can make ‘superfoods’ like seaweed and berries available to the masses, while offering optimal protection for their nutritional power.

## Early indicators

### Frozen nutrient drink, Japan

Aojiru is a health drink made from Kale, popular among older people in Japan. It is often found in powdered form, but health food shops have started stocking frozen liquid concentrates, to preserve its nutritional benefits better.

### The global market for frozen fruits and vegetables

The global market for frozen fruits and vegetables is projected to reach 22.6 million tons by the year 2015. Asia Pacific and Latin America are the fastest growing regional markets for frozen fruits and vegetables with CAGR ranging between 4% and 5.5% for the period 2007-2015.

Source: Global Industry Analysts 2013

### Sea vegetable meals, Ireland

Kinsale Gourmet has launched a range of frozen ready meals including sea vegetable dillisk. The seaweed-like plant is rich in vitamins, minerals and antioxidants not found in land-grown plants. Freezing within minutes of preparation locks in this unique nutrition.
What might this mean for frozen in the future?

- More effective communication of the nutritional benefits of freezing will be required, particularly as this is an area where the category has advantages over chilled or fresh foods.
- Leveraging this unique position can help improve perceptions of the category, but regulations governing health claims are likely to continue to create challenges for the industry.
- The market for foods that have enhanced nutritional content, achieved through the freezing process alone, could open up.

Emerging opportunities

In the shorter term

- Improve understanding of the nutritional benefits of certain frozen foods over chilled or fresh foods through effective communication to consumers (e.g., of the nutritional advantage of frozen prepared vegetables over freshly prepared vegetables).
- Put greater focus on freezing foods in season to preserve nutrients when they are at their optimal level.

In the longer term

- Innovation that actively enhances the nutritional content of foods or ingredients could help transform the category.
Health challenges and growing obesity rates are becoming pressing issues in many markets worldwide.

The UK and US face significant obesity challenges. Regulation around fat and sugar content is likely to have an impact on frozen food manufacturers in coming years. However, the opportunity for the frozen category to make healthy foods more accessible is significant. In Ireland, positive food values, and the importance of local foods, are well established, and there is likely to be growing consumer demand to see these values reflected in frozen food going forward.

In emerging markets, nutritional challenges are forefront, including both obesity and micronutrient deficiencies. With lifestyle diseases growing fast, the challenge for consumers will be balancing lifestyle diseases against convenience needs. Though population growth will expand the market for healthy children’s prepared foods, limited access to freezers in homes may mean lower dynamism in these markets.

In Japan, with lower obesity rates and strong focus on food education in schools, the more dynamic elements of this platform for frozen food will be reinforcing existing trends around the rising importance of local foods.
As awareness of challenges such as global warming and climate change increases, manufacturers, retailers and consumers are putting greater emphasis on managing resources more effectively.

For frozen food manufacturers and retailers, rising energy costs and regulatory pressures will continue to drive the need to rethink supply chains to minimise waste.

At the same time, many consumers are taking steps to make more responsible choices as their awareness of global issues grow, and economic pressures continue to bite for some. This is sharpening focus on reducing food and packaging waste — an area that frozen food and freezing can champion.

Emerging processing innovation, such as high pressure processing (HPP), which allows the shelf life of many fresh and chilled foods to be extended, could weaken the comparative advantage of frozen if the category does not continue to innovate.

Packaging innovation that reduces material use, but offers enhanced protection and preservation for frozen foods is likely to emerge, which could redefine the resource footprint of the category.
Perfect portions

Providing portion perfection through frozen food to minimise waste
Perfect portions

In the intensifying battle to reduce food waste, easier and more efficient portioning will become essential.

As the number of single-person households grows, so does the need for single-servings of food. As the dietary needs of families become more complex, more efficient ways to provide variety and manage waste become more important.

Concerns about weight, meanwhile, are changing attitudes to leftovers. It’s no longer a question of looking in the fridge and ‘eating up’ the excess; it’s a question of adding new ingredients to turn leftovers into a healthier, tastier meal.

Frozen is uniquely placed to meet these demands. New frozen packaging formats will enable pre-defined portion control of a growing range of food and ingredients, including liquids — without the excess packaging associated with individual wrapping.

Early indicators

**Portion control, US**
A 2011 study by ConAgra Foods showed that portion-controlled frozen meals eaten as part of a reduced-calorie diet helped participants learn correct portions, making over-eating and food waste less likely.

‘We constantly get complaints from people about pack and portion sizes in chilled and how much waste they create’
Expert interview, large UK retailer

**Smoothie portioning, Australia**
Creative Gourmet’s smoothie cubes are frozen fruit mixes that can be immediately blended into smoothies, with the addition of milk or juice, to provide a perfect smoothie serving.
Perfect portions

What might this mean for frozen in the future?

• As concerns about the environment and diet related diseases grow, portion control will become a greater priority.
• Frozen food could take the lead in providing the flexibility people need to manage food consumption and preparation.
• As people experiment with more diverse ingredients and more unusual recipes, ‘micro portioning’ will help provide variety without waste.

Emerging opportunities

In the shorter term

• Consider new product formats that provide optimum portion control.
• Offer pre-measured or pre-portioned ingredients that enable less wasteful cooking.
• Create packaging that visually signals portion size (e.g., transparent windows or markers on the pack).

In the longer term

• Provide the tools to allow people to freeze portioned food at home from ambient more effectively (e.g., reusable packaging).
• Consider ways outer packaging could re-shape or re-size automatically as portions are removed.
Low-impact freezing

Reducing the resource impacts of frozen foods
Low-impact freezing

Although frozen food supply chains have made gains in reducing energy use and greenhouse gas emissions, and in making manufacturing more efficient, there is still work for the sector to do.

Rising energy costs and improved understanding of the resource footprints of different foods across the supply chain are increasing manufacturer, retailer and consumer focus on efficient resource use — both from a financial and environmental perspective.

For manufacturers, new technologies have the potential to increase the efficiency of the freezing process. For retailers, the significant capital costs associated with refitting cold storage layouts will create the need for innovative alternatives.

Increasing consumer scrutiny of the environmental impact of foods will continue to drive the need for brands to take action.

Early indicators

UK researchers have found that a frozen meal for a family of four produces five percent less CO2 than its identical chilled counterpart, by assessing a range of carbon emissions — from post-harvest or slaughter to consumption. As a result, researchers believe that frozen could contribute towards reducing the CO2 output of the food industry in the future.


The majority of respondents to a UK survey would like to see labels explaining the carbon footprint of the food they buy. 72% of the supermarket shoppers questioned were in favour of carbon labels on food.

Source: The use and usefulness of carbon labeling food: a policy perspective from a survey of UK supermarket shoppers, European Commission, 2012

A current draft EU law will ban ‘F-gas’ from refrigerators and coolers in domestic settings by 2015 and in commercial settings by 2020. This will force many companies to change their old stock in order to keep up to date.

Source: Europa, 2012
Low-impact freezing

What might this mean for frozen in the future?
• Managing the resource intensity of the transport and retail display of frozen foods (in addition to manufacturing) will be a key challenge.
  – This will require stronger collaboration between all stakeholders across the supply chain, including manufacturers, retailers and distributors.
• Communicating the environmental benefits of frozen foods in terms of relative carbon impact is likely to increase consumer engagement with the category.

Emerging opportunities

In the shorter term
• Build understanding of the relative energy required to freeze and store different types of foods, and explore the use of partial dehydration technologies before freezing to minimise resource use.
• Communicate the role that frozen foods can play in reducing the carbon impact of foods consumed out of season.

In the longer term
• Leverage new freezing technologies such as magnetic and thermoacoustic freezing for greater resource efficiency in manufacturing.
• Re-evaluate where and how cold storage is located in retail and distribution outlets to minimise impacts (e.g., by use of innovations in below-ground storage).
Rethinking the pack

Evolutions in frozen food packaging that reduce waste and deliver enhanced benefits
Rethinking the pack

Rising concern about resource use means consumers, manufacturers and retailers are paying more attention to packaging.

The challenge for the frozen food sector is balancing the need to reduce the environmental impact of products with the need to make sure food is adequately protected and properly labelled.

Packaging will increasingly play a multi-faceted role for frozen foods, from protection and preservation to active communication with consumers about food properties. This will enable more effective management of frozen foods and reduce food waste.

Early indicators

Intelligent packaging, global

Chemical company BASF has developed OnVu ICE, a time temperature packaging label for frozen foods that shows whether the cold chain has been kept secure throughout their production and distribution, promoting food safety and reducing waste in the supply chain.

Globally, 59% of people say that buying products with reduced packaging is extremely/very important in their lives, rising to 64% of Irish consumers.

Source: The Futures Company, Global MONITOR 2012

Edible packaging, US

Wicicell is rapidly developing all-natural edible packaging for a variety of foods that offers protection, enhances flavour and eliminates packaging waste.
Rethinking the pack

What might this mean for frozen in the future?

• Innovations in packaging materials (beyond papers and plastics) are likely to provide solutions that protect products, while minimising environmental damage.
• Active packaging that ‘communicates’ with the consumer will extend frozen ‘shelf life’ and allow food waste to be managed more effectively.
• Looking ahead, packaging could become an integral or even consumable part of frozen foods.

Emerging opportunities

In the shorter term

• Consider how more natural or environmentally friendly materials could be used in packaging — to protect food while reinforcing positive food values.
• Leverage active packaging technology that can neutralise bacteria for more effective food preservation over longer time periods.
• Consider use of time temperature indicators to show the temperature history of frozen products.

In the longer term

• Develop edible packaging that delivers additional taste or nutritional benefits, while also reducing the rate of moisture transfer between foods and their surroundings to optimise freezing quality.
Food waste is a growing issue in many regions of the world, but in markets such as India and China the problem originates in the supply chain rather than consumers’ homes. Freezing foods could play a role in reducing waste across the supply chain.

In developing economies, making responsible choices is less of a consumer priority as other issues are often more pressing. However, consumers in Brazil are relatively more engaged with these issues than those in India and China.

In developed markets, reducing food waste in the home will become imperative, with squeezed incomes forcing renewed attention on the issue. These markets are also more likely to benefit from emerging technologies in smarter packaging and intelligent in-home appliances that help manage waste.

In Japan, domestic food waste is less of a pressing issue. However, the broader use of resources in food production will mean that issues around excess packaging and carbon impacts could emerge as broader concerns about the frozen food category grows.
Celebrity chefs, and the increased availability of specialist ingredients, are persuading people to be more adventurous with food.

As the focus on entertaining in the home increases, consumers are looking for more opportunities to showcase their skills and create truly engaging experiences to share with others.

Understanding and appreciation of the different sensory properties of frozen foods and ingredients could enable people to deliver their own unique food and drink experiences in the home.

At the same time, food ‘science’ and molecular gastronomy are creating new ways to ‘push the boundaries’ of sensory exploration of food and drink.

As freezing technologies advance, and consumer knowledge and understanding of ingredients and cooking grow, the process of creating and using frozen food in the home will be transformed.
Spectrums of cool

Intelligent devices that transform the use of frozen food in the home
Consumers’ engagement with their freezers tends to be very low. They are not the most exciting appliance in the kitchen and are opened less often than fridges, hence it’s all too easy to forget what has been put away.

Fridge freezer innovations are changing the way consumers ‘interact’ with their freezers and their contents. Smart fridges allow consumers to manage freezer stocks and design meal plans without even opening the freezer door.

Flexible cooling systems keep the individual compartments operating at an optimal temperature and humidity, and helps to reduce waste by keeping food at its best for longer. However, one of the most significant innovations has been the ability to interchange the use of compartments for different occasions — converting fridge space to freezer space, and vice versa.

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**Early indicators**

‘Thinking of the home as a shop, you see stuff in your fridge about 40 times a week, things on your counter about 20, and things in the freezer only four or five times in the week, so you forget what is there, and don’t use it.’

Ed Garner, expert frozen food, Kantar Retail

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**Smart fridge, US**

LG has recently launched its new smart fridge that can scan products as they go in, monitoring expiry dates and offering recipe suggestions. It also syncs with smartphones, to make meal planning even easier while on the go.

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**Flexible fridge freezer, South Korea**

The Samsung T900 refrigerator uses the Android operating system, and can be used to display the weather, calendar, or even personal photos. It also has a flexible zone that converts from fridge to freezer and back again at the touch of a button.
Spectrums of cool

What might this mean for frozen in the future?

• Smartphone technologies may help consumers manage their freezer contents (e.g., by allowing shopping receipts to be uploaded to a digital database so people can keep track of what they have and plan meals better).

• Smart appliances will increase consumer engagement with frozen, offering greater flexibility via the ability to store foods at different temperatures.

• QR codes and innovations in intelligent packaging will tell the consumer when frozen foods will expire – and, potentially, how best to cook and eat them.

Emerging opportunities

In the shorter term

• Help consumers to understand how best to use the food they have stored in their freezers.

• Provide guidance on how to use leftovers (e.g., ideas for recipes that use frozen food to turn them into a full meal).

• Create tools that remind people of what they have in the freezer, without them having to open it.

In the longer term

• Develop packaging that easily co-ordinates with digital shopping lists.

• Offer ‘autoreplenish’ subscription-based services that help people keep frozen staples in stock in their freezers.

• Help consumers to identify the best use of ingredients over time, e.g., roasting a joint when it is one week old but stewing after four weeks.
Frozen theatre

Elevating the dining and entertaining experience using frozen foods
Frozen theatre

The continuing popularity of in-home entertainment and dining will encourage consumers to seek more interesting and unusual foods and cooking processes. Food, and its preparation, will become a more important part of the wider entertainment experience, with people looking to create the excitement and atmosphere of restaurant dining at home.

Frozen could become the ‘go to’ category for people eager to add a sense of drama and excitement and extravagance to their food. As new freezing technologies emerge for home use, people will be able to invite their guests to participate in the creative cooking process.

New technologies could be used to make the freezing and defrosting process part of the entertainment ‘package’.

Early indicators

**Showcasing food creativity, France**

Picard has recently created a presence on Pinterest, a content sharing service, showcasing how easy it is to provide perfectly presented meals to guests with frozen

**A third of 2,000 British adults polled by YouGov say they enjoy hosting dinner parties. In London, a fifth of people say they ‘love’ hosting events**

Source: YouGov, May 2012

**Frozen entertainment, US**

Polobia Catering in Chicago has created the world’s first portable Nitro Dessert Station, for a more ‘social’ and interactive experience at celebratory events. The station allows people to make their own ice cream creations using fast freezing liquid nitrogen (under supervision!)
What might this mean for frozen in the future?

- Frozen food companies will need to develop premium ranges that tap into the desire to elevate the in-home dining experience.
- The aesthetics of frozen foods will become more important. Frozen foods that change appearance as they defrost, revealing new textures or layers, could ‘add value’ to the entertainment experience.
- Freezing technologies designed for in-home use could enable greater ‘audience participation’ and theatrical co-creation of food and drinks.

Emerging opportunities

In the shorter term

- Build on frozen food’s potential to provide more exotic or premium foods for special occasions in a cost effective way, particularly in convenience retail formats.
- Leverage frozen food’s ability to offer delicate and intricately presented foods that retain their presentation more effectively than chilled or ambient alternatives.
- Consider what rituals could be created with new frozen formats that would allow people to create a sense of theatre around food at the table.

In the longer term

- Cryogenic substances such as liquid nitrogen could be made available for home use, allowing people to create more elaborate experiences for their guests.
- New freezing and defrosting technologies and gadgets could be developed to ‘make a show’ of freezing or defrosting.
Frozen gastronomy

Evolving freezing technologies that push the sensory boundaries of food and drink
Frozen gastronomy

People will increasingly expect more from their food. Interest in the effects and experiences that can be created using different foods, ingredients and techniques will grow.

As food knowledge and understanding become more sophisticated, people will continue to look for ways to push the boundaries of taste and textures. Different ways of exploring and experimenting with flavour combinations, textures and the ‘mouth-feel’ of foods and ingredients will emerge.

Freezing techniques and technologies that enable people to experiment could create a powerful association between frozen food and sensory experience. This would significantly improve the sector’s ability to compete with fresh and chilled food.

Early indicators

**Molecular gastronomy kit, US**

This DIY molecular gastronomy kit includes everything required to use molecular techniques in the home, including pre-measured additives and specialised molecular tools. The kit costs $59

‘Through its daring re-imagining of our most cherished foods, molecular gastronomy has helped to prise open people’s imaginations. In a world where eating habits are often remarkably stubborn and conservative, this is something we should celebrate.’

Chris Zacharia, food writer, *FLUX Magazine*, December 2012

**Advanced appliances, UK**

The Anti-Griddle is a table top appliance that enables flash freezing of foods, allowing you to freeze the outside of food and retain liquid centres. Currently used mainly in restaurants, its makers, Polyscience, expect a domestic version could be available in the next few years
Frozen gastronomy

What might this mean for frozen in the future?

• Freezing has the potential to change the way people engage with food and raise their expectations about the different sensory experiences it offers.
• New appliances could make complex professional cooking or freezing processes possible at home.

Emerging opportunities

In the shorter term
• Develop products where freezing delivers unique aesthetic benefits to food or ingredients (beyond the frozen dairy category).
• Explore techniques such as flash freezing that could be used to deliver unusual tastes or textures in food, particularly in prepared frozen foods.

In the longer term
• Partner with those providing more sophisticated appliances and tools that bring molecular gastronomy to the home.
Food experimentation and a ‘gourmand’ culture are well established and rapidly advancing in markets such as the UK, the US and France. In these markets, there is rising excitement about new ways of experimenting with food, for instance, through ‘molecular gastronomy’, driven in part by the influence of celebrity chefs. These markets are also more open to new techniques and technologies that can enhance the sensory experience of eating and drinking.

In markets such as Ireland and Germany, consumers focus more towards the ease of preparing good home cooked meals using more traditional cooking methods.

For emerging markets like China, the relatively young nature of the frozen food category could mean that dynamism in more experimental frozen cooking or preparation techniques may be slower to emerge. In Brazil and India, interest in food experimentation is more focused on flavour and fusion foods, with the growing popularity of frozen foods driven primarily by emerging needs for convenience.
Packaging perspectives

Freezing is one of the best ways to preserve the fresh quality of foods, and all the benefits of this process can be lost if food is not properly packaged. Packaging also supports many of the opportunities outlined in this report — from protecting nutrition to optimising convenience and increasing people’s emotional connection with the food they eat.

Looking ahead, innovations in frozen food packaging could increase the relevance of the category to a broader spectrum of occasions – and for a larger number of lifestyles.

There are five core functions of packaging: containment, protection, communication, convenience and minimising impact. In the next section, we will focus on the last four of these and consider what the opportunities laid out in this report could mean for each.
Protection

The protective role of frozen food packaging falls into two main areas, firstly protection against spoilage and, secondly, against physical damage. The protective role of much existing ‘passive’ frozen food packaging focuses on delaying the deterioration of frozen foods through providing physical barriers to moisture loss, oxidation and freezer burn that can negatively impact food quality.

However, innovations in active packaging are transforming its protective role, and could help manufacturers overcome some of the barriers around consumer perceptions around the taste and quality profile of frozen versus chilled or fresh foods.

Active packaging technologies in frozen food could improve moisture and nutrient retention, and be a more effective guard against oxidation and food spoilage, to help foods better retain their freshness, nutritional content and texture. Key benefits of active packaging include the removal of undesirable gases (e.g., water vapour and oxygen) and the release of desirable gases that maintain quality for longer (e.g., carbon dioxide and enzymes).

Enhanced preservation, Japan

The Ultra-Freshness Preservation Freezing System launched by Mutsumi Chemical Co in Japan uses an innovative alternating current freezing method to rapidly cool the product without oxidization. The unique package design, which includes an electro conductive bag, preserves food taste and texture.

Looking ahead

- In the future, the sensory quality of frozen foods thaw-cooked from frozen could be enhanced through packaging that absorbs or releases flavour compounds into the frozen foods.
- Packaging devices are already being designed to release food-grade aromas from the material during storage or microwave thawing or heating. Similarly, surfaces coated with essential oils or encapsulation of flavours in packaging materials are being explored as ways to actively enhance the sensory qualities of frozen foods.
Currently, the visual cues on packaging for many frozen foods, and the extensive use of plastics and aluminium for their functional properties, is helping to reinforce certain perceptions of the category. The high volume of opaque packaging also creates a further barrier between the consumer and the frozen food they are buying.

Packaging provides a significant opportunity for manufacturers to elevate consumer perceptions of the category through communicating brand values and reflecting changing consumer aspirations. The use of new materials with textured finishes can create a sense of authenticity and provenance for frozen foods. Materials and freezing/packaging processes, such as vacuum packing, allow greater visibility of the food itself.

On-pack information, in addition to graphics and colour-ways, could help strengthen the emotional connection between consumers and frozen foods – while reinforcing positive food values and lifestyle cues through on-pack provenance, recipes or ingredient stories.

Aspirational packaging, Spain
Michelin-star chef Juan Mari Arzak uses vintage style engraving designs on the packaging for his frozen food to communicate the quality and Basque heritage of the dishes.

Looking ahead
- In the future, ‘intelligent’ frozen food packaging could communicate with the consumer and its environment in new ways.
- QR code embedded packaging that is able to sense the internal environment within the packaging could communicate with intelligent home appliances. This packaging could help consumers optimise their use of frozen food by sensing the internal properties of a food, making suggestions to consumers on how to optimise its use in cooking based on its condition.
Convenience

Frozen food by its nature delivers convenience to the consumer on many levels through prepared meals or ingredients, and ensuring that consumers can always have a meal to hand at home.

At its more basic level, much frozen food packaging is designed to improve the convenience of the use and storage of frozen foods (for example, through easy to open and reclose packs), and meet the needs of different demographics, for example, through single serve or pre-portioned packs for the rising number of smaller households.

However, packaging can help support the category’s ambition to become a positive and aspirational lifestyle choice. Innovations such as active heat control packaging that enables ‘gourmet-style’ steam cooking within packaging is one example, eliminating preparation time and ensuring perfect cooking in the process.

Microwave from frozen lunch pots, UK

A winner at the 2012 British Frozen Food Federation awards, these Asda ‘Chosen by you’ lunch pots are microwaveable in their packaging in approximately seven minutes from frozen and come in a variety of options.

Looking ahead

- In the future, packaging could support the expansion of the frozen food category into ‘on the go’ occasions.

- Self heating packaging, using chemical exothermic reactions within the pack could support self heating packaging that would enable thawing consumption on the move. Current applications of this technology are rare in the frozen category, though greater investment in the technology could increase its commercial viability for manufacturers.
Environmental impact

Reducing the environmental impact of packaging has largely bypassed the frozen food category (in a way that is visible to consumers), compared with other chilled or pre-prepared foods. However, the growing focus on reducing waste and the rising cost of raw materials are making this an imperative for manufacturers. Similarly, as consumer awareness of sustainability issues grows, frozen food packaging will need to reflect changing expectations.

A key challenge for frozen food manufacturers is reducing the volume of packaging materials whilst maintaining functionality. New materials are continuously being developed that allow improved barrier properties with less layers or thinner gauges. Reducing weight also helps to reduce fuel costs in distribution.

Advances in packaging materials, such as biodegradable plastics and hybrids, renewable wood board and plastic mixes, are beginning to make their way into the frozen food category.

Biodegradable packaging, US
Stahlbush Island Farms has launched a new biodegradable bag for its frozen fruit and vegetable lines. The bag is designed to biodegrade in months, rather than the hundreds of years it takes standard polyethylene packaging to break down.

Looking ahead

- In the future, edible packaging — based on edible coatings already available for frozen foods — could eliminate packaging waste entirely for frozen foods and ingredients.

- Edible coatings and films that are being developed to reduce moisture loss and freezer burn could incorporate other functional ingredients, such as nutraceuticals, that preserve quality and reduce waste further.
Thought starters

• In addition to providing a function, frozen food packaging must inspire the consumer.
• Championing low-impact, more sustainable, packaging could be a key way for the frozen food category to reinforce positive food values, in addition to reducing costs for retailers and manufacturers in some cases.
• Explore ways that protective qualities of packaging could be used for enhancing the aesthetics of frozen food.
• Beyond transportation, storage and preparation convenience, explore ways new packaging formats and technology could allow frozen food to be conveniently consumed in new occasions.

Expert perspective

‘Creating distinctive packaging for frozen food is a challenge because of the display and space constraints in freezer departments. That’s why innovation is so important for this sector … at Flexoplast we’re seeing an increase in demand for more innovative packaging in the sector. Clients are using “paper look and feel” bags and stand-up pouches; and we’re seeing a rise in re-sealable bags to add value for the consumer and help differentiate products.’

Jack van der Heiden, Sales and marketing manager, Flexoplast, Packaging New, March 2013
Retail perspective

The retail context for frozen food strongly influences people’s perceptions of and engagement with the category. A number of factors appear to be limiting the appeal that frozen food could have in a retail context, from the location of the frozen foods vis-à-vis chilled and fresh foods, to the visual and aesthetic appeal of frozen foods themselves in-store.

There are broadly four areas where retailers, working with manufacturers, could focus to elevate shoppers’ in-store experience of purchasing frozen foods.

• Firstly, by understanding and potentially reshaping the shopper journey to frozen foods and their location in-store.
• Secondly, through increasing the aesthetic and sensory appeal of shoppers’ buying experience of frozen foods.
• Thirdly, linked to the previous point, is the need to truly bring frozen food to life in-store, increasing emotional engagement with the category at the point of purchase and in the long term.
• Finally, by expanding the role of frozen food online.
In most large retail environments, frozen food is typically positioned at the end of the shopper journey. Although practical for re-stocking and reducing the risk of in-trolley defrost, its position in-store often makes frozen a ‘last stop, stock-up’ category. Rethinking the shopper journey could help transform shopper perceptions of frozen foods.

Finding ways to disrupt the typical shopper journey to frozen in-store by moving it away from the peripheries of the store could help increase its relevance to shoppers, as Scandinavian supermarkets have successfully achieved. Similarly, placing frozen ingredients alongside their chilled or fresh equivalents could make them part of shoppers’ consideration set.

Optimising frozen foods’ presence in different channels, including retail formats and online, is also key. Smaller convenience formats could have fewer barriers to the integration of frozen foods in multiple in-store locations, as re-stocking will be less of a barrier and speedier trips will reduce the likelihood of food defrosting in trolleys and baskets.

**Expert perspective**

As frozen food is typically found at the periphery of the store and at end of the customer journey, by the time shoppers reach it, it’s too late to fall into their consideration set.

‘Retailers are reorienting their categories and their stores to force people to shop the perimeter… What’s happening is consumers are walking in with a budget. By the time they get out of the perimeter, their budget is gone.’

William R. Johnson, CEO, H.J Heinz, quoted in Packaging Digest, September 2012
Enhancing the in-store aesthetics of frozen food

Enhancing the visual display of frozen food in-store is a key opportunity for retailers. Currently, in most large supermarkets, the frozen food aisle is a cold and largely uninspiring place to be.

Considering new ways of drawing shoppers to the frozen aisle and highlighting new products is key for retailers and manufacturers. For example, recent collaboration between a large retailer and Green Isle in Ireland in trials of vibrant end-of-aisle signage helped drive people into the category. Similarly, visual cues such as spot floor stickers in aisles, and easy-install header boards can be used to communicate new product or range benefits.

In-store displays of frozen food could be enhanced through collaborating with manufacturers to improve the appearance and stability of shelf-ready packaging for frozen foods, to increase visual appeal and make re-stocking easier. Similarly, spring loaded displays could help maintain the appearance of freshly stocked cabinets – again, increasing visual appeal.

Expert perspective

ConAgra tapped into extensive consumer research to determine shopper sentiment regarding the frozen department in developing an aisle redesign solution, currently in testing. The company’s redesign plan aims to address these issues by refloowing the department according to consumer occasions, using ‘captivating signage to communicate the new arrangement’ and upgrading the appearance of the frozen aisle ‘to move from sterile to themes evoking kitchens, restaurants, food or family dining.’

Liz Mohr, ConAgra’s director of shopper insights, quoted in Progressive Grocer October 2012
Bringing frozen food to life inside the store

The in-store frozen food shopping experience can often feel distant from the experience of ‘real cooked food’, leaving shoppers feeling cold. Bringing frozen food to life in store can increase shoppers’ affinity and engagement with the category.

Creating a sense of theatre in-store around frozen food is key: in-store tastings, trials and even chef-led cookery demonstrations could help raise the profile of frozen food in-store, and create a sense of excitement around the category for shoppers.

Frozen food can be made more aspirational through stocking more artisan frozen offerings or leveraging frozen to deliver more artisan experiences in-store, for example, with in-store artisan bakeries. Partnering with manufacturers could make it easier to invest in in-store fittings or equipment.

In-store consultants or advisers could be used to show how frozen food or ingredients can be integrated into different diets and lifestyles, reinforcing positive food values around the category.

Expert perspective

‘Much of the influence on shopping the frozen category happens pre-store … in-store, that influence ends. Price, promotion and packaging become the key influencers, and because purchases are so highly planned, the lack of aisle theatre to drive in-store engagement means shoppers are not browsing this section and are less engaged than they might otherwise be.’

Kirsty Dollisson, Manager of Marketing and Commerce TorchMedia, quoted in Retail Week, June 2012
As more and more people choose to grocery shop online, the frozen food category should take steps to build on the advantages it holds in this channel. As previously discussed, currently frozen food faces a number of barriers to purchase in-store. Many of these do not exist online. In addition, the added convenience of purchasing frozen food online and having it delivered straight home goes some way in explaining the uplift in sales frozen foods experience in this channel. However, much more could be done to build on this advantage further.

Frozen pre-prepared foods and ingredients can easily be positioned next to their chilled or fresh counterparts on a virtual shelf, allowing shoppers to compare the value proposition they offer much more easily than in-store.

The importance of online for frozen food does not end in the grocery store. Social media and online platforms such as Pinterest and Facebook hold significant opportunities to showcase the benefits of frozen foods to new audiences, but also another way for the category and manufacturers to connect emotionally with consumers outside the frozen food aisle.

Expert perspective

‘Offline, currently it’s behind glass, it’s a chilly gloomy part of the store, and it’s difficult to draw attention to promotions. On the Internet you don’t have any of those drawbacks.’

*Ed Garner, Kantar Retail*
Thought starters

- The frozen food aisle must be transformed into a *destination* rather than a final stop on a shopper journey. Breathing life into the frozen retail experience and building emotional engagement with shoppers is key.

- The frozen retail experience must be aspirational to secure growth for the whole category. Developing a strong, lifestyle-led positioning in-store could help create and reinforce positive perceptions of the category.

- Lessons can be drawn from other categories or approaches to food retail, such as organising frozen foods and ingredients by meal or integrating frozen with their chilled or even fresh alternatives.

- Trialling of new products in-store, better communication of new products or meal solutions, and increasing the visual ‘warmth’ of the frozen aisle are all potential ‘easy-wins’ for the category.

In 2012, Findus approached Swedish brand consultancy, POND, to help them address the problem of a lack of shopper engagement in the frozen aisle by reshaping the retail environment. They created a vision of the future for the frozen food section to help guide and inspire the consumer. The solution is currently being trialled in the market.
Final thoughts
Final thoughts

Trust and transparency are non-negotiable

Success in the frozen market will require creating greater emotional connections with both frozen food brands and the overall category. Rebuilding trust through greater transparency will be key in providing reassurance of the quality of products as well as challenging negative perceptions of the category. Greater transparency will also enable both retailers and manufacturers to create a dialogue with consumers that focuses on the positive food values associated with freezing.

It will become increasingly important to create a paradigm shift through creative collaborations

For many companies, survival in today’s challenging economic environment will hinge on collaboration with a range of partners and co-opetition. Creative collaborations also drive innovation, as synergies between complementary capabilities open up new opportunities in market spaces where companies previously competed against each other.

Strategic partnerships that bring together a range of stakeholders such as competitors, suppliers, advisory bodies and retailers have the strength and power to influence perceptions of the frozen food category, and also transform the complete customer experience.

A proactive approach to shaping the market

Taking a holistic view of the role of frozen food in consumers’ lives and their customer journey will drive a more proactive approach to innovation. This will help to uncover potential touchpoints for connecting consumers with frozen foods outside of the frozen aisle, and also create a range of new opportunities including moments where frozen foods can fulfil an emotional as well as functional role.
Final thoughts

Creating new categories for frozen food

Thinking beyond existing behaviours and usage will create new categories in the frozen food market — potentially creating new consumption moments. The combination of innovations in packaging, freezing technologies and new retail formats could lead to platforms for growth in the snacking and impulse consumption market that is less seasonal.

New sources of inspiration to stay ahead of the game

A longer term approach to innovation that starts outside and beyond the freezer will unlock new sources of growth and competitive advantage. As with lifestyle trends, exploring emerging trends in food preparation and the technologies consumers are using as part of their cooking rituals will foster an understanding that enables companies to better anticipate what consumers may need in their freezers in the future. This will help them to create compelling offers for frozen foods and remain relevant in consumers’ lives, as well as open up new opportunities for the category and market.

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Source: Deloitte; ONS, Kantar Retail
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