EUROPEAN BAKER & BISCUIT

Supporting the international baking & biscuit industry

Issue 3 (206) | Vol. 34 | 2026

Technology

The Integration Equation: Managing Capacity, Control And Accountability In Bakery Turnkey Projects

Packaging

Designed To Stick: Approaches To Seasoning Control In Baked Snack Processing

Snacking Trends

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Counting Down To SNACKEX

With SNACKEX just ahead, the conversation is shifting from what snack innovation could become to what manufacturers are preparing to deliver next.

Tudor Vintiloiu

As this issue goes to print, attention across the bakery and snack sectors is increasingly turning toward Lisbon, where SNACKEX 2026 will bring together the global savory snacks industry on 17–18 June. The event remains unique in its focus: a trade fair and conference built entirely around savory snacks, bringing together ingredients, processing, packaging and finished product innovation under one roof.

For bakery manufacturers, SNACKEX arrives at a particularly interesting moment.

Baked snacks continue to occupy a growing space between traditional bakery expertise and the broader snack market. Texture, flavor delivery, nutritional positioning and manufacturing flexibility are becoming increasingly interconnected. The challenge is no longer simply producing a snack—it is producing one consistently, efficiently and at commercial scale while meeting changing expectations around ingredients, packaging and product differentiation.

That convergence shaped this issue of *European Baker & Biscuit.*

We begin with a look at turnkey production lines and the growing role of integrated system design in helping manufacturers improve coordination, accelerate commissioning and manage increasingly diverse product portfolios. We then explore seasoning technologies and how flavor application is becoming a more precise operational discipline rather than a final finishing step.

Plant-based ingredients and finished products remain another area of continued development, particularly as manufacturers work to balance texture, functionality and consumer expectations without compromising process performance.

And following the recently completed Interpack exhibition in Düsseldorf, we also turn our attention to packaging for snacks—an area undergoing rapid change as sustainability targets increasingly intersect with productivity, material choices and line integration.

With SNACKEX just ahead, the conversation is shifting from what snack innovation could become to what manufacturers are preparing to deliver next. •

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IMCD Opens New Technical Center in Türkiye

IMCD Group opened a new Technical Centre in Istanbul, Türkiye. Designed as a strategic hub, the Centre delivers formulation development, optimisation of existing commercial products, technical consultancy, and hands-on support for customers' innovation pipelines.
The IMCD Türkiye Technical Centre, opened in Ataşehir, Istanbul, consolidates the food & nutrition, beauty & personal care, and coatings & construction laboratories – previously operating from separate locations – into a single, expanded facility with enhanced scope and technical equipment. In addition, a pharmaceuticals laboratory has been established within the Centre for the first time, further strengthening its technical and innovation capabilities.
The Centre adds to IMCD's global network of more than 80 technical centres and laboratories, reinforcing the Company's commitment to innovation and local customer support.

La Lorraine Bakery Group Targets Capacity Expansion in 2026

La Lorraine Bakery Group has outlined an ambitious investment and growth roadmap for 2026, positioning the company to accelerate capacity, innovation and sustainability across its European footprint with a planned budget of EUR250m.
According to the group's latest report, 2026 will mark a peak year in its multi-annual investment cycle, with a strong focus on expanding production capabilities in key markets. The company plans to further scale its frozen bakery segment, which remains a central growth driver, particularly in Western and Central Europe. New production lines and site upgrades are expected to improve both output and flexibility, enabling the group to respond more rapidly to shifting customer demand across retail and foodservice channels.
A significant share of the planned investments will be directed toward automation and digitalisation. La Lorraine aims to enhance efficiency and consistency across its operations by integrating advanced process control systems and data-driven production management. These upgrades are also intended to address ongoing labour constraints, a challenge widely felt across the European baking industry.

GNT Opens Application Lab for Plant-based Colors in Shanghai

GNT Group has opened a new sales and application office in Shanghai, strengthening its presence in China and responding to growing demand for plant-based colouring solutions.
The facility includes an application laboratory designed to support local food and beverage manufacturers with formulation, product development and stability testing. It will also serve as a hub for customer training, workshops and concept development.
GNT supplies a range of colour concentrates derived from fruits, vegetables and other plant sources using physical processing methods. Under China's updated industry standard, these products are classified as colouring foods, enabling simplified label declarations aligned with clean-label positioning.
According to the company, the new office will allow faster response times and more tailored technical support for customers in the Chinese market, where demand for natural ingredients is accelerating.

Ferrara to Invest EUR620m in New US Confectionery Plant

Ferrara Candy Company has announced plans to invest USD675m (approx. EUR620m) in a new manufacturing facility in Orangeburg, South Carolina, as it expands production capacity to meet rising demand for sugar confectionery.
The 750,000 sq ft site will be the company's first in the state and is expected to include processing and packaging operations, as well as warehousing for raw and packaging materials and administrative offices. Initial production lines are scheduled to become operational in the first quarter of 2029.
The investment is aimed at strengthening Ferrara's manufacturing footprint and supporting long-term growth.
Marco Capurso, CEO of Ferrara, said the project represents a "major step forward" in scaling the company's capabilities and reinforcing its global position.

RBS Brings Pretzel Production Into Focus Through Practical Training

This past winter, Reading Bakery Systems (RBS) welcomed customers, partners, and industry professionals to its Science & Innovation Center for an immersive, hands-on pretzel training program. Designed to go beyond theory, the training provided a practical, process-focused experience that helped attendees deepen their understanding of pretzel production—from raw ingredients through final bake.

What made the training especially valuable was its balance of classroom instruction and real-world application. Rather than simply discussing best practices, attendees had the opportunity to see, test, and adjust processes on the RBS pilot-sized production line.

At the core of the training was a detailed walkthrough of the pretzel-making process. Participants explored each critical stage, including mixing, forming, proofing, baking, and drying. The sessions emphasized how each step impacts the final product—highlighting how small process variations can influence texture, color, flavor, and overall consistency.

One of the most impactful aspects of the training was the focus on dough development and handling. Pretzel dough presents unique challenges compared to other baked products, requiring precise control of hydration, mixing energy, and fermentation. Attendees were able to observe how different mixing approaches and ingredient adjustments affected dough performance, giving them a clearer understanding of how to troubleshoot common issues.

Baking was also a central focus. The training highlighted how oven conditions—including temperature balance, humidity, and airflow—play a critical role in achieving the desired pretzel characteristics.

Another key takeaway was the value of data and process visibility. Attendees were introduced to tools and approaches that provide deeper insight into what the product is actually experiencing throughout production.

Building on the success of this past winter's session, RBS will host its next Pretzel Training Seminar on October 6–7, 2026.

SnackEx 2024:
Where Savory Snacks Rule

Snackex 2026 is the only international trade fair fully dedicated to the savoury snacks sector, bringing together trends, technologies, suppliers, distributors, trade partners and decision-makers from across the industry. This is what they have in store for the 2026 edition, which takes place at FIL Expo, Lisbon, Portugal, on 17–18 June 2026.

By Jo Ilie

Organised by the European Snacks Association (ESA) SNACKEX 2026 is taking place on 17 – 18 June at FIL Expo in Lisbon, Portugal. The trade show is focused exclusively on the savory snacks and snack nuts sector, bringing together industry participants through a combined exhibition and conference format. It serves as an international meeting point for manufacturers, suppliers and industry stakeholders.

The event offers opportunities for professionals to meet buyers, management teams and decision-makers, as well as to explore new products, technologies and business partnerships. Networking opportunities are available both on the exhibition floor and during the event's accompanying social activities.

Key benefits highlighted include: direct access to snacks buyers, specifiers and influencers, networking opportunities with qualified industry visitors, exposure to buyers from more than 40 countries, access to leading decision-makers, with over 70% of previous attendees influencing purchasing decisions, best practice sessions designed to attract snack manufacturers, and opportunities to strengthen relationships with existing customers while generating new business leads.

The exhibitor profile includes manufacturers and suppliers of, among others: extruded and baked snacks, pretzels, popcorn and fruit snacks, meat snacks and snack nuts, snack pellets, processing equipment, packaging systems and materials, extrusion systems, ingredients, flavours and seasonings, oils and fats, laboratory equipment and services, materials handling systems, and consulting services.

The event organizers target senior executives from global snack manufacturers, marketing and NPD teams, engineers and production specialists, nut brokers and traders, retail representatives, companies searching for processing and packaging solutions and buyers seeking one-to-one supplier meetings and product demonstrations. •

180+
exhibitors

96+
countries represented

80%
of attendees are manager level and above

SCIENCE HUB PROGRAM AT SNACKEX 2024

This 2-day seminar series at Snackex – free of charge – offers pure know-how which will support producers to improve their business. Here are the highlights of the program:

Wednesday 17 June

10:00 – 10:30: Less salt, less sugar, more flavor!
Jaimy van de Steenoven, Euroma

10:40 – 11:10: Save time – secure hygiene
Evita Rosdahl, Jeros

11:20 – 11:50: Navigating complexity: geopolitical shifts and technological innovation in the savoury snacks sector
Andrew Green, Ishida Europe

13:00 – 13:30: Nicetuck – the glue free case packing revolution
Michele Celestini, Tiber Pack

13:40 – 14:10: Unlocking unique sensory experiences for snacks
Uwe Diekhoff, Fuchs Gruppe

14:20 – 14:50: Smart flours, smarter snacks: unlocking process, health & cost benefits
Anne-Sophie Mahiout-Godart, Limagrain Ingredients

15:00 – 15:30: AI meets PEF: smarter snack quality control
Kevin Hill, Elea Technology GmbH

15:40 – 16:10: Transformative approach to reducing water consumption in raw produce processes
Rick Bajema, Heat and Control Inc.

16:20 – 16:50: Optical sorting of potato chips, latest trends and developments
Gregory Gouters, Key Technology

17:00 – 17:30: AI in vision technology
Elbert Griffioen, Blueprint

Thursday 18 June

09:30 – 10:00: The secret to perfect frying: quality oil and potatoes
Dr. Simone Bellassai, CDR FoodLab®

10:10 – 10:40: Rethinking energy in potato chips production
Stefan Björk, Rosenqvists Food Technologies

10:50 – 11:20: Sustainability & cost reduction through reusable distribution packaging
Fred Dowd, Technology Container Corp. (TCC)

11:30 – 12:00: Advancing snack innovation – the role of natural colours in emerging global trends
Christine Cuddihy, Kalsec Europe

13:00 – 13:30: Using NMR to deliver HFSS, cost and quality objectives in snack manufacturing
Brian Meyer, NanoNord A/S

13:40 – 14:10: The role of frying oil management in processing nuts
Gary Miertschin, Kuipers Food Processing Machinery

14:20 – 14:50: Balancing wellness, flavour and agility in European snacking
Eric Geling, TNA Solutions

15:00 – 15:30: Acrylamide in focus: a comprehensive exploration and latest developments
Andrew Curtis, European Snacks Association

3,500+
visitors

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Booth 401

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Leading snack food producers worldwide trust Intralox to keep their production lines running. Our conveyor belt and equipment solutions for handling chips, salty snacks, nuts, seeds, and more help you eliminate downtime, reduce total cost of ownership, and achieve problem-free conveyance. Our industry experts partner with you to ensure you receive the correct solutions and service, when you need them.

www.intralox.com

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Booth no. 425, Hall 4

Fromatech Ingredients is a Netherlands-based developer of flavour and seasoning solutions for the global food industry, active in more than 70 countries. With strong expertise in snack applications, the company creates seasonings for potato chips, tortillas, popcorn, nuts, and extruded snacks. Supported by a dedicated R&D team and deep industry knowledge, Fromatech develops tailored solutions aligned with global trends and regional consumer preferences.

www.fromatech.com

Kuipers Food Processing Machinery

Booth 201

Kuipers, founded in 1985 in the Netherlands, specializes in designing, manufacturing and servicing processing systems for the snack and food industries. The company delivers tailored solutions for products such as potato chips, nuts, pellet snacks, and French fries, combining engineering expertise with process knowledge to ensure consistent quality and efficiency. With installations in over 60 countries, Kuipers serves both emerging producers and global brands. Sustainability is a key focus, with innovations such as water-saving systems and energy recovery technologies that reduce environmental impact while improving operational performance. Through continuous innovation and strong partnerships, Kuipers helps customers produce high-quality snacks worldwide.

www.kuipers.nu

Limagrain

Booth 330

Limagrain is a global company with deep local roots. Our parent company is an agricultural cooperative based in the heart of central France's Auvergne region, while we are an international seed and agri-food group operating in 49 countries.

Our parent company is an agricultural cooperative based in the heart of central France's Auvergne region, while we are a seed and agri-food group. At Limagrain, we breed, produce, and sell high value-added field and vegetable seeds. Uniquely, we also have agri-food chain activities, in France and internationally, to transform the produce of the Cooperative's 1,300 farmer members.

www.limagrain.com

Reading Bakery Systems

Booth 315

The RBS Interpack booth will showcase advanced technologies designed to improve efficiency, consistency, and flexibility in snack and bakery production. Highlights include the Emithermic® XE Oven, a next-generation alternative to traditional DGF systems that simplifies maintenance and delivers a more consistent bake. The WCX Wirecut Machine offers versatile cookie and bar forming with ultrasonic cutting for clean, precise results. RBS will also feature its MX Continuous Mixer for automated, consistent dough production, and the SCORPION® Oven Profiling System for real-time process insights. Together, these solutions help manufacturers optimize performance, reduce costs, and support ongoing product innovation.

www.readingbakery.com

The Integration Equation: **Managing Capacity, Control And Accountability In Bakery Turnkey Projects**

Industrial bakeries rarely reach operational limits because a mixer is too small or an oven lacks nominal capacity. More often, production constraints emerge in the spaces between technologies: product flow becomes unstable, cooling no longer matches baking output, packaging interrupts upstream continuity, utilities become overloaded or sanitation windows consume productive time.

By Tudor Vintiloiu

These interactions become progressively harder to manage as throughput increases and portfolios expand. At that point, investment decisions begin to shift away from equipment acquisition and toward production architecture.

That shift explains the continued interest in turnkey lines. At industrial scale, turnkey is not simply a procurement model and it is not synonymous with buying all equipment from a single supplier. In its strongest form, turnkey delivery transfers responsibility for integration, controls coordination, commissioning, startup and performance validation into a unified project structure. The expectation is that the bakery receives not a collection of installed assets but a functioning production environment capable of meeting predefined operational targets.

That promise deserves closer examination because turnkey execution changes where complexity sits inside the organization. It may reduce interface management during implementation, but it can also reshape long-term flexibility, ownership of process knowledge and dependence on external engineering ecosystems. The value of a turnkey approach therefore depends less on the number of machines included in the project and more on how successfully technical integration translates into measurable production outcomes.

BEYOND EQUIPMENT PROCUREMENT

Industrial bakery lines evolved historically through specialization. Mixing, dough preparation, proofing, thermal processing, cooling and packaging became highly optimized disciplines with dedicated suppliers and engineering philosophies. For many years, bakeries expanded by selecting best-in-class technologies for each stage and integrating them internally. That approach still works in environments where production is stable, product complexity is limited and internal engineering capability remains strong.

The limitations appear when production variables multiply. A bakery introducing additional SKUs, reducing batch sizes, extending operating hours or compressing delivery schedules often discovers that incremental equipment

upgrades stop delivering expected returns. Additional oven capacity creates pressure on proofing. Faster make-up overwhelms cooling. Packaging improvements expose upstream instability. Local optimization improves one metric while creating hidden losses elsewhere.

Turnkey projects emerged as a response to that fragmentation. Rather than beginning with machine selection, turnkey design starts with production requirements: product categories, target throughput, changeover frequency, labour assumptions, cleaning schedules, utility availability, maintenance philosophy and future expansion plans. Equipment selection becomes a consequence of those decisions rather than the starting point.

That distinction changes project economics. In a conventional project structure, integration risk remains largely inside the bakery. Controls interfaces, startup sequencing, acceptance criteria and performance reconciliation become internal responsibilities. Under turnkey execution, those activities move toward a single supplier or coordinated consortium, creating clearer accountability during commissioning but also requiring much tighter definition of expected outcomes before procurement begins.

The result is that turnkey projects succeed or fail long before equipment arrives on site.

CAPACITY IS CREATED BY SYNCHRONIZATION

Industrial bakeries still occasionally evaluate investments through nameplate capacity calculations: mixer output, oven throughput and packaging speed are treated as additive values that together define line performance. Operational reality is less accommodating.

Production capacity is an emergent property of the system. Bakery operations combine mechanical movement, thermal inertia, biological variability, product accumulation and packaging logic into a single flow environment. Each stage responds differently to disruption. A divider recovers quickly after interruption; an oven does not. Cooling introduces residence constraints that cannot simply be accelerated. Packaging interruptions propagate upstream and may create losses that appear elsewhere in the process. This explains why identical equipment can perform differently between facilities.

A line capable of sustaining target output during acceptance testing may behave very differently under real production conditions if changeovers increase, staffing changes or product mix evolves. Operators compensate by adjusting line speed, adding accumulation or modifying schedules, but those interventions gradually move operations away from original design assumptions.

Turnkey suppliers attempt to reduce these effects by treating synchronization as part of line design rather than operator intervention. Controls logic, accumulation zones, product routing and utility planning become mechanisms for protecting continuity rather than simply increasing speed. This approach changes how success should be measured. The strongest turnkey projects are rarely the fastest. They are usually the most predictable.

CONTROLS, DATA AND PRODUCTION OWNERSHIP

As bakery lines become more integrated, automation moves from support function to operational backbone. Controls increasingly determine how effectively equipment behaves under changing production conditions, especially where frequent product transitions, traceability requirements and labour constraints are involved.

Recipe management, sequencing, alarm prioritization and reporting now operate across multiple stages simultaneously. The operational advantage is not automation for its own sake but reduction of friction between technologies that were historically isolated. Integrated control environments can reduce manual adjustments during changeovers, improve consistency between shifts and simplify troubleshooting. Production reporting becomes more meaningful when data are connected across process stages rather than collected independently.

At the same time, integration changes ownership. The more intelligence embedded into a line, the more dependent the bakery becomes on software architecture, support models and change-management practices. Internal engineering teams may lose flexibility if controls become difficult to modify without supplier involvement. This tension increasingly shapes supplier strategies.

Equipment suppliers increasingly approach turnkey execution as an integrated production ecosystem that combines multiple process technologies under coordinated controls and project delivery. Rather than positioning a single machine platform as the center of the solution, the model attempts to reduce operational friction across processing stages through

shared engineering and support structures.
The attraction of this approach is clear for operators managing multiple technologies across large facilities. The challenge is ensuring that integration does not become dependency.
For bakery operators, the question is becoming less about how automated the line is and more about who retains operational control once the line is running.

UTILITIES, HYGIENE AND COMMISSIONING DETERMINE REAL PERFORMANCE

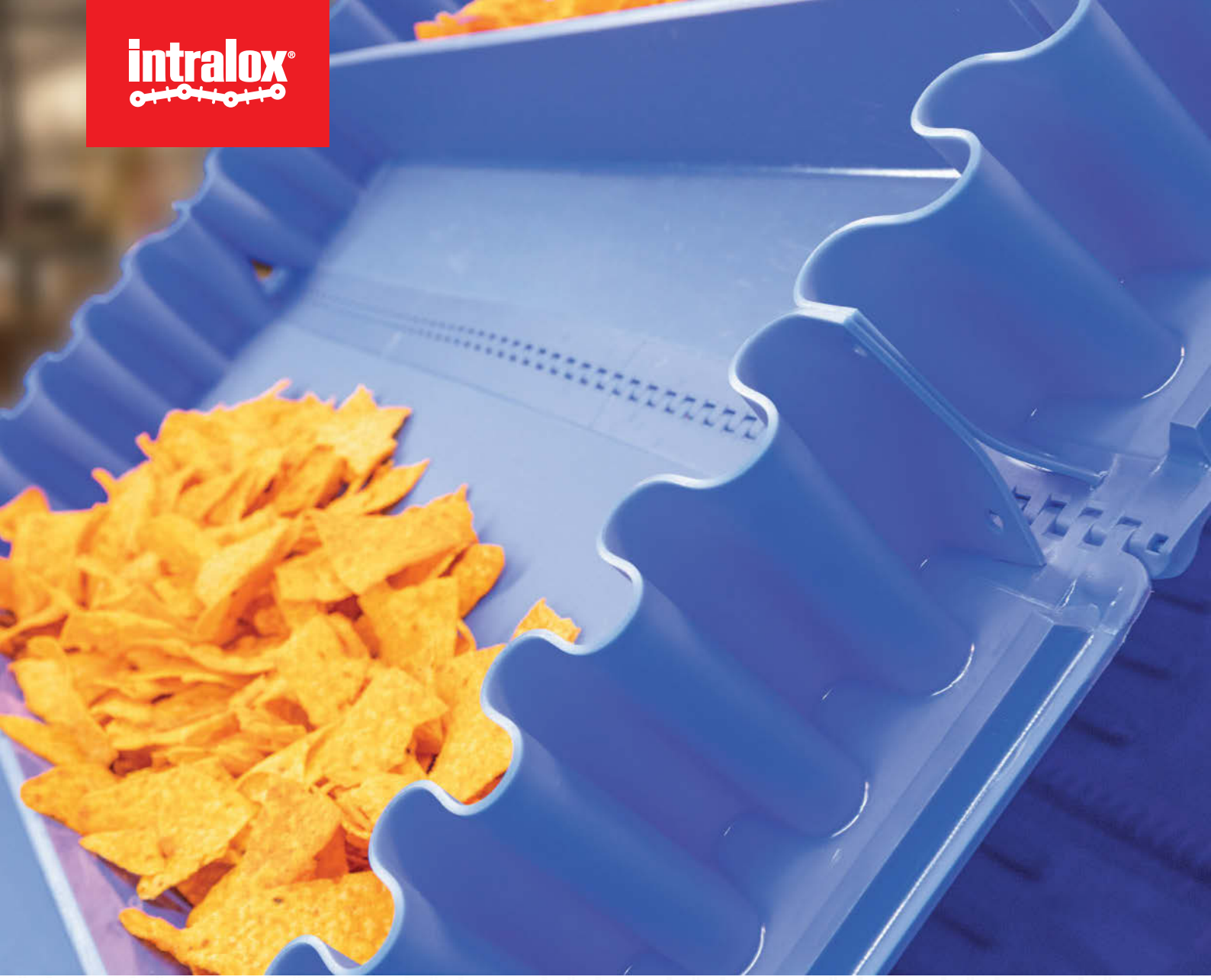
Many bakery projects that underperform are not constrained by process technology. They are constrained by infrastructure.
Compressed air stability, steam quality, ventilation, cooling capacity, drainage and electrical resilience exert direct influence over bakery performance. These variables are often treated as building issues during planning and production issues after startup, even though the distinction becomes increasingly artificial in integrated facilities.
Turnkey execution can address this problem by bringing utilities and production design into the same engineering framework.
This becomes particularly important in bakery environments because hygienic performance and operational performance are closely linked. Cleaning requirements influence scheduling. Drainage affects sanitation efficiency. Access determines maintenance duration. Environmental conditions shape dough handling and thermal consistency. The strongest projects therefore define acceptance criteria operationally rather than mechanically.
Instead of asking whether equipment reached installed capacity, operators increasingly evaluate startup against questions such as: Can target throughput be sustained? Are sanitation windows achievable? Does utility demand remain stable? Can changeovers be completed within schedule assumptions? Those measures are more difficult to optimize, but they reflect how bakeries actually operate.
Regulatory compliance should be considered separately from technical performance. Machinery conformity, food safety obligations and validation requirements remain operator responsibilities even under turnkey delivery. Integrated execution may simplify documentation and commissioning, but it does not transfer accountability for process outcomes.

HOW COMMERCIAL TURNKEY STRATEGIES ARE DEVELOPING

The current supplier landscape illustrates that turnkey no longer means a single universal model. Industrial bakery suppliers are converging around integration while approaching it through different technical philosophies.
Tecnopool has developed its position around continuity of product movement across process stages. In bakery applications, this is reflected in integrated conveying, cooling and handling systems intended to minimize interruptions between processing stages. The underlying principle is not simply transport efficiency but reduction of variability introduced by manual transitions and disconnected equipment islands.
Mecatherm approaches turnkey from a broader industrial engineering perspective. Its bakery projects emphasize complete line execution, integrating processing stages, automation and startup into unified production concepts. The emphasis is less on maximizing isolated machine performance and more on achieving repeatable operation across the line as a whole.
Middleby occupies a somewhat different position because of the breadth of technologies available within its bakery portfolio. Rather than building around one process philosophy, its approach relies on combining specialized capabilities into integrated production environments supported through coordinated controls and execution.
Although these suppliers differ structurally, they share an important assumption: operational performance increasingly depends on interface management rather than machine specification.
That shift also explains the growing emphasis on modularity inside turnkey projects. Industrial bakeries remain reluctant to lock themselves permanently into fixed production assumptions. Suppliers increasingly preserve expansion opportunities for proofing, freezing, cooling and packaging so facilities can adapt without redesigning entire lines. Turnkey, in that sense, has become less monolithic than the term implies.

INTEGRATION IS ULTIMATELY A GOVERNANCE DECISION

Turnkey lines are frequently evaluated as technical investments, yet their most significant consequences are organizational.
The bakery is deciding who owns integration, who carries startup risk, who controls future modifications and who remains accountable for long-term performance. Those decisions become more consequential as product complexity increases and production windows narrow.
For operations with stable demand and strong internal engineering capability, traditional procurement may continue to offer greater flexibility. For bakeries operating under labour pressure, rapid product turnover, demanding audit environments or large-scale expansion plans, integrated delivery can remove significant operational burden. Neither model is inherently superior. What matters is whether assumptions are defined early and translated into measurable operating conditions.
If production targets, sanitation requirements, utilities, maintenance access and controls ownership remain unresolved, turnkey execution simply relocates complexity. If those variables are engineered together and measured against manufacturing outcomes rather than equipment specifications, the production line begins to function as a coordinated industrial system rather than a sequence of machines.
That distinction increasingly determines where industrial bakery investments create value. •



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> RELIABLY INVENTIVE

How the Emithermic® XE Oven Is Redefining Industrial Cracker Baking

For decades, direct gas-fired (DGF) ovens have been the standard in industrial cracker baking. Entire generations of operators learned to manage hundreds of feet of ribbon burners, balancing top and bottom heat, making small adjustments based on experience, and accepting that maintaining consistent product quality required a high degree of expertise and constant attention.
But bakery operations are changing.

By Reading Bakery Systems

Manufacturers today face a very different environment than they did even ten years ago. Energy costs remain unpredictable. Sustainability initiatives are becoming measurable business objectives. Skilled labor is increasingly difficult to find. And production teams are under pressure to run more SKUs with tighter quality requirements and less downtime.

These pressures are creating an important question across the industry: if bakeries were designing cracker ovens today from a blank sheet of paper, would they still build them the same way?

Reading Bakery Systems (RBS) believes the answer is no. The company's Emithermic® XE Oven was developed specifically to challenge conventional DGF oven design and provide a new path forward for industrial cracker production.

MOVING BEYOND TRADITIONAL DIRECT GAS-FIRED BAKING

Direct gas-fired ovens earned their reputation because they deliver the intense radiant energy required to create cracker texture, color, and flavor. But they also introduce complexity.

Traditional DGF systems rely on many ribbon burners down the length of the oven. In some installations, these systems can extend hundreds of feet and require ongoing cleaning, tuning, balancing, and maintenance to maintain consistent performance. Even small variations in burner output can affect product uniformity across the band.

At the same time, many manufacturers are evaluating how to reduce emissions, simplify operations, and prepare facilities for future energy transitions.

Rather than improving the ribbon burner concept, RBS took a different approach. The Emithermic XE was designed to eliminate ribbon burners entirely and replace them with a system that combines Thermatec® high-radiant panels, electric radiant heat and controlled convection to achieve the bake profile crackers require.

The result is an oven designed to preserve the performance benefits bakers expect while simplifying operation and reducing maintenance requirements.

CREATING BALANCED HEAT INSTEAD OF CHASING IT

One of the biggest differences in the Emithermic XE design is how heat reaches the product.

Traditional DGF systems depend heavily on direct radiant heat from numerous distributed burners. The Emithermic

XE instead centralizes heat generation and distributes energy through a combination of radiant panels and controlled airflow. This creates a more balanced thermal environment across the baking chamber.

WHY DOES THAT MATTER?

Because in cracker baking, consistency is rarely achieved through temperature alone. Product moisture migration, surface development, color formation, and texture are all influenced by how heat is delivered.

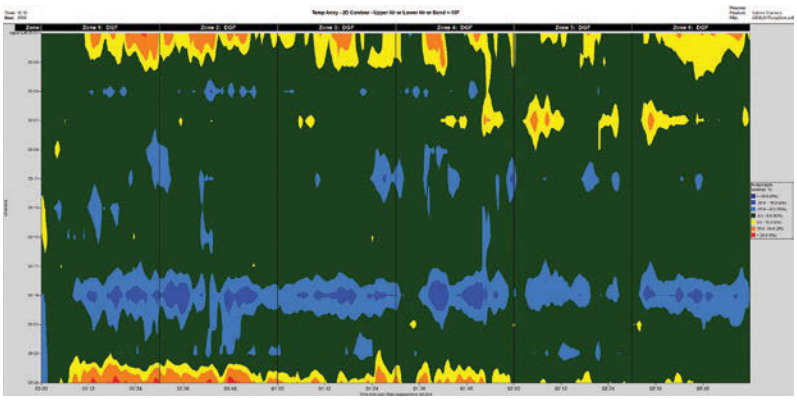
The Emithermic XE uses high-radiant Thermatec panels to provide the radiant energy necessary for flavor and structure development while convection supports uniform heat transfer and moisture removal. The system also incorporates humidity control directly around the product zone, giving operators another level of influence over bake characteristics.

This combination creates a more controlled environment that allows manufacturers to dial in product characteristics with greater repeatability.

DESIGNED FOR TODAY'S WORKFORCE

Modern bakery challenges extend beyond process performance. Many production teams are experiencing increasing turnover and a shrinking pool of highly experienced operators. Equipment that depends on years of tribal knowledge becomes more difficult to sustain over time. This operational reality influenced the Emithermic XE design philosophy.

Recipe-driven startup and automated controls reduce operator dependency and simplify changeovers between products. Operators can manage heat transfer, airflow, and baking conditions through programmed recipes rather than relying on



manual tuning across large numbers of individual burners.

The control structure is designed to automatically monitor and adjust operating conditions while providing visibility into process trends across the oven. Temperature, airflow, and conveyor operation are managed through feedback loops that support more stable production.

For manufacturers running multiple products or operating globally across facilities with varying levels of operator experience, consistency becomes easier to scale.

EFFICIENCY WITHOUT COMPROMISE

Energy reduction has become one of the most discussed topics in industrial baking, but energy savings only matter if product quality remains intact.

RBS developed the Emithermic XE with the assumption that manufacturers should not have to choose between sustainability and performance.

By removing ribbon burners and transitioning to Thermatec radiant panels and convection heat, the oven was designed to reduce energy use and emissions while maintaining the thermal characteristics needed for cracker development.

The platform also supports flexibility in heat source strategy. Systems are available with gas or electric penthouses, and existing RBS ovens can be configured to support future conversion pathways as energy infrastructure evolves.

That flexibility is increasingly important as manufacturers make equipment decisions expected to remain in service for decades.

FUTURE-PROOFING THE BAKING PROCESS

Industrial ovens are long-life assets. Decisions made today influence production capability for the next 20 to 40 years. RBS specifically framed the Emithermic XE around that reality: helping bakeries reduce energy consumption, lower emissions, improve ease of operation, and maintain throughput and product quality over the long term.

The broader implication may be larger than a single oven design. For years, industrial baking has focused on controlling machine settings. Increasingly, the industry is moving toward controlling the process itself, using better heat delivery, automation, visibility, and repeatability to produce more consistent outcomes.

THE EMITHERMIC XE REFLECTS THAT SHIFT

Instead of asking operators to constantly manage hundreds of burners, it rethinks how heat is controlled and delivered to the product.

And for manufacturers looking to modernize cracker production, that may represent one of the most significant changes in oven technology in decades. •

Designed To Stick: Approaches To **Seasoning Control In Baked Snack Processing**

Seasoning has become one of the more technically demanding stages in baked snack production. While flavor remains one of the strongest points of product differentiation, the process of applying that flavor consistently has become increasingly complex as manufacturers move toward lower-oil formulations, broader portfolios and tighter operational controls.

By Tudor Vintiloiu

Unlike traditional fried snacks, where residual surface oil naturally assists adhesion, baked products operate within a narrower process window. Powder retention, visual coverage and flavor intensity depend far more heavily on product temperature, surface characteristics, oil management and application consistency. For manufacturers of crackers, baked chips, bread snacks, pretzel products and related categories, seasoning performance is increasingly measured through operational indicators rather than sensory outcomes alone: ingredient utilization, sanitation requirements, changeover speed, uptime and process repeatability.
This shift has elevated seasoning equipment from a downstream accessory into a process technology category in its own right.

ENGINEERING FLAVOR APPLICATION FOR BAKED PRODUCTS

At its core, seasoning in baked snacks is an adhesion challenge. Product moisture, porosity, surface roughness, carrier liquids and seasoning particle characteristics all influence how effectively flavor remains attached throughout downstream conveying, packaging and distribution.
Because baked products typically offer less natural surface fat than fried alternatives, seasoning systems increasingly integrate multiple controlled functions rather than relying on a simple drum-and-powder approach. Oil application, powder dosing, airflow management and product movement are becoming coordinated process variables intended to maximize transfer efficiency while minimizing breakage and waste.
The objective is no longer merely to deliver flavor. It is to achieve repeatable deposition under changing operating conditions while maintaining flexibility for frequent flavor changeovers and tighter allergen management requirements.
Against that background, equipment suppliers are approaching the problem from distinctly different technical directions.

CONTAINMENT, RECOVERY AND CONTROLLED APPLICATION

Heat and Control's recent seasoning developments reflect an increasingly closed-loop philosophy in which seasoning performance is determined not only by how seasoning reaches the product, but also by how the system handles seasoning that would otherwise become waste.
Its FastBack® Symphony On-Machine Seasoning (OMS) platform was developed in response to changing production realities, particularly where higher application rates and more complex seasoning profiles increase the amount of airborne powder generated during operation. According to Heat and

Control, conventional seasoning approaches begin to face limitations as seasoning loads increase, resulting in greater dust formation, reduced application efficiency and increased cleaning requirements.
The company's solution combines two integrated principles: Seasoning Capture, intended to recover airborne seasoning and redirect it back through the incoming product stream, and Seasoning Containment, designed to keep fugitive dust inside the seasoning zone rather than allowing it to disperse throughout the production environment. The system architecture combines enclosed application with cyclone-based dust management and integrated process control. According to Heat and Control, the result can deliver up to 30% greater seasoning adherence, reduce dust reaching collection filters by up to 30%, and reduce removable machine components by approximately 50%, lowering both cleaning effort and maintenance intervention. The technical significance extends beyond hygiene. In practical production terms, seasoning containment influences ingredient yield, cleaning intervals, operator exposure and process consistency. Symphony OMS integrates components including WeighBack, Powder Feeder, FastBall and Totally Automated Seasoning Control (TASC) into what Heat and Control describes as a tightly coordinated seasoning environment designed to improve application accuracy and product-to-product consistency.

For baked snack applications, where increasing oil addition is often undesirable, this approach becomes particularly relevant because it seeks to improve retention efficiency through environmental control rather than through higher seasoning loads.

BUILDING REPEATABILITY INTO SEASONING OPERATIONS

KMG Systems addresses seasoning from a different engineering perspective, placing greater emphasis on dosing precision and operational continuity.
The company's On Machine Seasoning System (OMS) platform is built around gravimetric control principles intended to maintain stable seasoning ratios regardless of variation in product flow conditions. According to KMG, repeatability and accuracy remain central requirements for delivering consistent seasoning performance, particularly in environments where multiple recipes and frequent product transitions are standard operating conditions.

Its systems support both dry and liquid application while targeting high-throughput production environments. KMG states that its OMS configuration supports capacities of up to 750 kg of base product per hour while maintaining controlled deposition rates. Beyond throughput, one of the more technically interesting aspects of the platform is its sanitation and changeover strategy. According to the company, seasoning stations can be cleaned in less than twenty minutes while allowing production elsewhere on the system to continue.
For bakery manufacturers, that capability becomes increasingly valuable as production schedules become more fragmented and allergen segregation requirements more demanding.

From a process standpoint, gravimetric dosing offers an additional advantage for baked snacks because it controls seasoning addition by measured mass rather than estimated volume. That allows the system to respond more effectively to changes in product density, environmental conditions and powder characteristics while reducing operator intervention and improving long-run consistency.

TREATING SEASONING AS A LINE-WIDE VARIABLE

Reading Bakery Systems offers a different perspective again — one that positions seasoning performance as the outcome of upstream process conditions rather than a standalone downstream operation.
The company develops integrated production systems for baked snack categories including crackers, pretzels, baked chips and related applications, combining mixing, thermal processing and downstream product handling within a broader process framework.
That approach is relevant because seasoning performance often begins long before seasoning is applied. Product moisture removal, crust development, thermal history, porosity and surface structure all directly influence how effectively powders adhere and how flavor is ultimately perceived by consumers.
Reading Bakery Systems emphasizes process consistency across upstream production stages to create stable product conditions entering seasoning operations. Rather than viewing flavor application as an isolated equipment choice, the company's approach reflects a broader production philosophy in which seasoning consistency depends on maintaining predictable product characteristics throughout the line.

For manufacturers troubleshooting poor adhesion or inconsistent flavor intensity, that distinction is important. In many cases, seasoning performance issues originate not inside the applicator but in variations introduced earlier through baking conditions or product development decisions.

PRECISION INSTEAD OF COMPENSATION

Across current seasoning technologies, a common direction is becoming visible.
Manufacturers are moving away from compensating for inefficient application through higher seasoning addition and instead focusing on improving utilization through controlled dosing, environmental containment and better process stability.
For baked snack producers operating under rising ingredient costs and expanding SKU complexity, the opportunity increasingly lies in applying existing formulations more effectively rather than applying more of them.
Seasoning therefore becomes less of a finishing step and more of a measurable production discipline — one where adhesion, airflow, dosing accuracy and product condition directly influence cost, consistency and operational performance. •

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“Manufacturers Need Systems That **Improve Efficiency Without Sacrificing Flexibility**”

As snack manufacturers continue to balance efficiency, product innovation, labour pressures, and sustainability targets, equipment suppliers are increasingly being asked to deliver more than individual machines. Ahead of SnackEx 2026 in Lisbon, *European Baker & Biscuit* spoke with Marcus Hofmann, Sales Manager Europe, Reading Bakery Systems, about the trends shaping investment decisions, integrated production strategies, and how snack producers are approaching the next phase of growth.

By Tudor Vintiloiu

Reading Bakery Systems will be exhibiting at SnackEx 2026. What makes this event important for RBS, and what conversations are you hoping to have with snack manufacturers in Lisbon?

SnackEx is an important event for RBS because it brings together snack manufacturers from across Europe and beyond who are actively investing in growth, innovation, and production improvements. Europe continues to be a strategic market for us, and the event gives us an opportunity to have meaningful conversations with both existing customers and manufacturers exploring new capabilities.

At SnackEx, we are looking forward to discussing how producers can improve efficiency, reduce operating costs, increase flexibility, and bring new products to market faster. We are also excited to talk about the future of baked snacks and how manufacturers can position themselves for changing consumer expectations around quality, variety, nutrition, and sustainability.

More than anything, we want visitors to leave understanding that RBS is more than an equipment supplier; we are a long-term partner helping customers develop products, optimize processes, and support growth throughout the life of their production systems.

For readers who may know the RBS name but not the full scope of your offering, could you give an overview of the snack production solutions and capabilities that RBS provides today?

Reading Bakery Systems designs and manufactures complete production solutions for baked snacks and bakery products. Our capabilities extend across mixing, forming, baking, drying, process controls, profiling, and lifecycle support.

For snack manufacturers specifically, we offer solutions for pretzels, baked crisps, fabricated potato snacks, filled snacks and other snack applications. Our portfolio includes technologies such as continuous mixing systems, low pressure extrusion, sheeting and forming systems, high-performance ovens, and process measurement tools.

What differentiates RBS is that we combine equipment with deep process expertise. We partner with customers at our Science & Innovation Center, where they can test concepts, validate formulations, scale products, and reduce development risk before committing to full production.

Snack manufacturers continue to face pressure around efficiency, labour availability, consistency and operating costs. Which customer challenges are coming up most often in conversations with RBS today, and how are you helping processors address them?

The conversations we are having most often revolve around labour challenges, energy costs, consistency, and the need for greater flexibility.

Many manufacturers are trying to produce more with fewer operators while maintaining product quality. Others are managing growing product portfolios and need faster changeovers without sacrificing throughput.

We help address these challenges through automation, recipe-driven controls, continuous processing, and designs that simplify operation and reduce variability. Technologies like Exact Continuous Mixing create more consistent dough with less operator dependency, while advanced baking systems improve process control and reduce energy use. Our profiling capabilities also allow customers to understand what is actually happening inside the process so they can reduce waste, improve repeatability, and make decisions based on data instead of trial and error.

RBS is known for delivering integrated production systems. What advantages does this approach bring compared with introducing individual pieces of equipment into an existing operation?

An integrated systems approach allows manufacturers to optimize the entire process instead of improving isolated steps. Every stage of production impacts the next — mixing affects forming, forming impacts bake quality, and baking influences final product characteristics. When systems are designed to work together, manufacturers typically gain more consistent product quality, smoother start-ups, stronger line performance, and better long-term efficiency.

Integration also simplifies controls, service, training, and future expansion. Customers benefit from having a single partner accountable for process performance rather than managing multiple suppliers independently.

Innovation remains a major topic across the snack industry. Could you share some examples of the technologies, process developments or customer needs currently shaping RBS's product development and project work?

Several themes are shaping our product development and project work today, but energy efficiency, sustainability, automation, and process visibility continue to be the biggest drivers.

One example is our recently launched Emithermic® XE oven, which was designed as a next-generation replacement for traditional Direct Gas Fired (DGF) baking ovens. Rather than relying on ribbon burners throughout the oven, the Emithermic XE uses a centralized penthouse design and Thermatec® radiant panels to deliver balanced radiant and convective heat into a more controlled baking environment. The result is improved bake consistency, reduced maintenance requirements, simplified operation, and lower energy consumption. The enclosed, humidity-controlled product zone also provides greater process stability and more repeatable product quality.

At the same time, we continue to see increased demand for greater automation, better process visibility, and more intelligent use of production data. Manufacturers want systems that not only produce product efficiently but also make it easier to operate lines, reduce operator dependency, and identify opportunities for improvement.

Our RBSConnect control platform supports those goals by enabling better communication and coordination across the production process while collecting actionable operational data. Operators gain visibility into real-time production information, preventive maintenance recommendations, key performance indicators, alarm history, and performance trends. That insight helps teams make faster decisions, address potential issues before they become costly downtime events, and ultimately run more consistent and efficient operations.

Overall, customers are increasingly looking for technologies that improve efficiency without sacrificing flexibility and solutions that allow them to adapt to changing products, labor availability, and sustainability goals while maintaining consistent product quality.

Across baked snacks in particular, where are you seeing the most interesting product or process developments right now? Are there any emerging categories or formats that you believe will shape investment decisions over the next few years?

Baked snacks continue to evolve quickly, and manufacturers are looking for ways to deliver more variety while maintaining efficiency.

We continue to see strong interest in better-for-you products, including higher-protein, clean ingredients, and baked alternatives to traditionally fried categories. At the same time, manufacturers want formats that create excitement, including unique shapes, layered textures, filled products, and a wide variety of seasoning flavors.

From a process perspective, flexibility is becoming just as important as throughput. Systems that allow manufacturers to run multiple products, adjust formulations quickly, and support faster product development cycles are becoming increasingly valuable. Technologies like low pressure extrusion and flexible baked crisp systems are especially interesting because they allow manufacturers to produce a broad range of snack styles on a common platform while reducing development time.

Looking ahead, what would you like visitors to take away after meeting the RBS team at SnackEx 2026, and what message would you like to leave with European snack manufacturers?

We would like visitors to understand that RBS combines over 130 years of experience with a forward-thinking approach to innovation and customer partnership.

Our goal is not simply to sell equipment, it is to help manufacturers create better products, improve performance, reduce risk, and build production systems that support growth for years to come.

For snack manufacturers, our message is simple: whether you are launching a new product, expanding capacity, improving efficiency, or preparing for future market changes, we are ready to partner with you to help you move faster and with greater confidence. •

Unlock New Baking Possibilities: Rehydrated Yeast Cream for Simpler, More Efficient Professional Fermentation

In the world of baking—where exceptional texture and consistent quality are paramount—yeast remains an indispensable core component. From soft bread and fluffy cake to aromatic European-style bread, precise and vigorous yeast fermentation is essential. This article introduces rehydrated yeast cream, a more flexible, uniform, and high-performance application format designed for professional bakers and food producers.

By Angel Yeast

Rehydrated yeast cream is prepared by rehydrating dry yeast, semi-dry yeast, or fresh yeast through standardized processes. It ensures more uniform dispersion in batter or dough, improves fermentation consistency, and supports automated & continuous production. It is especially suitable for central bakeries, chain baking operations, and high-end food manufacturing.

PROFESSIONAL GUIDE TO PREPARING REHYDRATED YEAST CREAM

1. Rehydration of Instant Dry Yeast

Dry yeast offers stable activity and long shelf life, ideal for long-distance transport and storage. Proper rehydration & activation is critical to maximize yeast activity.

- **Water temperature:** 35–40°C (tap or purified water; extreme temperatures reduce viability)
- **Ratio:** 1:4 to 1:5 (yeast : water, e.g., 1 kg yeast + 4–5 L water)
- **Method:** Sprinkle dry yeast gently into warm water, stir until fully dissolved, and let stand for 5–10 minutes. A thin layer of bubbles indicates successful activation.

2. Rehydration of Semi-Dry Yeast

Semi-dry yeast has a moisture content between dry yeast and fresh yeast, combining high activity with convenient storage.

- **Water temperature**: 30–40°C
- **Ratio:** 1:3 to 1:4 (yeast : water)
- **Method**: Stir gently until fully dispersed; rest for 1–5 minutes before use

Note: Use within 1 hour for maximum leavening power.

3. Rehydration of Fresh Yeast

Fresh yeast delivers the strongest activity and superior fermentation flavor but requires refrigeration and has a short shelf life. Rehydration improves dispersion in dough.

- **Water temperature:** 25–30°C
- **Ratio:** 1:2 to 1:3 (yeast : water)
- **Method:** Crumble fresh yeast into water, stir until dissolved, and rest for 1–5 minutes

Note: Use immediately after rehydration.

APPLICATION GUIDELINES: STABLE, FLEXIBLE PROFESSIONAL SOLUTIONS

Suitable Applications

- **Large-scale continuous production lines:** pumpable and meterable for automated dosing
- **Chilled / frozen dough:** uniform dispersion improves post-freeze fermentation stability
- **Low hydration dough formulas:** eliminates undissolved yeast agglomerates
- **Multi-dough production:** batch-rehydrated for on-demand use, boosting efficiency

Best Practices

1. **Use promptly:** Yeast cream peaks in activity right after rehydration; use within 30 minutes (especially fresh and semi-dry yeast). For short-term storage, keep below 6°C.
2. **Mixing order:** Add yeast cream with liquid ingredients early in mixing for uniform dispersion.
3. **Temperature control:** coordinate rehydration water and final dough temperature to avoid overheating or undercooling.
4. **Ratio adjustment:** When switching from dry yeast to rehydrated yeast cream, deduct rehydration water to maintain total dough liquid content.
5. **Rehydration additives:** 1–2% sugar may be added, but avoid high sugar/salt concentrations that reduce yeast activity via osmotic pressure.

Key Advantages

- **Uniform dispersion:** Liquid yeast cream integrates completely into dough, eliminates undissolved yeast agglomerates.
- **Consistent fermentation:** Pre-activation ensures uniform activity and reduces fermentation variation.
- **Automation-friendly:** ideal for automated & continuous production, supports pipeline delivery and precise dosing.
- **Enhanced flavor:** Especially from fresh and semi-dry yeast cream, highlighting natural wheat notes.

As the baking industry moves toward standardization, efficiency, and premium flavor, rehydrated yeast cream is more than a processing choice—it is a pathway to precise fermentation and stable quality control. For chain bakery central plants and high-end craft bakeries alike, mastering the science of yeast rehydration and application creates a competitive advantage from the very start of fermentation. •

YEAST TYPE	RECOMMENDED WATER TEMP	YEAST:WATER RATIO	RECOMMENDED USAGE WINDOW
Instant Dry Yeast	35–40°C	1:4 to 1:5	Within 1–2 hours
Semi-Dry Yeast	30–40°C	1:3 to 1:4	Within 1 hour
Fresh Yeast	25–30°C	1:2 to 1:3	Immediately

Plant-Based Bakery Formulation **Moves Into a New Technical Era**

Plant-based bakery may have entered the mainstream, but behind the rapid commercial growth lies an increasingly complex formulation challenge. Industrial bakers are under pressure to deliver vegan products that match conventional bakery in texture, indulgence, shelf life, appearance, and nutritional performance, while also meeting clean-label expectations and maintaining production efficiency.

By Jo Ilie

Plant-based bakery consumers no longer accept compromise. Vegan cakes, croissants, muffins, and cookies are now expected to deliver the same indulgence, softness, structure, and shelf life as conventional baked goods, while also meeting demands for clean labels, protein enrichment, and recognizable ingredients. For industrial bakers, that expectation is creating one of the industry's most complex formulation challenges.

Some of the biggest technical hurdles shaping plant-based bakery development in 2026, from egg replacement and butter functionality to texture management, off-notes from plant proteins, and shelf-life stability, have been fortunately addressed. Ingredient suppliers in Europe and the U.S. are responding through a new generation of functional solutions designed specifically for industrial bakery applications. From pea-protein egg replacers and fermentation-assisted flavor systems to clean-label protein ingredients and advanced fat technologies for laminated doughs, the sector is rapidly evolving as manufacturers race to achieve true sensory parity between plant-based and traditional baked goods. The result is a new wave of ingredient innovation focused on solving some of the category's most persistent technical limitations.

The urgency is reflected in the market itself. The European egg replacement ingredients market is projected to grow from approximately USD952m in 2025 to more than USD1.7bn by 2032, driven largely by bakery demand, according to Persistence Market Research. Meanwhile, the global egg replacer market for baking is forecast to expand at double-digit growth rates as industrial manufacturers seek alternatives that can stabilize supply chains and reduce exposure to egg price volatility.

THE EGG PROBLEM

Egg replacement remains one of the sector's biggest technical hurdles because eggs perform multiple functions simultaneously. In bakery systems, they contribute structure, aeration, emulsification, moisture retention, browning, and softness. Replacing all of these functions with plant-based ingredients is difficult, particularly in cakes, laminated pastries, and sponge systems where foam stability and volume are critical. Recent ingredient launches show how suppliers are increasingly targeting industrial-scale functionality rather than simple vegan substitution.

Innophos, a leader in leavening and baking solutions, has expanded its LEVAIR portfolio with the launch of LEVAIR Egg Replace, an egg replacement solution for commercial bakeries. This new technology enables manufacturers to reduce costs, minimize supply chain disruptions, and maintain the volume, texture, taste, and appearance of traditional eggs in baked goods. In plain donuts, formulations using 100% LEVAIR Egg Replace 1000 as an egg yolk substitute showed no significant differences in texture, volume, or sensory attributes compared to those using 100% dried egg yolk. In pound cake, formulations with a 33% egg replacement using LEVAIR Egg Replace 2000 also exhibited no noticeable differences in texture, volume, or sensory qualities compared to cakes made with 100% whole eggs.

Israeli startup Meala introduced a new pea-protein-based egg replacer in 2025 specifically designed to replicate egg functionality in baked goods. Unlike earlier plant proteins that struggled with structure and texture, the ingredient was developed to address multifunctionality, one of the category's biggest limitations.

In the U.S., AcreMade, part of the PURIS portfolio, has continued expanding its plant-based egg replacement systems for bakery applications. At IBIE 2025, PURIS showcased strawberry rhubarb scones formulated with AcreMade ingredients, positioning the system as a clean-label solution for industrial bakers seeking protein enrichment alongside egg reduction.
The pressure to develop alternatives has intensified due to supply-chain instability and avian influenza disruptions. In 2025, Eat Just actively promoted its mung-bean-based Just Egg systems to industrial users and foodservice operators as manufacturers searched for more stable egg alternatives.

BUTTER REPLACEMENT AND LAMINATION CHALLENGES

Fat functionality remains another major barrier, especially in premium pastry applications.
Butter influences lamination, melt behavior, steam release, aroma, and mouthfeel. Replicating these attributes with plant fats remains particularly difficult in croissants and viennoiserie, where consumers expect visible layering, crispness, and rich flavor.
Ingredient suppliers have increasingly focused on hybrid fat systems that improve plasticity and thermal stability during industrial processing. Many of the newest developments combine coconut, shea, sunflower, oat, or rapeseed fractions with emulsification technologies designed specifically for laminated dough applications.
European bakery suppliers have also increased investments in fermentation-assisted flavor systems that help recreate dairy notes without relying on artificial flavors. This is particularly important because consumers increasingly reject plant-based products that deliver waxy textures or noticeable vegetable-fat aftertastes.

PROTEIN WITHOUT THE OFF-NOTES

Protein enrichment is becoming one of the strongest growth areas in plant-based bakery, but it also creates major sensory challenges.

Pea, fava, and soy proteins can introduce bitterness, grassy notes, or dense textures that interfere with consumer acceptance. High-protein bakery products also tend to lose softness more quickly and may disrupt gluten development.

dsm-firmenich, for example, has introduced a new range of textured vegetable proteins (TVPs) combining pea protein with integrated taste modulation technology, targeting persistent flavour challenges in plant-based and hybrid meat applications. The new Vertis TVP P55m and P65m variants, containing 55% and 65% protein respectively, are designed to deliver a more neutral flavour profile by reducing typical off-notes associated with pea protein, including bitter, beany and earthy tones. The company integrates its ModulaSENSE taste modulation technology directly into the extrusion process, enabling flavour correction at an early stage of production.

According to dsm-firmenich, embedding the masking functionality during processing reduces the need for additional flavour systems, helping manufacturers simplify formulations and lower ingredient costs.

Roquette, as well, has expanded its plant protein portfolio with the launch of NUTRALYS Pea 850F, a new pea protein isolate positioned to improve sensory performance in plant-based and high-protein formulations. The ingredient is designed to address one of the longstanding challenges of pea protein: its characteristic vegetal off-notes. According to the company, the new isolate delivers a significantly cleaner and more neutral taste profile, while retaining the full nutritional benefits associated with pea protein.

Fava bean protein has also emerged as a major area of interest in Europe because it offers a relatively neutral flavor profile and aligns with regional sourcing strategies. Suppliers are increasingly combining plant proteins with fermentation technologies to reduce off-notes while improving digestibility and shelf life.

THE CLEAN-LABEL CONFLICT

One of the biggest tensions in plant-based formulation is the growing overlap between vegan and clean-label expectations. Consumers increasingly want products that are simultaneously: plant-based, indulgent, high-protein, stable, affordable, and made with recognizable ingredients.
Technically, these goals often conflict. Many bakery systems still rely on emulsifiers, stabilizers, gums, and modified starches to compensate for the removal of eggs and dairy. Yet ingredient simplification has become a major purchasing driver, particularly in Europe.

This has accelerated interest in multifunctional ingredients capable of replacing several additives simultaneously. Fermentation-derived ingredients, starch-protein blends, hydrocolloid systems, and enzyme technologies are increasingly being positioned as ways to reduce label complexity while maintaining processing stability.

SHELF LIFE AND FRESHNESS

Shelf-life management remains another major challenge for industrial bakers. Plant-based baked goods often stale faster or lose softness more quickly than conventional products because dairy fats and eggs traditionally help maintain moisture balance and texture over time.

To address this, suppliers are increasingly combining enzyme systems, fiber technologies, and sourdough fermentation to improve softness retention and freeze-thaw stability without relying heavily on preservatives. This is especially important for frozen bakery, which has become one of the fastest-growing distribution channels for plant-based pastries and café-style sweet goods across Europe.

FROM "GOOD ENOUGH" TO SENSORY PARITY

Perhaps the biggest shift in 2026 is that consumers no longer evaluate plant-based bakery against other vegan products. They compare it directly with conventional bakery.

That means industrial bakers are no longer competing on ethics alone. They are competing on sensory performance. The companies gaining traction are those capable of delivering identical indulgence, premium texture, clean-label positioning, protein functionality, and industrial scalability simultaneously.

In many ways, plant-based bakery formulation has evolved into one of the food industry's most technically demanding innovation spaces — requiring ingredient suppliers to solve multiple functional problems at once while keeping labels simple and production costs under control.

As the category moves further into the mainstream, the ability to achieve true sensory parity may become the defining competitive advantage for both ingredient developers and industrial bakers alike. •

Designing Snack Packaging For **A Less Stable Supply Environment**

Snack packaging development is becoming less about replacing one material with another and more about managing a growing number of requirements inside a single specification. Barrier performance, recyclability, coding requirements, material availability, print compatibility and packaging architecture are increasingly being evaluated together rather than sequentially.

By Tudor Vintiloiu

For years, snack packaging advanced through incremental optimization: lower material usage, stronger seals, improved shelf life, better graphics and faster execution. Those objectives remain relevant, but they no longer operate independently. A change intended to improve recyclability may affect machinability. A new coding requirement may alter print layout and substrate selection. Material shortages can override branding decisions. Packaging equipment capabilities increasingly influence which structures remain commercially viable.

The result is a more interconnected packaging environment in which packaging design, materials, identification and supply resilience are becoming harder to separate.

MATERIALS ARE EXPANDING, BUT PERFORMANCE REQUIREMENTS HAVE NOT RELAXED

Flexible packaging remains dominant in snacks because it offers a difficult combination to replace: low weight, high packaging efficiency, strong barrier properties and compatibility with high-speed production environments. What is changing is the type of structures manufacturers are willing—or increasingly expected—to specify.

Regulatory pressure and retailer expectations are accelerating interest in recyclable flexible packaging, particularly mono-material solutions and fibre-based alternatives. However, technical requirements remain unchanged. Snack products continue to demand protection against oxygen, moisture and grease while maintaining seal integrity and visual consistency.

This has pushed suppliers toward structures designed to improve circularity without abandoning functional performance.

Amcor has expanded its AmPrima portfolio around recycle-ready flexible packaging concepts intended to maintain barrier performance while simplifying material composition. Commercial applications in snacks demonstrate how producers are testing whether mono-material structures can achieve acceptable shelf-life performance while remaining compatible with existing packaging infrastructure.

At the same time, Mondi continues developing fibre-based alternatives through its Functional Barrier paper portfolio for food applications. These materials aim to introduce higher renewable content while maintaining conversion and barrier characteristics required for packaged foods.

Neither direction has emerged as a universal replacement. Paper structures introduce different converting and barrier constraints. Polyolefin-

based mono-material solutions improve recyclability compatibility but still require careful optimisation for seal windows, stiffness and protection. Material selection increasingly becomes application-specific rather than category-specific.

For snack manufacturers, the question is shifting from "what material is most sustainable?" to "which structure maintains technical performance while reducing downstream constraints?"

PACKAGING IS BECOMING A DATA CARRIER

At the same time that materials are changing, packaging is being asked to carry more information. Marking and coding requirements have moved beyond expiry dates and lot numbers into broader product identification and data exchange functions.

According to Markem-Imaje's interpack 2026 analysis, regulation, production efficiency, traceability and consumer engagement are becoming increasingly connected through packaging systems.

One of the most visible examples is the migration toward 2D codes and connected packaging models. The GS1 Sunrise 2027 initiative is accelerating industry preparation for broader adoption of next-generation barcode formats capable of carrying richer product information than conventional linear codes.

At the same time, European regulatory developments such as the Digital Product Passport concept are contributing to expectations for improved product information management.

This changes packaging requirements in practical ways. Code placement, print quality, substrate interaction and readability become packaging design decisions rather than late-stage printing concerns. More data on pack means greater dependence on integrated software, inspection and verification.

Markem-Imaje positions this shift around end-to-end coding ecosystems that combine hardware, software, serialization and data connectivity to support connected packaging environments. The broader significance extends beyond one supplier: packaging increasingly functions as a digital interface rather than only a physical container.

SUPPLY CHAIN STABILITY CAN NO LONGER BE ASSUMED

Recent events have also highlighted another vulnerability that receives less attention in packaging discussions: dependency on industrial inputs outside the food sector.

Japan-based snack producer Calbee announced that selected flagship potato chip products would temporarily move to black-and-white packaging as packaging material constraints emerged around naphtha availability linked to Middle East instability.

The products themselves remained unchanged. The significance of the decision was elsewhere. Packaging simplification became a mechanism to preserve continuity when upstream inputs became constrained. The case illustrates how packaging dependencies extend beyond films and cartons into inks, solvents and petrochemical supply chains that are often invisible until availability changes.

This matters because snack packaging specifications are typically developed for consistency and scale—not rapid substitution.

A shortage of a seemingly secondary component can force redesign, approval cycles and artwork changes. In this context, resilience becomes part of packaging strategy.

Questions around approved alternatives, print flexibility and supply redundancy increasingly sit alongside traditional discussions around cost and appearance.

EQUIPMENT IS RESPONDING TO GREATER PACKAGING COMPLEXITY

Equipment development reflects these broader shifts. Packaging systems are increasingly being designed around adaptability rather than purely mechanical speed improvements. Equipment suppliers are responding to a market where packaging formats change more frequently and specifications evolve faster.

TNA's introduction of the tna robag Quantum at interpack 2026 provides one example of that direction. Rather than presenting speed alone as the value proposition, TNA positions the platform around simplification, flexibility and higher output per packaging lane, while reducing the need to multiply machine count to support growth.

Michael Jonson, CEO of TNA Solutions, stated: "For over 40 years, the tna robag® has continuously raised the bar in VFFS packaging through ongoing innovation. Quantum is the latest expression of that journey, built with the same pioneering spirit, and engineered for what the industry needs next."

The significance of this approach is not the published bags-per-minute figure by itself. It reflects a broader equipment philosophy: packaging systems are increasingly expected to accommodate material changes, support more format variation and reduce operational friction without requiring complete line redesign.

That direction aligns with the wider packaging environment now emerging across snacks. Packaging decisions are becoming more interconnected. Material strategy affects coding. Coding requirements affect design. Supply constraints affect graphics. Equipment capability affects which packaging concepts remain practical.

The snack pack itself is changing less visibly than previous generations—but the assumptions underneath it are changing much faster. •

Freshness and Quality Reign **in the Iberian Peninsula**

Tourism, snacking and indulgence influence the Spanish and Portuguese consumption of baked goods. There are slight differences between the two countries with solid bakery heritage, but overall the industry is in a good place in both of them.

By Jo Ilie

Baked goods markets in Portugal and Spain continued to expand in value terms in 2025, although growth was shaped by different consumer priorities across the two countries. In Portugal, inflation and premiumisation remained the main drivers, with shoppers willing to pay more for products associated with freshness, quality and added nutritional value, even as overall consumption volumes softened. In Spain, demand was supported by changing eating habits, stronger tourism flows and the growing role of convenience, particularly in fresh bakery, frozen products and packaged flatbreads.

Across both markets, manufacturers and retailers are adapting portfolios to shifting consumer expectations around health, indulgence and waste reduction. Innovation in areas such as sourdough, fibre-enriched products, gluten-free formulations and frozen bakery formats is helping companies maintain value growth while responding to evolving purchasing habits. At the same time, convenience-led categories, including packaged bread, tortillas and frozen pastries, continue to gain momentum as consumers seek products that combine freshness, shelf life and flexibility.

Market analysts at Euromonitor International have detailed below how the most important segments of the market are evolving.

BAKED GOODS IN PORTUGAL

Country Report | Nov 2025

Price inflation and premiumisation sustain value growth

Value sales of baked goods increased in 2025, reflecting the combined effects of cost inflation and consumer trading up to more specialised products. Although overall consumption fell slightly, shoppers continued to value freshness and quality, particularly in bread, which remains central to the Portuguese diet. Price increases were supported by higher raw material and labour costs, which manufacturers were largely forced to pass on.

Consumers continued to rationalise spending, purchasing fewer indulgent products such as cakes and pastries but maintaining a focus on essential items like bread. Value-added and health-oriented varieties gained traction, appealing to consumers seeking higher nutritional quality. Brands responded with targeted innovation – introducing options such as gluten-free bread, sourdough loaves, and products enriched with fibre – to meet this demand while justifying higher price points.

PRODUCT INNOVATION BOOSTS PACKAGED LEAVENED BREAD PERFORMANCE

Packaged leavened bread was the most dynamic category within baked goods in 2025, supported by innovation and brand investment.

The category also benefitted from its balance between convenience and quality. Packaged bread offers longer shelf life than artisanal alternatives and is widely distributed through supermarkets, appealing to busy consumers who still value freshness and taste. Combined with sustained innovation, these factors ensured that packaged leavened bread remained a key growth driver within baked goods.

BAKED GOODS IN SPAIN

Country Report | Nov 2025

Snacking, tourism and convenience drive growth in baked goods in 2025

Baked goods is Spain is seeing positive value growth in 2025, supported by stable consumption and changing eating habits. Snacking is becoming more common, with products like bocadillos and pastries often chosen between meals. Tourism also plays a role in this trend. In the first five months of 2025, the number of visitors rose significantly compared to the same period in 2024. This is helping to drive overall sales, with the foodservice channel seeing stronger volume growth than retail.

Unpackaged leavened bread is growing faster than packaged varieties. Consumers prefer to buy fresh bread in smaller amounts, enough for a day or two. This helps them reduce food waste, keep products fresh and better manage their budgets. The growth of supermarkets and discounters that focus on convenience and proximity supports this shift. Retailers are also increasing the variety of fresh bread, cakes and pastries in their in-store bakeries.

Cakes and pastries are benefiting from the continued popularity of indulgence and mini-pleasure trends. These products still attract consumers despite higher prices. However, volume sales slowed down compared to the previous year. One of the main challenges is the rising cost of chocolate, which has forced many producers to raise prices. Frozen baked goods are also performing well in value terms, with growth especially strong in frozen bread and pastries. The main reasons are, again, convenience, freshness and less food waste.

FROZEN BAKED GOODS AND TORTILLAS GAIN MOMENTUM THROUGH CONVENIENCE AND INNOVATION

Frozen baked goods is the most dynamic subcategory within baked goods in terms of value growth in 2025. Packaged flat bread is also rising, mainly driven by increased demand for tortillas. The growing popularity of ethnic cuisines, especially Mexican food but also Middle Eastern dishes like kebabs, is boosting consumption. Retailers are expanding shelf space and offering a wider range of products with a focus on private label, which helps attract more shoppers. •

Market analysis based on data provided by Euromonitor International.

Cakes and Pies, **A New Battleground for Bakers**

Cakes and pies are steadily becoming a way for bakers to experiment and show off their creative instincts. Not only are their sales strong around the world, but they are rising due to luxury and indulgence becoming dominating trends when it comes to treats.

By Jonathan Thomas

Sales of cakes and pies remain strong throughout much of the western world, despite concerns in some quarters regarding their nutritional profile – for example, many products are linked with high levels of sugar, calories and saturated fats. To counter these claims, manufacturers have been reformulating their products, as well as introducing calorie-controlled portions which also address the growing demand for snacking products. However, luxury and indulgence are also key drivers of new product activity, with many cakes and pies regarded as an affordable, everyday treat.

One of the reasons why demand has held up is the enduring popularity of many types of cakes and pies as snack foods, despite strong competition from products such as biscuits, confectionery and savoury snacks. According to the sixth edition of the State of Snacking Report from Mondelez International (which canvassed the opinions of almost 3,800 adults in 12 countries), 91% of respondents snacked at least once during a typical day. This figure decreased to 63% for those who snacked at least twice and 31% for those who ate at least three snack foods. The snacking habit is notably higher amongst the younger age groups – over 70% of millennials and those belonging to Generation Z said they preferred to eat several small meals during the day instead of a few large ones. This compared with 50% of boomers and Generation X consumers.

The Mondelez research also highlighted some of the key trends driving consumption of cakes and pies. One finding was that 69% of respondents sought out portion-controlled snacks for mostly health reasons – this figure was up from 67% the previous year, but down from 72% in 2021. The preference for portion-controlled snacks was highest amongst the younger generations, with 74% opting for these compared with 62% for boomers and Generation X consumers. Furthermore, 38% of respondents claimed it was important to enjoy snack foods in moderation.

Nostalgia for past times is another factor influencing the market. According to the survey, 79% of respondents claimed that snacks evoked memories of childhood times, while 78% said they liked sharing their favourite childhood snacks with others. This has been reflected in some of the innovation taking place recently, whereby manufacturers have developed products and flavors carrying strong associations with yesteryear. Feelings of nostalgia when snacking were highest amongst consumers in Asian countries

such as Indonesia (98%), China (93%), the Philippines (91%) and Vietnam (90%), and lowest in Germany (58%).

CAKES

Cakes continue to represent one of the most popular types of sweet bakery goods, accounting for a significant share of the global market. In the UK, for example, 45% of people consume cakes and/or sweet bakery items at least once a week. A 2025 survey of 2,000 UK adults by The Big Cake Company and Just Eat found that 61% of respondents purchased cakes for birthdays and/or special occasions, while 66% bought them as an occasional treat for themselves. Younger consumers aged 16-34 tend to favour smaller, portable cakes gearing towards snacking occasions, whereas their older counterparts are more likely to purchase full-sized celebration-style cakes. The French market, meanwhile, is characterised by artisanal and craft bakeries, as well as tendency of many people (especially children) to consume a late afternoon snack known as 'le goûter', which often incorporates sweet cakes.

In many Western European markets, cakes are increasingly becoming a showpiece for creativity and innovation. This is frequently done via experimentation with flavors, even though the traditional favourites continue to account for the bulk of sales. According to the survey from The Big Cake Company mentioned previously, 29% of respondents claimed that Lemon Drizzle was their favourite cake flavor, ahead of Chocolate (28%) and Victoria Sponge (27%). Other popular flavors include Coffee & Walnut, Red Velvet and Carrot/Pumpkin.

One emerging flavor in the UK market is pistachio, boosted by the growing demand for Dubai chocolate. As a flavor, pistachio pairs well with tart fruits such as raspberries and cherries. Cake manufacturers have also been experimenting with Asian flavors, examples of which include matcha, miso and yuzu. The sour-bitter citrus taste offered by yuzu, for example, makes it ideal as a curd-style filling in cakes, while matcha offers a vivid colour in addition to its earthy taste. Seasonality also continues to influence flavor innovation (e.g. tropical fruits are strongly in evidence during the summer months).

The use of 'swicy' flavors in cake recipes is also growing as consumer tastes become more sophisticated. Examples of the latter include hot honey, smoked caramel and chilli-chocolate, which provide a bolder flavor profile as well as a touch of indulgence. In addition, interest in floral flavors amongst cake manufacturers has increased, which offer a delicate taste and aroma. Some of the more popular varieties include rose, lavender and elderflower.

Retro sweets and puddings represent a potentially profitable source of inspiration for flavor innovation in the cakes market. This offers a creative twist towards many forms of cakes and can be illustrated by the greater influence of various sweets (e.g. Rhubarb & Custard) and desserts (e.g. Sticky Toffee Pudding, Arctic Roll and Tiramisu) associated with childhood on cake recipes. Leading confectionery brands such as Cadbury, Mars and Swizzels have all been extended into the cakes market in the UK. On a related note, the use of Biscoff as a flavor is also becoming more apparent within the food industry. This is a popular caramelised Belgian biscuit produced by Lotus Bakeries, which offers a distinctive spiced cinnamon flavor and has made inroads into the chocolate confectionery market.

Greater focus upon nutrition has led to the introduction of more cakes carrying health claims. Premier Foods' Mr Kipling range in the UK now encompasses Deliciously Good, various cakes and pies which contain up to 30% less sugar than their conventional counterparts. Much of the recent activity in the UK market has been in response to the introduction of new regulations concerning foods high in fat, salt and sugar (or HFSS foods as they are sometimes called), placing limits on how these products can be promoted and sold.

PIES

The global market for pies encompasses both sweet and savoury products. Sweet pies are typically filled with fruits such as apples, cherries or berry fruits, whereas savoury products usually feature either meat (e.g. chicken, steak or pork) or ingredients suitable for consumption by vegetarians or vegans. Flavor experimentation is also evident within this market, a trend which has led to a stronger overlap between sweet and savoury pies. 'Flavor fusion' is a major driver of NPD activity, as consumers seek out increasingly daring pairings. One of the most widespread examples of this trend is the incorporation of Cheddar cheese into crusts for apple pies, which is evident in both Europe and the US. It should be noted, however, that this tradition dates back centuries, especially in north-eastern regions of the US such as New England. Using Cheddar cheese can give pie crusts a crispy

and flaky texture and, when the apples are caramelised, this results in an even stronger flavor contrast.

Pies with sweet fillings are widely consumed as both snacks and desserts – in the latter instance, they are often paired with accompaniments such as cream, ice cream or custard. Mr Kipling represents one of the leading brands in the UK market, whose range includes Bramley Apple Pies, as well as related products such as Jam Tarts, Caramel Tarts and Strawberries & Cream Tarts. Since 2022, the company has also supplied Bramley Apple Pies and Bramley Apple & Blackcurrant Pies as part of its Light & Delicious range. The Mr Kipling brand is also one of the leaders in the expanding UK market for mince pies, which is worth around GBP80m per year.

Savoury pies and pastries represent a popular type of snack throughout much of Western Europe, having made considerable inroads into the hot-eating market in countries such as the UK. These are sold through a wide range of foodservice channels, examples of which include bakeries, cafes, pubs, restaurants and fish and chip shops, while they are also available in frozen or chilled form at the retail level.

The UK has one of Europe's largest markets. In 2024, take-home sales of pies and savoury pastries increased by almost 6% to GBP1.9bn. Much of the recent market growth has been driven by the premiumisation of fillings (e.g. the incorporation of heritage and locally sourced meats), the continued influence of ethnic cuisine (e.g. Indian, Mexican and Caribbean foods) and the convenient nature of many leading products. The market has also benefited from the growing perception of pies as an ideal comfort food and their subsequent association with nostalgia.

Although the UK market now encompasses a wide range of pie fillings, the traditional favourites continue to dominate. According to a survey of 2,000 people carried out by Fray Bentos in the first quarter of 2026, chicken-based pies are the most popular, mentioned by 31% of respondents. Steak-based pies are also well-represented, ahead of fillings such as Meat & Potato and Minced Beef & Onion.

The growth in popularity of chicken-based pies can be partially attributed to younger consumers, such as those belonging to Generation Z. These people are now opting for leaner and lighter forms of protein when choosing pies, at the expense of products based on 'heavier' red meats. According to the Fray Bentos survey, 31% of Generation Z consumers cited Chicken or Chicken & Mushroom pies as their favourite, compared with 22% of those classed as boomers. In contrast, 47% of boomers preferred steak-based pies, a figure that declined to 27% of those belonging to Generation Z.

Most Popular Pies in the UK (% of respondents), 2026

Chicken & Mushroom	17
Chicken	14
Steak & Kidney	12
Steak & Ale	12
Steak & Gravy	12
Meat & Potato	7
Minced Beef & Onion	7
Cheese & Onion	6
Vegetable	4
Mac & Cheese	3

Source: Fray Bentos

One of the market's leading suppliers is Pukka Pies, which sells around 60 million meat pies in the UK and overseas every year. Its products are sold at the retail level, as well as via sports stadiums and foodservice channels (e.g. fish and chip shops). Recent new product launches have included Thai Red Chicken Curry Parcel, Hog Roast Slice and Buffalo Chicken Pie, which was created in partnership with Sauce Shop using the latter's bestselling Buffalo Sauce. One of Pukka's leading rivals is Hollands, whose pies are sold via similar distribution channels, and which claims leadership of the UK market for meat and potato pies.

The remainder of the UK market is largely made up of sausage rolls and pasties. Over half (56%) of consumers eat one of these products at least once every fortnight, according to data from The Phat Pasty Company. The same research found that 42% are interested in meat-free or plant-based products, reflecting the growth in popularity of vegetarian and vegan diets. UK demand for sausage rolls remains high, with volume sales worth over 300 million units per year. Sausage rolls are eaten at least once a week by a quarter of UK consumers and represent the bestselling item for the Greggs chain of bakeries (of which there are now around 2,600 outlets). Pasties, meanwhile, are strongly linked with the south-west of England, contributing an estimated GBP300m towards the Cornish economy per year.

Outside the UK and Ireland, several types of savoury pies and pastries exist, either as meal components or hot-eating snacks. One of the most notable examples is the empanada, a regional speciality believed to originate in Spain's Galicia region and Portugal. Empanadas, which also enjoy a strong following throughout much of Latin America, are savoury pastries in a half-moon shape, which are usually filled with ingredients such as meat, seafood, vegetables or cheese. Elsewhere in Europe, numerous countries have a market for savoury quiches and tarts, with France representing one notable example. •

Divide et **Roundera!**

Dividers and rounders are essential equipment in artisanal bakeries, as they can streamline a time consuming operation and also prevent weight inaccuracies. The latest technology aimed at craft bakeries goes beyond that.

By Jo Ilie

Because they work with delicate doughs, raised with wild yeasts or based on atypical flours, small bakeries need equipment that can handle the dough gently, in order to avoid texture degradation. Compact dough dividers are expected not only to deliver consistent portioning accuracy, but also to operate efficiently in space-constrained production areas, accommodate varying batch volumes and connect smoothly with downstream equipment such as rounders, proofers and sheeting systems. Many bakers favor solutions that combine straightforward manual settings with pneumatic or gentle dividing technologies, enabling quick product changeovers between baguettes, buns, flatbreads, pizza bases and enriched dough applications while keeping downtime to a minimum.

As energy costs continue to increase and labor shortages persist, bakeries are prioritizing systems that offer accurate processing, dependable operation and simplified cleaning procedures. In response, equipment suppliers have spent recent years enhancing dividing technologies, upgrading component materials and adding automated control features designed to maintain stable production performance under changing bakery conditions.

Koenig's new launch, the Industrie Rex V AW EC, is a fully automatic dough dividing and rounding machine that has a maximum dough throughput of 6.5 tons per hour. Created with the Koenig "Easy Clean Design" philosophy, it also boasts an optimal combination of performance and hygiene standards. "With this innovation, we have built the machine of the future," said Koenig CEO Hannes Stelzer about the new development.

The Industrie Rex V AW EC is designed for high-capacity industrial dough processing, reaching outputs of up to 50,400 pieces per hour in 14-row operation. The system supports a weight range from 22 g to 180 g within the same machine, enabled by a simplified and secure weighing chamber changeover process that allows greater production flexibility across different product types.

The machine incorporates Koenig's "EC" Easy Clean design, developed to reduce cleaning times, simplify maintenance and improve overall line availability. Its open construction

provides operators with full visibility of the dough handling process, while a walk-through platform gives complete access to the equipment for cleaning and servicing. Horizontal surfaces are angled at 45 degrees to minimize the accumulation of flour and dough residues, and the spreading belt can be fully extended for easier sanitation. The line also features at least 250 mm of ground clearance and tool-free belt release systems to streamline maintenance procedures.

In terms of portioning precision, the "AW" Accurate Weight principle is intended to support highly consistent product weights. According to the company, the machine can achieve weight accuracy of up to +/-1%, depending on dough characteristics.

Rheon's engineering philosophy focuses on stress-free dough handling, an approach aimed particularly at artisan bakeries and producers working with high-hydration doughs. The company's VX122 divider, part of the stress-free V4 series, is designed to process doughs that may be negatively affected by traditional volumetric compression systems. Rheon positions the VX122 as a stress-free divider capable of handling products such as ciabatta, baguettes and flatbreads while maintaining dough structure and product quality.

The system features adjustable dough sheet width settings and offers the flexibility to divide portions either by weight or by dimension, supporting a wider range of production requirements. The machine is equipped with a hopper capacity of around 80 liters and includes a cross-roller with adjustable height to regulate dough thickness more precisely. According to the company, these features make the VX122 suitable not only for artisan-style production but also for hybrid operations combining traditional baking methods with industrial-scale processing.

Dough dividing systems are frequently integrated with rounding equipment, and Baker Perkins' conical rounder reflects the industry's increasing focus on hygiene and gentle product handling. The company states that the system is designed to combine operational efficiency with hygienic, non-stick performance. According to Baker Perkins, contact components are manufactured from polymer materials or feature durable non-stick coatings, while a fully integrated air-blowing system eliminates the need for oil or flour dust during operation.

The rounder incorporates an open trough design intended to maintain dough structure throughout processing. An adjustable, driven discharge cone helps ensure dough pieces leave the system at a constant speed, reducing the risk of double pieces and supporting more accurate downstream feeding into proofers or moulders. Features such as tool-free access, smooth machine surfaces and reduced flour usage reflect broader bakery industry requirements for improved sanitation, simplified cleaning and production environments better suited to allergen management protocols.

CONCLUSIONS

The development of modern dough dividing systems continues to be influenced by several long-term industry trends. Demand for artisan-style and high-hydration bread products remains strong, increasing the importance of stress-free processing technologies. At the same time, the expansion of clean-label formulations has reduced dough tolerance to aggressive mechanical handling, making gentler dividing methods increasingly important for maintaining dough quality and consistency. Bakeries are also facing tighter hygiene requirements, stricter allergen management procedures and growing pressure to reduce both energy consumption and production waste.

As a result, dough dividers are evaluated not only on throughput capacity, but also on their ability to preserve dough structure and product characteristics throughout processing. Whether producing small rolls at high speeds or handling highly hydrated artisan doughs, modern systems are expected to balance production efficiency with careful dough treatment. The latest generation of equipment reflects how manufacturers are addressing these requirements through more precise mechanics, improved materials and machine designs focused on consistent, low-stress performance. •

Plant-Based Bakery: No More Sacrifice

Plant-based bakery is no longer a niche category defined by dietary restrictions or vegan identity. In 2026, it has become a broader lifestyle segment shaped by flexitarian consumers, premium positioning, and advances in formulation technology.

By Jo Ilie

For years, plant-based bakery products were marketed primarily through the language of restriction, sustainability, or dietary necessity. Packaging emphasized what products lacked — dairy-free, egg-free, vegan, gluten-free — while the products themselves were often positioned as alternatives rather than desirable bakery items in their own right.

That approach is rapidly disappearing across Europe and the world. The global plant-based bakery market is projected to grow from USD4.28bn in 2024 to USD8.32bn by 2030, growing at a CAGR of 11.6% from 2025 to 2030, according to Grand View Research. Much of this growth is now driven by consumers who are reducing animal-product consumption without eliminating it entirely. These flexitarian shoppers are less interested in strict labels and more focused on products that fit seamlessly into everyday eating habits.
For bakery manufacturers, this means plant-based products are increasingly expected to perform like conventional baked goods, with no compromise in taste, texture, freshness, or visual appeal.

In 2026, the strongest-performing plant-based bakery brands are no longer selling sacrifice. They are selling indulgence, aesthetics, café culture, and emotional appeal. The new generation of plant-based baked goods is designed first to look beautiful, taste premium, and fit seamlessly into modern lifestyle consumption patterns. The plant-based claim remains important, but increasingly acts as a secondary benefit rather than the central selling point.

This "sensory first" approach is reshaping product development, branding, and merchandising strategies across the European bakery market.

One of the clearest signs of this transition is the visual evolution of plant-based bakery itself. Traditional vegan bakery products were often associated with muted packaging, functional ingredients, and health-oriented messaging. Today's launches instead borrow heavily from premium patisserie, specialty coffee culture, and social-media-driven food aesthetics.

Bright glazes, laminated textures, pistachio creams, matcha fillings, floral botanicals, and highly styled photography have become defining elements of the category. The shift reflects broader changes in consumer behavior. Younger consumers increasingly choose food products not only for nutritional or ethical reasons, but also for emotional satisfaction, visual appeal, and lifestyle alignment. Plant-based bakery is benefiting directly from this evolution.

BOROUGH 22 AND THE RISE OF BOTANICAL INDULGENCE

London-based Borough 22 has emerged as one of the strongest examples of this new direction. The company helped reposition vegan donuts away from restrictive "free-from" positioning and toward premium indulgence. Its launches have included hibiscus-glazed donuts, pistachio-topped varieties, and Arabian rose donuts developed around Eid celebrations. Rather than emphasizing dietary limitations, the products focus on vibrant visuals, botanical flavor systems, and boutique pastry aesthetics.

The brand's communication strategy centers on craftsmanship, color, indulgence, and emotional connection. The vegan positioning remains present, but it no longer dominates the narrative.
This approach has resonated strongly with urban consumers and café operators looking for products that combine premium appearance with plant-based credentials. Borough 22's success culminated in winning Free-From Bakery Product of the Year in 2025, highlighting how far the category has evolved from its niche origins.

CAFÉ CULTURE DRIVES MAINSTREAM ADOPTION

Large foodservice operators are also helping normalize plant-based bakery through café-style concepts that integrate seamlessly into mainstream menus.

Starbucks has increasingly experimented with hybrid bakery formats that combine global flavor trends with plant-based positioning. Its Strawberry Matcha Loaf, shortlisted at the 2025 Baking Industry Awards, reflected several of the strongest trends shaping bakery innovation today: visually striking presentation, matcha-driven flavor familiarity, and indulgent texture delivered in a modern café format.

Importantly, products like these are marketed primarily through taste and visual identity rather than sustainability messaging alone.

This reflects a broader shift visible across European coffee chains and urban bakery cafés, where plant-based pastries are increasingly positioned alongside premium conventional products rather than segregated into dedicated "vegan" sections.

GLOBAL FLAVORS AND "INSTAGRAM BAKERY"

Flavor innovation has become another major driver of sensory-first plant-based bakery. Across London, Paris, Berlin, Copenhagen, and Amsterdam, independent bakeries are increasingly introducing globally inspired plant-based pastries featuring ingredients such as matcha, yuzu, black sesame, saffron, cardamom, hibiscus, and rose. Many of these products are intentionally designed for social-media visibility. Laminated textures, glossy glazes, vibrant fillings, and dramatic cross-sections have become part of the category's visual language.

The result is what many operators now describe as "Instagram bakery" - products created not only to taste indulgent but also to generate digital engagement and visual desirability. This is especially important among younger consumers, for whom café visits increasingly function as lifestyle experiences as much as food purchases.

THE NEW COMPETITIVE STANDARD

Perhaps the most important implication for industrial bakery producers is that plant-based products are no longer competing only within vegan categories.

Consumers increasingly expect plant-based bakery to match conventional products in: flavor, texture, visual presentation, indulgence, and overall eating experience. In many cases, the plant-based claim itself has become secondary to the sensory experience.

This marks a significant evolution for the sector. Plant-based bakery is no longer positioned as an alternative category defined by compromise. It is increasingly becoming another premium segment within mainstream bakery, one shaped by café culture, global flavor innovation, emotional branding, and visual sophistication.

For bakery manufacturers, success in 2026 may therefore depend less on promoting sustainability credentials alone and more on creating products consumers simply want to eat. •

IFT FIRST Annual Event and Expo to **Spotlight How AI Is Advancing Healthy-Driven Food** Innovation

By Jo Ilie

IFT FIRST Annual Event and Expo, the leading food science and innovation expo, returns to McCormick Place in Chicago July 12-15 and will feature extensive programming and exhibitions focused on the next-generation of AI-supported food innovation.

The Artificial Intelligence Keynote, "Designing with Intelligence: Practical AI for Faster, Smarter, Safer Food Innovation," will feature Alon Chen, Chief Executive Officer and Co-Founder of Tastewise, sharing real-world use cases where AI is converting consumer signals into science-based decisions for product developers and R&D leaders. The keynote will provide valuable insights around product development, course design, research, policy, and environmental health. Aside from the keynote, a broad program of sessions will explore how AI is reshaping food innovation, workforce development, sustainability and regulatory decision-making across the food and beverage sector. Topics will range from the foundations of AI in product development to the growing role of affective intelligence, with discussions examining how technology can better understand consumer emotions and preferences. The program will also highlight the practical applications of AI in food systems, including smart workforce training, energy efficiency through IoT-driven solutions, and the use of emerging AI tools to accelerate innovation from consumer insights to commercial scale-up. Additional sessions will focus on AI in food science and nutrition research, hands-on product innovation workshops, and the challenges of assessing AI tools in high-risk food safety and regulatory environments. Experts from companies and institutions including PepsiCo, Purdue University, Stanford University and Cornell University are set to participate in the discussions, alongside consultants, technology providers and research organizations. Also, a special guided AI-themed tour will explore how AI is being applied to food research, product development, manufacturing, and quality. This tour will connect attendees with exhibitors using AI-enabled tools and platforms for tasks such as formulation design, predictive modeling, and process optimization. At each stop, participants will see concrete use cases and discuss where AI can support decision making, reduce development time, and improve consistency in real-world settings. •

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

Published together with 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

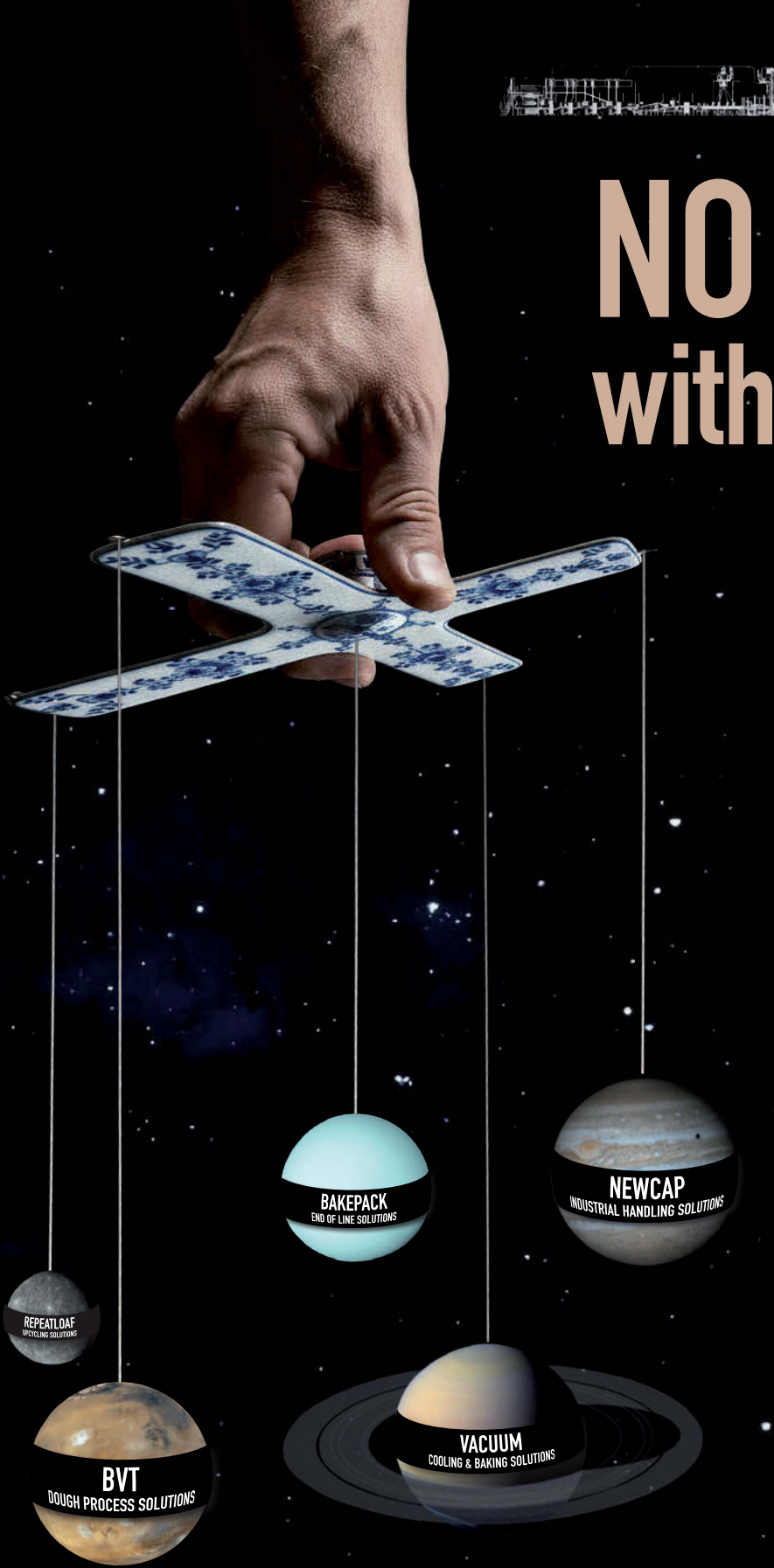
SNACKING TRENDS
Italy

CRAFT BAKING
Wafers

SUPPLY CHAIN & LOGISTICS
Small Footprint Technology

PRODUCT SPOTLIGHT
Winter Holiday Treats / Meringues

TRADE SHOWS
SIRHA Lyon 2027, ISM ProSweets 2027



NO FUTURE without history

25 Years in Bakery Business

In our daily activities, we tend to look ahead to what's yet to come. Bigger, faster, more efficient, and better – that's the progress we strive for. "And whoever has the youth has the future," right? But where would we be without accumulated knowledge and experience? How would we measure our progress? How could we learn from our mistakes to improve, if there were no history offering us the opportunity to confidently pursue our chosen path?

A quarter of a century ago, our history in the bakery market began. With the arrival of Dick Bassa, Peter Vos, and Frans Temminck, better known as BVT, our Bakery Equipment Family was born, later expanded with the NewCap, Vacuum Cooling & Baking, and Bakepack labels. And recently, our youngest member, Repeatloaf, saw the first light of day. An impressive portfolio of solutions for production in modern bakeries and those of the future. Before we fully embrace the future, we look back with a satisfied smile on 25 years of experience that have provided us with the foundation for that future. Happy Birthday!

we make to bake

BVT DOUGH PROCESS SOLUTIONS | VERHOEVEN FAMILY MEMBER
NEWCAP INDUSTRIAL HANDLING SOLUTIONS | VERHOEVEN FAMILY MEMBER
VACUUM COOLING & BAKING SOLUTIONS | VERHOEVEN FAMILY MEMBER
BAKEPACK END OF LINE SOLUTIONS | VERHOEVEN FAMILY MEMBER

VERHOEVEN BAKERY EQUIPMENT FAMILY
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