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Western and Eastern Strengths Meet in the Matcha Croissant

Georgiana Ilie

In an Increasingly Globalized Food Culture, How Do We Save the Local Flavor?

Researching market trends for this issue of Asia Pacific Overview, I noticed one thing which is probably on the mind of many other anthropologists and observers of culture: the drivers of change for the APAC bakery market are identical to those for Europe, Middle East, LATAM or North America.

Digitalization (that is: the impact of ordering online and online content), health (protein, protein, protein, maybe also a little fiber), convenience (we live on the go, we need to eat while walking or working), premiumization (reformulating or repackaging for a more premium feel), sustainability (fair sourcing of ingredients). Just as everywhere else, because the world looks more and more the same: more people live in cities, more people work office jobs, more people are "time-poor" - a way of saying they don't have the necessary time for a normal life with healthy habits. And all these trends shape our food, baked or otherwise, in the same formats everywhere.

> And I wondered: if supermarkets and bakeries end up selling the same products, the same biscuits, the same croissants, how would we even know we're on a new continent?

And I wondered: if supermarkets and bakeries end up selling the same products, the same biscuits, the same croissants, how would we even know we're on a new continent?

But the answer came from the same research. Asian bakers have imported the viennoiserie, but they didn't forget about what makes their food taste familiar to their customers. And they put matcha, ube or pandan - and a myriad of other local flavors - on the scaffolding offered by the European bakery. They managed to create something that take the best from the two worlds and still speaks to their heritage, their customers and their own mission in the world: to keep food tasty, diverse and culturally essential. •

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Bakery China 2026 to **Spotlight Global Innovations for the Baking Industry**

Bakery China, organized by China Association of Bakery and Confectionery Industry (CABCI) and Bakery China Exhibitions Co., Ltd. was launched in 1997. Bakery China is the Asia Pacific's leading event serving the entire value chain for the bakery and confectionery market. The event presents all ranges of ingredients, equipment, packaging and services, and enables global leading professionals and buyer delegates to meet and share the latest innovations and thinking on manufacturing & distribution, R&D, applications and related services for the baking industry. The 28th Bakery China will be held on May 20-23, 2026 at National Exhibition and Convention Center (NECC), Shanghai, covering 330,000 sqm of show space. Over 2,200 exhibitors and 400,000 visits are expected.

By Jo Ilie

From May 20 to 23, under the theme "Innovate Beyond • Premiere Fusion • Link Future," the global baking community will gather at the National Exhibition and Convention Center in Shanghai for Bakery China 2026, the 28th edition of the event. Organized by the China Association of Bakery & Confectionery Industry and Bakery China Exhibitions, the event will return at an unprecedented scale, bringing together industry professionals to push the boundaries of bakery craftsmanship.

"With nearly 30 years of history, our platform has become a cornerstone of the baking industry as we continue building a global hub that advances the baking ecosystem and brings new ideas to market each year," said Zhang Jiukui, president of the China Association of Bakery & Confectionery Industry. "Bakery China 2026 will offer insights into market trends, consumer shifts, and emerging innovations, helping shape the industry's future," he added.

This year's edition will expand significantly in scale and participation, with exhibition space exceeding 330,000 square meters across 13 halls. The event will host more than 2,200 exhibitors from over 70 countries and regions, showcasing tens of thousands of products and attracting nearly 400,000 professional visits from more than 130 countries, including leading brands across the industrial baking, chocolate, and other related food value chains.

The exhibition also marks a new level of global reach, with international brands accounting for over 20% of exhibitors.

National pavilions from Germany, Italy, and Japan will appear alongside emerging brands from Belt and Road partner countries. Overseas visitor pre-registrations have increased by 30% year-over-year, further reinforcing the exhibition's position in the global baking market.

In a landmark move, Bakery China 2026 will host an inaugural forum supporting Chinese companies' global expansion, offering strategies on regulatory compliance, supply chain adaptation, and brand localization. The exhibition will also feature thousands of product launches across raw materials, processing technologies, and business models.

To further highlight the theme, the event will feature a week-long initiative dedicated to new product releases, including an innovation-focused competition and the launch of Bakery China's industry handbook. Specialized zones spotlighting healthy, pre-made, and smart manufacturing trends will highlight key shifts shaping the sector.

Beyond the trade floor, activities including professional competitions, live masterclasses, guided tours, and a coffee & bread festival will bring trade exchange, trend insights, and networking together. The upgraded iBakeryChina digital platform now fully bridges the physical and digital divide, offering a unified, cross-channel environment engineered to streamline global supply chain integration.

Bakery China 2026 will debut the China Chocolate Industry Exhibition alongside the 2026 China Chocolate Industry Forum, showcasing the full value chain from cocoa to finished products, with leading brands across the entire chocolate industry.

From August 27 to 29, Bakery China will expand overseas for the first time with the launch of Bakery ASEAN in Jakarta, Indonesia, exploring new opportunities in the regional baking market.

FROM "BRINGING IN + GOING GLOBAL" TO "GLOBAL PREMIERE FUSION"

In recent years, China's bakery industry has embraced the world with an increasingly open posture. Advanced international technologies and processes are now deeply coupled with China's robust consumer market, while high-quality global ingredients and intelligent equipment continue to flow in, injecting sustained momentum into domestic industrial upgrading. At the same time, a growing number of bakery brands - rooted in Eastern aesthetics and strengthened by innovation - are setting sail overseas, bringing the "taste of China" to the global stage and showcasing their distinct competitiveness. As a global barometer for the bakery industry, Bakery China has evolved into a "super hub" that enables both inbound and outbound growth, and further into a "premiere fusion field" where global innovation resources converge and interact.

In addition to prominent delegations from traditional baking powerhouses such as Germany, Italy, and Japan, a wide array of representative brands from countries along the Belt and Road and emerging markets will make a collective appearance. Here, the global debut of products are no longer isolated events but cross-border, cross-cultural innovation - international brands leverage the Chinese market for their Asian premieres, while Chinese brands tap into global buyer networks for their overseas debuts. Through this two-way flow, a multiplied effect of "premiere fusion" is unleashed. Meanwhile, enthusiasm among international trade buyers continues to rise. To date, overseas visitors pre-registrations have exceeded by 30% year-on-year, with procurement teams from over 130 countries and regions.

FROM "POINT-BASED BREAKTHROUGHS" TO "SYSTEMIC RECONFIGURATION"

Innovation has always been embedded in the DNA of Bakery China. "Premiere Fusion" is the expression of this innovative gene in 2026 - a moment when global innovation forces converge in the same space and time, and each "premiere" is no longer an isolated product launch, but a chain reaction that ignites industrial upgrading.

This year the "Bakery China Innovation Awards" will recognize the most innovative products of the year across three major categories: ingredients, equipment, and packaging. Concurrently, the 2026 Bakery New Product Launch Week - alongside the "Future+" Innovation Competition and the release of the Bakery Product Innovation Handbook - will create a continuous, exhibition-wide celebration of innovation. This is not only a centralized stage for new product premieres, but also a strategic observation window for identifying the year's innovation trends. From technological breakthroughs in functional ingredients to the practical deployment of intelligent equipment, from sustainable advancements in packaging design to cross-industry product integration, leading enterprises across diverse segments will unveil their flagship innovations. Each "premiere" becomes a "fusion trigger" that sparks industry reflection, enabling professional buyers to conduct a systematic scan of annual innovation trends within a limited time.

The Bakery China "New Forces of Innovation" thematic exhibition zone, in collaboration with industry pioneers such as DSM-Firmenich, Freshippo Bakery, and Scenery on Plateau, will present a panoramic view of the full

innovation chain, from raw material breakthroughs to application scenarios. Organized around key industry challenges, each exhibition booth is designed to address a specific question. This space is not only a showcase of innovation but also a micro-lab for "premiere fusion" - where solutions from different domains intersect and collide, giving rise to new possibilities. The 2026 "New Forces of Innovation" Forum will focus on frontier discussions across specialized tracks, including ingredient innovation, low-GI health solutions, the application of geographical-indication ingredients, and accessibility-oriented foods, delivering cutting-edge insights for the industry.

FROM "CHASING TRENDS" TO "LONG-TERMISM" IN TRACK EVOLUTION

After the explosive growth of pre-prepared baking and the sustained rise of health-oriented baking, the popular segments in 2026 are defined by "deep value creation", moving away from short-term trends and returning to product fundamentals and user value. "Premiere Fusion" serves as the catalyst for this value deepening: each new product launch within segmented tracks accumulates momentum for the industry's overall leap forward.

Health-oriented baking is transitioning from a "concept" to a "necessity." Healthy and sustainable bakery products are increasingly becoming the industry mainstream. The 6th Healthy Baking Festival is structured around "scenarios," showcasing convenient and nutritious solutions for breakfast occasions, light indulgence options for afternoon tea, high-protein replenishment for post-workout needs, and nutritionally enhanced snacks for children. Each product is embedded within real-life contexts, ensuring that every "health-focused premiere" precisely reaches user needs and realizes value through application scenarios.

Functional nutrition innovation is increasingly aligned with the needs of segmented consumer groups. Low-GI, sugar-controlled, high-fiber, and high-protein formulations have become key R&D focal points. Through formula optimization, ingredient upgrades, and process improvements, enterprises are launching specialized products tailored to blood glucose management, weight control, sports and fitness, and other specific needs. Ingredients such as whole grains, rye, oats, quinoa, chia seeds, and flaxseeds are widely adopted. Many brands have achieved a 30%–50% reduction in sugar content in their core products, maintaining flavor and texture while lowering sugar intake. Behind each of these "premieres" lies sustained investment in R&D laboratories, and Bakery China serves as the critical bridge that propels these innovations from "laboratory premiere" to "market fusion."

The pre-prepared baking sector is entering a phase defined by "balancing quality and efficiency."

The 12th Pre-prepared Baking Festival continues to expand in scale, bringing together nearly 400 supply chain enterprises from China and abroad. Leading global brands such as LIGA FOOD, Xindi Jiahe Food, Uni-Bakery, and Zhongbei Foods will gather at the event. More noteworthy than the scale, however, is the evolution of technological pathways: rapid freezing and freshness-locking technologies have become standard for high-end categories; pre-baking and reheating processes now allow 70% of baking to be completed in central factories, with only a three-minute finishing bake required in-store, achieving both operational efficiency and freshly baked quality. Each technological "premiere" is driving the sector's transition from "efficiency-first" to a value paradigm that balances quality and efficiency.

The 3rd Intelligent Baking Manufacturing Festival will present a panoramic view of the complete "future factory" industrial chain: fully automated AI-powered baking production lines will achieve unmanned operation throughout the entire process—from ingredient formulation to finished product packaging; machine vision systems will monitor the color and form of each product in real time; and AI quality control systems will reduce defect rates to below 0.3%. Intelligent baking equipment, empowered by IOT technologies, will enable real-time monitoring of energy consumption and carbon emissions, supporting enterprises in their transition toward low-carbon operations. From standalone equipment intelligence to full-plant digitalization, from device interconnectivity to data interoperability, intelligent manufacturing is providing bakery enterprises with production solutions that are quantifiable, traceable, and optimizable. As the "premiere lineup" of

intelligent equipment gathers on-site, an industrial vision of the "future factory" is undergoing a process of fusion and formation.

As the wave of fine chocolate sweeps across the globe and the Bean-to-Bar production philosophy becomes an industry consensus, a new era encompassing the full chocolate industry chain is emerging. The inaugural China Chocolate Industry Exhibition alongside the 2026 China Chocolate Industry Forum will present a comprehensive panorama of the entire ecosystem - from cocoa raw materials to finished chocolate products in Bakery China 2026. The China Chocolate Industry Exhibition will span 30,000 square meters and is expected to gather over 150 leading global players in the cocoa and chocolate sector: from upstream suppliers in premium cocoa-producing regions such as West Africa, South America, and Southeast Asia, to internationally renowned cocoa processors including Cargill, Mars, and Barry Callebaut; from prominent domestic chocolate ingredient brands such as Ligao Foods and Westtree Cacao to artisan workshops dedicated to fine chocolate; from manufacturers of specialized equipment, including chocolate refiners, tempering machines, and molding systems, to packaging design and branding service providers. Together, they will present a complete industrial chain encompassing "cocoa bean trade → cocoa liquor/butter processing → industrial chocolate production → fine chocolate craftsmanship → chocolate product applications → packaging solutions."

In the field of chocolate equipment, top international brands such as Bühler (Switzerland), Selmi (Italy), and Max Rener (France) will showcase their advanced refining and tempering machines, covering a full spectrum from 5-kilogram laboratory units to 5-ton industrial production lines. Fully automated chocolate depositing lines will produce up to 100 filled chocolates per minute with high speed and stability, while IOT-powered intelligent tempering systems precisely control crystallization curves to ensure perfect gloss and snap in every piece. AI-based visual inspection systems will monitor gloss, demolding performance, and defect points in real time, maintaining defect rates below 0.5%.

FROM "LINEAR LINKAGES" TO AN "ECOSYSTEM OF SHARED PROSPERITY"

China currently has over 300,000 bakery outlets, among which boutique artisanal bakeries stand out for their strong brand identity and distinctive founder style. During the exhibition, the 3rd China Bakery Founder Entrepreneurship Forum will bring together featured artisanal bakery founders from across the country to share hands-on experience in building brands from personal IP.

Supermarket bakery has emerged as a key highlight of this ear's exhibition. Leveraging the "central factory + store" supply chain model, supermarket bakery achieves clean-label formulation traceability, upgraded ingredient quality, stable multigrain supply, and standardized sourdough fermentation. The inaugural 2026 China Supermarket Bakery Competition will bring together leading supermarket bakery players to compete on the same stage.

FROM "TOOL EMPOWERMENT" TO "ECOSYSTEM RECONFIGURATION"

As a practitioner of industry digitalization, Bakery China continues to iterate and upgrade the iBakery China platform, which now integrates nearly 5,000 high-quality suppliers, aggregates millions of precisely targeted buyers, and features tens of thousands of new SKUs. This is not merely an online extension of the exhibition, but a digital industrial space that transcends time and space. Within this digital realm, "premiere fusion" is unfolding at greater speed and across broader dimensions.

During the exhibition, the iBakery China Experience Zone and Fandom Punch-in Area will open simultaneously. Visitors can scan QR codes on-site to access company profiles, review product specifications, and schedule in-depth meetings, seamlessly connecting offline experiences with online data. Meanwhile, industry professionals unable to attend in person can participate via live streaming, virtual exhibition tours, and online forums. As online traffic and offline engagement converge, the reach of "premiere fusion" is expanding beyond physical constraints, extending to every corner of the globe. •

Thaifex Anuga Asia: **Nine Specialised Shows in One**

Thaifex Anuga Asia is APAC's largest and most focused food and beverage trade show. Within one mega event, which takes place May 26-30 in Bangkok, Thailand, participants gain direct access to nine specialised trade shows, each built around a high-growth segment of the global F&B industry. Exhibitors showcase innovation and capture new markets, while visitors discover breakthrough products and meet the suppliers driving the future of F&B.

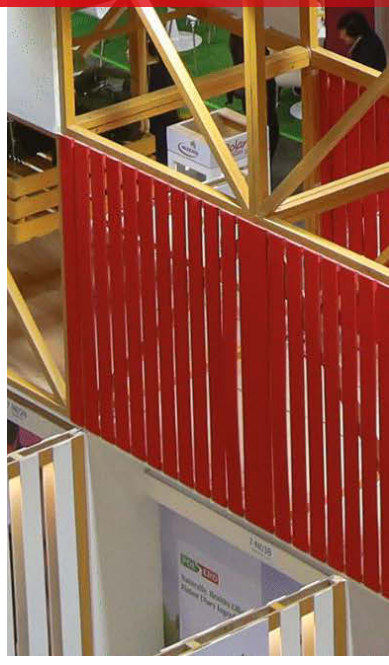
By Jo Ilie

Organised by the Department of International Trade Promotion, the Thai Chamber of Commerce and Koelnmesse, the event brings together stakeholders from across the value chain, including food manufacturers, bakery operators, retailers, distributors and foodservice professionals.

The exhibition is structured around nine dedicated trade shows covering key segments such as drinks, fine food, food technology, frozen food, fruits and vegetables, meat, rice, seafood, and sweets and confectionery. This multi-show format is designed to provide targeted access to sector-specific innovations while maintaining cross-category visibility.

In parallel, organisers highlight 11 major F&B trends shaping product development and investment strategies. These include plant-based and alternative proteins, clean label, functional and free-from products, halal and organic offerings, as well as ready-to-eat and sustainably produced foods. Private label development and franchise concepts are also gaining traction, reflecting evolving retail and foodservice dynamics.

A series of special and supporting events further reinforces the platform's innovation focus. These include the THAIFEX – Anuga Startup showcase, the tasteInnovation Show, the Trend Zone and the Future Food Experience+, alongside the Thailand Ultimate Chef Challenge.



With its broad scope and integrated format, THAIFEX – Anuga Asia aims to facilitate business connections and highlight emerging technologies and concepts, positioning itself as a key meeting point for companies targeting growth in Asia's fast-evolving F&B and bakery markets.

THE TRENDS

The trade fair built its content on the latest market trends. Partnering with Innova Market Insights, they curated the most important emerging themes that shape the future of the F&B industries. Here are the ones that affect the baking industry the most.

Alternative meats: According to Innova's global survey, 42% of consumers now rank protein as their top nutritional priority. When it comes to meat substitutes, they're asking for more: better taste and texture, higher protein content, and a more affordable price tag. And brands are responding. In just the past year (2023–2024), global meat substitute launches grew at a CAGR of +15%, with significant surges in key ingredients:

- Pea protein textured: +81% CAGR
- Pea protein: +28% CAGR
- Soy protein rehydrated: +27% CAGR

Across Asia, plant-based nutrition is gaining traction faster than the global average. Consumers are turning to 100% plant-based options not only for health reasons, but also for dietary variety and environmental impact. In APAC, wheat gluten protein and soy protein isolate both saw +24% CAGR last year. This shift isn't just global — it's accelerating across Asia.

Clean label: According to Innova's 2024 survey, 43% of consumers globally are taking action toward a healthier lifestyle, with a strong focus on nutrition — followed by weight management, exercise, and mental wellness. At the heart of this movement? Fresh, natural ingredients with real nutritional value. That's why clean label claims are gaining serious ground. Today, 60% of consumers say clean label influences their purchase decisions — with rising expectations for no additives, no preservatives, and only natural ingredients. The shift is showing up on shelves:

- 23% of all F&B launches in 2024 featured a clean label claim
- West Europe leads the charge, while Australasia and the Middle East are catching up fast
- Top categories: sauces & seasonings and bakery
- But watch out for fast movers: meat, fish & egg (+19% CAGR) and hot drinks (+17% CAGR) between 2023–2024

Consumers aren't just reading labels, they're demanding clarity and quality.

Functional & Free-From Products: Consumers are taking charge of their health and they're doing it with intention. Nearly 3 in 5 people globally say they are proactive about their health, with those aged 25 to 44 leading the way through targeted nutrition plans. It's a clear sign that personalized innovation is no longer a niche, it's a growing expectation.
Innova's 2025 Trends Survey highlights weight management, heart health, and healthy ageing as the top physical health concerns worldwide. And the market is responding.
In the past year (2023–2024), functional food and beverage launches grew by +9% CAGR globally.

The leading categories:

- Sports nutrition: 15% share
- Dairy: 15% share

But growth is also emerging across other formats:

- Hot drinks: +32% CAGR
- Meat substitutes: +22% CAGR
- Snacks: +18% CAGR

Today's health-driven consumers also look for natural, clean label ingredients — a combination that offers both avoidance (e.g. allergens, artificial additives) and added health benefits. Free-from products are also shaping healthier lifestyles:

- 16% globally are actively limiting gluten
- 1 in 7 consumers are cutting back on lactose
- Demand is especially strong in Asia and Latin America, including markets like India, Mexico, and Brazil

From smart nutrition to allergen-aware eating, health is now personal, flexible, and purpose-driven.

Sustainability: Sustainability continues to capture consumer attention — and it's set to remain a major driver in 2025. According to Innova, the Sustainability – Climate Adaptation trend highlights how the industry is responding to climate change and shifting consumer expectations.
Nearly half of consumers globally say they are extremely or very aware of how climate change impacts food and beverage — with rising prices seen as the most tangible effect.
This growing awareness is translating into action.

Consumers are increasingly demanding:

- Local sourcing

- Ingredient transparency
- Regionally rooted products

Reflecting this, Innova reports an +11% annual growth in food and beverage launches featuring local claims (CAGR 2023–2024). Packaging is also evolving. Sustainable formats are on the rise:

- Biodegradable packaging: +48% growth
- Compostable packaging: +25% growth

As environmental consciousness deepens, climate-smart innovation and responsible sourcing are becoming essential, not optional.

Plant-based: Innova's #5 Top Trend for 2025, Plant-Based – Rethinking Plants, calls for a shift in approach. Beyond just mimicking meat and dairy, brands are now urged to focus on improving taste and texture, while addressing growing consumer expectations around naturalness, health, and sustainability.

Manufacturers are listening. In the past year, there's been a +5% average annual growth in vegan and plant-based F&B launches with a natural claim — a clear signal that natural positioning is gaining ground. What's more, 55% of consumers globally say plant-based products should stand on their own, not simply serve as meat or dairy substitutes. This shift opens the door to a new generation of natural plant-based standalones — products celebrated for what they are, not what they replace.

That matters, especially as 1 in 4 consumers still hesitate to buy plant-based products, citing concerns about over-processing. The future of plant-based lies in cleaner, more natural innovations that taste good and feel authentic — not engineered.

Private Label: With rising food and living costs around the world, more consumers are turning to private label or store-brand products as affordable alternatives to big-name brands. Innova's surveys show that nearly 1 in 3 consumers globally have increased their purchase of store brands over the past year — while only 17% said they're buying more branded products.

This shift is reflected in product innovation:

- Private label food and beverage launches grew by 12% globally (2023–2024)
- Western Europe leads with 51% of these launches
- Australasia is the fastest-growing region, with an impressive +129% CAGR

Top countries for private label innovation:

- United Kingdom: 11% of global launches
- United States: 9%
- France, Germany, and Spain: 6%, 5%, and 5% respectively
- South Africa is emerging too, with +21% CAGR

Leading companies:

- Aldi holds a 10% share of launches and is growing at +15% CAGR
- Lidl follows closely at 9%, but with a slight decline of -1%
- Walmart and Spar, while smaller, are growing rapidly (+88% and +47% respectively)

What this means: Private labels are no longer just the cheaper option — they're becoming more innovative, trusted, and competitive. As consumers prioritise both value and quality, store brands are stepping up to deliver both. •

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Rebuilding Baking Lines **Around Data Architecture**

Production performance in industrial baking depends on coordination across mixing, proofing, baking, cooling, and packaging. Variability in dough properties, fermentation conditions, and thermal load propagates across the line, affecting product consistency and throughput. Machine learning systems treat these operations as a unified dataset rather than isolated stages, enabling plant-wide optimization.

By Tudor Vintiloiu

According to Siemens, artificial intelligence in food manufacturing relies on “large amounts of data,” and “predictive data analysis can be used to maintain machines and systems according to demand as well as reduce downtime.” In baking, this data includes oven temperatures, humidity profiles, dough rheology indicators, and line speed.

The operational effect is a shift from reactive adjustments to predictive control. Instead of correcting baking deviations after quality drift occurs, models anticipate outcomes based on upstream conditions such as dough hydration or proofing time.

INDUSTRIAL ANALYTICS PLATFORMS IN BAKING PLANTS

Industrial analytics platforms provide the infrastructure for deploying machine learning at plant scale. ABB describes its ABB Genix platform as combining “industrial analytics and artificial intelligence into an enterprise-grade digital platform and suite,” integrating operational and engineering data to improve performance.

In baking plants, these systems correlate process variables across stages. Oven performance, for example, is influenced by upstream dough consistency and downstream cooling capacity.

Machine learning models trained on plant data identify these interactions and recommend parameter adjustments that stabilize production.

This approach reduces variability in bake quality, particularly for products sensitive to moisture loss, crust formation, and internal structure.

PREDICTIVE MAINTENANCE IN CONTINUOUS BAKING LINES

High-capacity baking lines rely on continuous operation of ovens, conveyors, mixers, and handling systems. Equipment failure disrupts not only throughput but also product consistency due to process interruptions.
Machine learning-based predictive maintenance systems analyze vibration, temperature, and operational data to detect early signs of equipment degradation. Siemens Senseye Predictive Maintenance software uses AI to monitor industrial assets and identify potential failures before they occur.

In baking operations, this applies to oven fans, drive systems, conveyors, and mixers. Predictive alerts allow maintenance teams to intervene before faults lead to production downtime or quality defects.

THROUGHPUT AND PROCESS STABILITY

Production efficiency in baking is often limited by cumulative minor inefficiencies rather than single-point failures. Machine learning systems analyze plant-wide performance data to identify patterns associated with throughput loss.

Rockwell Automation states that its FactoryTalk Metrics platform provides “critical equipment data that can reveal new ways to increase production, reduce costs, and increase quality.” These systems monitor equipment utilization, downtime, and performance trends.

In baking plants, machine learning models can link variations in dough properties or proofing conditions to downstream baking performance. By adjusting upstream parameters, processors can stabilize oven loading, reduce rejects, and maintain consistent output.

ENERGY OPTIMIZATION IN THERMAL PROCESSING

Ovens represent one of the largest energy loads in industrial baking. Variations in product load, baking time, and moisture content influence energy consumption and thermal efficiency. Schneider Electric describes EcoStruxure as “an IoT-enabled, plug-and-play, open, interoperable architecture and platform,” supporting data-driven decision-making across industrial operations. In food manufacturing, this includes energy monitoring and optimization.

Machine learning models analyzing energy and production data can identify inefficiencies in oven operation, heat recovery systems, and cooling processes. Adjustments to production scheduling and process parameters reduce energy consumption without compromising product quality.

CONCLUSION

Machine learning systems in baking operations convert plant-wide data into operational control inputs. By integrating data from mixing, proofing, baking, and packaging, predictive models enable coordinated adjustments across the production line.
Platforms from Siemens, ABB, Rockwell Automation, and Schneider Electric provide the infrastructure for deploying these systems at scale. When supported by consistent data architecture, machine learning allows baking operations to work closer to optimal process limits, improving throughput stability, reducing downtime, and optimizing energy use across continuous production environments. •

Semi-dry Yeast Gives Bakers More Flexibility with its **Two-year Frozen Shelf Life**

Semi-dry yeast, with around 20% moisture, is emerging as a high-performance hybrid combining the convenience of instant dry yeast with the functionality of fresh yeast. Designed for industrial baking, it enables direct dosing, seamless process integration and full compatibility with automated lines. Its strong fermentation power, freeze tolerance and two-year frozen shelf life make it particularly suited to frozen dough applications, while improving efficiency, reducing waste and ensuring cost and supply stability.

By Angel Yeast

Semi-dry yeast is similar in appearance to instant dry yeast, while its performance characteristics are closer to fresh yeast. Positioned as a performance hybrid of instant dry yeast and fresh yeast in industrial baking, it combines operational convenience with freeze stability, with the following operational advantages:

- **Dosing & Measurement**: Granular in form with good fluidity, it requires no thawing or activation before use and can be mixed directly with flour upon removal from freezers. It is fully compatible with automated metering equipment in industrial production lines, delivering higher batching efficiency.
- **Process Integration:** It can be added directly to production or pre-activated, featuring high tolerance to water temperature and mixing processes with great process flexibility. The product can be seamlessly integrated into existing production lines without adjusting core mixing and fermentation processes, and directly replace fresh yeast and instant dry yeast, achieving zero-threshold process connection.
- **Automation Compatibility:** With a fine granular structure, it produces no dust and does not clump. It supports automatic feeding, continuous metering and closed conveying, and can also be prepared into a solution for liquid conveying. It perfectly adapts to automated feeding and mixing equipment in industrial baking, and will not affect the continuous operation of production lines due to its physical form— a key advantage over fresh yeast, whose form is prone to fluctuations with temperature changes.

Thanks to its proprietary production process, semi-dry yeast delivers exceptional performance in frozen dough applications, with quantifiable performance advantages over fresh yeast as follows:

- **Basic Fermentation Performance:** Produced via a mild drying process, its yeast cell membranes remain almost intact, with a viable cell rate of up to 95%— significantly

higher than instant dry yeast. The robust yeast cells ensure strong fermentation performance: 1kg of semi-dry yeast equals 1kg of instant dry yeast or 2-2.5kg of fresh yeast in fermentation power, with a fermentation speed on par with fresh yeast (both extremely fast).

- **Frozen Dough-Specific Performance:** Made from freeze-tolerant yeast strains and stored at low temperature freezing, its yeast metabolism is nearly zero, maintaining stable activity after 2 years of frozen storage at low temperature. In the initial dough mixing stage, semi-dry yeast remains dormant due to low-temperature freezing, reducing damage to yeast cells during the freezing process.
- **Dough Tolerance & Yield:** It adapts to doughs with different sugar contents without fermentation failure caused by sugar level variations. Frozen dough made with semi-dry yeast features stable fermentation after thawing, and the finished bread products have consistent shape and taste, effectively reducing the defective rate compared with fresh yeast, which causes inconsistent product quality due to unstable activity.

CORE DRIVERS OF THE 2-YEAR FROZEN SHELF LIFE

The 2-year frozen shelf life of semi-dry yeast is mainly attributed to the selection of premium yeast strains and adoption of specialized production processes. While retaining a high viable cell rate, the product's antifreeze property and stability are enhanced through physical and formula optimization. Stored at -18°C (0°F), yeast cells remain in a dormant state, with their activity preserved for the long term without massive inactivation— enabling the ultra-long 2-year frozen shelf life.

IMPACTS ON BAKERY LOGISTICS AND WASTE REDUCTION

- **Logistics:** The ultra-long frozen shelf life drastically reduces the timeliness requirements for logistics. Unlike fresh yeast (1-month refrigerated shelf life) that requires expedited cold chain transportation, semi-dry yeast can be delivered via regular frozen logistics channels, lowering logistics costs. It also supports bulk purchasing and long-term stockpiling by bakeries, eliminating the need for frequent replenishment and simplifying logistics coordination processes.
- **Waste Reduction:** Firstly, the 2-year shelf life avoids raw material waste caused by expiration, solving the problems of short shelf life and rapid activity decline of fresh yeast. Secondly, leftover semi-dry yeast after opening can be refrozen directly, significantly reducing raw material loss after opening. Thirdly, its stable quality without fluctuations prevents the scrapping of baked products due to yeast quality issues, further cutting production losses.

STABILITY

Semi-dry yeast has prominent advantages in price and supply stability over fresh yeast, making it highly suitable for volatile raw material markets:

- **Price Stability:** Fresh yeast is extremely susceptible to molasses, energy, cold chain transportation and seasonal factors, with prices often rising by 10%-30% in summer and holidays, leading to frequent and uncontrollable cost fluctuations. As a standardized mass-produced product, semi-dry yeast benefits from scale production that dilutes costs, with annual price fluctuations of less than 5%. Enterprises can lock in prices through long-term cooperation procurement, effectively hedging against raw material market volatility and achieving strong cost controllability.
- **Supply Stability:** Fresh yeast has strong regional characteristics and relies on local factories, with a high risk of supply disruption caused by high temperatures, traffic control, epidemics and other factors. Semi-dry yeast supports national and even cross-border supply, and its 2-year ultra-long shelf life enables strategic stockpiling. It is not restricted by regions, seasons and short-term transportation issues, and can maintain stable supply even during raw material shortages, ensuring production continuity. It is thus more suitable as a strategic raw material for large baking groups.

REAL-WORLD CASE STUDIES

A typical case from a large-scale frozen baking enterprise fully demonstrates the significant cost savings and efficiency improvements brought by switching to semi-dry yeast:
The enterprise specializes in frozen pizza dough and frozen bread blanks, and previously used fresh yeast for production, facing three major pain points: short shelf life of fresh yeast requiring frequent monthly procurement, leading to high logistics costs and raw material waste due to expiration; insufficient fermentation power of frozen dough with a finished product rejection rate of about 3-5%; and large price fluctuations of fresh yeast making annual cost accounting difficult.
After switching to Angel semi-dry yeast, the enterprise achieved multiple optimizations:

1. Bulk purchasing and frozen stockpiling reduced logistics frequency by 80% and lowered logistics costs by 30%, with the raw material expiration waste rate dropping to below 1%;
2. Frozen dough maintained stable fermentation power after 3 months of storage, with the finished product rejection rate reduced to below 2%;
3. Stable semi-dry yeast prices controlled the annual production cost accounting deviation within 5%, and the lower equivalent replacement dosage further reduced raw material procurement costs;
4. No-thaw direct feeding cut labor and time costs in the batching link by 50%, and improved the overall production efficiency of the line by 20%.

REFORMULATION

Angel semi-dry yeast can replace fresh yeast, yeast cream and instant dry yeast with zero threshold and zero risk. No adjustments to core formulations or processes are needed, and only minor changes to feeding dosage and water addition are required based on yeast type. •

The Untapped **Potential of Bakery Waste**

Efforts to reduce food waste across APAC are being driven by a mix of binding legislation, voluntary agreements and public campaigns. While frameworks vary by country, the overall direction is toward stricter accountability, redistribution and waste valorisation.

By Jo Ilie

Regulatory pressure and sustainability targets intensify across Asia-Pacific to foster food waste reduction across the value chain. From industrial bread lines to in-store bakery operations, manufacturers and retailers are being pushed to rethink production planning, shelf-life management and surplus valorisation. A combination of legislation and social initiatives is accelerating this shift, with tangible implications for how bakery businesses operate.

JAPAN: EXTENDING SHELF-LIFE

In Japan, a structured, policy-driven approach is already reshaping bakery supply chains. The Food Loss Reduction Promotion Act, introduced in 2019, has been complemented by industry guidelines encouraging retailers to relax the so-called "one-third rule," which traditionally limited the selling window of packaged foods. Major convenience store chains have responded by extending shelf-life acceptance for products such as packaged sandwiches and sweet buns, reducing the volume of returns and unsold bakery items. In parallel, manufacturers are investing in improved date labelling and packaging technologies to support longer distribution cycles without compromising quality.

SOUTH KOREA: SMALLER BATCH PRODUCTION

A more stringent model can be found in South Korea, where mandatory food waste separation and a volume-based fee system have forced bakery operators to minimise disposal. Large bakery cafés and industrial players are increasingly adopting precise demand forecasting and smaller batch production to avoid surplus. Unsold bread is often redirected into secondary uses, including animal feed or processed ingredients, supported by the country's highly developed recycling infrastructure.

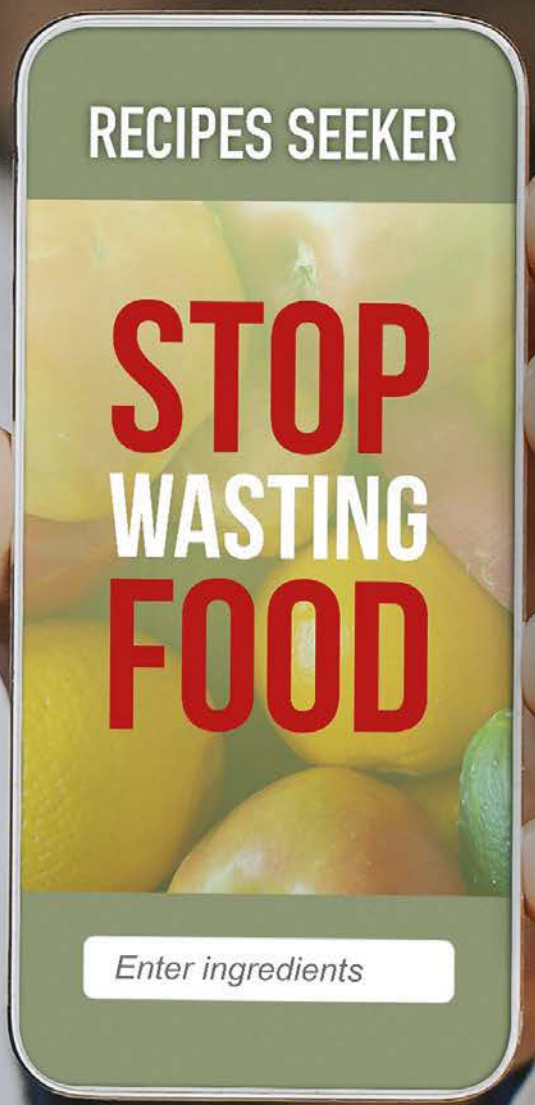
CHINA: SMALLER PORTION SIZES

In China, the Anti-Food Waste Law and the "Clean Plate Campaign" are influencing both consumer behaviour and business practices. While the legislation primarily targets foodservice, bakery chains are also adapting by reducing

overproduction and introducing smaller portion sizes. Leading urban bakery brands have begun offering end-of-day discounts via digital platforms, a practice that is gaining traction as a way to clear inventory while maintaining value.

SINGAPORE: TRACK AND REPORT FOOD WASTE

Further south, Singapore is combining regulation with technology investment. Under the Resource Sustainability Act, large commercial food businesses, including central bakeries, are required to track and report food waste, with some facilities implementing on-site digesters. Companies such as Gardenia Foods have explored redistribution partnerships and process optimisation to reduce unsold bread, while retailers are increasingly collaborating with food rescue organisations to channel surplus products to charities.



AUSTRALIA: COLLABORATION

In Australia, the focus is on industry collaboration. The National Food Waste Strategy, supported by the Fight Food Waste Cooperative Research Centre, is working with bakery manufacturers and retailers to improve date labelling, packaging and forecasting accuracy. One visible outcome is the expansion of surplus redistribution networks, where unsold bread from supermarket bakeries is redirected daily to food banks. At the same time, upcycling initiatives are emerging, with surplus bread being repurposed into beer, snacks or crumb ingredients.

INDIA: DONATE EXCESS

In more awareness-driven markets such as India, social initiatives are playing a central role. Programmes led by the Food Safety and Standards Authority of India encourage food businesses to donate excess production, and bakery chains are increasingly partnering with redistribution platforms to manage unsold inventory. While regulatory pressure remains lighter, rising urbanisation and retail expansion are expected to drive more structured waste reduction measures in the coming years.

CONCLUSIONS

Across the region, these frameworks are supported by broader international efforts led by organisations such as the United Nations Environment Programme, which is promoting measurement and reporting through its Food Waste Index. For the baking industry, the direction is clear: food waste is no longer a peripheral issue but a core operational and reputational concern. In practice, the most effective responses are combining compliance with value creation. Bakeries are investing in digital forecasting tools, adjusting production cycles, and developing secondary channels for surplus products. Whether through redistribution, recycling or upcycling, the goal is increasingly to keep bakery products within the food chain for as long as possible. As APAC markets continue to tighten regulations and expand infrastructure, those able to integrate waste reduction into their core business models will be best positioned to improve margins while meeting sustainability expectations. •

A Sticky Issue: Sugarcane and **the Traceability Challenge**

Sugarcane, a key ingredient in baked goods, faces water stress, soil degradation and labour issues, particularly in India and Southeast Asia, underpinning sugar supply for biscuits, cakes and sweet goods. Being increasingly classified as a high-risk crop due to a combination of environmental and social challenges might be the change that can save it.

By Jo Ilie

Sugarcane is one of the world's most important industrial crops, providing around 80% of global sugar production, with the remainder derived from sugar beet. Cultivated primarily in tropical and subtropical regions, it is a high-yield grass that converts sunlight into biomass very efficiently, making it a key raw material not only for food but also for bioenergy and bio-based products.

In Asia-Pacific, sugarcane plays a central economic role, particularly in countries such as India, Thailand, China and Pakistan. The region accounts for a significant share of global production, with India alone alternating with Brazil as the world's largest producer. Much of this production is based on smallholder farming systems, which, just as with vanilla and cocoa cultures, adds complexity to supply chain management and traceability.

From a processing perspective, sugarcane is harvested and transported quickly to mills, where it is crushed to extract juice. This juice is then clarified, evaporated and crystallised to produce raw sugar, which can be further refined depending on end use. By-products such as bagasse (the fibrous residue) are widely used as a renewable energy source in sugar mills, while molasses is utilised in fermentation industries.

For the baking sector, sugar derived from sugarcane is a core functional ingredient, contributing not only sweetness but also colour, texture, fermentation activity and shelf life in products such as bread, biscuits and cakes. Its widespread use and relatively low cost have made it a staple across both industrial and craft bakery segments.

However, the crop's importance also brings increased scrutiny. As demand remains high

across food, beverage and energy markets, sugarcane sits at the intersection of agricultural productivity, environmental sustainability and social responsibility. This makes it a focal point for traceability, certification and reformulation strategies within the broader food industry.

TODAY'S ENVIRONMENTAL AND SOCIAL CONCERNS

From an environmental standpoint, sugarcane is highly water-intensive, particularly in major producing countries such as India, Thailand and Pakistan. In water-stressed regions, inefficient irrigation practices have contributed to groundwater depletion, while monocropping and heavy fertilizer use are accelerating soil degradation. In some markets, pre-harvest burning, used to facilitate manual harvesting, adds a further layer of concern due to air pollution and carbon emissions.

Social risks are also significant. Sugarcane production in parts of APAC is linked to labour-intensive harvesting, low wages and, in some cases, poor working conditions, increasing scrutiny from international buyers and regulators. As a result, traceability is becoming essential not only for environmental metrics but also for verifying labour standards and ethical sourcing.

TRACEABILITY AND CERTIFICATION PROGRAMMES

To address these challenges, several large-scale initiatives are working to bring structure and transparency to the sugarcane supply chain.

The Bonsucro certification scheme is the most widely recognised global standard for sustainable sugarcane. It provides a chain-of-custody framework, allowing sugar used in food manufacturing to be traced back to certified mills and farms. Bonsucro sets measurable criteria covering water use efficiency, greenhouse gas emissions, biodiversity protection and labour conditions. For bakery manufacturers, sourcing Bonsucro-certified sugar offers a way to support compliance with sustainability targets and emerging due diligence requirements.

In parallel, the Sustainable Sugarcane Initiative (SSI), widely implemented in India, focuses on farm-level transformation. It promotes practices such as drip irrigation, improved planting techniques and reduced input use, which can significantly cut water consumption while increasing yields. Increasingly, SSI programmes are being paired with digital data collection tools, enabling better monitoring of farm performance and creating the foundation for traceability systems.

Large agribusinesses and sugar processors are also investing in digital traceability platforms, mapping supply chains from farm to mill and integrating satellite data, farm records and logistics tracking. These systems are designed to meet the growing expectations of multinational food companies, which require verifiable data on both environmental and social indicators.

IMPLICATIONS FOR THE BAKING INDUSTRY

For bakery manufacturers sourcing sugar in APAC, these developments are shifting procurement strategies. Beyond price and availability, buyers are now prioritising verified origin, sustainability credentials and supply chain transparency. This is particularly relevant as global regulations, especially in export markets, move toward stricter requirements on deforestation, carbon footprint and human rights due diligence.

At the same time, traceability programmes are enabling value creation opportunities. Certified or traceable sugar can support on-pack claims, strengthen brand positioning and align with broader ESG commitments. However, scaling these programmes across fragmented smallholder networks remains a challenge, requiring continued investment in farmer engagement, data infrastructure and cross-industry collaboration.

Overall, sugarcane in APAC illustrates the broader transformation of agricultural supply chains: from opaque, volume-driven systems to data-enabled, accountable networks, where traceability is central to both risk management and long-term competitiveness. •

The Case for **More Fiber in Baked Goods**

Dietary fibre intake across Asia-Pacific remains consistently below recommended levels, despite rising awareness and policy support linked to public health goals. Here's a good moment for manufacturers to rise to the occasion.

By Jo Ilie

Estimates based on national dietary surveys show that, across APAC, average intake typically falls short of the 25–30 g/day recommended by authorities such as the World Health Organization. For bakery and cereal manufacturers, this translates into a growing demand for fibre enrichment, wholegrain reformulation and functional claims. Ingredients such as resistant starches, inulin and cereal fibres are increasingly used to bridge the intake gap while maintaining taste and texture - particularly relevant in bread, biscuits and snack segments.

NATIONAL POLICIES AND INITIATIVES

Governments across APAC are increasingly integrating fibre into broader nutrition and reformulation strategies. The Healthy China 2030 strategy promotes higher intake of whole grains and dietary fibre and offers updated dietary guidelines encouraging replacing refined grains with wholegrain alternatives. The Eat Right India campaign led by Food Safety and Standards Authority of India promotes whole grains, millets and fibre-rich traditional foods. The year 2023 was designated as the "International Year of Millets" (supported by Food and Agriculture Organization), reinforcing high-fibre grain consumption. In Japan, government-backed dietary guidelines emphasise fibre intake, particularly from vegetables, seaweed and whole grains, while functional food labelling (FOSHU) allows fibre-related health claims, supporting product innovation.

In Australia and New Zealand, public health campaigns and front-of-pack labelling systems (e.g. Health Star Rating) incentivise higher fibre formulations. Reformulation programmes encourage fibre enrichment in staples such as bread and breakfast cereals. Countries like Singapore (via Health Promotion Board) promote wholegrain consumption through labelling schemes and public campaigns and school nutrition programmes in several markets are gradually increasing fibre targets.

INDUSTRY IMPLICATIONS

For APAC bakery manufacturers, fibre enrichment is less about radical product change and more about incremental reformulation of high-volume staples, while preserving taste, texture and affordability. Bread and buns, particularly white pan bread and milk bread, represent a key entry point for fibre enrichment. These soft, refined products dominate consumption, making them ideal for incremental reformulation.

Manufacturers are typically introducing partial flour substitution, replacing 10–30% of refined flour with whole wheat, oat flour or resistant starch. At the same time, functional fibres such as inulin, wheat fibre or bamboo fibre are used to maintain softness and volume, while enzyme systems help offset increased density and support shelf life. The objective is clear: deliver a familiar "white bread experience" while enabling a fibre-related claim, rather than pushing fully wholegrain products that may face lower consumer acceptance.

Biscuits and cookies also offer strong potential, given their widespread consumption as everyday snacks. Reformulation strategies here often focus on incorporating oat, barley or legume flours to deliver naturally higher fibre content. Functional ingredients such as inulin or polydextrose can further boost fibre levels without significantly altering sweetness or texture. In terms of positioning, digestive and functional claims resonate well across several APAC markets, particularly in China and Southeast Asia, where consumers are increasingly receptive to products linked to gut health and wellbeing.

Cakes and other sweet baked goods present a more complex challenge, as indulgence and texture remain critical purchase drivers. In this segment, manufacturers are taking a more balanced approach, replacing part of the flour with fruit fibres or resistant starches while maintaining product softness and aeration. Fibre is often combined with sugar reduction strategies, with ingredients like inulin serving a dual role as both a fibre source and a bulking agent. Portion control is another important lever, allowing brands to introduce added-value functional claims without compromising the indulgent positioning of the category.

Traditional and regional bakery products also provide meaningful opportunities when approached carefully. Staples such as steamed buns (mantou and bao) can be reformulated through partial wholegrain substitution combined with fine fibre ingredients that preserve their soft texture. Flatbreads like roti and paratha lend themselves to the incorporation of wholemeal flour or millet-based blends, aligning well with local dietary habits. In festive products such as mooncakes, fibre enrichment is often achieved through fillings, using nuts, seeds or legume-based pastes to enhance nutritional value without altering the outer structure.

Across all categories, successful fibre enrichment in APAC relies on a set of consistent strategic principles. Gradual reformulation is essential to avoid consumer rejection, while the use of local grains such as millets, sorghum and pulses aligns with both policy support and regional preferences. "Invisible" fibre solutions play a critical role in maintaining familiar textures, and product development must remain closely aligned with front-of-pack labelling schemes and national dietary guidelines.

CONCLUSIONS

In practice, the most effective strategy is not to develop niche high-fibre products, but to quietly upgrade everyday bakery staples. This approach enables manufacturers to scale nutritional improvements across large volumes, delivering health benefits while preserving the taste, texture and accessibility that drive mainstream consumption.

Overall, while fibre consumption in APAC remains below target, policy alignment and product innovation are steadily pushing the category forward, creating opportunities for value-added, health-positioned bakery products. •

Western and Eastern Strengths **Meet in the Matcha Croissant**

The APAC baked goods market is influenced by the same major trends that affect the world market: health, convenience, digitalization, premiumization, sustainability. What makes this region special is how it manages to blend Western influences with local flavors and create a new world altogether.

By Jo Ilie

Consumer demand across Asia-Pacific is reshaping the baking industry at pace, as urbanization, rising incomes and shifting lifestyles redefine how bakery products are purchased and consumed. What was once a largely traditional category is now being influenced by a combination of health priorities, premiumization and digital engagement, pushing manufacturers and retailers to adapt both their portfolios and go-to-market strategies.

HEALTH PRIORITIES

Health and functionality are increasingly moving into the mainstream. Consumers are actively seeking products with added nutritional value, including higher fiber, reduced sugar and increased protein content. This shift is reflected in national dietary guidelines and public health campaigns promoted by organisations such as the World Health Organization and the Food and Agriculture Organization, which continue to emphasise the need to improve diet quality.

Health-driven reformulation is supported by clear consumption gaps. In practical terms, this is driving reformulation across staple categories such as bread and biscuits, with manufacturers incorporating whole grains, resistant starches and functional fibres to deliver health benefits without compromising taste or texture. Average dietary fibre intake across many APAC markets remains well below the recommended 25–30 g/day, with typical levels around 10–20 g/day depending on the country, according to national surveys and benchmarks from the World Health Organization. At the same time, a 2023 survey by NielsenIQ found that over 60% of consumers in Asia-Pacific actively seek healthier food options, including reduced sugar and added functional benefits, directly impacting bakery reformulation strategies.

PREMIUMIZATION

At the same time, premiumization remains a powerful growth driver. In urban centres across China, Japan and Southeast Asia, consumers are willing to trade up for high-quality, artisanal bakery products that offer both indulgence and perceived craftsmanship. European-style pastries, laminated dough products and patisserie-inspired items are gaining traction, often adapted with local flavours.

Premiumization is also reflected in market performance. Data from Euromonitor International shows that the premium bakery segment in Asia-Pacific is growing faster than the overall category, particularly in China and Southeast Asia, where urban middle-class consumers are driving demand. In China alone, the bakery market is expected to exceed EUR60bn by the late 2020s, with premium and artisanal products accounting for a rising share of value.

CONVENIENCE

Convenience is another defining factor. Fast-paced urban lifestyles are fuelling demand for portable, single-serve bakery items that can be consumed on the go. Research from NielsenIQ highlights the continued growth of ready-to-eat and packaged bakery products, driven by time-poor consumers seeking quick meal and snack solutions. Extended shelf life, improved packaging and frequent product rotation are becoming essential in this context.

According to Statista, the APAC packaged baked goods market continues to expand steadily, supported by the growth of convenience retail. In Japan, for example, convenience stores account for a significant share of bakery sales, with millions of consumers purchasing fresh or packaged bread daily. Similarly, in Southeast Asia, ready-to-eat bakery products are among the fastest-growing snack categories.

INNOVATION

Product innovation is also being shaped by the fusion of global and local influences. Bakery manufacturers are combining Western formats with regional ingredients and flavours, resulting in products such as matcha croissants, taro-filled buns or pandan-flavoured cakes. This trend reflects a broader consumer desire for novelty and cultural relevance, while also enabling brands to differentiate in an increasingly competitive market.

DIGITALIZATION

Digitalization is accelerating these dynamics. Social media platforms such as TikTok and Instagram are playing a significant role in shaping consumer preferences, particularly among younger demographics. Visually distinctive, "shareable" bakery products can achieve rapid visibility and drive foot traffic, encouraging shorter innovation cycles and more frequent product launches.

Digital influence is measurable as well. Research from Google and Temasek on Southeast Asia's digital economy highlights that over 70% of internet users in the region engage with food-related content online, with social media playing a key role in purchase decisions. This has direct implications for bakery, where visually appealing products can quickly translate into sales.

SUSTAINABILITY AND TRANSPARENCY

Sustainability and transparency are also gaining importance, albeit at varying speeds across the region. Consumers are showing increasing interest in responsibly sourced ingredients, reduced food waste and environmentally friendly packaging. Initiatives led by organisations such as the United Nations Environment Programme are helping to raise awareness and promote more sustainable consumption patterns.

A regional survey by PwC indicates that around 50% of APAC consumers are willing to pay more for sustainably produced food, though actual purchasing behaviour varies by income level and market maturity. This is pushing bakery manufacturers to invest in traceability, responsible sourcing and packaging innovation.

CONCLUSIONS

Taken together, these trends point to a market that is both health-driven and experience-led. The challenge for the baking industry in APAC is to balance reformulation with indulgence, while delivering convenience and differentiation at scale. As consumer expectations continue to evolve, companies that can align product innovation with nutritional value, strong branding and operational flexibility will be best positioned to capture growth in one of the world's most dynamic bakery markets. •

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