

Fully baked

Insights
Report

INNOVATION AND GROWTH OPPORTUNITIES IN THE BAKERY MARKET



Consumers all around the world have a love affair with their baked goods.

From breads and cakes to pastries and flatbreads, these products have a long-standing legacy in many cultures that represent comfort, indulgence, celebration, tradition and family . . . along with the sustenance and convenience they bring to today's consumers. However, with the rise of

dietary concerns about carbohydrates, sugar and trans fats from partially hydrogenated oils, bakery products had a growing image problem with consumers in many markets. These shifting attitudes are creating both pressure and opportunity for bakery manufacturers, and this is driving innovation to create new and nutritious products in all bakery categories.

Despite these challenges, the global baked goods market is thriving, with sales of \$433 billion in 2017 and a projected value of \$569 billion by 2023 on a healthy CAGR of 5%.¹ The market is broken down into several categories, including breads, pastries, cakes, frozen baked goods and dessert mixes. Bread is by far the dominant player overall, making up 82% of the total global market and consisting of leavened bread (bread where gas is added to a dough before or during baking to produce a lighter, more easily chewed bread) and flat bread (such as pita, roti, naan, tortillas) both in packaged and unpackaged formats.²

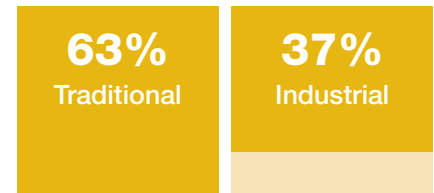
The overall global market is seeing steady growth due to a variety of positive factors, chief of which is an expanding consumer focus on a nutrient-rich diet that is fueling demand for products that contain fiber and protein, whole grains, and baked goods, which provide the added advantage of being free of trans fats and lower in fat content.³ Further, health-conscious consumers are also having a huge impact on the bakery market by driving demand for organic

and natural bakery products. Overall, changing consumption habits and the convenient nature of bakery products are helping to promote their growing sales in many markets worldwide.

Europe is the leading market for bakery products, making up a majority of the global share, followed by the Middle East and Africa. But Europe is also under strong pressure from current consumer trends, evidenced especially in declining per-capita bread consumption. Particularly in Turkey, this is showing a strong year-on-year decline. Leavened bread is the dominant category in Western Europe, making up 86% of the market, with unpacked bread consisting of 75% of the total bread category here.⁴ Excluding Turkey, future growth for Western Europe is expected to be more stable and will be driven by both unpacked leavened bread and packaged flat bread.⁵ Top markets for estimated growth of bakery product sales include Italy, Germany, The Netherlands, the United Kingdom and Sweden.⁶

North America is another important market for bakery products. Like

Total U.S. 2017 retail sales (\$77B)



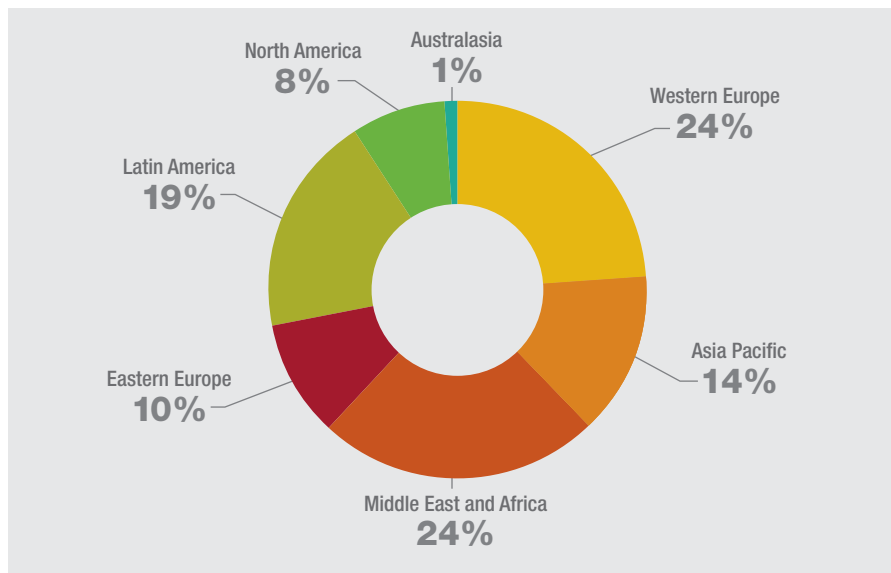
Source: Euromonitor Passport

Europe, the U.S. bakery products market is mature and is being challenged by consumers' shifting health and diet concerns. On top of that, as of June 2018, manufacturers must comply with the long-awaited mandate to remove trans fats from their products and can no longer use partially hydrogenated oils (PHOs), long a standard in baking applications.

Manufacturers have been innovating to replace PHOs, and the U.S. market for bakery products remains strong. The total U.S. market in 2017 reached sales of more than \$77 billion. Traditional bakery (which includes baked goods that may be produced on-site or finished on-site (but are often prepared, then frozen or prebaked at other locations)) is the largest sector and a very important model for supermarkets, while the industrialized segment (or in-store grocery bakery) makes up about one-third of the overall market.⁷

The bakery category in the U.S. is growing by a modest 2.2% per year in retail sales. But that said, the overall market is somewhat stagnant, as consumers shift their purchasing behavior for baked goods. The growing desire for fresh, artisanal items, rather than packaged foods, is shifting the growth out of the center store to the outer perimeter. There are growth opportunities in bakery for specialty baked goods, such as low-fat and gluten-free, as consumers show increasing willingness to pay more for products that are handmade and offer unique flavors, textures and experiences.⁸

Global baked good markets



Source: Euromonitor Baked Goods, Global 2017 Total (Retail and Food Service)

Consumers are demanding more from bakery



Both markets are indicative of the shifting trends in global bakery consumption. Consumers in both North America and Europe are undoubtedly seeking to eat healthy foods. This is evident in the fact that even though the U.S. regulation to eliminate trans fats from products is now here, consumers are ahead of the curve and broader trends indicate that even as the compliance date is reached, consumers already don't want partially hydrogenated oils in their products.⁹

Other nutritional factors are also increasingly important in these markets. The growing prevalence of type-2 diabetes and obesity has contributed to a consumer desire to reduce sugar intake in their diets, as well as to look for products that are higher in nutritional density. Coupled with the fact that emerging science indicates that consuming whole foods is better than eating foods enriched with vitamins and minerals,^{10,11} consumers are now looking for products that bring more nutritional value to the table, and this includes their bakery favorites. That is not to say that consumers aren't still looking to bakery items for indulgence, but the concept of healthy indulgence is gaining momentum even in categories like sweet bakery.¹²

Similarly, label-friendly ingredients are also a factor in most food categories, and the bakery segment is no exception. As consumers seek out products with additional nutrition, they also want ingredients in these products to be as natural, familiar and as unprocessed as possible. Consumer understanding of the term "clean label" is broad, with nearly 60% of respondents saying they are aware of these products even though they don't indicate a deep understanding of what the term means.¹³

These health-related and ingredient trends are converging with demands from consumers who are living increasingly hectic lifestyles, and are thus snacking and eating on-the-go more than ever before. Bakery products fit the bill nicely in this respect. According to *Nutrition Business Journal's* "10 Key Trends in Food, Nutrition and Health 2018," 56% of consumers now snack at least once a day, and the bakery category is one of the segments best poised to take advantage of this opportunity.¹⁵

Ultimately, these shifts in consumer attitudes toward bakery products are prompting innovation in the category that is leading to products that offer both health and functional attributes.



8 in 10 consumers say they are at least somewhat likely to seek out clean label products, even though they aren't certain what the term means.¹⁴

Out with the old, in with the new: More balanced bakery options

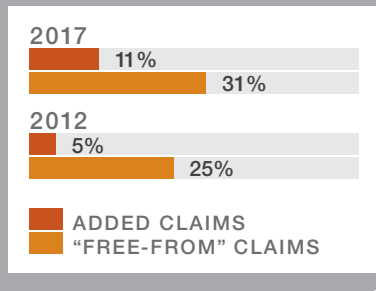
Consumer efforts to live a healthier lifestyle and eat a more balanced diet are leading manufacturers to reformulate products by leaving out the undesirable ingredients and adding those that are more sought after. In Western Europe, for example, free-from claims

(which include free-from major food allergens, gluten-free, lactose-free), vegan and vegetarian, and value-added claims (which include added calcium, fiber, iron, protein, omega-3's, prebiotics, probiotics) in bakery products have all been on the rise since 2012. And it's little wonder, as 77% of consumers there say they check ingredient lists to avoid certain ingredients, while 44% look at these lists because they want to add ingredients to their diet.

As these product claims gain popularity, the use of new ingredient solutions in bakery products is on the rise. For example, growing demand for gluten-free bakery is spurring the use of ancient grains, such as spelt, kamut, quinoa, amaranth and chia, as well as use of whole-grain flours in packaged breads, while alternative flours from vegetables (like cauliflower) and pulses (like chickpeas) are showing up in baking mixes for pancakes, pizza dough and muffins, as well as in flat bread products.

Products positioned as more moderate are also gaining steam in the bakery category. For example, manufacturers are working to meet con-

Percent of bakery launches in Western Europe with specific claims



Source: Innova Market Insight 2018

sumer demands with the introduction of bakery items that are lower in fat, have no added sugar or reduced carbs, or are smaller in size or format. Plant-based ingredients are also proving to be a popular solution for bakery items, with the proliferation of consumers seeking vegan and vegetarian bakery options.

Perhaps one of the most significant trends in bakery applications is adding protein to the mix. Globally, use of protein in baked goods is expected to double by 2025, according to Euromonitor. This trend is playing out strongly in the U.S. market, where products making



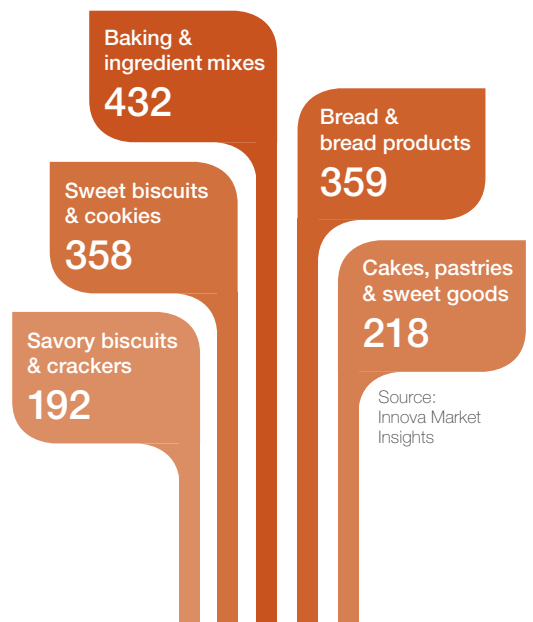
a protein claim have seen significant momentum since 2012, with more than 200 new products adding protein or making a protein claim in both 2016 and 2017, as opposed to fewer than 100 making these claims in 2012 and 2013. The trend is also gaining steam in the United Kingdom, The Netherlands, Australia and Germany.

Added protein claims are also cropping up in a variety of product applications, but this is most prevalent in baking mixes, breads and sweet biscuits/cookies.

It is little wonder that manufacturers have moved in this direction, as consumers also increasingly indicate they are willing to pay a premium for products, including bakery items, which offer enhanced protein content.

New bakery products by sub-category making protein claims

JANUARY 2002–MAY 2018



Source: Innova Market Insights

Vegan launches in the bakery category in Western Europe have increased more than 800-fold since 2012.

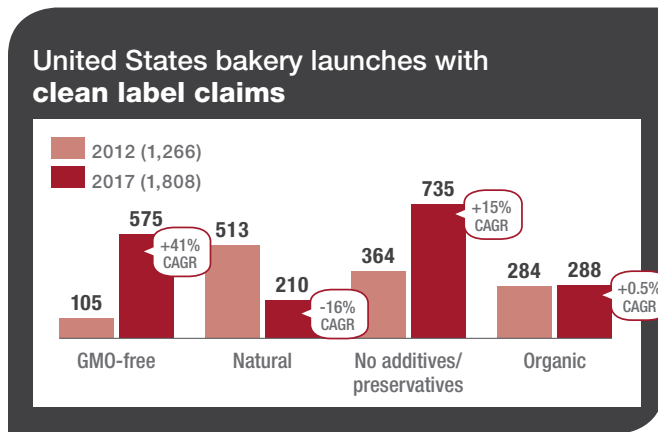


Source: Innova Market Insight 2018

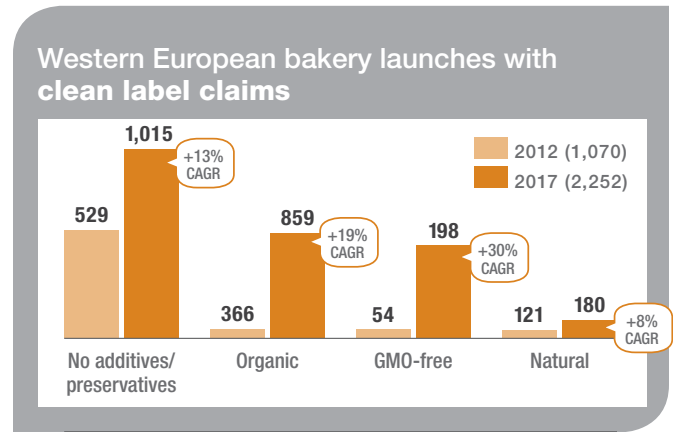
The rise of **conscious bakery**

Beyond improving their nutrient intake, consumers also want to eat more responsibly and consciously, even down to the croissants they eat at breakfast. So a next generation of label-friendly products is also surfacing in the bakery category. As consumers around the world seek products with simple, familiar ingredients, the number of bakery items positioned as “clean label” is on the rise. It is little wonder, given that 64% of consumers say they believe that using natural ingredients makes food healthier, according to data from Health Focus International 2018. In the U.S., the “clean label” trend is crossing all bakery categories, from cookies that are made with the same ingredients as one would use at home, to breads that are made without artificial ingredients or GMOs.¹⁶ This trend is also vital in Western Europe, where the number of

bakery launches with what might be perceived as “clean label” claims—such as no additives, organic, and GMO-free—have seen double-digit growth since 2012. In addition, manufacturers are also playing to this demand by creating products that are positioned as artisanal and homemade, in an effort to address consumer desire for ingredients that they view as natural, and products that are minimally processed. Sustainable product manufacturing is also an increasingly important attribute for baked goods in both the U.S. and Western Europe. Products are now being positioned as prepared by hand, with ingredients and techniques that would be used in the home, in addition to containing sustainably sourced ingredients, supporting humane working conditions, and respecting farmer livelihoods, the environment and animal welfare.



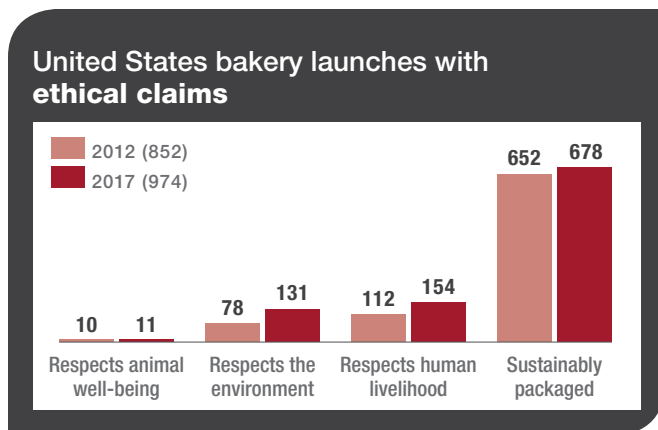
Source: Innova Market Insights 2018



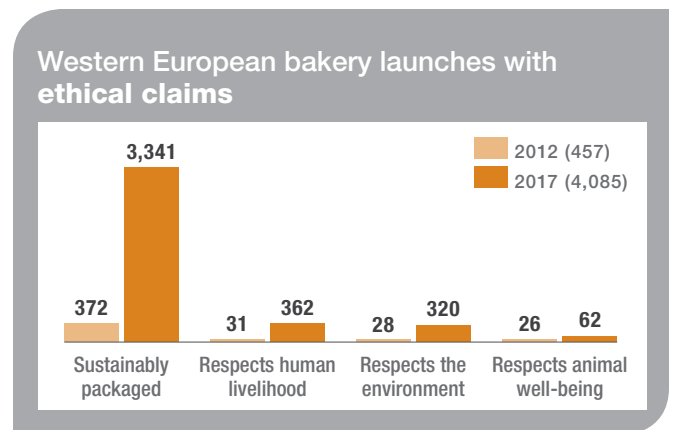
Source: Innova Market Insights 2018

The number of bakery products containing ethical claims increased 86% between 2013 and 2017. (EMEA, CAGR 2013–2017)

Source: Euromonitor



Source: Innova Market Insights 2018



Source: Innova Market Insights 2018

Meeting modern lifestyle needs

Consumers now no doubt have increasingly modern, sophisticated demands from their bakery products. With the proliferation of baking television programs and social media, consumers now want to create and/or show off their bakery items as they post pictures on social media. It is no longer just about taste—especially in premium bakery products—but also visual appeal, whether it be a ready-made item or a bakery mix. This has given rise to novelty items like glow-in-the-dark donuts and rainbow cupcakes.

Notwithstanding the focus on health and conscious consumption, there is still room for indulgence in the bakery category. In the U.S., while consumers want to eat healthfully most of the time, they still feel it's okay to indulge, with 57% saying they see nothing wrong with pampering themselves with fattening foods from time to time, according to data from Packaged Facts. Indulgence is seen as a treat, and more than 4 in 10 consumers still like to treat themselves to foods that aren't good for them on occasion.¹⁷

And when they indulge, they often want to go all-out, so premium baked goods are also still in vogue: with consumers

embracing bakery items that provide new flavors, textures and experiences. For instance, products that are available for a limited time, or tout a creative mashup, are on-trend. As consumers travel more and are exposed to different ethnic cuisines, they are also open to more exotic formats and flavors in their bakery choices. Savory options in traditionally sweet formats, such as croissants flavored with vegetables, and cake mixes featuring spinach, are being introduced in many markets.

One of the most interesting ways the indulgence trend has played out is with the re-emergence of the donut, which seems to be utterly unaffected by the demand for healthy eating. In recent years, novelty donut shops have pushed beyond the traditional glazed and jelly-filled norms, with out-of-the-box flavors, textures and mashups (think donut sandwiches or cronuts—a croissant/donut combination) that are commanding premium prices and taking donut consumption beyond breakfast to an emerging late-night dessert indulgence. Supermarkets and convenience stores have taken notice, with sales of fresh donuts on the rise in these outlets reaching \$1.97 billion in 2016.¹⁸

Adding value to bakery products

As these converging trends continue to impact bakery product formulations, manufacturers need to develop smart strategies to add value to their products in a cost-effective way.

Among the key challenges bakers are attempting to address is eliminating or reducing sugar or DATEM, and replacing them with ingredients that have equivalent functionality. In the case of DATEM, **lecithin** is proving to be a go-to solution. Typically extracted from plant and animal sources, such as egg yolks, fish, rapeseed (canola), soybeans and sunflower, lecithin is both label-friendly and offers nutritional benefits to bakery goods. It is most often noted for its emulsification properties, which are key in bakery applications. It can help stabilize emulsions that lead to improved shelf

life, as well as reduce the stickiness of ingredients, so it is often used as a releasing agent for bakery items.

Manufacturers now also have plenty of new options for adding **protein** to bakery products. A variety of new plant-based ingredients are showing up in bakery applications, from flours made from peas and pulses, to soy protein. Soy-based proteins are currently the most prominently used plant-based proteins in bakery, making up more than half of both the global and U.S. markets for baking mixes and ingredients. With a label friendly perception, soy-based

flours can often function as well as (or even better than) other protein sources in bakery formulations. Soy flour, for example, can help create crumb structure and improve the elasticity of dough, increase water absorption, and replace eggs in bakery applications, as well as lengthen shelf life.

In the fiber category, **chicory root fiber (inulin)** is an increasingly popular option. A naturally-sourced fiber extracted from chicory root, it offers many functional and health benefits, and has a label-friendly appeal. Chicory root fiber is a soluble fiber source that positively impacts texture of gluten-free products, and has excellent heat stability. Key applications include bakery products, beverages, confectionery, dairy and dairy alternatives, and it also works well in lower-glycemic-load products.



Conclusion: A convergence of trends

The bakery category may well be at the epicenter of numerous trends in diet and food consumption. As such, this segment has a unique opportunity to offer products that address the broad spectrum of consumer demands: from health consciousness and “clean label,” to those who are pushing the envelope in premiumization and indulgence.

Some of the important takeaways for bakery manufacturers in 2018 include:

Clean label cachet

A strong understanding of what consumers perceive to be “clean label” will continue to be important in bakery goods. Driven by consumers, the trend for label-friendly ingredients will make headway and could likely be a more influential factor going forward than the elimination of partially hydrogenated oils in bakery. That said, it is a fine line to balance, as consumers now want the best of both worlds, including both good taste and nutrition—especially in their sweet baked treats. Simple products with fewer ingredients and strong positioning that evokes an artisanal or homemade feel may be the ticket for success in this category.

A mix of factors in play

While sugar reduction is on the radar for a growing majority of consumers, other nutritional attributes are equally as important (or perhaps even more so) for bakery goods. Beyond adding protein, consumers will delve deeper into bakery labels, looking for nutritional density from vitamins, trace minerals and whole grains. Taste and texture also remain strong factors, so new sizes with fewer calories or smaller convenient formats will continue to result in products that offer the best of both worlds.



The plus of protein

The appeal of protein will continue, so bakery products with added protein will be increasingly important, and there will be rising use of plant-based proteins targeted to bakery applications. Pulse-based ingredients may represent the next wave of bakery solutions, offering a low glycemic ingredient with a high-fiber content.

Think outside the box

Bakery products may continue to be targeted for high carbohydrate and sugar content, so manufacturers would do well to think boldly and not be afraid to move away from traditional formulations and ingredients. Some of the most successful new formulations in bakery, such as gluten-free breads, are now reaching mainstream status. Sustainable and leaner ingredients are gaining ground, and may have what it takes to create the next big baking trend.

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References

- 1 Global Bakery Products Market Research Report: Share Size and Growth Forecast till 2022. IMARC Group. <https://www.fooddive.com/press-release/20171025-global-bakery-products-market-research-report-share-size-and-growth-forec/>
- 2 Euromonitor Baked Goods, Global 2017 Total (Retail and Foodservice) Volumes.
- 3 Global Bakery Products Market Research Report: Share Size and Growth Forecast till 2022. IMARC Group. <https://www.fooddive.com/press-release/20171025-global-bakery-products-market-research-report-share-size-and-growth-forec/>
- 4 Euromonitor Baked Goods, Global 2017 Total (Retail and Foodservice) Volumes.
- 5 Euromonitor Baked Goods, Global 2017 Total (Retail and Foodservice) Volumes.
- 6 Euromonitor Baked Goods, Global 2017 Total (Retail and Foodservice) Volumes.
- 7 Euromonitor Passport, Bakery Market Size 2017.
- 8 Packaged Facts, Sweet Baked Goods. December 2015.
- 9 Innova Market Insights, Product Reformulation: Sweet Bakery—The Innovation Drivers. March 2018.
- 10 Jacobs, DR JR; et al. Food Synergy: An Operational Concept for Understanding Nutrition. *American Journal of Clinical Nutrition* 2009. May; 89(5): 1543S-1548S.
- 11 Schroeder, MO. “How Does Getting Nutrients from Fortification Compare with Whole Food?” *US News and World Report*. May 2017.
- 12 Innova Market Insights, Product Reformulation: Sweet Bakery—The Innovation Drivers. March 2018.
- 13 Transparency and Simplicity: The New Normal in Product Development. Proprietary Cargill research, 2018.
- 14 Transparency and Simplicity: The New Normal in Product Development. Proprietary Cargill research, 2018.
- 15 Mellentin, J. “10 Key Trends in Food, Nutrition and Health, 2018.” *New Nutrition Business*. <https://www.new-nutrition.com/>
- 16 Packaged Facts, Sweet Baked Goods. December 2015.
- 17 Packaged Facts, Sweet Baked Goods. December 2015.
- 18 The Donut Evolution. *Bakingbusiness.com*. Sept. 18, 2017. <https://www.bakingbusiness.com/articles/32716-the-donut-evolution>

