EUROPEAN BAKER & BISCUIT

Supporting the international baking & biscuit industry

Issue 6 (203) | Vol. 33 | 2025

Technology
Dividing Dough With Consistency And Care

Packaging
Toolbox For Freshness: Active Packaging Technologies In Modern Bakeries

Product Spotlight
Gingerbread Is What Christmas Is All About

SIRHA BAKE & SNACK Special Report

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INGREDIENTS

Yeast Versus Sourdough, A False Conflict

Keeping Up with the Customer

Brands can gain a competitive edge by offering consumers products that promote ease, clarity, and reassurance that they have made good choices.

Georgiana Ilie

Bakers have solutions for all sorts of challenges. Supply chain fails? Reformulation. Gas price increase? Switch to electric. Personnel shortages? Robots and AI. But there is one challenge that seems to be moving its target all the time: what the consumer wants.

A recent study by Innova Market Insights, Global Consumers Trends 2026, provides some answers to the current state of what the consumer wants. "Consumers are increasingly taking a proactive approach to well-being, with 1 in 3 consumers exercising to help manage stress," says the study. "Additionally, conscious consumption is top of mind, as consumers are making choices that benefit both their wallets and the planet. Flexibility and digital living are also essential to consumer trends, and evolving work patterns and online platforms are enabling more fluid lifestyles. Therefore, the boundaries between work, home, and leisure are becoming blurred. Consumers, as a result, are looking for opportunities to exert greater control over their lives and find methods for escape and release."

What does that mean in practice, for a baker who wants to offer products the clients want? One solution is to make bakeries "third spaces," places where people don't just come to pick up their loaf or their croissant, but also a center of their community where they can meet their friends and enjoy their time together. For those interested in longevity and healthy aging - a rising concern when the general population lives longer than any previous generation - brands can turn to holistic solutions for opportunities to address both mental and physical energy needs that emphasize enduring vitality versus quick fixes. Last, but not least, for those simply preoccupied with living a healthier life now, brands can gain a competitive edge by offering consumers products that promote ease, clarity, and reassurance that they have made good choices.

While these seem to go beyond the skills of a baker, if you start thinking of your customers as if you are also part of their community and see their needs, it might just be the right answer to all of this.

EUROPEAN BAKER & BISCUIT

TUDOR VINTILOIU
Editor in Chief
email: tudor.vintiloiu@trade.media
Tel: +40 213 159 031

JO ILIE
Senior Editor
email: georgiana.ilie@trade.media
Tel: +40 213 159 031

CRISTINA NAE
Advertising Sales Director
email: cristina.nae@trade.media
Tel: +32 499 73 11 14

ADRIAN CODREANU
Production Manager
email: adrian.codreanu@trade.media
Mobile: +40 722 507 227

ALEXANDRU NĂSTASE
Marketing & Events Manager
email: alexandru.nastase@trade.media
Tel: +40 21 315 90 31

ALEXANDRU VASILE
Art Director
email: alexandru.vasile@trade.media
Tel: +40 21 315 90 31

SIMONA ARDELEANU
Circulation Manager
email: simona.ardeleanu@trade.media

RALUCA CANESCU
Publisher
email: raluca.canescu@trade.media
Tel: +40 21 315 90 31

NICOLETA MARASESCU
General Manager
email: nicoleta.marasescu@trade.media
Tel: +40 21 315 90 31

Contributing writers
Campden BRI, Markets & Markets, Euromonitor International, GIRA, DLG, Jonathan Thomas, Global Market Insights, AIPIA

Editorial office:
Intrarea Ion Luca Caragiale no. 2, District 2, Bucharest, 020048, Romania.

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FRANKE

COFALEC Welcomes ISO's First Global Standard for Baker's Yeast

COFALEC has welcomed the publication of ISO 23983:2025, the first international standard defining the characteristics of fresh and dry baker's yeast. Released on 20 October, the new standard sets out unified criteria for yeast quality, covering product properties, physical and chemical composition, microbiological parameters and nutritional information. COFALEC, the European Confederation of Yeast Producers, initiated and led the proposal in cooperation with international experts and standardisation bodies.

The organisation said the adoption of ISO 23983:2025 represents a significant step toward harmonisation and transparency in the global baking sector. A common reference point is expected to strengthen quality assurance, support fair trade and foster innovation across international markets.

Dina Foods Boosts Manufacturing Capacity

Dina Foods' latest investment was the complete overhaul of its pitta line in August, which is now fully operational. The pitta line is one of five bread production lines at the family company's London bakery, all capable of making different sizes, flavours and varieties of Dina Foods' range of authentic breads.

The pitta line upgrade comes after the production line which produces Dina Foods' traditional Khobez flatbreads, trademarked as Paninette, was revamped last year. The entire line was upgraded, with a fully automatic stacker added. The new fully automated line has nearly doubled Dina Foods' capacity. Output has increased from 5,000 pieces per hour to 9,000 pieces per hour, also reducing labour costs. The quality of the bread has also been enhanced, and downtime and wastage reduced, with energy efficiency increased, says Haddad.

Dina Foods also invested in an onsite nitrogen generator and new pipework to mix gas to supply its packing machines last year. With gas now on tap, shelf life has been boosted and gas flushing costs reduced by 50%.

Oterra Partners with Seprify to Launch Natural White Alternative to Titanium Dioxide

Natural color solutions specialist Oterra has entered a strategic commercial partnership with Swiss materials innovator Seprify to introduce a plant-based white colouring designed to replace titanium dioxide (TiO_2) in food and beverage applications.

By incorporating Seprify's patented cellulose-based technology, Oterra will offer manufacturers a renewable, clean-label alternative that delivers the same opacity, brightness and whitening performance as titanium dioxide while substantially reducing environmental impact.

The new white colouring offers easy dispersion, excellent whitening power, light, heat and pH stability, and requires lower dosages than other alternatives, with a neutral flavour and odour. It is derived from microcrystalline cellulose sourced from FSC-certified virgin wood pulp that is 100% renewable, producing up to 80% lower CO_2 emissions compared to titanium dioxide. The ingredient is nano-compliant and food-safe under EU and US regulations.

Handtmann Processing Integrates Inotec Product Line

Handtmann Processing has integrated the Inotec product line into its global corporate structures and standard processes as part of a strategic realignment designed to strengthen its market position as a provider of comprehensive production and line solutions.

The move supports the company's long-term plan to further align technology areas for product preparation, processing, and handling, ensuring seamless interfaces with upstream and downstream operations.

From January 1, 2026, all processes for new and used machines will be centrally managed through standard procedures at the Biberach site. Spare parts management for the Inotec product line will also be incorporated into Biberach operations, providing global customers with improved spare parts availability via the company's logistics center, alongside enhanced support and service offerings.

Puratos Launches U.S. Bakery Glaze Facility

Puratos USA announced the opening of a new state-of-the-art facility in Pennsauken, New Jersey - the first in the United States dedicated exclusively to bakery glaze production. The new plant joins Puratos' global network of glaze plants, bringing advanced manufacturing technology closer to U.S. customers and underscoring the company's commitment to innovation, food safety, and sustainability.

"Glaze is a powerful driver of category growth, especially in today's competitive bakery landscape," said Andrew Brimacombe, President of Puratos US and incoming President of Puratos North America. "By producing locally, we're helping our customers respond faster to market demands, reduce supply chain risk, and unlock premiumization opportunities."

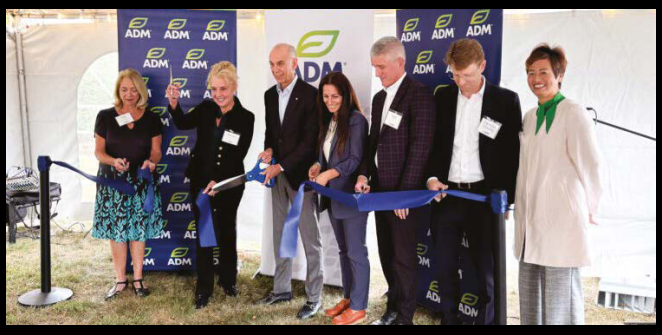
By eliminating the need for eggs, Sunset Glaze supports manufacturers in their transition to cage-free operations, helping them meet evolving consumer expectations and corporate sustainability goals. It also reduces food safety risks and cuts CO_2 emissions by over 50% compared to traditional egg-based glazes.

ADM Opens New Central Milling Laboratory

ADM opened a new Central Milling Laboratory at the ADM Specialty Manufacturing Facility in Decatur, Illinois.

Equipped with advanced testing technologies and analytical tools, ADM's Central Milling Laboratory receives wheat where it is milled, analyzed, and baked to provide the most accurate insights into how flour will perform in real-world applications. The lab bakes approximately 30 loaves of bread each day, enabling ADM to evaluate performance and ensure the company can procure the highest-quality wheat for customers.

Located near ADM's North American Headquarters in Decatur, the facility enhances collaboration opportunities with ADM's Research & Development and Creation, Design and Development facilities. Currently, the lab supports 31 ADM facilities across North America.



Heidelberg Group Invests in Bradman Lake Automation

Heidelberg Group is advancing automation across its bakery operations with the installation of high-performance slicing and bagging systems from Bradman Lake.

The IBPRO bread bagger, regarded as one of the world's most advanced systems, combines high-speed throughput with low downtime. Featuring ergonomic controls and a dynamic inline system, it enables smooth product transitions, accurate bagging of varied loaf sizes, and continuous operation. With a three-tray wicket changer for automatic bag replenishment, the IBPRO is engineered for 24/7 reliability in large-scale bakeries.

The second investment enhances compatibility across Heidelberg's production lines. The standalone LB90 slicer integrates with the existing IBPRO baggers, while the new bun bagger provides a practical, hand-fed option for smaller runs and surplus output.

Givaudan Taste & Wellbeing Breaks Ground On New Production Facility

Givaudan broke ground on its new, state-of-the-art liquids production facility in Reading, Ohio. The new site, which will complement the Company's existing facilities, represents an initial investment USD215m and will span 24,000 square metres within a total reserved land area of more than 100,000 square metres to accommodate future growth.

"This new facility represents our largest investment in the US in many years, demonstrating the importance of the market to Givaudan and to the food and beverage industry. It is a tangible example of Givaudan's 2030 strategy in action, strengthening our market and operational presence, extending customer reach, and advancing sustainable, innovative solutions that consumers love," said Gilles Andrier, Chief Executive Officer.

Over time, the new facility will create over 300 jobs across diverse skill sets, highlighting Givaudan's commitment to fostering local talent and the sustainable growth of the economy.

Construction on the site is underway, with completion expected in 18 months and partial operations scheduled to begin as early as 2027. Givaudan Taste & Wellbeing currently has 17 locations across the United States and Canada.

Bühler Launches CompactMix System

Bühler has unveiled CompactMix, a new mixing and grinding system designed to help chocolate and confectionery manufacturers navigate changing market demands, rising cocoa costs and growing interest in chocolate alternatives.

The Swiss-developed solution combines the company's ShearMix mixing technology with its Aurora ball mill, enabling fast, uniform mixing and particle reduction to below 20 microns. Bühler says the system delivers consistent textures across a broad range of fat contents while consuming up to 30% less energy than conventional equipment.

CompactMix targets producers of spreads, fillings, coatings and chocolate-like masses used in applications such as pralines, snack bars, biscuits and ice cream. With recipe flexibility increasingly important, the system is designed to support both traditional chocolate formulations and alternative masses that help manufacturers manage cocoa price volatility.

CompactMix allows product changeovers in under two hours and includes a hygienic, fully enclosed design that supports global food safety standards. Modular scalability from 400 kg/h to 3,000 kg/h enables deployment in both small and industrial-scale plants.

Baker & Baker Launches Christmas Donut

Baker & Baker has introduced a Christmas donut in the UK. The donut, the latest sweet treat launched by the company in 2025, has been introduced to help customers drive sales over the festive season.

The new treat is a delicious donut with a cocoa crème filling, cocoa icing and multi-coloured seasonal themed sugar decoration. The Christmas donut is egg free, contains no artificial colours, flavours or preservatives and is suitable for vegetarians.

The thaw and serve Christmas donuts are a limited edition to Baker & Baker's portfolio of sweet treats and are available from October. The product should be consumed within two days when stored at ambient temperature.

It is available to foodservice and bakery wholesalers through the usual channels.

A range of marketing assets have been created to support the launch, including a digital toolkit containing banners and images. In addition, the company will be sharing a series of tips through digital channels with specific guidance on maximising sales over the Christmas period.

Roquette Introduces a New Thermally Soluble Pea Starch

Roquette has introduced Amysta L 123, a thermally soluble pea starch that marks the launch of the company's new label-friendly starch range. Developed using a patented process free from enzymes and chemicals, the new ingredient provides label transparency and consistent texturising performance to support brands responding to demand for simple, recognisable ingredients.

With the Amysta range, Roquette aims to help manufacturers shorten ingredient lists, simplify on-pack communication and strengthen consumer trust while maintaining performance across applications.

Amysta L 123 addresses the solubility limitations of native starches through a heat treatment and spray-drying process, resulting in a soluble starch with low viscosity, smooth mouthfeel and excellent dispersibility.

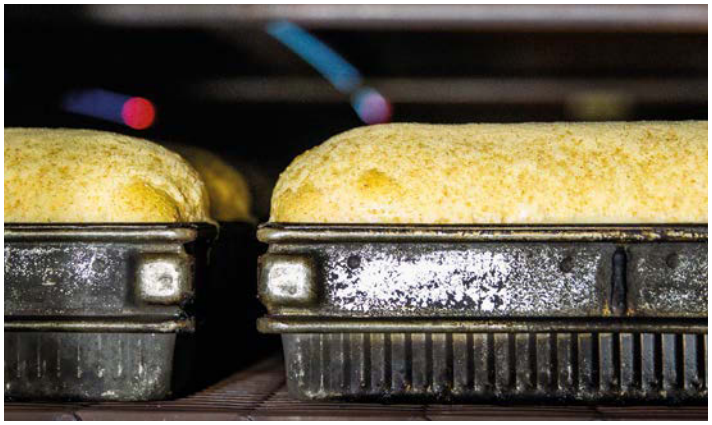
Its natural flowability enables easy handling and precise dosing in powdered formulations, and its carrier functionality supports stability during processing and storage. These properties make it suitable for ready-to-mix beverages and dried soup, sauce and condiment mixes. In the EU, it can be declared as "soluble pea starch," and in the US as "pea starch," aligning with consumer preferences for transparent labelling.

Celleste Bio Produces the First Chocolate Grade Cocoa Butter Using Cell Cultured Technology

Celleste Bio, an early-stage cocoa tech company, announced a major milestone in building a climate resilient cocoa supply: a chocolate grade cocoa butter, the first made using plant cell culture technology.

Celleste is one of the first to pioneer the use of cell culture technology to produce real cocoa ingredients, with its chocolate grade cocoa butter being a breakthrough for the industry in that it is bio-identical to cocoa butter extracted from the bean, both chemically and functionally, yields the same fatty acid profile essential for producing real chocolate, delivers the same sensory qualities such as melting point, smooth texture, and characteristic "snap" of premium chocolate, designed for scalability, enabling stable, sustainable production independent of agricultural limitations, and generates zero waste, using all inputs efficiently throughout the process.

Chocolate manufacturers spend about USD16bn on cocoa ingredients a year, with cocoa butter making up nearly half of that. In 2024 prices increased 400 percent due to a half billion-ton shortage. Celleste Bio has raised USD5.6m to start piloting a production facility.



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Sirha Bake & Snack: **New Name, Same Groundbreaking Trade Show**

Sirha Europain, the trade show for bakery, pastry, and snacking, is losing its former name and becoming Sirha Bake & Snack starting with the 2026 edition, which takes place January 18-21 at Porte de Versailles in Paris.

By Jo Ilie

The 2026 edition of Sirha Bake & Snack promises to be a stunning show, full of business and learning opportunities. Major brands will launch new ingredients, technology and products, international contests will choose their winners and experienced speakers will share their best practices.

With over 30,000 professionals, the 2024 edition marked a turning point in the trade exhibition's history. For this year, the organizers expect more visitors, launches and exhibitors.

“Sirha Bake & Snack is a response to the urgent need to create an event that embodies the dynamism of the sector,” said Luc Dubanchet, Managing Director of Sirha Food. “A trade exhibition must be vibrant, evolving, and in sync with market changes. With our strengthened structure and partnership with Ekip, we are determined to make this event a powerful driver of French Bakery on an international scale. The 2026 edition is designed to be an unprecedented gathering, bringing together the industry’s key players to not only celebrate but also redefine what contemporary bakery can be,”

Among the new features of this edition are a Snacking stage, a dedicated area for coffee shop exhibitors in response to the demand for personalized, high-quality coffee experiences, and the International Trophy for French Pastry and Chocolate, which honors artisanal pastry..

In terms of competitions, Sirha Bake & Snack will also host the European selection for the Coupe du Monde de la Pâtisserie and the 13th edition of the Coupe du Monde de la Boulangerie, where different teams will compete in the bread, pastry, and artistic categories under the theme ‘The great inventions of your country.’

The European Selection for Coupe du Monde de la Pâtisserie
January 18 & 19
Scene Sucrée

The European qualifying round of the Coupe du Monde de la Pâtisserie will mark the debut of several continental teams: the Americas, Asia-Pacific, Africa, and, for the first time, the Middle East.
Nine countries (Belgium, France, Italy, the Netherlands, Spain, Sweden, Switzerland, Ukraine, and the United Kingdom) will compete for a place in the top five and a spot in the grand world final, which will take place at Sirha Lyon in January 2027. The major new feature of this edition of the European Pastry Cup is that the entire team can now compete. A few years ago, the decision was made to limit participation to two of the three members of each team, excluding the ice cream representative.
Each country will have five and a half hours to conduct three tasting tests (ten reimagined individual Tarte Tatin desserts, 12 chocolate-based finger foods, and 12 individual plated frozen desserts), three artistic tests (a chocolate piece, a sugar piece, and an artistic piece made of sculpted water ice), and a final buffet. The creations will be evaluated by Pierre Hermé and Frédéric Cassel, president and vice-president of the competition respectively, who will be accompanied by a technical jury, a tasting jury, and an artistic jury. The committee members will also evaluate the candidates' compliance with the CSR criteria.

Coupe du Monde de la Boulangerie
January 18 & 19
Scene Bake Contest

The final of the Bakery World Cup, created at the initiative of the French Bakery Team in 1992, is the leading international competition that celebrates the best artisan bakers from across the five continents. Its three founding entities are today the French Bakery Team, the National Confederation of French Bakery and Pastry, and EKIP. Christian Vabret is the Honorary President of the competition.

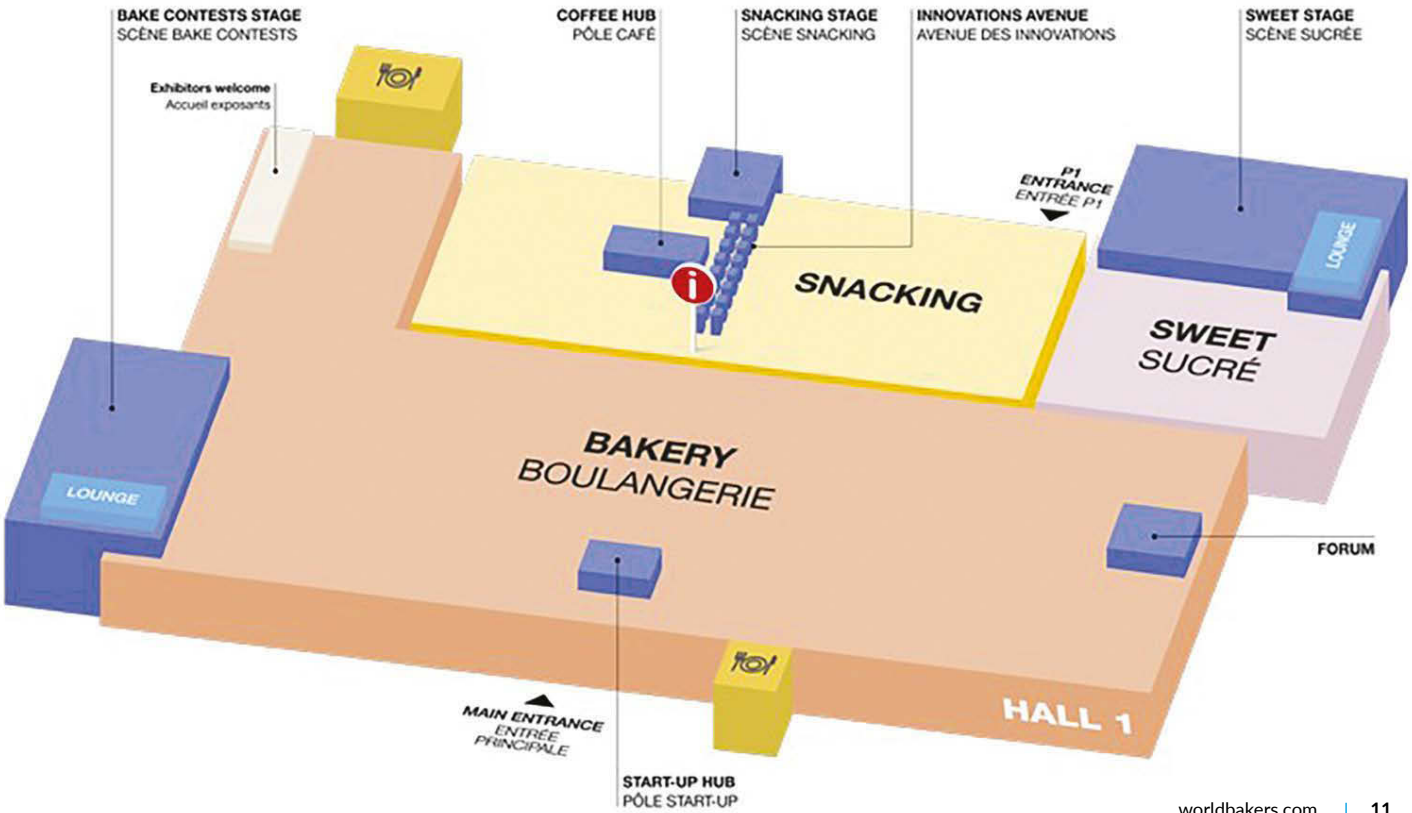
This contest is held in front of a live audience and aims to be a major event to showcase the latest trends and evolutions in the profession. It encourages cultural exchange in the world of baking, highlighting innovation and excellence.

Over two days of competition, 10 teams—each composed of 3 candidates specializing in Bread, Viennoiserie, and Artistic Piece—will compete to demonstrate both their technical know-how and artistic mastery before an international audience.

Coupe de France des écoles
January 20 & 21
Scene Bake Contest
The Coupe de France des Écoles is a prestigious biennial competition that highlights the next generation of talent in bakery, viennoiserie, and pastry arts. Jointly organized by EKIP – Les Équipementiers du Goût and GL events, the contest takes place during the Sirha Europain trade show, bringing together teams from training centers across mainland France and overseas territories.

The competition is divided into two categories:

Espoirs (Hopefuls): for students currently enrolled in CAP, MC, or the first two years of a professional bakery-pastry diploma.
Excellence: for students in higher-level programs such as BP, BTM, final year of Bac Pro, or Bachelor's degrees.



Each team includes three students from the same level of training, supervised by two instructors — one in bakery and one in pastry. Over six hours of challenges, participants showcase their skills across bakery, viennoiserie, pastry, and — for the Excellence category — catering.

The jury, composed of 8 renowned professionals including recipients of the Meilleur Ouvrier de France title, evaluates the teams based on technical, artistic, and creative criteria. The jury is chaired by Raoul Maeder, a baker-pastry chef, with Keiko Nagae serving as vice-chair.
This competition serves as a true showcase of excellence in vocational training, encouraging the transmission of craft expertise and supporting the rise of passionate young professionals in the sector.

French Pastry International Trophy
January 20 & 21
Scene Sucrée

Organized by the National Confederation of Artisan Pastry Chefs and the Journal des Pâtissiers, the International Trophy of French Pastry (TIPF) will take place on January 20–21, 2026, at Sirha Bake & Snack Paris – Porte de Versailles.

This 100% professional competition will feature six international duos, each composed of a pastry chef and a chocolatier or confectioner. Their challenge: to reinvent the great classics of French pastry with creativity, precision, and technical mastery.

Under the patronage of renowned pastry chef Pierre Hermé, the event highlights French craftsmanship and celebrates artisanal excellence. Over two days, contestants will face several technical tests - including entremets, macarons, chocolates, and mille-feuilles.

A jury of professionals will evaluate the creations based on taste, presentation, and adherence to the theme.
Prizes include €4,000 for the winners, €2,000 for second place, and €1,000 for third place.

The competition serves as both a showcase of international pastry talent and a tribute to the enduring artistry of French pastry.

SIRHA BAKE & SNACK AWARDS

The Sirha Bake & Snack Awards honor the most outstanding innovations in the bakery, pastry, snacking, and coffee shop sectors. Open exclusively to exhibitors, the competition highlights both breakthrough innovations and significant improvements. Seven categories are featured:

- Equipment & machinery for bakery and pastry
- Products & ingredients for bakery
- Products & ingredients for pastry
- Products & equipment for snacking
- Technologies & services for bakery–pastry–snacking
- Coffee Shop universe Special Start-Up Award

The ceremony takes place January 18, at 6:00 PM, at the Scène Forum.

Highlights From the Program

Franck Fortier - Sourdough bread: a health and nutrition asset
Jan 18, 2026
11:00 AM - 11:45 AM
Scène Forum

How can bakers create naturally leavened breads that are as nourishing as they are delicious? This is the challenge they now face every day to meet the expectations of discerning and knowledgeable customers. Franck Fortier, World Bakery Champion 2024 and demonstrator, will share all his secrets and expertise during a masterclass rich in craftsmanship and technical insight.

Recruitment and employee retention: challenges and solutions
Jan 18, 2026
3:50 PM - 4:15 PM
Scène Forum

Since the Covid-19 crisis, recruitment challenges have intensified for professionals in the food industry — and bakeries are no exception. According to the French National Confederation of Bakery and Pastry, more than 20,000 positions are currently unfilled. This staggering figure has prompted business owners to improve working conditions and employee benefits. Working hours, four-day weeks, continuous training, workplace ergonomics… many entrepreneurs are experimenting with new initiatives. But will these efforts be enough to sustainably restore the industry's image and its ability to retain talent?

Rural bakeries: a future in question
Jan 18, 2026
2:00 PM - 2:45 PM
Scène Forum

The village bakery often remains the last active business in many rural communities. Its closure signals an inevitable decline for these areas, depriving residents of much more than just fresh bread. As a source of social connection, local vitality, and essential services, the artisan baker carries great responsibility in rural life. But can they continue to shoulder this alone? What initiatives are being implemented across regions to preserve the French tradition of a local, community-centered bakery? Between municipal support and citizen-led efforts, new models are emerging to keep this vital institution alive.

Passing on bakery businesses: a key challenge for the industry
Jan 18, 2026
12:30 PM - 1:05 PM
Scène Forum

To ensure the long-term vitality of France's network of artisan bakeries, the issue of business succession has become more strategic than ever. How can we inspire new generations to embrace entrepreneurship despite the growing complexity of the profession? The challenges are many—financing, management, generational and cultural gaps… What tools does the industry provide to support them and help them succeed while finding fulfillment in their craft?

Yasmine Menacer - Ever the chameleon, the croissant reinvents itself with an anti-waste twist
Jan 21, 2026
2:55 PM - 3:40 PM
Scène Forum

With soaring raw material costs and a growing awareness around the fight against food waste, bakers can no longer afford to lose even a crumb of their products. This reality has driven them to develop new innovations to give their unsold goods a second life — as seen with the croissant, which has become a true canvas for creativity. Colors and flavors blend harmoniously in the skilled hands of Yasmine Menacer, whose croissants effortlessly find a new life.

Eco-friendly packaging: a key challenge for the snacking of tomorrow
Jan 21, 2026
11:45 AM - 12:10 PM
Scène Snacking

Faced with environmental pressures and rising consumer expectations, packaging has become the new frontier of innovation in snacking. Recyclable, compostable, reusable — alternatives are multiplying, yet the challenge remains immense. Between regulatory constraints and the need for practicality, brands are striving to find the perfect balance between form, function, and impact. Can eco-friendly packaging truly combine performance, sustainability, and desirability?

Basile Fourmont - All the secrets of an award-winning baguette… in service of everyday bread
Jan 21, 2026
11:00 AM - 11:45 AM
Scène Forum
With nearly 10 billion units consumed across France each year, the baguette remains a cornerstone of French food culture. From its "white" version — also known as pain courant — to the Tradition, established by a 1993 decree, the shape stays the same, but the characteristics differ. Texture, color, and flavor are the three criteria on which Basile Fourmont, artisan baker based in Clamart (Hauts-de-Seine), distinguished himself during the 2025 National Contest for the Best Traditional French Baguette. From kneading to fermentation to baking, this masterclass will revisit the key steps that allow bakers to truly master the art of the baguette.

Consumer perceptions & scientific realities: putting an end to misconceptions about bread, nutrition & health
Jan 20, 2026
10:25 AM - 10:50 AM
Scène Forum

A staple of our diet, bread continues to appeal through its simplicity and accessibility, in a food landscape sometimes seen as overly sophisticated. As consumers increasingly turn toward wholegrain, high-fiber, or multigrain breads, how does this everyday food continue to meet expectations around vitality, satiety, and well-being? What role is there for innovations—low-carb breads, enriched recipes, and more—in a market seeking health benefits?
The role of wholegrain bread in preventing metabolic and cardiovascular risks, along with the new nutritional expectations reshaping professional practices, will also be explored.

Jean-François Feuillette: Rethinking the bakery as a place for living
Jan 19, 2026
5:20 PM - 5:45 PM
Scène Snacking

Jean-François Feuillette shares his journey, expertise, and vision of the bakery market. He discusses key trends, challenges, and upcoming projects, including plans to open around forty new bakeries in 2026 and begin international expansion. An inspiring perspective offering insights into the outlook of a recognized and ambitious player in the industry.

Training and career transition in bakery and pastry
Jan 19, 2026
11:55 AM - 12:30 PM
Scène Forum

For nearly 20 years, the transmission of baking expertise has opened up to new profiles. Career changers have managed to establish themselves in a field once dominated by long, traditional training paths and apprenticeships. How are training programs adapting to societal changes and the expectations of tomorrow's professionals? To shape well-rounded artisans capable of navigating a complex market environment, has it become essential to go beyond technical training — to cultivate true bakery entrepreneurs, comfortable with management, communication, and business strategy? •

Built for Bakery Reality: **Franke's Next-Generation Coffee Solution**

In today's coffee world, expectations are rising fast. Customers increasingly seek premium coffee experiences even in everyday settings such as bakery cafés. At the same time, operators face growing challenges: labour shortages, sustainability targets, and the constant pressure to maintain quality and efficiency. To meet these demands, equipment must be both intuitive and intelligent – and that is where Franke Coffee Systems introduces the New A Line.

A NEW GENERATION OF SWISS ENGINEERING

Building on ten years of proven success with the Classic A Line, the New A Line represents the next evolution of Franke's professional coffee solutions. Designed and manufactured in Switzerland, it combines Franke's 40 years of coffee expertise with the latest digital and beverage innovations. Every detail reflects the company's heritage of engineering excellence and its deep understanding of modern bakery operations.

The first two models in the range, the new A600 and A800, both cover the full beverage menu with the same emphasis on in-cup quality and ease of use. The difference is scale and workflow: the new A800 adds parallel beverage dispensing for high-traffic moments, while the new A600 delivers premium results in both self-serve and operated areas. Either way, bakeries keep lines moving with consistent, barista-level results.

"Our goal was to design a coffee machine that fits perfectly into any environment — combining ease of use, consistent results, and outstanding taste," says Christof Hurni, Vice President Technology at Franke Coffee Systems. "The New A Line is smarter, faster, and closer to the operator than ever before."

CONSISTENT FLAVOUR, CUP AFTER CUP

At the core of both models lies iQFlow. Franke's patented extraction technology, now standard in the new A600 and A800, controls the extraction process in real time. The result is a richer, more balanced flavour profile and the same great taste in every cup – regardless of bean type, grind size, or operator skill.

For bakeries that rely on repeat purchases and quick transactions, such consistency is essential. Each coffee becomes a signature of quality that customers can trust.

SMART OPERATION FOR BUSY TEAMS

The New A Line is built to make operation as easy as possible, even for untrained staff. Its large touch display supports both self-service and operated setups, guiding users step by step through beverage preparation. Pre-set recipes ensure reliability and speed, allowing teams to focus on customers rather than equipment handling.

At the core of its digital ecosystem is FrankeOS, the machine's intuitive operating system. When connected via FrankeConnect to the FrankeCloud, operators can centrally manage recipes and menus, monitor performance data, and roll out software updates remotely. This connectivity helps bakery chains and multi-site operators maintain uniform quality standards while reducing maintenance effort.

MILK, PLANT-BASED ALTERNATIVES, AND PERFECT TEXTURES

Consumer expectations are evolving, with plant-based options now a staple on most bakery menus. With IndividualMilk, the New A Line delivers genuine flexibility in beverage creation. Separate milk lines guarantee cross-contamination-free preparation of dairy and plant-based alternatives – a crucial feature for bakeries that value hygiene and customer trust. Complementing this is the New FoamMaster, producing

unmatched milk foam textures at the touch of a button – hot or cold, in individually programmed consistencies, and always repeatable. From cappuccinos to flat whites, every drink can be tailored to the desired texture and served in premium quality, even during busy hours.

CLEANING MADE SIMPLE

Efficiency also means easy cleaning. The IndividualClean System automates the internal cleaning process and allows operators to schedule cycles according to actual machine usage. This keeps internal components hygienically clean, reduces cleaning product consumption, and saves valuable time – a clear benefit for bakeries operating long hours and high volumes.

ENERGY-AWARE BY DESIGN

Beyond reduced detergent use, the New A Line also reflects Franke's commitment to energy efficiency. Its HeatGuard boiler system features enhanced insulation, reducing heat loss within the machine and helping maintain stable temperatures during beverage preparation. The result is reduced energy loss of up to 44% (vs classic A600NM) whilst always ensuring consistent operation.

DESIGNED TO FIT EVERY BAKERY CONCEPT

With its clean lines, durable materials, and modular design, the New A Line fits seamlessly into any bakery layout – from compact counters to café-style seating areas. The machines can be combined with add-ons such as cup warmers or payment systems.

Every element has been developed with real-world operation in mind: service access is ergonomic, maintenance is straightforward, and the Swiss build quality ensures long-lasting performance.

The New A Line marks a new generation in professional coffee solutions, blending Swiss precision with digital intelligence and ease of use. For independent bakeries or growing bakery chains, it offers the confidence to deliver exceptional coffee moments – cup after cup, day after day.

Because in today's competitive coffee world, success comes from the details that matter: consistent quality, effortless operation, and the ability to grow with tomorrow's opportunities.

Discover more at aline.franke.coffee •

Dividing Dough With **Consistency And Care**

Across both industrial bread plants and smaller artisanal bakeries, dough dividers are performing the same critical task that has not changed for decades, but the conditions under which they operate have: doughs today are wetter, cleaner-label formulations rely on fewer stabilizers, and production lines are pushed to higher speeds with tighter tolerances. These shifts have not only increased the technical burden on dividing systems, they have also reshaped the design philosophies behind them.

By Tudor Vintiloiu

Industrial dividers—whether volumetric, weight-controlled or stress-free—must deliver precision at scale, while manual or semi-automatic models for small bakeries must balance consistency with gentle handling and easy cleaning. Accuracy depends on how dough density behaves in real process conditions. The actual mass of a portion depends on gas retention, dough rheology, temperature, yeast activity and formulation, all of which vary hour-to-hour. This makes volumetric systems particularly sensitive to shear, compression and chamber pressure, which can alter gas cell structure and hydration distribution.

Volumetric designs typically operate by drawing dough into scaling pockets at controlled pressures, often falling between approximately 20 and 40 psi, depending on the machine. By forcing dough into a defined pocket size and removing excess gas, the system attempts to normalize density and reduce weight variability. While this approach remains foundational in high-output plant bakeries, the industry has increasingly pursued designs that minimize damage to the internal structure of dough. High-hydration doughs, preferments, sourdoughs and long-fermented doughs can lose their defining characteristics if exposed to excessive shear or compression.

As a result, contemporary divider engineering prioritizes reduced mechanical stress, optimized dough flow paths, coatings that minimize sticking, and chambers shaped to avoid "dead zones" where dough may compress unevenly. Manufacturers also place greater emphasis on hygiene, ensuring the geometry of pockets, pistons, rotors and hoppers allows unobstructed cleaning. Regulations across global markets have tightened, and bakery operators routinely demand tool-less disassembly, stainless steel frames, or specially developed alloys that withstand acidic formulations and aggressive cleaning agents.

Small and mid-sized bakeries face a different balance of concerns. While high-output accuracy is less critical, the gentle handling of dough—particularly artisan or clean-label doughs—is essential to avoid texture degradation. Small dividers must offer reliable performance, but they must also fit into limited footprints, handle a wide range of batch sizes and integrate easily with rounders, proofers and sheeters. Operators often choose machines that combine manual adjustability with pneumatic or low-stress dividing mechanisms, allowing them to switch between baguettes, buns, flatbreads, pizza doughs or enriched doughs with minimal downtime.

Regardless of scale, the common thread in current divider development is consistency. With energy prices rising and labor more scarce, bakeries of all sizes seek equipment that combines precision, reliability and easy sanitation. Over the last decade, major manufacturers have responded by refining dividing mechanics, improving material science, and introducing automated controls aimed at stabilizing performance in fluctuating bakery environments.

HIGH-SPEED DIVIDING AND ROUNDING

Koenig's portfolio continues to evolve, and its Compact line remains an anchor of high-precision dividing and rounding. The I-Rex Compact EC, positioned for medium-to-large industrial bakeries, retains the defining characteristic of its predecessor: the separation of dividing and rounding functions, allowing each to be optimized individually. Koenig describes the I-Rex Compact EC as "a fully automatic dough dividing and rounding machine with a separate dividing and rounding system," and highlights that its construction includes "a coated aluminum dividing drum with plastic drum ledges and pistons."

The manufacturer specifies that the machine can be supplied in Classic or Futura configurations, accommodating combinations of different weight ranges or row configurations. Its published performance range—dividing weights approximately between 30 and 100 grams in six-row operation—supports throughput levels suitable for high-volume bun and roll production. Koenig emphasizes hygienic design through "large door elements, open stainless steel design and removable elements such as duster, slider, moulding drum and moulding belt," ensuring operators can maintain sanitation standards efficiently.

STRESS-FREE DIVISION FOR ARTISAN DOUGHS

Rheon's engineering approach is built around the concept of stress-free dough handling, particularly important for artisan bakeries and industrial producers of high-hydration doughs. The VX122 divider, part of Rheon's stress-free V4 series, is designed to handle doughs that would be easily damaged by volumetric compression. Rheon describes the VX122 as a "stress-free divider" with adjustable dough sheet width and the option to cut portions by weight or by dimension, highlighting the machine's relevance for ciabatta, baguettes and flatbreads.

The VX122 features a hopper with a capacity of approximately 80 liters and includes a cross-roller with adjustable height to fine-tune dough thickness. This makes the system adaptable not only for artisan lines but also for hybrid facilities transitioning between traditional and industrial products.

SOUR-RESISTANT DIVIDING UNITS

Material science is a defining area of innovation, and WP Haton has taken a distinctive approach with its SR—Sour Resistant—dividing units. These were developed for doughs with high acidity or aggressive inclusions, which can degrade traditional cast materials over time and compromise accuracy. WP Haton explains its reasoning clearly: "It is the sour in the dough, the sugars, particles, raisins, and other ingredients that cause wear of the dividing unit." Conventional castings can absorb these substances, leading to internal erosion, greater tolerances and dough leakage around pistons.

To address this, WP Haton developed SR units using "a unique combination of alloys" manufactured in "a unique process" producing extremely dense, hard material with flat, smooth surfaces that resist dough penetration. The company states that the design "can be washed and cleaned very simply" and that SR technology has "many machines running with different type of doughs for many

years in practical situations without replacement of the dividing unit." Because the alloys prevent internal wear, dough weights remain more consistent over extended operating periods.

This represents a significant operational benefit for bakeries handling rye-based doughs, sourdoughs or enriched breads, where acidity and particulates are unavoidable. Lower leakage also reduces oil consumption, and the ability to maintain accuracy without frequent replacement is an important cost consideration in high-volume plants.

HYGIENIC, NON-STICK ROUNDING SYSTEMS

Dough division is often paired with rounding, and Baker Perkins' conical rounder is representative of current expectations for hygiene and gentle dough handling. The company describes the system as combining "efficiency with hygienic, non-stick operation," and notes that "contact parts are made from polymer or have long-lasting, non-stick coatings and there is a fully-integrated air blowing system, so no oil or flour dust is required."

The rounder uses an open trough design intended to preserve dough structure, and the adjustable, driven discharge cone ensures that dough pieces exit at a constant speed. This reduces double-dough issues and improves precision downstream when feeding proofers or moulders. Hygienic design—tool-less access, smooth surfaces, and low flour usage—has become essential for bakeries managing allergen protocols or pursuing cleaner production environments.

HIGH-CAPACITY CONICAL ROUNDING

Within the rounding segment, the Glimek CR600 from Sveba Dahlen demonstrates how high-capacity plants are pushing equipment boundaries. Official materials describe the CR600 as "a very flexible and high capacity cone rounder for all kinds of bakeries," with two independently adjustable rounding sections and a wide weight range. The published capacity of around 6,000 pieces per hour and weight spans from 30 to 1,800 grams make it suitable for both small rolls and large specialty breads.

Customer feedback influenced many of the machine's upgrades, especially in handling characteristics and adjustability. The CR600's track settings and modular options allow customization, helping bakeries adapt rounding behavior to specific dough properties rather than forcing one mechanical pattern across different formulations.

EVOLVING SOLUTIONS

While Koenig, Rheon, WP Haton, Baker Perkins and Sveba Dahlen remain central players, additional manufacturers have strengthened their dividing portfolios in recent years, responding to the shift toward higher-hydration and artisan-style doughs.

Vemag, for example, has expanded its dough dividing capabilities through its VDP system, which uses a double-screw pump to portion dough gently and consistently. Official materials describe the system as enabling "gentle portioning of doughs with a low stress level," with the double-screw geometry maintaining dough structure and gas retention. Because the system is modular, it integrates with depositing heads or forming attachments for products such as baguettes, batards, pretzels or rolls.

Rondo continues to refine its dough sheet production systems, integrating gentle sheeting with downstream cutting and dividing options within complete laminating and production lines. Rondo describes its sheeting technology as providing "uniform, gentle dough sheet reduction," important for laminated doughs and soft artisan doughs where the dividing step is embedded within a continuous sheet-processing environment.

These developments show that division is no longer viewed as an isolated step: manufacturers increasingly integrate dividing performance into whole-line thinking. Stress-free sheeting systems, precision depositing and automated rounding all intersect with how dough portions behave, and bakeries benefit most when each component reinforces the performance of the others.

LOOKING AHEAD

The technical direction of dough dividers is shaped by several durable industry forces. Demand for high-hydration, artisan-style bread is still rising, even at industrial scale, placing stress-free technologies at the forefront. Clean-label formulations reduce the tolerance for mechanical stress, making gentle handling essential. Plants are also under pressure to meet stricter hygiene expectations, manage allergen segregation and reduce both energy and waste.

As manufacturers refine dividing pockets, pistons, drums, screws and chamber geometries, material innovation continues to play a significant role. Sour-resistant alloys, non-stick coatings, dense casting technologies and improved surface treatments extend equipment lifespan and enhance accuracy.

Ultimately, bakeries choose dividers not simply for throughput but for their ability to protect the dough's structural identity. Whether dividing 30-gram rolls at 14,000 pieces per hour or stress-free handling 80% hydration doughs for artisanal loaves, modern equipment must respect both the chemistry and the craft of dough. The systems highlighted here reflect how global manufacturers interpret that responsibility—through precision mechanics, material science and design philosophies rooted in gentle, reliable performance. •

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Where Bakeries Really Win Or Lose: The Conveyor Belt Decisions Behind Performance

Whether for bread, buns, rolls, pastries, cookies or frozen dough products — conveyor belts are a foundational component of throughput, hygiene, product integrity and operational cost-efficiency in any industrial bakery. Conveyance must accommodate diverse materials (raw dough, proofed dough, baked goods, frozen items), varying speeds, temperature zones, and frequent washdowns.

By Tudor Vintiloiu

The choice of conveyor belt design — wire mesh belts, modular plastic belts, hybrid belts, positive-drive systems — impacts product release, airflow, footprint, energy consumption, cleaning efficiency, downtime, and overall reliability.

Traditional flat belts or simple fabric conveyors often prove insufficient when operational demands increase: dough may stick, heavy pans may cause sagging, airflow may be inadequate in proofing or cooling zones, or hygiene standards may be compromised. As bakery lines scale up, producers need engineered, purpose-designed conveyor solutions rather than “generic” belts.

KEY MATERIAL AND DESIGN CONSIDERATIONS

Selecting the right belt requires balancing multiple criteria: hygiene and cleanability, product support, belt strength and tension capacity, airflow/open area (for cooling or freezing), ability to handle varied loads (from light pastries to heavy trays), drive and tracking stability, ease of maintenance and downtime risk, and suitability for specific temperature zones (ambient, refrigerated, freezing, or post-bake heat).

Wire-mesh belts (woven stainless or carbon steel) offer excellent product support, consistent air/gas flow (crucial for baking, cooling, or freezing), and stability under heat; their minimal surface deformation under tension ensures uniform temperature exposure, which is vital during baking or drying. However, such belts can pose cleaning challenges if tightly woven mesh traps residue; also, metal belts can be heavy and require robust drive and support systems.

Modular plastic belts — or plastic/hybrid belts — offer advantages in lighter weight, easier maintenance, simpler cleaning (especially when hygiene is critical), better resistance to corrosion and chemical cleaning agents, and often lower noise. Their open structure facilitates airflow for cooling or freezing. On the downside, plastic belts may have lower strength or rigidity than metal, may deform under heavy loads or high tension, and in some cases might be less suitable for high-temperature baking zones.

In addition to material, design aspects such as drive mechanism (friction-driven vs positive drive, sprocket-driven), belt topography (solid surface vs open mesh), ability to negotiate turns/spirals/curves, ease of tracking and maintenance, and modularity (for replacement of damaged sections) influence suitability. In food processing environments, hygiene regulations, washdown compatibility, and open-area ratio (for cleaning, airflow) are increasingly prominent drivers.
Finally, total cost of ownership — including belt life, downtime cost, cleaning/maintenance, energy usage (airflow in cooling/freezing), and repair complexity — must be evaluated not just at purchase but over the expected operating cycle.

VENDOR SOLUTIONS – MODULAR BELTS AND SPIRAL SYSTEMS FOR BAKERY PLANTS

Leading conveyor belt vendors have developed specialized product lines tailored for bakery and food processing, recognizing that "belt" is not a commodity but an engineered solution set. Among them, Intralox, Ashworth Belts, or Jonge Poerink Conveyors stand out. Their offerings cover a wide range of use-cases in a bakery's production and packaging flow — from dough handling through cooling/freezing and transfer, to packaging.

Intralox, a pioneer in modular plastic belting, offers a comprehensive conveyance portfolio: modular plastic belts, ThermoDrive belting, spiral belts and full conveyance systems. The firm emphasizes uptime, predictability and food-grade hygiene compliance. Their bakery-specific solutions target all types of baked and pre-baked goods — fresh bread and buns, pastries, cookies, crackers, flatbreads, frozen dough — and are designed to improve food safety, operational effectiveness in dough-handling areas, minimize jams on pan lines, optimize spiral cooling/freezing/proofing processes, and ultimately ensure return on investment for back-end projects.

Particularly, Intralox's ThermoDrive belt — for dough-handling conveyors — offers a "zero-pretension operation … to ensure loose running of the entire conveyor system," which results in extended belt life, reduced downtime, improved belt-edge integrity and increased efficiency.
For spiral conveyors, modular plastic belting provides flexibility for straight-running, radius or chain belts, enabling efficient vertical transport or compact spiral footprints when floor space is limited.

Ashworth Belts, with a long history and wide patent portfolio, remains a benchmark in baking-industry conveyor systems. The company offers solutions across metal and plastic belts for straight-running conveyors, curves, spirals, turn-curves, lo-tension belts and hybrid belts — enabling customization for a variety of bakery applications.
Particularly for baking, cooling, freezing, transfer and packaging stages, Ashworth's metal belts (woven wire, flat-wire, balanced weave) deliver the structural integrity, uniform heat/airflow and product support required by heavy loads, large pans or continuous operation. Their "all-metal belts for use in commercial baking applications" are designed so that even the most demanding requirements — strength, durability, product release, airflow — are met.
Their classic woven-wire mesh belt for ovens and transfer zones, the CB5 Baking Band, remains a standard for decades: its tightly woven wire mesh gives "excellent gas relief with good product support for all but the most fluid dough."
For applications outside the oven — e.g. freezing, cooling or complex transfers — Ashworth developed hybrid belts such as the Advantage 120 Belt, combining a metal backbone with a plastic product surface to provide "superior airflow and enhanced product release characteristics," while remaining easy to clean and repair. This hybrid design appealed to a bakery whose previous metal spiral belt had operated for two decades but caused long cleaning cycles and risk of metal debris; switching to Advantage 120 led to a simpler, lightweight, cleanable system requiring fewer belt changeovers.

Ashworth's spiral conveyor solutions — including the PosiDrive Spiral System and plastic belt lines such as SpiralSurf Belt Line — cater to processing stages requiring vertical transport, tight transfers or compact footprint, mixing positive-drive reliability with hygiene-conscious design.
Meanwhile, Jonge Poerink Conveyors, with more than 90 years of experience, specializes in internal conveying systems — including curved conveyors and spiral conveyors — for food, beverage and packaging industries. Their product portfolio includes the new food-safe lines such as the Sani Curve Belt, designed with an open belt structure, easy cleanability (washdown quality), small contact surface for products and resistance across a wide temperature range (–30 °C to +80 °C). This open design is intended to match the hygienic and operational demands of modern food processing while offering easier repairability compared to traditional wire-mesh belts.
Their spiral solutions — e.g. JPHD Spiral Conveyor or JPFD Spiral Conveyor — provide modular belt designs including stainless steel rods for flat surfaces, compatible with washdown hygiene requirements, suitable for vertical conveyance of baked or frozen items, and allowing minimal foot-print installations — important where floor space is constrained.

BALANCING HYGIENE, EFFICIENCY AND CAPITAL / OPERATING COSTS

Migrating from traditional metal wire mesh belts to hybrid belts, or from flat belts to modular plastic systems, involves trade-offs. A bakery chain representative was recently quoted explaining that when evaluating belts, processors often overlook that "the conveyor belt is … an engineered product" rather than an accessory — a mindset that can have "a profound impact on conveyor performance and operating cost."

On the one hand, metal belts such as woven-wire mesh deliver durability, heat/gas release, structural integrity under heavy loads and stable performance across temperature extremes. On the other, hybrid or plastic modular belts reduce weight, simplify maintenance, improve open-area airflow (useful for freezing or

cooling tunnels), and can drastically reduce downtime when belt replacement or cleaning is needed.
Hybrid belts like the Advantage 120, by merging a steel backbone with a plastic surface, attempt to deliver the best of both worlds: strength and cleanability.
Plastic modular belts (e.g. from Intralox) support flexibility in layout — straight, curved, spiral — and allow fast re-configuration without field splicing.

Intralox, for instance, provides modular plastic belts among "hundreds of thousands of configuration options for straight-running, radius, and chain belts."
Maintenance philosophy also changes: where metal belts may need careful tracking, tensioning, cleaning, and handling of metal debris, plastic/hybrid belts permit easier spares replacement, simpler sanitation, faster change-overs; especially in high-throughput, high-hygiene food plants.

DECISION FRAMEWORK FOR SELECTING CONVEYOR BELT TYPE

When procuring a conveyor belt for a bakery line — excluding high temperature oven belts — management should start by categorizing the distinct process zones: dough handling and forming; proofing / resting; pre-bake transfer; post-bake cooling/ freezing; packaging and transfer; vertical transport (spirals); and pan/tray handling. For each zone, the critical parameters differ (hygiene/residue resistance in dough handling, open area for airflow in cooling/ freezing, load capacity for tray pans, gentle surface for delicate pastries, etc.).

If a line involves frequent product changes, flexible layouts, or heavy cleaning requirements — as is often the case with modern bakeries producing diverse SKUs — modular plastic or hybrid belts may provide the best balance of hygiene, maintenance and versatility. When the process demands heavy load-bearing, airflow, consistency, or long-term durability with minimal deformation, metal belts (woven-wire, balanced-weave, flat-wire) remain the reference. In situations where space is limited, vertical conveyors or spirals with stainless-rod modular belts might offer the most efficient use of footprint while preserving hygiene and performance.

Cost-of-ownership analysis must include not only initial belt cost but downtime, maintenance, cleaning agents or sanitization labor, energy for cooling/ freezing (if airflow matters), belt replacements or spares, and installation or retrofit complexity. Underestimating the belt as a "fixed cost" rather than a dynamic, engineered component can lead to suboptimal performance or unplanned downtime.

CONCLUSION – CONVEYOR BELT AS STRATEGIC INFRASTRUCTURE

Ultimately, looking at conveyors in a bakery context must be treated with the same rigor as baking ovens, mixers or proofing tunnels: belt material, design and system integration should be analyzed as long-term investments with substantial impact on operational resilience, food safety, product quality and total cost of ownership. •

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> RELIABLY INVENTIVE

Starting **at the Source**

Sustainable sourcing of ingredients has more and more become a long term integrated process where ingredient producers become involved in the making of their staple crops from the very beginning: the farms.

By Jo Ilie

BENEO: THE RIGHT PLANT IN THE RIGHT PLACE

When ingredient producer BENEO chose where to build a new, sustainable faba bean processing plant, it made sure the site was in close proximity to the farms that provide them with the sought-after crop.

BENEO's factory is part of a sustainability movement that involves ingredient producers in the whole supply chain, not only what happens inside their walls. The plant was opened in 2025 following an investment of around EUR50m by the mother company, the Südzucker Group, and it is processing locally grown faba beans into ingredients for food and feed production. "Pulses like faba beans are key to resilient farming systems and thanks to their versatility and sustainability credentials are an increasingly popular plant-based protein source for bakery producers," says Nathalie Sadin, Corporate Sustainability Manager at BENEO. "Our pulse-processing plant supports a zero-waste approach, through the full valorisation of the faba bean raw material, producing a protein concentrate, starch-rich flour, and hulls (which are used in animal feed). The beans are processed using dry fractionation. During production, no water is used, a low level of energy input is required, compared to wet processes and no chemicals or processing aids are needed. Also, the plant production runs entirely on electricity from renewable energy sources. Additional power is generated by a rooftop photovoltaic system and waste heat from production is used to heat the building."

BENEO's faba beans are grown in Germany and are REDCert2 certified, which is equivalent to the Farm Sustainability Assessment (FSA) from SAI at the highest "Gold" level. Also, the faba beans are grown in a region with good rainfall and soil with good water retention capacity, so that irrigation is not necessary. "The collaboration with German farmers helps lower the ingredient's overall carbon footprint, thanks to short transportation distances to the pulse-processing plant in Obrigheim, Rhineland-Palatinate in Germany," says Sadin.

Together with an external partner, BENEO conducted a Life Cycle Assessment (LCA) for their faba bean ingredients, i.e., the protein concentrate, starch-rich flour and hulls. Its results have been reviewed and certified by an independent auditor. The goal was to assess the environmental impact from cradle-to-gate, meaning from faba bean cultivation on the field to the final ingredients. What differentiates a LCA from a Product Carbon Footprint (PCF) is that it takes into account not only greenhouse gas emissions, but also a range of other environmental factors, including water and land use.

Interestingly, the results for the protein concentrate demonstrate that 87% of the ingredients' environmental impact on global warming is caused by the cultivation of the crop, 9% by transportation from the field to the factory, while only 4% stems from BENEO's production process, confirming our choice of a dry fractionation method, says Nathalie Sadin. The comparison of BENEO's LCA results with animal protein and competitive vegetal protein ingredients like soy or pea isolate showed that faba bean protein concentrate gains a competitive edge through low climate change impact. In particular, faba bean protein concentrate significantly outperforms animal protein from eggs in terms of climate change impact and water use. This is good news for bakery producers looking to reduce their environmental impact, while at the same time responding to the plant-based trend by reformulating without eggs.
This faba bean initiative is not the only avenue BENEO is taking toward more sustainability.

"Finding more sustainable farming methods and promoting regenerative agricultural principles is a crucial part of our sustainability strategy, the 'Healthy Planet Plan'," says Sadin. "For example, we launched this year a three-year project, funded by the Government of Flanders, promoting sustainable rice production in Vietnam. When it comes to faba beans, they help to reduce greenhouse gas emissions at farm level by capturing nitrogen from the atmosphere and using it to nourish both themselves and subsequent crops. This natural fertilisation reduces the need for synthetic inputs and improves soil quality for future harvests. They also provide an additional crop in farmers' rotation cycle, while enhancing soil structure and increasing biodiversity."

ADM: REGENERATIVE AGRICULTURE COMES TO HUNGARY

In the same vein, ADM announced the expansion of its regenerative agriculture program, re:generation to Hungary. The program helps build and maintain a more resilient food system and create economic value for growers by providing financial and agronomic support to farmers who are taking steps to implement regenerative agriculture practices.

In collaboration with Bayer, the program in Hungary aims to enroll 30,000 acres (approximately 12,000 hectares) of predominately sunflower seeds but also soybeans, for the 2025 harvest and to scale in subsequent years. Through the program, sunflower seed farmers will be provided with financial and technical support to implement qualifying regenerative agriculture practices. ADM will compensate participating farmers for each qualifying hectare, measured and verified using Bayer's digital capabilities in collaboration with Trinity Agtech's Sandy platform, a recognized solution backed by science that complies with the highest standards available in the market. In addition to financial support, participating farmers will receive agronomic guidance from specialized professionals. That support starts with a deep agronomical understanding of issues specific to each region, followed by on-farm assessments, where agronomists visit fields and, together with farmers, design development plans tailored for each farm. Enrolled farmers will be able to share their experiences with one another and discuss different techniques during field visits and peer learning opportunities. By coordinating peer-to-peer networks, knowledge can be shared with a goal of revitalizing rural communities.

In parallel to the program expansion to Hungary, ADM is conducting a feasibility study to assess the effectiveness of various regenerative agriculture practices in reducing carbon emissions, increasing biodiversity and improving soil health in enrolled farms to build farm resiliency. The study will enable evaluation of the effectiveness of the practices and help shape the larger scale effort.

In the next two years, subject to customer demand, ADM's re:generations program will expand into a broader range of crops such as corn and rapeseed, and geographies, including Bulgaria, Romania, Turkey and Ukraine.

This expansion in Hungary marks the fifth country in Europe that ADM has rolled out its regenerative agriculture program to since 2023. In EMEA , ADM has expanded the program to more than 80,000 acres, including wheat and canola in Poland, soy in Serbia, and various crops in Germany and the United Kingdom. By the end of 2025, ADM aims to enroll over 160,000 acres (approximately 65,000 hectares) across the region, more than doubling its efforts from 2024.

TATE & LYLE: REGENERATIVE AGRICULTURE SUPPORT FOR FRENCH FARMERS

Tate & Lyle is another major company investing in regenerative agriculture. Its program supports corn suppliers in France to farm more sustainably. Developed with farming cooperatives and representative groups, and Regrow Ag, the agriculture resilience platform provider enabling companies to measure, model, and accelerate regenerative outcomes across global supply chains, the programme will enable participating farmers to understand the impact of adopting regenerative agronomic practices. In turn, Tate & Lyle will monitor the environmental improvements it is supporting on thousands of acres of corn used to make many of its speciality ingredients.

From farm to fork, the provision of food is responsible for around one third of greenhouse gas emissions, says the company. To satisfy the demands of a growing global population, society must produce much more food, and so reducing the climate impact of the end-to-end food value chain will be critical to solving the climate crisis. Through an agreement with three of its largest farming partners – Armbruster Grande Cultures, Euralis Groupe Coopératif and Groupe Coopératif Maïsadour – who represent growers in the northeast and southwest of France, Tate & Lyle is supporting farmer efforts to strengthen resilience to the impacts of climate change. Practices to support soil health prioritised in the program include: low and no till, which minimises soil disturbance; cover crops,

which support soil health; and nitrogen management to reduce the use of synthetic fertilisers. Tate & Lyle and its partners will use Regrow's AI-driven software platform to quantify environmental impacts and monitor trends in participating farms. Regrow and local agronomists are partnering to support farmers with data entry and analysis to inform farm planning and integrate into Tate & Lyle and its customers' environmental reporting.

This program builds on Tate & Lyle's existing, more mature regenerative agriculture programmes, which support corn growers in the US and stevia growers in China. Tate & Lyle maintains acres equivalent to the volume of corn it buys annually in its regenerative agriculture programmes.

CARGILL: MORE SUSTAINABLE COCOA PLANTATIONS

Cargill recently announced a transformation of its global cocoa supply chain, unveiling a series of interconnected investments that reduce carbon emissions, eliminate waste, and boost efficiency from cocoa origin countries in West Africa to processing hubs in Europe. The company's upgrades span renewable energy, circular logistics, and smart infrastructure.
In Côte d'Ivoire, cocoa shells, once discarded, are now used to fuel biomass boilers. In Ghana, a solar plant powers production in Tema, and new ISO tanks are replacing disposable packaging, providing the opportunity to cut up to 100 metric tons of waste each month.
Once the beans and semi-finished cocoa products produced in origin arrive in Europe, they enter a fully integrated logistics network. Beans are stored in solar-powered warehouses near Amsterdam, The Netherlands, then transported to Cargill's factory in Zaandam via the world's first fully electric barges - eliminating 190,000 kg of CO_2 emissions annually. The electricity for these vessels, and for Cargill's Dutch facilities, comes from Windpark Hanze, a renewable energy partnership with Vattenfall.
After processing, cocoa shells are reused again - this time as fuel in Cargill's new biomass boiler in Amsterdam, which will cut greenhouse gas emissions by nearly 19,000 tons each year. Together with the wind farm Cargill and Vattenfall operate in partnership with Windpark Hanze, the CO_2 emissions reduction reaches more than 31,000 tons per year – representing a reduction of site CO_2 emissions of up to 90%.

The final leg of the journey continues with low-emission transport. Semi-finished cocoa products are shipped to Wormer - home to the world's largest cocoa processing site - using BIO LNG trucks, and finished cocoa powder is stored at a next-generation warehouse in Zaandam. Operated in partnership with Green Valley Cocoa Logistics, the facility features solar panels, automated vehicles, and intermodal rail and barge connections to reduce last-mile impact.
This integrated effort also supports Cargill's broader climate goals which include reducing operational emissions by 10% by 2025.

CONCLUSIONS

"To produce plant-based functional ingredients requires agricultural raw materials and, with sourcing beginning at farm level, a resilient farming sector is essential," says Nathalie Sadin, Corporate Sustainability Manager at BENEO. This requires close collaboration between manufacturers and farmers and moving closer to a 'farm' to 'fork' approach that considers reducing environmental impact in sourcing and production, while also offering nutritional solutions to consumers. This approach is being well received by customers who are under increasing pressure to consider sustainability aspects in their value chains from both authorities and consumers. With 76% of consumers globally now expecting companies to be transparent about their raw material sources and 42% of consumers globally saying they are actively looking for sustainable alternatives to conventional products, the sustainability credentials of ingredients are under the spotlight like never before. And smart companies are delivering. •

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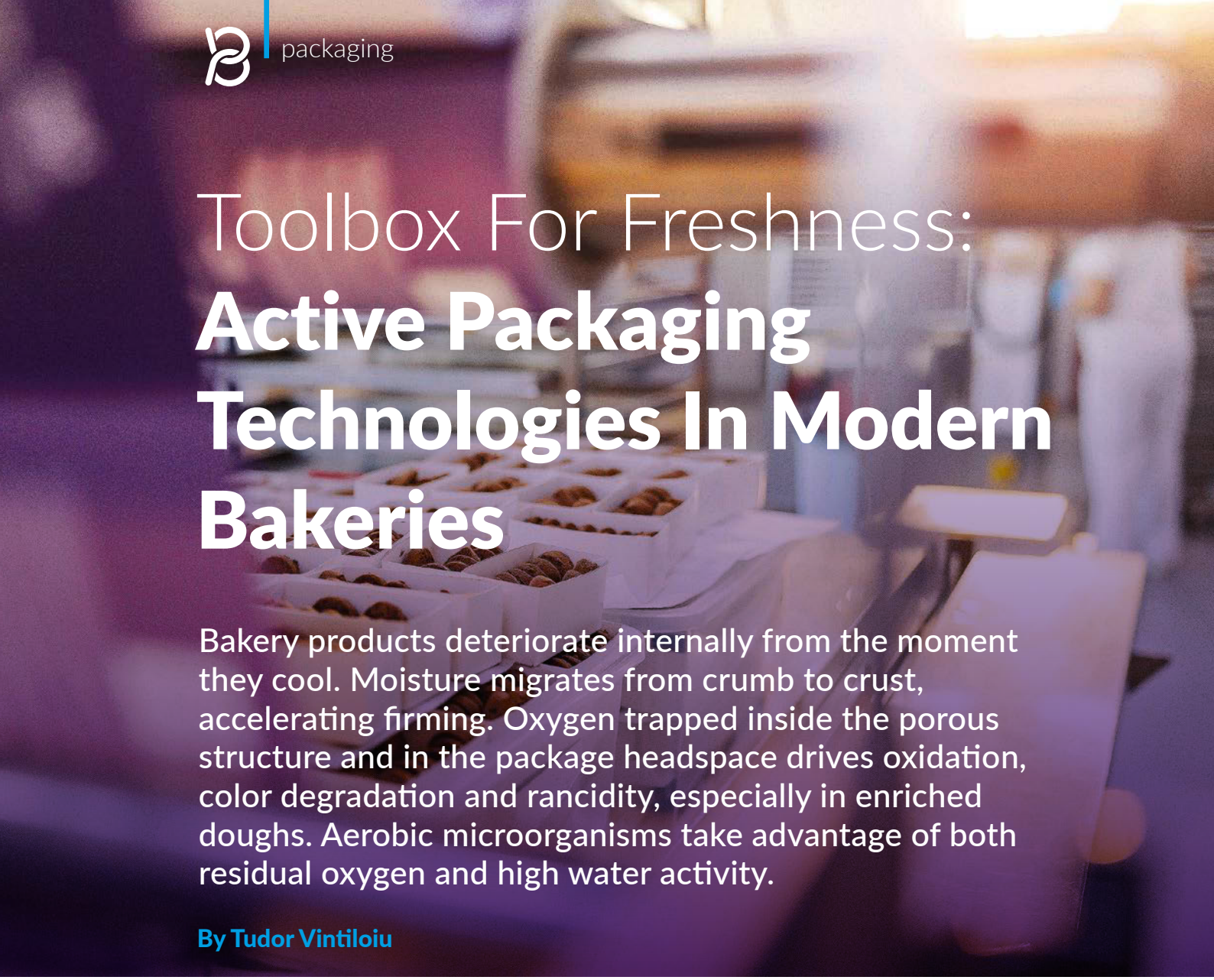


Toolbox For Freshness: Active Packaging Technologies In Modern Bakeries

Bakery products deteriorate internally from the moment they cool. Moisture migrates from crumb to crust, accelerating firming. Oxygen trapped inside the porous structure and in the package headspace drives oxidation, color degradation and rancidity, especially in enriched doughs. Aerobic microorganisms take advantage of both residual oxygen and high water activity.

By Tudor Vintiloiu

Traditional packaging forms a protective shell around the product but cannot influence these internal pathways of degradation. Active packaging responds to this limitation by interacting with the food environment, moderating oxygen levels, regulating moisture or releasing antimicrobial agents to slow spoilage without changing the formulation of the bakery product itself.

CORE MECHANISMS AND MATERIAL CONSIDERATIONS

Active packaging relies on barrier materials combined with functional components designed to perform preservation tasks. Oxygen scavengers, whether in sachet form or integrated into multilayer films, are widely used because reducing oxygen directly slows down mold growth and oxidative reactions. Moisture control agents stabilize water activity, help prevent condensation and delay crumb firming. Antimicrobial systems, particularly ethanol emitters, act as fungistatic agents and are frequently used for high-moisture baked goods prone to rapid mold development.
These mechanisms can be applied individually or in combination. High-barrier films maintain the controlled internal environment, while scavengers or emitters manage the dynamics inside the package. Modified-atmosphere packaging can complement active functions but often requires scavengers because oxygen slowly migrates out of the bread's internal structure over time.

EVIDENCE IN BAKERY: TWO REFERENCE STUDIES

In pre-baked buns, the use of a commercial ethanol emitter delayed visible mold growth dramatically. In untreated packs with no active components, molds such as Penicillium and Cladosporium typically appeared within several days. When an ethanol emitter was placed inside the sealed pack, mold onset was postponed by up to thirteen days, and microbial counts remained low during the observation period. This demonstrated the ability of ethanol vapor to suppress fungal growth without adding preservatives to the dough.

In sliced sourdough bread packaged in high-barrier pouches, combining a high-capacity oxygen absorber with a nitrogen-flushed headspace created the most favorable storage conditions. Oxygen levels fell to trace amounts within days and remained stable across the full testing period. Microbial growth was significantly lower and texture changes slower compared with control packs. The study also showed that modified atmosphere alone is insufficient because trapped oxygen within the crumb migrates outward over time; scavenging is needed to manage this internal oxygen release.

OXYGEN SCAVENGER SACHETS AND FILMS

Mitsubishi Gas Chemical markets the Ageless family of oxygen absorbers, long established across food categories including bakery. The company describes Ageless as the world's first oxygen absorber and offers sachets and film-integrated formats in different capacities. For sliced loaves, pan bread and sweet goods, these scavengers are typically paired with a high-barrier film to maintain low oxygen throughout the product's life. When sized correctly, Ageless systems can hold oxygen at near-zero levels and meaningfully delay mold development.

Multisorb, part of Filtration Group, supplies FreshPax oxygen absorber packets. The company states that FreshPax packets eliminate virtually all oxygen within hermetically sealed packaging. For bakery producers concerned about sachet mobility in packs, Multisorb also offers FreshMax self-adhesive absorbers, which are fixed in place and compatible with automated dispensing systems. Both formats are used by bakeries requiring rapid oxygen reduction and consistent low-oxygen maintenance.

Sealed Air's Cryovac line includes active barrier films that incorporate oxygen-scavenging layers directly into the material structure, removing the need for loose sachets. The company states that Cryovac packaging extends the shelf life of products, and the active-film variants provide scavenging performance within standard bakery lidding, flow-wrap or form-fill-seal operations. This approach is particularly useful for branded retail breads where loose sachets may not be preferred.

ETHANOL EMITTERS FOR MOLD-PRONE BAKERY ITEMS

Freund Corporation has long produced ethanol-based antimicrobial sachets used in bakery applications. In technical descriptions, Freund's product family includes formats in which ethanol is adsorbed onto a carrier material and released gradually through a controlled-permeability film. This controlled release suppresses mold growth in high-water-activity baked goods, exactly as reflected in the pre-baked bun study that showed multi-day extensions in mold-free shelf life.
Ueno Seiyaku, part of the Ueno group, offers an ethanol emitter marketed under the name ALVO. It is supplied as a small sachet engineered to release food-grade ethanol inside the sealed package. ALVO is positioned specifically for use in bakery products and is available in multiple emitter strengths so that bakers can match the release rate to product type, package volume and water activity. When correctly matched, ethanol emitters provide strong fungistatic action while maintaining sensory acceptance.

CHOOSING THE RIGHT ACTIVE FUNCTION

Bakery producers typically align active packaging with the product's vulnerability. For breads, pan loaves and enriched rolls where oxygen diffusion drives both oxidation and mold, oxygen scavengers—whether sachets or active films—are usually the first choice. For high-moisture sweet bakery goods, par-baked items or products without preservatives, ethanol emitters offer stronger direct protection against mold. Increasingly, bakeries combine these functions with high-barrier structures to ensure that both chemical and microbiological risks are addressed in the same pack.

OPERATIONAL AND REGULATORY CONSIDERATIONS

Introducing active components requires careful coordination with packaging-line operations. Sachet placement systems must verify that one absorber or emitter is dispensed per pack, and integrated films must match existing sealing temperatures and mechanical properties. Labels and specifications must accurately reflect the presence of active systems, and all components must comply with applicable food-contact regulations. Environmental factors must also be considered: multilayer active films and sachets complicate recycling, although the reduction in waste from fewer unsold or spoiled bakery items can offset some of the environmental impact at system level.

CONCLUSION: A PRACTICAL, COMMERCIALLY PROVEN TECHNOLOGY

Active packaging is no longer an experimental concept. Commercial oxygen scavengers and ethanol emitters have demonstrated clear, reproducible benefits for bakery goods, from delaying mold growth in pre-baked buns to maintaining freshness in sliced bread. For bakeries seeking longer distribution windows, clean-label formulations or reduced product waste, these proven tools offer a practical route to improved shelf life without altering recipes. As material science advances and active film technologies continue to mature, the bakery sector stands to gain even more from solutions that maintain product quality while meeting retailer and consumer expectations. •

Low-sugar Improvers Can Help Bakers Make **Healthier Products without Compromise**

The biggest challenge for bakers aiming to reduce sugar in their products is to keep the texture and taste unchanged or, at least, just as appealing as they in the case of full-on sugary baked goods. With improvers, these aspects can be kept in control to allow bakers to shine in the products they create. Angel Yeast, a major yeast and yeast-derived bakery ingredient producer, explains how that is possible.

By Angel Yeast

1. Sugar plays multiple functional roles in dough systems beyond sweetness. From your perspective, what are the primary formulation and process challenges when reducing sugar in yeast-leavened bakery products?

Reducing sugar in yeast-leavened bakery products presents interconnected challenges in both formulation and processing. From a formulation standpoint, sugar serves not only as the crucial energy source for yeast - where its reduction leads to insufficient fermentation and smaller volume - but also as the essential substrate for Maillard reaction, significantly impacting the development of golden-brown color and characteristic baked flavors. Furthermore, the reduced hygroscopic function of sugar accelerates starch retrogradation, resulting in firmer texture and shorter shelf life. These formulation changes consequently create notable processing challenges: production lines require recalibration of fermentation parameters to maintain consistency, while precise optimization of baking temperature and time becomes necessary to balance crust color with internal structure - adjustments that directly impact production efficiency and product uniformity.

2. How do low-sugar improvers function at the biochemical level to support fermentation performance and gas retention when the substrate for yeast activity is limited?

Low-sugar improvers are designed to comprehensively address the challenges in reduced-sugar baking environments. They work by creating a more favorable ecosystem for yeast activity and dough development. Simultaneously, they enhance the dough's structural properties to better retain the gases produced during fermentation.

3. Reducing sugar can affect crust colour, volume, and softness. How can a yeast-based improver help maintain these quality parameters in finished goods?

While the term "yeast-based" is mentioned, our low-

sugar baking solutions primarily utilize carefully selected enzyme systems and functional ingredients to maintain product quality in sugar-reduced formulations. These solutions are specifically designed to address the key challenges of crust color, volume, and softness through complementary mechanisms. The enzyme systems help develop proper crust coloration by supporting the necessary biochemical reactions. For volume maintenance, the solutions work to optimize gas production and retention throughout the baking process. Additionally, they help preserve softness and extend shelf life by improving the structural and moisture management properties of the final product.

4. Could you outline the key differences in composition and mechanism of action between standard dough improvers and those optimised for low-sugar formulations?

Standard dough improvers are typically formulated for conventional recipes with sufficient sugar content. Their primary focus is on optimizing an already functional system by strengthening the gluten network and improving dough tolerance. In contrast, improvers for low-sugar formulations are specifically engineered to compensate for the absence of sugar's key functionalities. Their composition is distinctly different, placing a strong emphasis on in-situ generation of fermentable sugars through targeted enzymes like α-amylase. Advanced low-sugar improvers represent a more sophisticated generation, incorporating a broader spectrum of enzymes and functional ingredients for enhanced dough stability, gluten strength, and softness, addressing the textural and stability challenges of low-sugar systems more comprehensively than a standard improver would.

5. What types of yeast strains or fermentation-derived ingredients are most effective in compensating for sugar reduction from a flavour and textural standpoint?

In addressing sugar reduction challenges, we focus on specialized yeast strains and carefully developed ingredient systems that work synergistically. For optimal fermentation performance in low-sugar environments, specific yeast strains like our BWT low-sugar yeast are particularly effective due to their enhanced adaptation to these conditions.

6. To what extent can yeast extracts or enzymatically derived flavour components enhance Maillard reaction pathways and restore desirable aroma profiles in low-sugar baked goods?

In low-sugar baking, achieving the desired aroma profile requires innovative approaches to support the Maillard reaction. Enzymatically derived solutions offer an effective pathway to enhance this crucial reaction. Through carefully selected enzyme systems, we can improve the availability of key reactants in the dough matrix.

7. Many bakers are reformulating for cleaner labels. How can low-sugar improvers based on yeast fermentation support both functionality and label simplicity?

Low-sugar improvers based on yeast fermentation are uniquely positioned to support both baking performance and clean label goals. These solutions typically utilize naturally-derived ingredients that are well-recognized and accepted by consumers seeking cleaner labels. The multifunctional nature of these improvers is particularly valuable - a single product can effectively address the multiple challenges posed by sugar reduction, including fermentation, texture, and volume issues. This eliminates the need for multiple single-function additives, resulting in shorter, simpler ingredient lists.

8. Are there specific processing adjustments—such as proofing time, dough temperature or mixing intensity—that bakers should consider when incorporating low-sugar improvers into production lines?

When incorporating low-sugar improvers into production lines, we provide detailed technical guidelines to help bakers achieve optimal results. Our product specifications include comprehensive processing parameters that have been thoroughly tested in various production environments. We work closely with bakeries to conduct production trials and optimize all processing parameters, ensuring seamless implementation and consistent quality in low-sugar baking applications.

9. Beyond sugar reduction, are you seeing synergies with other reformulation goals such as salt reduction, fibre enrichment or plant-based formulations using the same yeast-based technologies?

Yes, our yeast-based technologies demonstrate strong synergies with various product reformulation objectives. The same fundamental principles that make these solutions effective for sugar reduction also provide significant benefits in other areas. For salt reduction strategies, our fermentation-derived ingredients serve as effective flavor enhancers, helping to maintain taste perception while reducing sodium content. In fiber-enriched formulations, our technologies help maintain desired texture and volume that can be challenging with high fiber levels.

10. Looking ahead, how is your R&D pipeline addressing the next generation of yeast-based improvers to deliver consistent baking performance while meeting nutritional and sustainability targets?

Future developments will focus on exploring novel enzyme blends and yeast-derived ingredients to enable more ambitious reductions in sugar, salt, and fat, while supporting the incorporation of nutritionally positive components like dietary fibres. The commitment to clean-label formulation, utilizing recognizable ingredients, remains a cornerstone. Concurrently, we are intensifying our focus on sustainability. The ultimate objective is to provide the baking industry with integrated, future-proof solutions that facilitate the production of high-quality, nutritious, and responsibly manufactured baked goods. •

Yeast Versus Sourdough, **A False Conflict**

The rise in demand for sourdough baked goods and the commercial narratives around the health benefits of wild yeast does not mean that baker's yeast is a lesser ingredient.

By Jo Ilie

The past 10 years, and especially the pandemic ones, have seen a resurgence in a traditional way of baking bread, using wild yeast (sourdough) and adhering to slow proofing timelines. The result of this process is a heavier, crustier, more open crumb bread that satisfies both a crave for texture and one for a more complex taste.

Following the increase in demand, many ingredient makers developed sourdough starters that allows bakers to industrialize the production process and increase their yield while maintaining an artisanal feel to the final product.

Yeast producers, along with yeast-leavened baked goods makers, did not sit idle while the world fell in love again with sourdough and created better ingredients and products.

THE THREE MARKETS

The sourdough bread market size was valued at USD3.25bn in 2025 and is expected to grow to USD4.49bn by 2030, registering a compound annual growth rate (CAGR) of 6.68%, according to the market research company Mordor Intelligence. This growth is driven by increasing consumer preference for clean-label baked goods, growing scientific evidence supporting sourdough's benefits in managing blood sugar levels, and its rising popularity in foodservice channels. Industrial bakers are expanding production by using freeze-dried starter technologies, while retail in-store bakeries are capitalizing on sourdough's premium appeal to boost profit margins. Ingredient suppliers are focusing on research and development to improve fermentation techniques, particularly for gluten-free and functional food applications, which is creating new opportunities in the specialty nutrition segment. Europe continues to dominate the market due to its strong artisanal baking traditions and robust export capabilities. The global market remains moderately consolidated as leading multinational companies invest in fermentation expertise and technical support teams to strengthen their market position. The sourdough bread is a small part of the much much larger bread market. The bread market's current valuation stands at USD245.13bn in 2025 and is projected to reach USD296.04bn by 2030, translating into a steady 3.85% CAGR, according to Mordor Intelligence. Europe anchors demand with deeply rooted consumption habits, while Asia represents the fastest-growing geography as urban households purchase more packaged toast and single-serve rolls. Premiumisation remains a defining lens: high-protein formulas, gluten-free variants, and organic certification allow bakers to lift average selling prices even when volume gains taper in mature regions. Leading producers are also hedging wheat purchases and raising capital expenditure on cold-chain logistics to balance cost volatility with differentiation. Collectively, these moves show that the bread market is evolving from scale-only competition to a blend of efficiency, nutrition science, and supply-chain agility in the bread market.

While sourdough is only counted as its final product - bread and other baked goods -, baker's yeast is also analyzed as a different market because it is more established as an ingredient in itself.

The baker's yeast market size stands at USD1.21bn in 2025 and is forecast to reach USD1.79bn by 2030, advancing at an 8.17% CAGR, also according to Mordor Intelligence. Growth momentum stems from the premiumization of everyday bread, quick-service restaurant expansion, and the rapid scale-up of precision-fermentation platforms that widen yeast functionality beyond leavening. Europe preserves leadership through deep artisan traditions and clean-label regulations, while Asia-Pacific contributes the largest incremental volume thanks to rising disposable incomes and urban lifestyles. Fresh/compressed formats remain the workhorse of industrial lines, yet liquid and cream variants gain favour as bakeries automate dosing and cold-chain logistics improve. Engineered Saccharomyces strains that deliver higher yields of vitamins, proteins, and

bioactives are moving from pilot to commercial batches, opening new revenue streams for incumbents and start-ups. Overall, the baker's yeast market continues to show resilience despite volatile molasses prices because bakers see yeast as a cost-effective path to clean labels, flavour complexity, and reliable dough performance.

IN SEARCH OF THE PERFECT SOURDOUGH STARTER

One of the most important brands in commercial sourdough starter making is Puratos, global leader in bakery, patisserie and chocolate ingredients. The name is forever linked with sourdough because, before wild yeast was popular again, they created the Sourdough Library.

The Sourdough Library was founded in October 2013 in Saint-Vith, Belgium, and is the only facility in the world dedicated to housing sourdough cultures. The library is housed at the Puratos Center for Bread Flavour, with a mission to conserve and promote sourdoughs from around the world, to conduct research, and to ensure the survival of the various strains for future use. It currently has over 900 strains of wild yeast and lactic acid bacteria recorded.

In 2024, they launched Sapore Lavida, the first completely traceable active sourdough produced in Belgium. The new ingredient is made exclusively with 100% wholewheat flour sourced from regenerative agriculture practices, enabling bakers across mainland Europe to meet growing demand for locally-produced, sustainably-sourced

sourdough products. In all applications, Sapore Lavida offers a tangy flavor profile with fruity, balanced lactic and acetic notes, and it enhances fiber content in white bread too.
Sapore Lavida is an integral part of Puratos's plan to create a more sustainable, regenerative future in food production. The company currently produces sourdoughs in twelve countries worldwide and is working on a broader sustainable farming strategy in the US, Australia, the UK, Italy and Turkey. The company also plans to extend its range of products made with regenerative ingredients, including a rye sourdough.

Another mark of how successful the company is at preserving heritage is that their Vitus sourdough has been chosen as the signature starter for La Boulangerie du Louvre, the world's first fully operational artisan bakery located inside a major art museum. While Vitus is not part of Puratos' commercial sourdough portfolio, it holds a prominent place within the company's Sourdough Library.
Puratos recently expanded its research capabilities by joining forces with the Free University of Bozen-Bolzano. Their breakthrough finding is a study on pulse-based sourdough. The study shows that breads deliver 45% more protein, an improved amino acid profile, and potentially enhanced gut health benefits compared to traditional wholewheat bread made with baker's yeast.

The study also found that fermentation in pulse-based sourdoughs reduces antinutritional factors, supporting digestive comfort, while boosting polyphenols that enhance antioxidant and anti-inflammatory benefits. From a sensory perspective, the findings showed pulse-based sourdoughs produced enhanced flavor and aroma. These results underscore the potential of fermenting plant-based ingredients like pulses to redefine functional bakery innovation.

Research was carried out by the HealthFerm Consortium, of which both Puratos and the university are members. HealthFerm is a joint European / Swiss research project investigating innovative pulse-based food fermentations. This project focused on pulse-based flours, including faba (or broad) bean flour, faba bean protein concentrate, and yellow pea flour, together with several lactic acid bacteria (LAB) and yeast pairings, with the aim of uncovering new, optimized bread formulations. Of 288 starter-initiated sourdoughs, 17 were shortlisted for transition to fully stable sourdoughs, which have markedly better microbiological maturity and functionality. Six of these emerged as the most promising, showing not only higher protein content but also improved amino acid balance and elevated levels of bioactive compounds such as gamma-aminobutyric acid (GABA) and lysine, both linked to metabolic and cognitive health.

"Fermentation plays an essential role in improving the nutritional quality, functionality, and sensory appeal of sourdough, but we wanted to see how we could push the boundaries further still by using wheat flour alternatives," comments Prof. Marco Gobbetti, co-author of the study and Professor of Food Microbiology at the Free University of Bozen-Bolzano. "What is interesting is that sourdough is not typically considered a high protein source, so our findings represent a real breakthrough for the bakery sector. This new discovery could usher in a new age of sourdough by inspiring bakers to adopt different fermentation and plant-based strategies."
In addition, the study found that fermentation produced a diverse range of volatile organic compounds (VOCs), giving the breads enhanced aroma profiles and strong sensory appeal. Specific LAB-yeast consortia drove the fermentation, enhancing not only the protein quality but also the bioactive compound release, highlighting the potential of microbial innovation in creating appealing, functional leavened bakery products. These findings align with growing consumer interest in health, taste, plant-based options, and sustainability, signaling an opportunity to tap into this rapidly-developing market.

"Gut health has always been a cornerstone of our product development, especially as more consumers recognize its benefits within a holistic approach to well-being," comments Dr. Vimac Nolla Ardèvol, co-author of the study and Research Manager Metabolomics at Puratos. "That's why we continue to invest in science-backed open innovation to uncover and create new food solutions that 'do more'. Consumers increasingly want to eat naturally, healthily, and sustainably, and at both the HealthFerm Consortium and Puratos, we believe there's a bright future in fermented bakery products with gut health benefits."

Puratos is not the only company that runs research on sourdough strains though. Il Granaio delle Idee (IGDI), an innovative international developer and provider of clean label baking ingredients, and Ginkgo Bioworks, which is building the leading platform for cell programming and biosecurity, recently announced a new collaboration. IGDI has identified a new sourdough bakery strain that can improve the flavor and aroma profile of baked goods via its starter culture product, Pater. This collaboration will leverage Ginkgo's Adaptive Laboratory Evolution (ALE) technology to accelerate the growth rate of IGDI's selected strain.

Lactic acid bacteria helps give sourdough its distinctive taste. IGDI has used its proprietary technology to develop a product, Pater, that keeps lactic acid bacteria dispersed in flour, viable and stable over time. Pater is a shelf stable, dried baking mix that can be used to make sourdough en masse, enabling artisanal and industrial bakers to expand their potential offerings of sourdough-based products. Bakers can use Pater to enhance the flavor, fragrance, structure, and color of bread, improve digestibility, and extend bread freshness. Additionally, Pater can produce natural emulsifiers, and can thus lessen the reliance on chemical

additives used widely in the baking industry. IGDI would like to incorporate a new strain in Pater to further improve the flavor and aroma of baked goods. In order to grow this strain economically, IGDI will leverage Ginkgo's ALE technology as it seeks to evolve the strain towards a higher growth rate. Ginkgo uses ALE as a fast, powerful strain development tool that can adapt strains to industrially-relevant conditions without gene editing.

MORE THAN YEAST

2025 has marked a first when it comes to baker's yeast: the publication of the first international standard defining the characteristics of fresh and dry baker's yeast. COFALEC, the European Confederation of Yeast Producers, has welcomed the publication of ISO 23983:2025. Released on 20 October, the new standard sets out unified criteria for yeast quality, covering product properties, physical and chemical composition, microbiological parameters and nutritional information. COFALEC initiated and led the proposal in cooperation with international experts and standardisation bodies.

The organisation said the adoption of ISO 23983:2025 represents a significant step toward harmonisation and transparency in the global baking sector. A common reference point is expected to strengthen quality assurance, support fair trade and foster innovation across international markets.

Efforts towards better understanding and use of baker's yeast are not new either. Lesaffre, a global key player in the field of fermentation for nearly 170 years, has modernized its yeast education website in 2022. Through this educational site, the company wishes to inform as many people as possible about the benefits of this microorganism for food, but also its many other applications in sectors as varied as baking, health and well-being, agriculture and even bio-fuels.

"Integrated in the composition of many foods and even in the production of biofuel, yeast is omnipresent in our daily lives. However, it suffers from a great lack of knowledge, even though it is one of the most promising products of the future, particularly in terms of meeting the challenge of tomorrow's food. With more than 170 years of expertise in this field, Lesaffre has a role to play in raising public awareness of yeast, its benefits, and its decisive role in the fermentation process," says Thomas Lesaffre, Marketing Director at Lesaffre.

Proof that yeast is even more than the microorganism that makes bread fluffy lies in the yeast-derived enzymes and egg replacers that have flooded the market in the past years. But even as plain yeast, the ingredient can still surprise bakers. New products from Angel Yeast, another global player, have more qualities and impact on the dough. Angel Yeast's new Premium high-sugar dry yeast product is resistant to high sugar, high salt content and weak organic acids, overcoming this challenge and ensuring rapid, high-quality fermentation. That is the case of some traditional French croissants and brioche as well as Italian panettone that have high sugar and oil content, and excess oil or sugar may affect yeast fermentation. Large-scale food producers need to extend the shelf life of their bread and baked goods, so they need yeast that is resistant to weak organic acids to meet this requirement. Angel Yeast's new high and low-sugar yeasts are resistant to cold shock, meaning that they still allow standard fermentation that is critical in recipes that require the addition of ice and cold water despite the significantly lower temperatures. This is a challenge for bakers in tropical climates, who must deal with high temperatures and harsh production environments.

Another innovation, from the same producer, is the Feravor series, offering a significant breakthrough in clean-label baking with naturally flavoured yeast solutions. Developed through proprietary microbial fermentation technology, Feravor includes two natural variants - Feravor-Rose and Feravor-Buttery - crafted to enhance bread flavour complexity while supporting sustainable production practices. The solution meets growing demand for cleaner, more natural ingredients without compromising efficiency or scalability.

CONCLUSIONS

Nourishing 9 billion people in 2050 in a healthy way while saving the planet's resources is a major challenge that yeast and, more broadly, the fermentation process can help meet, says Lesaffre. And they couldn't be more right. While sourdough remains a niche product that nourishes as much as it preserves knowledge, yeast is the answer to what the general population requires in order to have its needs met. Not a conflict, a match. •

Minit Slovakia

Tradition, innovation, and excellence in frozen bakery

MINIT SLOVAKIA stands as the largest producer and retailer of frozen bakery products in Slovakia, operating one of the most modern production facilities in Central Europe. As a family-owned business, now in its second generation of leadership, we combine deep-rooted tradition with the flexibility to adapt quickly to the needs of our partners and consumers.

WHO WE ARE

Drawing on decades of experience, a dedicated team, advanced manufacturing technologies, and a strong commitment to quality and innovation, MINIT successfully operates over 500 franchise bakeries across Slovakia and Czech Republic.

We are also a trusted supplier to leadinag retail chains, grocery stores, and foodservice industries in Slovakia, the Czech Republic, Hungary, Poland, Romania, Lithuania, and other European markets—always striving to share our passion for the art of baking and deliver a truly unique consumer experience.

Our roots are in the sun-kissed southern region of Slovakia, an area renowned for its hardworking people and a rich culinary heritage. Quality is not only our top priority—it is the very foundation of the MINIT brand. While excellence permeates every aspect of our operations, product quality comes first, with all company activities designed to support and enhance it.

FOR A BETTER DAY.

Mini pastries • Croissants • Pogaccias • Sweet and savory snacks
Breads • Baguettes • Pizza • Pinsa • Home pastry

minit®

OUR VALUES

Family	Character, enthusiasm, energy, humanity, and respect for tradition.
Originality	Our own original recipes, innovation, modernity and surprise
Quality	Fresh ingredients, hygiene, reliable production processes, and no compromises.
Yes, we can	What can be invented can also be created... and that's exactly what we do.

ABOUT US

- Wide variety of products from puff pastry, pizza snacks, croissants to rustic and sourdough breads.
- Distribution to franchise and retail
- 9 high-capacity production lines
- Focusing on the traditional production process.
- New production site built in 2023

OUR VISION IS TO PROVIDE CUSTOMERS WITH A UNIQUE EXPERIENCE OF FRESH AND HIGH-QUALITY BAKERY PRODUCTS.

INTERESTING FACTS

- **34** years of experience
- **980** employees
- **2nd** generation of management
- **2** modern production sites
- Export into **16** European countries
- **500** franchise MINIT bakeries in Slovakia and the Czech republic
- **biggest** seller of frozen bakery products in Slovakia

OSKAR SOURDOUGH BREADS – BAKED TO PERFECTION IN A STONE OVEN

Our Oskar sourdough breads are a testament to the craft of traditional baking. By using natural sourdough, we achieve a crispy crust, a distinct aroma, and the pleasantly tangy flavour that bread lovers cherish. Sourdough also ensures a longer shelf life. The dough is allowed to mature for up to 20 hours, with the entire production process taking up to 27 hours. Every ingredient—especially our carefully selected flours—is chosen with the utmost attention to quality.

MINIT PINSA – WHERE QUALITY MEETS TASTE

Pinsa, sometimes referred to as a "fluffy pizza," offers a crispy exterior and a soft, airy interior. We prepare our pinsa using natural sourdough and a unique blend of rice, soy, and wheat flours. Wheat flour provides energy and structure, rice flour brings exceptional lightness, and soy flour adds protein for optimal strength and digestibility. The dough's delicious flavour is further elevated with a touch of olive oil, resulting in a medium-thin base that is both satisfying and easily digestible—a perfect harmony of taste and texture.

We invite potential partners to explore opportunities for cooperation and growth with MINIT. For more information, please contact our colleague:

Silvia Ráczová, Export manager, +421 905 655 380
silvia.raczova@minitbakery.sk, www.minitbakery.sk/en/

France:
Pain au Chocolat or Chocolate Pain?

Rise in chocolate prices affected the French bakery market in a historic way: the demand in pastries, especially for the French staple pain au chocolat (chocolate puff pastry), has dropped in the past year.

By Jo Ilie

In the past two years, cocoa prices increased significantly, peaking at a record high of about USD10.97 per kilogram in early 2025. This represents a sharp rise compared to prices two years prior, which were USD 3.12 per kilogram, with the increase driven by major supply disruptions and production deficits in key cocoa-producing countries like Côte d'Ivoire and Ghana, which together produce around 60% of the world's cocoa.

The primary reasons for the price increase include severe weather conditions caused by climate change and El Niño, which led to erratic rainfall, drought, and higher temperatures in West Africa, negatively impacting cocoa yields. These adverse weather conditions have encouraged the spread of pests and diseases such as cocoa swollen shoot virus and black pod disease, which have significantly reduced production. Additionally, political instability, particularly in Côte d'Ivoire, and a global production shortfall of over 500,000 tonnes contributed to the supply tightness.

Although prices have recently started to decline from their peak due to improving weather conditions and recovery in production, cocoa remains structurally higher than two years ago due to ongoing supply constraints and market uncertainty. Weather variability and political risks continue to pose threats to a stable supply and price levels.

As is the case with all butterfly effects, an erratic rainfall in Ghana can lead to increased pastry prices in France. Here's what market analysts at Euromonitor International had to say about the the way the baked goods market has changed in the past year France.

WHEN CHOCOLATE BECOMES LUXURY

According to data analytics company Euromonitor International, retail value sales of baked goods are set to rise in current terms in France in 2025. In fact, the baked goods sector is expected to register slight growth in both value and volume terms during the year, boosted by the flat and leavened bread categories, which continue to see the highest growth in this category.

Pastries is not performing well, with volumes set to decline largely due to a reduction in pain au chocolat purchases linked to the rise in chocolate prices. These products are traditionally entry-level items on store shelves, but are now more expensive and consumers are looking for alternatives. As a result, there has been increased interest in brioche products that are seen as practical, with an element of indulgence compared to bread, but remaining affordable. Cakes is also set to see a slight decline in volume sales in 2025.

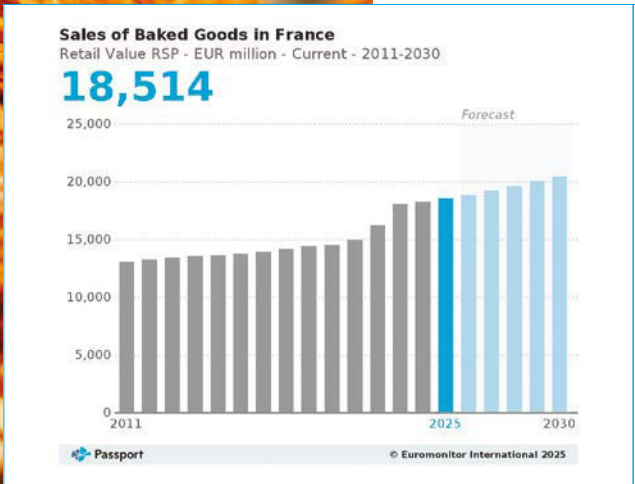
BREAD SEES STRONGEST PERFORMANCE, WITH PACKAGED PRODUCTS BENEFITING FROM DEMAND FOR CONVENIENCE

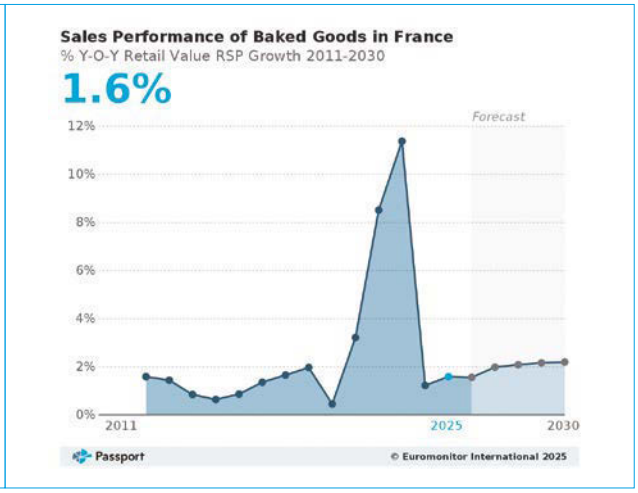
Bread is set to be the most dynamic category within baked goods in terms of value growth in 2025, with both flat breads and leavened options expected to see rising sales. Packaged products are expected to register slightly better performances, boosted by the consumer demand for convenience, as well as offering perceived value for money for more basic products. Whilst bakery bread remains a major staple for most French consumers, many shops have been focusing on more expensive breads seeded, grains, and wholemeal products, which sell for much higher prices than a simple baguette.

Pre-packaged bread has also embraced seeded and grain varieties, as well as larger slice sizes and no added sugar recipes. Breads containing grains such as millet, poppy, brown and yellow flax, sunflower and buckwheat are all available from mainstream manufacturers, which are driving these new healthier higher fibre options.

As prices have reduced a little, products such as brioche - which can be considered a more luxurious alternative to standard bread as it contains eggs and sugar - are performing well, as they still work out less expensive than products with a high quantity of chocolate. Chocolate prices are predicted to continue to be high throughout 2025, and to start dropping in 2026 or 2027 at the earliest. This will continue to dampen demand for pain au chocolat. •

Market analysis based on data provided by Euromonitor International.





Leaving Baking to the Robots

Suppliers of artisanal bread are increasingly discovering the benefits of automated production. For artisanal bread, specialist automated baking equipment allows bakeries to balance traditional techniques with modern production methods to preserve its handcrafted image. As many consumers who buy into the artisanal bread category have high expectations regarding product appearance, texture, quality, etc., they are likely to turn away from products which have an 'industrialised' look and feel. So bakers must walk a fine line.

By Jonathan Thomas

Bread itself remains an important dietary staple for much of the global population, with almost 80% of the world's people purchasing bread on a regular basis. Consumption is highest in the world's more developed nations, where it is more readily available, disposable income levels are higher and bread forms part of the local culinary heritage. Recently, consumption of bread appears to have recovered in regions such as Europe, following a period of either static or declining sales. This was due to consumer fears that many products were unhealthy or contained high levels of salt or calories, as well as the rising prevalence of gluten-free diets.

Per capita consumption of bread amongst the world's population is currently estimated at 26 kg. By region, consumption is highest in parts of the world such as Europe (especially Eastern Europe), the Americas and the Middle East. As can be seen from the data below, per capita consumption of bread is highest in Turkey, at around 200 kg. This figure decreases to between 130 kg and 135 kg in both Serbia and Bulgaria.

Other leading countries within the Western European region include Ireland (68 kg), the Netherlands (60 kg), Germany (57 kg), Finland (55 kg), Sweden (54 kg) and France (50 kg). Per capita consumption of bread is considerably lower in other western countries such as the UK (37 kg) and the US (17 kg) and declines to around 6 kg in China and less than 2 kg in India. Recent data suggests that bread consumption is mainly skewed towards males, older consumers and those inhabiting smaller households of two or fewer people.

In parts of the world such as Europe, bread is predominantly eaten at mealtimes, rather than

Leading Per Capita Consumers of Bread Worldwide (kg), 2024/2025

Turkey	200
Serbia	135
Bulgaria	131
Ukraine	88
Cyprus	74
Argentina	72
Greece	70
Portugal	70
Denmark	70
Poland	70

Source: Trade sources

as a snack. For example, around two-thirds of the world's population regularly eats it for breakfast, while it is also popular during lunchtimes when it forms the basis of various types of sandwiches. At the retail level, bread tends to be sold in either fresh or packaged format, with penetration of the former having been boosted by the ongoing development of the in-store bakeries (ISBs) sector. In these instances, bread is usually supplied part-baked to outlets such as supermarkets and hypermarkets, before being finished on the premises and then sold to consumers. Other drivers in the market include growing demand for bread offering functional health benefits (e.g. products enriched with additional ingredients such as protein or fibre) and rising interest in more premium varieties of bread.

ARTISANAL & SPECIALITY BREADS

One of the most dynamic performers within the global bread industry is the market for artisanal and specialty products, which tend to command higher prices than their more standard equivalents. Artisanal-style producers such as craft bakers which specialise in this sector have always maintained a strong presence within many European bread markets. France, for example, is home to more than 35,000 bakery businesses, a number which compares with over 25,000 in Italy. Elsewhere, the number of bakery businesses in Germany has decreased in recent years, having fallen from around 9,600 in 2022 to less than 9,000 as of 2025.

Plant or industrial bakers are believed to account for between 40% and 45% of the European bread market, a figure that rises to more than 80% in the UK. Most of the remainder is made up of craft and/or artisanal bakers, while in-store bakeries (ISBs) are also a growing feature of the market throughout parts of Europe – in the UK, for example, they now account for over 10% of all bread sold. The share of the market taken by craft and artisanal bakers is generally highest in countries where the tradition of buying bread fresh on a regular basis is strongest. This includes western countries such as France, Italy and Spain, as well as places further east – examples include Bulgaria, Romania and Turkey.

According to Coherent Market Insights, the global market for artisanal bakery goods was worth USD12.5bn in 2025. Market value is projected to increase by an annual average of almost 8% in the years leading up to 2029, reaching nearly USD20.9bn. Traditional artisanal and craft bakeries accounted for around 44% of the total market in 2025, while gluten-free products maintained a share of nearly 40%. By region, the Asia-Pacific countries accounted for a leading 42% of the market in 2025, ahead of Europe (29%). One of Europe's largest markets for speciality and artisanal bread is the UK, where sales were valued at around GBP190m in 2024, up by 8% from the previous year.

Much of the current market growth has resulted from the consumer desire to reconnect with culinary heritage and traditions, as well as a greater interest in the range of different tastes, flavours and textures available. The market has also benefited from the widening range of artisanal breads available to consumers in European countries such as the UK. Although the market is still largely dominated by varieties such as baguettes, ciabatta, focaccia and rye bread, greater consumer exposure to foreign cuisines is driving demand for bread recipes sourced from elsewhere in the world.

Another type of specialty bread which is finding favour throughout Europe at present is sourdough. Much of this can be attributed to its perception as an especially healthy form of bread – in the UK, for example, research from Lesaffre (a provider of bakery solutions such as yeast) found that 60% of consumers consider sourdough to be inherently healthier than everyday bread, while 52% are attracted to its unique taste and texture. Sourdough bread is believed to offer improved digestibility and enhanced gut health as it undergoes slow fermentation during the baking process, which also creates prebiotics. It also has a lower glycaemic index, thereby offering improved satiety.

The market also features bread with additional ingredients or what are sometimes termed 'inclusions.' According to research from Delifrance, UK sales of inclusion breads via ISB channels increased by 6% in the year ending September 2025 and now account for 20% of loaf sales within this category. Although cheese is the most popular inclusion ingredient for speciality bread in the UK, various ingredients from Mediterranean cuisine (e.g. olives, sun-dried tomatoes, rosemary and oregano) are well-represented. As the market has developed, ingredients from other cuisines such as Indian and Tex-Mex have also started to appear – examples include paprika, cumin, chilli and jalapeno peppers.

The incorporation of various ingredients can also increase the health appeal of artisanal and specialty breads, as well as taste and flavour. Many products already contain high levels of fibre and protein, while others are marketed on health platforms such as organic or gluten-free. Ancient grains such as spelt, sorghum and amaranth are well-represented within this market, as are nuts and seeds (e.g. sunflower and pumpkin). The sector is also witnessing the emergence of doughs enriched with fruits, examples of which include raisins, currants, berries and dates.

Many types of artisanal and specialty breads are also highly versatile – for example, they can feature at breakfast, brunch, lunch or, increasingly, as part of the evening meal to elevate the overall eating experience. More consumers are now attempting to recreate restaurant-style dining within the home, which has increased demand for convenient, part-baked products which they can prepare themselves. The trend towards improved convenience has also enabled many supermarkets to expand their range of speciality and artisanal products within the ISB channel.

AUTOMATED BAKING PROCESSES

Many companies within the global baking industry are now automating their manufacturing processes. According to data from the International Federation of Robotics, there were over 22,400 robot installations in global food manufacturing during 2023, which provides some indication of how widespread automation is becoming. However, food manufacturing still accounts for just 3% of robot installations taking place throughout the world every year, so there is still plenty of scope for further expansion of the sector in the future.

Despite low global penetration rates, automated baking processes are becoming steadily more commonplace, especially in western markets. Within the bakery industry, automation of the production process is increasingly being regarded as essential to maintain product quality and consistency, meet customer expectations and remain profitable. Adopting automated processes provides numerous advantages for bakery companies – examples include increased efficiency resulting from a streamlined production process, as well as lower labour costs, reduced wastage and improved hygiene levels. Against this must be balanced the relatively high initial investment costs associated with automated technological solutions, as well as the fact that a 'one size fits all' approach is not always appropriate, given that bakeries have their own specific needs and requirements.
The market for automated bakery equipment continues to expand and now encompasses products such as robots, smart machines and integrated systems, as well as solutions incorporating artificial intelligence (AI). These are now being deployed in bakery applications ranging from mixing and dough preparation (which has traditionally been regarded as a labour-intensive and repetitive task) to the handling of ingredients and materials (such

as transporting raw materials to production lines or loading trays), quality inspection (where products can be inspected for quality defects in real time, thereby allowing rectifications to be made) and control of oven temperatures during the baking process. One of the growth areas at present is the deployment of more AI-enabled systems, which can analyse data from sensors to make real-time adjustments in the baking process. This can help to optimize production, automate scheduling and ensure consistent product quality levels, as well as predicting future demand.

A wide range of automated robots are used in bakery applications. Notable examples include articulated robot arms, which are used for tasks requiring precision (e.g. applying icing or assembling delicate pastries), as well as automated systems used in high-speed pick and place operations, such as for handling tasks. Bakeries have also been deploying vision-equipped robots, which use image processing technology for quality control purposes.

For artisanal bread, more specialist automated baking equipment is usually required, balancing traditional techniques with modern production methods to preserve its handcrafted image. As has been stated previously, many consumers who buy into the artisanal bread category have high expectations regarding product appearance, texture, quality, etc. and are likely to turn away from products which have an 'industrialised' look and feel. The emergence of new varieties of artisanal and specialty bread has increased demand for more specialist equipment capable of handling the wide range of artisanal bread recipes.

One issue which could be considered specific to the artisanal bread sector is the use of comparatively delicate dough, much of which has high levels of hydration. This can prove difficult to divide and shape on account of its sticky nature, with the result that automated equipment must be designed to take account of this and produce the appropriate crumb structure so often associated with artisanal bread. To meet consumer expectations, more automated equipment is now being designed to gently shape the dough prior to the baking process and therefore mimic a handcrafted appearance for the finished product.

Automated tunnel ovens represent another example of baking equipment used in the preparation of artisanal bread. These are available in formats such as gas, electric and hybrid and are widely used in baking applications, where the required heat is created directly in the baking tunnel. Some of the equipment on the market now features stone hearth baking surfaces, which provide optimal heat transfer and are especially suitable for replicating the signature crust and colour usually associated with artisanal bread loaves. Many of these tunnel ovens are also used to prepare other foods, with pizza one example. •

Small Footprint, **Big Impact**

Just because a bakery has limited space it doesn't mean it has to cut back on technical support of its operations. Small footprint technology is created with this exact purpose in mind: to improve processes in craft bakeries and help them work seamlessly.

By Jo Ilie

The Artisan Bakery Market size was valued at USD35.52bn in 2024 and the total Artisan Bakery Market size is expected to grow at a CAGR of 5.13% from 2025 to 2032, reaching nearly USD53bn, according to the market research company Stellar. Its growth, propelled by the pandemic and the subsequent increase in interest in food that is perceived as healthier, more wholesome, and more traditional. This reported rise in significance for craft bakeries led also to more technology being developed especially for small production sites. Solutions that used to be available only to large manufacturers are now scaled to the needs of small bakeries.

INCREASED OUTPUT FROM KOENIG

Koenig created a scoring module that allows the cutting of all dough pieces in the most efficient way, enabling small and medium bakeries to increase their output and guarantee its quality.

The unit can have a customized capacity from 1 robot to 12 or more. It has a maximum capacity of 12,000 cuts/hour per robot. The extremely wide range of product weight allows for even products less than 30g to be cut. Any type of dough can be scored thanks to the three different cutting technologies in the same machine. The 3D scanner adapts all cuts to shape and dimension of any individual piece.

The unit requires no operator ability. Optimal trajectory for required accuracy and reduced machinery stress (long service life) is automatically calculated by the control system, for the required production capacity.

The equipment is industry 4.0-ready, can be customized for any board and belt and it has remote service available.

COMPACT X-RAY INSPECTION FROM ISHIDA

The Ishida IX-PD, a top of the range X-ray inspection system that incorporates new sensor and image processing technology, is capable of detecting both low-density and very small size foreign bodies with excellent accuracy whilst enabling manufacturers to maintain high productivity rates.

Combined with Ishida's already proven Genetic Algorithm (GA) and Dual Energy technologies, the new machine produces an ultra-high resolution and clearer image than conventional X-ray systems. This allows the Ishida IX-PD to offer enhanced detection for foreign bodies such as stainless steel wires.

In addition, the new model is capable of reliably detecting foreign bodies in applications where products are overlapping or standing up in a pack. Direct Conversion technology enables the X-rays to be directly converted to electrons rather than through a photodiode. Removing one of the stages in the inspection process increases the energy efficiency of the IX-PD. Maximum output for the system is 300W, while tube voltage is between 25 and 75kv, with Ishida's GA self-learning technology adapting this to the precise requirement of the foreign bodies to be detected. The energy-efficient operation also helps to extend the shelf life of the X-ray tube.

The Ishida IX-PD is available in two sizes to meet the requirements of the widest variety of product and pack sizes. The options of 360mm and 450mm width allows flexibility of application detection from unpackaged meat products to boxed food applications where products are overlapped. Both offer compact dimensions for easy integration into packing lines. An IP66 waterproof construction provides full washdown protection for maximum hygiene.

Like all Ishida X-ray inspection systems, the IX-PD also has the ability to carry out other quality control functions including weight estimation and identifying damaged product or packaging or missing items.

BETTER CHECKWEIGHTER FROM METTLER-TOLEDO

Mettler-Toledo Product Inspection updated its C31 StandardLine Checkweigher, introducing a range of Smart Production Packages that deliver greater flexibility, faster implementation, and enhanced food safety compliance, all at an attractive price point for small- and mid-sized manufacturers.

Key updates include a new two-belt conveyor system as standard, streamlined order processing for faster delivery, and a modular design that makes the system easily scalable as businesses grow. "Today's food manufacturers need equipment that not only meets compliance demands but also adapts to their business as it grows," said Joern Migge, Head of Market Management and Service at Mettler-Toledo. "With the new Smart Production Packages, compact footprint, and faster delivery times, the upgraded C31 intelligent checkweigher offers a compelling combination of performance and affordability."

The Intelligent Weighing Automation system in the C31 intelligent checkweigher eliminates the need for manual spot checks with 100 percent inline weight control. The intuitive system offers reliable performance for food and non-food applications in dry and wet environments. Its compact and modular design enables seamless integration into existing lines, making it especially well-suited for small to mid-sized food producers looking for cost-efficient, scalable solutions.

The standard lead time for the updated C31 intelligent checkweigher is three+ weeks (excluding packing and shipping), allowing manufacturers to respond more quickly to changing market conditions and production demands.

CONCLUSIONS

The scaling of big-plant technology for craft bakeries allows small businesses to grow, stay competitive and respond better to the problems that affect all food producers: personnel shortages, ever-changing consumer preferences, food safety worries. With more such tech available, better things are in store for small bakeries. •

Gingerbread Is What Christmas Is All About

The quintessential flavor of Christmas has evolved over the centuries, according to what spices became available, but it's still recognizable in all its forms and shapes: cookies, houses or lattes.

By Jo Ilie

Gingerbread's origins trace back to around 1500 BC in ancient Egypt, where honeycakes were discovered in pharaonic tombs alongside written references to small pieces of spiced honeybread. In Egyptian, Greek, Roman and Germanic mythologies, honey was revered as a divine gift, believed to possess the power to ward off evil, heal and give life.

Modern gingerbread was first found in the Belgian city of Dinant, then adopted and modified by the people of Aachen, Germany. It was later altered even further in the Franconian convents. The nuns baked the cookies for dessert. Peppercakes, as gingerbread is still referred to in some parts of Germany, got its first mention in 1296 in the city of Ulm. At the time, all spices foreign to the region were denoted as pepper.
Because spices necessary in the manufacture of gingerbread were not regional, often expensive and hard to find, bakeries were established where trade routes crossed. Ulm, Cologne, Aachen, Basel and Munich are mentioned time and again in historical documentation. The gingerbread common to St. Wolfgang was first made in the 14th century and was a snack the pilgrims of those days enjoyed on their difficult journeys.

Each gingerbread baker had his own personal recipes. These are still well-kept secrets today, only passed onto family members. Over the centuries, baking procedures have been adapted along with the recipes. In order to preserve the distinctive taste, premium quality and integrity of the product, strict standards have been put into place which define the process of gingerbread making.

Today, we can not imagine a Christmas without gingerbread. Regardless of the many variations and regional distinctions, gingerbread remains the quintessential Christmas flavor in Europe.

GINGERBREAD ACROSS EUROPE

With the same heart made of honey, ginger and warm spices, Europeans found their own particular brand of gingerbread, from the peppery hard biscuits of Northern Europe to the beet-colored soft cakes of Ukraine.
In Germany, gingerbread is made in two forms: a soft form called Lebkuchen and a harder form, particularly associated with carnivals and street markets such as the Christmas markets that occur in many German towns. The hard gingerbread is made in decorative shapes, which are then further decorated with sweets and icing. The tradition of cutting gingerbread into shapes takes many other forms and exists in many countries, a well-known example being the gingerbread man. Traditionally, these were dunked in port wine.

In Ashkenazi Jewish cuisine, the honey cake eaten at Rosh Hashanah (New Year) closely resembles the Dutch peperkoek or the German Lebkuchen, though it has wide regional variations. In Switzerland, a gingerbread confection known as "biber" is typically a two-centimeter thick rectangular gingerbread cake with a marzipan filling. The cantons of Appenzell and St. Gallen are famous for biber, which are artfully adorned with images of the Appenzell bear or the St. Gallen cathedral respectively by engraving or icing.

In the Netherlands and Belgium, a soft and crumbly gingerbread called peperkoek, kruidkoek or ontbijtkoek is popularly served at breakfast time or during the day, thickly sliced and often topped with butter.

In the Nordic and Baltic countries, the most popular form of ginger confection is the pepperkaker (Norwegian), pepparkakor (Swedish), peberkager (Danish), piparkökur (Icelandic), piparkakut (Finnish), piparkūkas (Latvian) or piparkoogid (Estonian). They are thin, brittle biscuits that are particularly associated with the extended Christmas period. In Norway and Sweden, pepperkaker/pepparkakor are also used as window decorations (the pepperkaker/pepparkakor are a little thicker than usual and are decorated with glaze and candy). Many families bake pepperkaker/pepparkakor/brunkager as a tradition.

In Russia, a gingerbread maker was first mentioned in Kazan cadastres in 1568. Gingerbread confections are called pryaniki (sg. pryanik), derived from the Russian term for 'spices'. A classic Russian gingerbread is made with rye flour, honey, sugar, butter, eggs and various spices; it has an embossed ornament or text on the front side with royal icing. A Russian gingerbread can also be shaped in various forms and stuffed with varenje and other sweet fillings.
In Poland, gingerbreads are known as pierniki (singular: piernik). Some cities have traditional regional styles. Toruń gingerbread (piernik toruński) is a traditional Polish gingerbread that has been produced since the Middle Ages in the city of Toruń. It was a favorite delicacy of Chopin when he visited his godfather, Fryderyk Florian Skarbek, in Toruń during school vacation. Kraków gingerbread is the traditional style of the former Polish capital.

In the Czech Republic, gingerbread is called perník and it is a popular Christmas biscuit and a decoration. In Romania, gingerbread is called turtă dulce and usually has sugar glazing.

A variety of gingerbread in Bulgaria is known as меденка ("made of honey"). Traditionally the cookie is as big as the palm of a hand, round and flat, and with a thin layer of chocolate. Other common ingredients include honey, cinnamon, ginger, and dried clove.

In Ukraine, medivnyk ("made of honey") means either dry honey cookie or a spongy honey cake (a fruitcake). Mykolaychyky are traditional Western Ukrainian cookies or gingerbread that are baked for St. Nicholas Day and given to children. Panyanky are usually baked for Christmas Eve in Eastern Ukraine. They are pink because they are colored with beet juice.

GINGERBREAD TODAY

Gingerbread has come a long way from the flat honey cookies of yore. The global gingerbread market size was valued at USD2.90bn in 2024 and is anticipated to increase from USD3.15bn in 2025 to an estimated USD6.62bn by 2034, according to TowardsFnB market research company. The market for gingerbread has witnessed rapid growth due rising demand for seasonal and festive foods, expansion of western holiday culture globally, convenient product formats, and convenience and longer shelf life.

Europe dominates the gingerbread market share. The market growth in the region is attributed to the increasing consumer trends towards changing customer lifestyles, innovation, and tradition, the rise of online retail and e-commerce platforms, and the increasing adoption of vegan, gluten-free, and organic gingerbread products. In Europe, Germany is one of the biggest markets for gingerbread and the leading importer of ginger in Europe, with a total volume of 65,000 tons in 2023.
Based on product type, the market is segmented into types such as gingerbread cookies, gingerbread houses and kits, gingerbread-flavored products, pre-built decorative items and others, according to a study by GM Insights. Unlike other products, gingerbread cookies continue to have sustained demand because of the shapes and tastes they come in. Innovations aimed at health-conscious consumers, such as gluten-free and low-sugar labels, along with improved packaging designs, have further enhanced growth in this segment.

Another product segment contributing to the gingerbread market is gingerbread houses and kits. These are primarily purchased during the winter holidays to serve as decorations and family entertainment. This segment has the highest level of demand during Q4 as customers begin looking for fun activities to do. Responding to the growing demand, manufacturers have begun selling customized and pre-assembled kits, appealing to both advanced and beginner bakers alike. This segment has surged in importance to the market due to the growing popularity of DIY (Do It Yourself) activities. Even furniture maker IKEA sells gingerbread house kits, with all the fixings. Now, drinks, snacks, and even treats are integrated into one group with the gingerbread products which cleverly exploit the nostalgia the season brings. To widen the scope of the market, adding gingerbread flavor to lattes, ice cream, and even protein bars have greater appeal to younger people. This form of diversification reduces dependence on seasonal demand by maintaining relevance to the product throughout the year, rather than just winter.
As convenience and beauty are of higher importance to the people, the market for ready-made decorative gingerbread ornaments and other edible items has shot up tremendously. These offerings fulfill a small but growing festive 'holiday-ready' solution segment that tries to maintain the spirit of the holidays while fulfilling demand. The continued expansion of e-commerce has greatly improved the accessibility, visibility of these products which has resulted in increased spending. Nostalgia also fuels the rediscovery of old traditions, such as Christmas tree decorating with gingerbread figurines.
Other food products that have helped change the gingerbread market include artisanal and specialty baked goods gingerbread. As always, they target premium or health-conscious consumers, but these products focus on quality ingredients with uniquely new flavor profiles. They are also gaining popularity for small batch production which can attract a new demographic seeking variety, exclusivity, and real branding.

The continual growth of the gingerbread market is propelled by the expansion of its product lines. The market's appeal has increased among consumers of different ages and regions due to responsive marketing approaches towards emerging trends such as health and wellness, convenience, and experience-based consumption. Due to increased product innovation and diversification within specific product segments, the market will most likely experience cyclical growth in the coming years.

GINGERBREAD TOMORROW

With the increased interest in gluten-free and sugar-free desserts, gingerbread has a new avenue to attract new customers. As the strong flavors of this ancient concoction can mask a less familiar aftertaste - from artificial sweeteners or alternative flours - it can be a better choice than plain desserts to satisfy cravings and flavor-code new memories. •

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2026: A Good Start

The new year brings on several exciting trade shows where bakers can advance their knowledge, business and opportunities, just in time for what the future has in store for the industry.

By Jo Ilie

SIGEP WORLD 2026

January 16-20

Rimini Expo Centre, Italy

The global trade fair dedicated to artisanal foodservice excellence will spotlight two of the most prestigious international competitions in the industry: the Gelato World Cup and the Juniores Pastry World Cup.
The Gelato World Cup will bring together elite gelato artisans in what remains the only global contest of its kind. The Juniores Pastry World Cup will showcase the next generation of pastry professionals, drawing talent from around the world. These headline events are part of a broader showcase that spans the full spectrum of gelato, pastry, chocolate, coffee, bakery, and pizza.
Among the other key features of the 2026 edition is Pizza (R) evolution, a program aimed at exploring evolving synergies between ingredients, technology, and consumer habits.
Corrado Peraboni, CEO of Italian Exhibition Group, noted the scale of the event's previous edition: "In 2025, the show hosted 1,300 exhibiting brands from 33 countries in 30 halls, welcoming an audience of professionals from 160 countries. For 2026, the internationalization strategy has been strengthened even further." •

PROSWEETS & ISM 2026

February 1-4

Koelnmesse, Cologne, Germany

ISM 2026 is one of the most anticipated events in the sweets and snacks sector, bringing together approximately 37,500 professional visitors and 1,656 exhibitors in Cologne. The trade fair registered impressive growth with a 5.5% increase in exhibitors and a 5% expansion in exhibition space compared to previous editions.
Over 1,500 exhibitors from 70 countries are expected to participate and 89% of exhibitors are international. Regarding attendance, organizers anticipate attracting approximately 32,000 professional visitors from 135 countries.
ProSweets Cologne takes place parallel to ISM, the world's largest and most important trade fair for sweets and snacks. Together with ISM , ProSweets Cologne covers the entire industrial value chain of the snacks and sweets industry. Whilst ProSweets Cologne is especially designed for suppliers, ISM addresses leading global trading companies as well as snacks and sweets manufacturers, who produce ready-to-sell sweets and snack items. •

GULFOOD 2026

January 26-30

Dubai World Trade Centre and the Dubai Exhibition Centre at Dubai Expo City, UAE

The 2026 edition is the most ambitious in Gulfood's history, expanding across two mega venues and featuring 8,500+ exhibitors and more than 1.5 million products.
This expansion introduces four new sectors, Gulfood Logistics, Gulfood Fresh, Gulfood Startups and Gulfood Grocery Trade, creating the world's most comprehensive platform for sourcing, supply chain excellence, product innovation and future-driven food systems.
In 2025, the trade show attracted over 100,000 visitors and more than 5,500 exhibitors representing both global multinationals and innovative startups, from around 129 countries. •

2026 FEATURE PLANNING

1 JANUARY/FEBRUARY

Ad closing: Feb 10/Publishing: Feb 24

TECHNOLOGY
Sheeters & Laminators / Freezing Equipment

PROCESS
Designing & Comissioning / Production Lines / Cutting and Forming / Scoring

SPECIAL FEATURE
Business Outlooks 2026
Interviews with industry leaders about their view on the coming year

EXPERT VIEW
Low Pressure / Extruded Snacks

FOOD SAFETY
Hygienic Equipment Design

INGREDIENTS & NUTRITION
Flours / Shelf-life Optimization / Botanicals / CBD

PACKAGING
Secondary packaging

MARKETS
UK & Ireland

SNACKING TRENDS
Expanded / Extruded Snacks

CRAFT BAKING
Freezers, Display Freezers & Coolers

SUPPLY CHAIN & LOGISTICS
Storage & Warehouse Management

PRODUCT SPOTLIGHT
Pizza / Laminated Dough-based Innovation

TRADE SHOWS
Trade Shows Outlook 2026

2 MARCH/APRIL

Ad closing: April 08/Publishing: April 22

INTERPACK SPECIAL ISSUE

TECHNOLOGY
Extruders / Topping / Filling / Glazing

PROCESS
Inspection & Monitoring / Product Diversification

SPECIAL FEATURE
Energy Saving & Process Optimization

EXPERT VIEW
Sustainable Packaging Materials

FOOD SAFETY
MAP Packaging

INGREDIENTS & NUTRITION
Oils & Fats / Flavors & Colors / Water

PACKAGING
Packaging Automation

MARKETS
Germany

SNACKING TRENDS
Savory vs Sweet Biscuits

CRAFT BAKING
Craft Bakery Packaging

SUPPLY CHAIN & LOGISTICS
Traceability

PRODUCT SPOTLIGHT
Traditional Bakery & Ethnic Sweets / Pies & Tarts

TRADE SHOWS
Food & Drink Expor, Sigep World China

3 MAY/JUNE

Ad closing: May 14/Publishing: May 28

Published together with
Asia Pacific Overview

SNACKEX SPECIAL ISSUE

TECHNOLOGY
Turnkey Lines / New Oven Technologies

PROCESS
Vacuum Cooling / Seasoning

SPECIAL FEATURE
Smart Production & AI

EXPERT VIEW
Efficient Product Transport: Conveying Systems

FOOD SAFETY
Trainings and Program Implementation

INGREDIENTS & NUTRITION
Plant-based Bakery / Enzymes / Free-from Alternatives

PACKAGING
Snacks Packaging Innovation

MARKETS
Spain & Portugal

SNACKING TRENDS
Pies & Cakes

CRAFT BAKING
Dividers / Rounders

SUPPLY CHAIN & LOGISTICS
Supply Chains & NPD

PRODUCT SPOTLIGHT
Plant-based Bakery Products / Cookies

TRADE SHOWS
Thaifex Anuga, IFT First

4 JULY/AUGUST

Ad closing: July 16/Publishing: July 30

TECHNOLOGY
Smart Bakery Systems / Conveyor Belts

PROCESS
Depositing / Mixing & Hydrating Ingredients

SPECIAL FEATURE
Sustainability: Challenges & Outcomes

EXPERT VIEW
Oils, Fats & Dough Rheology

FOOD SAFETY
Certifications, Regulations & Compliance

INGREDIENTS & NUTRITION
Dough Improvers / Inclusions / Pulses / DRI & EU regulations

PACKAGING
Sustainable Materials

MARKETS
Scandinavia

SNACKING TRENDS
Sandwich Breads / Flatbreads

CRAFT BAKING
Deck and Rack Ovens

SUPPLY CHAIN & LOGISTICS
Handling & Transport

PRODUCT SPOTLIGHT
Donuts / Cakes

TRADE SHOWS
Pack Expo, Anuga

5 SEPTEMBER/OCTOBER

Ad closing: Aug 20/Publishing: Sept 03

Published together with
North America Overview

PackEpo SPECIAL ISSUE

TECHNOLOGY
Software and Sensors / Proofers

PROCESS
Extrusion / Handling / Pick & Place

SPECIAL FEATURE
Product Quality Management

EXPERT VIEW
Plant-based Formulation & Production

FOOD SAFETY
IoT in Food Safety Management

INGREDIENTS & NUTRITION
Sweeteners / Emulsifiers / Antioxidants

PACKAGING
Robots / Cobots

MARKETS
France

SNACKING TRENDS
Enrobed / Filled Sweets

CRAFT BAKING
Packing Equipment for Craft Bakers

SUPPLY CHAIN & LOGISTICS
Cold Chain

PRODUCT SPOTLIGHT
Frozen Pastry / Sourdough Bread

TRADE SHOWS
SIAL

6 NOVEMBER/DECEMBER

Ad closing: Nov 02/Publishing: Nov 16

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Middle East Overview

Gulfood SPECIAL ISSUE

TECHNOLOGY
Dough Dividers/ Rounders, Mixers & Kneaders

PROCESS
Conveying / Hygiene & Sanitation

SPECIAL FEATURE
Sustainable Sourcing of Ingredients

EXPERT VIEW
Pans, Trays, Racks & Bakeware

FOOD SAFETY
Process, Product & Staff Protection

INGREDIENTS & NUTRITION
Yeast & Sourdough / Proteins & Fibers / Starches

PACKAGING
Active Packaging

MARKETS
France

SNACKING TRENDS
Italy

CRAFT BAKING
Wafers

SUPPLY CHAIN & LOGISTICS
Small Footprint Technology

PRODUCT SPOTLIGHT
Winter Holiday Treats / Meringues

TRADE SHOWS
SIRHA Lyon 2027, ISM ProSweets 2027

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