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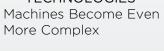
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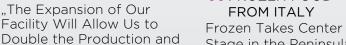


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INNOVATION FOR

FROZEN PIZZA



Comment



By Bogdan Angheluta, Editor in Chief

MORE FOCUS ON PACKAGING

s hygiene became a make-or-break factor for most consumers during the COVID-19 pandemic, food packaging received additional attention, especially regarding its microbiological safeness. Even though manufacturers did focus solely on safety for a while, previously seen trends such as sustainable, environmentally friendly, or plastic-free were still major themes and are now back at the forefront. This year we've seen several examples of companies investing in new, more sustainable solutions for the cold chain. Oakland International has launched a fully reusable temperature-controlled packaging unit, for home and business delivery named the OakRA unit (Oakland Returnable Asset). Its purpose is to replace large quantities of waste packaging materials and insulate them with a new way of sending goods that should be stronger, safer, and that remain in the economy to be reused

indefinitely. Food packaging supplier Faerch has launched Evolve by Faerch - bowls made from recycled household post-consumer material which, after use, can be recycled into new mono-material food packaging without any loss of quality - thus providing food distributors with a fully circular alternative to traditional clear PET packaging. Food manufacturers also jumped aboard this train, one example being



major themes and are

now back at the forefront.

LIVEKINDLY brand Oumph!, which is phasing out plastic in preference for recyclable cardboard packaging. Still, it must be said that today sustainability takes second place to safety, especially after the events of 2020-2021. According to Innova Market Insights, over half of global consumers "agree" (37%) or "strongly agree" (25%) that the protective function of product packaging has become more important due to the COVID-19 pandemic. Moreover, 20% favor the increased use of plastics currently, while 42% perceive them as an undesirable necessity. Even in fruit and vegetable packaging, 16% of global consumers "strongly agree" and 30% "agree" that fresh produce should be packaged in a protective plastic layer due to the pandemic. Meanwhile, recently banned plastic packaging on some fruit and vegetables, while Spain is expected to implement similar regulations in 2023, against a backdrop of heightened food waste fears. What is your company's take on this? Let me know at bogdan.angheluta@trade.media.



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GLOBAL

KELLOGG COMPANY REPORTS 2022 FIRST QUARTER RESULTS

Kellogg Europe's first quarter reported net sales increased 2%, as price/mix growth more than offset a modest volume decline related to lapping strong 2-year comparisons, and significantly adverse currency translation. On an organic-basis, net sales increased 8% led by snacks. Reported operating profit increased 22%, driven by strong net sales. Adjusted-basis operating profit increased by 22%, and by 28% excluding currency.

US

J&J SNACK FOODS TO ACQUIRE DIPPIN' DOTS

J&J Snack Foods Corp. has entered into an agreement to acquire Dippin' Dots, LLC for USD222m, subject to customary purchase price adjustments. The transaction is expected to close by the end of June. Dippin' Dots uses a cryogenic freezing process to produce beaded ice cream, yogurt, sherbet and flavored ice products distributed in thousands of franchise locations, theme parks, stadiums, arenas, zoos, movie theaters and events. J&J Snack Foods has completed more than 30 acquisitions and has a long-term track record of integrating and scaling brands.

US

STATE OF THE INDUSTRY DISCUSSED AT AFFI-CON 2022

Frozen food has been a pandemic powerhouse and growth already outpaced total food and beverages in the three years preceding the pandemic, according to Sally Lyons Wyatt, IRI executive vice president and practice leader, that showcased the data during a presentation on the State of Frozen Food at the start of AFFI-CON 2022, hosted by the American Frozen Food Institute. Going up against the biggest year in food retailing, frozen food sales in the traditional channels slowed to low single-digit growth in dollars and slightly below year-ago levels in units. However, dollars (+23.0%) and units (+18.0%) remained far ahead of the 2019 pre-pandemic normal. This is driven by above-average consumer demand and fueled by higher household penetration, more trips down the frozen food aisles, and higher spending per trip. E-commerce delivered an additional 12% boost, for an omni-channel frozen food category gain of 2% in dollars and -1.8% in units. Millennials, who represent about USD23 out of every USD100 food and beverage dollars, had a far greater contribution in frozen foods, especially in categories such as frozen fruit where they account for USD31 out of every USD 100 spent. Plant-based plays a role



across the grocery store, representing 41% of general food dollars and 22% of frozen food. Unit sales of frozen plant-based items were down 3.5%. Frozen dinners, meat substitutes and desserts account for 87% of all plantbased frozen sales. Dinners and desserts grew year-on-year, but demand for meat alternatives has softened. The strong growth in frozen fruit and vegetables in 2020 brought a rising share of total produce dollars across the store. The share remained elevated in 2021. Frozen fruit had a small dollar increase, at +0.7% but could not quite reach the prior year levels in units and pounds - affected by an average in-stock rate of 90%. Mixed fruit items stood out as sales winners, a trend that is expected to continue in 2022. Frozen fruit also found pockets of growth in a number of sustainability-related claims, with above-average growth for recyclable and water conservation.

GLOBAL

FROZEN PIZZA MARKET TO REACH USD39.3BN BY 2031



The global frozen pizza industry generated USD17.3bn in 2020 and is anticipated to generate USD39.3bn by 2031, witnessing a CAGR of 7.96% from 2022 to 2031. According to a report by Allied Market Research, increase in disposable income, rise in standard of living, health consciousness

among the consumers, and surge in number of large retail chains drive the growth of the global frozen pizza market. Moreover, key players are investing in R&D to develop advanced freezing technologies, which in turn, is presenting new opportunities for the growth of the market in the coming years. Based on crust type, the regular thin crust segment held the highest market share in 2020, accounting for more than three-fifths of the global frozen pizza market and is estimated to maintain its leadership status throughout the forecast period.

UK

'NEW MEAT' SUPPLIED TO FOODSERVICE

Redefine Meat announced their key partnership with the high-end distributor, Classic Fine Foods, to supply New-Meat to the UK's culinary market. With immediate effect, Redefine Meat's innovative plant-based New-Meat will be available to Classic Fine Foods' diverse customer base in both England and Wales-including Michelin-star restaurants, hotels, and dining venues. Using a combination of true love of meat and breakthrough technologies, the range of New-Meat products provides every cut of meat a cow can-including the highly coveted Flanks cuts.

LINEAGE OPENS FULLY-AUTOMATED COLD-STORAGE WAREHOUSE EXPANSION



Lineage Logistics, one of the world's leading temperature-controlled industrial REIT and logistics solutions providers, unveiled its South East Superhub in Peterborough, Cambridgeshire, just 70 miles from Central London and 120 miles from its Northern Superhub in Heywood near Manchester. Lineage completed the new, fully-automated warehouse expansion with an additional 45,000 pallet positions in Peterborough, bringing the total capacity to nearly

71,000 pallets. The expanded warehouse creates a strategically-positioned South East Superhub, which will serve both retail and foodservice customers with unique supply chain requirements. This 35-metre tall expansion will feature some of the world's most sophisticated automation and refrigeration technology, helping to reduce energy consumption and the environmental impact of food distribution.

FUROPE

EVOL BECOMES FIRST FROZEN BRAND TO OFFER CARBON NEUTRAL MEALS

Evol, a brand of Conagra Brands is taking a step toward protecting the environment by becoming the first brand to introduce Carbonfree Certified Carbon Neutral single-serve frozen meals. This June, eight Evol meals, produced in a TRUE certified Zero Waste facility, will be Certified Carbon Neutral through the Carbonfree Product

Certification
Program. The allnew Five Cheese
Alfredo Mac with
Chicken headlines a collection that includes three vegetarian meals, such as Butternut Squash
& Sage Ravioli.







GLOBAL

WALKI PRESENTS NEW RECYCABLE MATERIALS

Walki is answering to the growing demand for frozen food by expanding its portfolio of recyclable materials. The global market for frozen food is expected to grow to EUR322bn by 2026. Although the demand is growing globally across all age groups, it is especially popular among younger consumers. Walki® EVO Seal and Walki® Opti Seal are recyclable paperbased packaging intended especially for pillow-pouches for frozen food. Walki® EVO Seal has a dispersion coating as barrier against water vapour and grease while Walki® Opti Seal has an optimised PE-extrusion coating.

GI OBAL

READY MEALS MARKET TO REACH USD225BN

The global ready meals market size is expected to reach USD225.28bn by 2030, registering a CAGR of 5.1% during the forecast period. According to a new study, the rising demand for affordable and convenient pre-prepared dishes is anticipated to drive the market. The vegan segment is expected to register the fastest growth rate throughout the forecast period. Product launches in this segment by key players are likely to supplement the overall segment growth.

GERMANY

dti Launches Industry Initiative for a climate-Neutral future

The frozen food industry sets an example for climate protection. Germany wants to become climate neutral by 2045. In order to achieve this political target, companies and citizens are called upon to intensify their efforts. The dti, as the branch association for the frozen food industry, therefore gave the go-ahead for the "Future workshop: frozen food industry on the way to climate neutrality" at its general meeting. With this initiative, the dti wants to contribute to making the industry fit for climate neutrality through close cooperation along the frozen food value chain and in exchange with science. Acting together instead of just talking - that is the motto for more climate protection. For a futureproof, sustainable frozen food industry, real solutions are required instead of greenwashing. In the future workshop, the dti, together with its members and scientific partners, will develop methodical approaches for climate accounting, solutions for reducing greenhouse gas emissions and requirements for a climate label in order to support companies on their way to climate neutrality. "Our goal is to promote the development



and application of uniform methods for climate accounting and, based on this, to formulate an industry climate balance and a climate target for the frozen food industry," says dti Managing Director Dr. Sabine Eichner during the Future workshop. The dti is thus consistently continuing its work and the pioneering role of the industry in the field of sustainability: the Öko-Institut Freiburg calculated frozen climate balances as early as 2012, which showed that frozen food is no more harmful to the climate than other types of food. In the area of food losses, the industry was recently the first to present data showing that the industry is already very resource-efficient and has very low losses throughout the chain.

ASIA

INCREASED MEAT CONSUMPTION DRIVES THE ASEAN COLD CHAIN



The
ASEAN
cold chain
logistics
market is
expected
to grow

by more than 12% during the forecast period 2022-2027, according to a new report by Mordor Intelligence. The COVID-19 pandemic challenging the economy has upended the cold chain logistics sector with massive changes in operations, supply chains, regulations,

and workforce requirements. Foreign investors are now able to own 100% of partnerships, a figure that was previously 75%. It has also transformed the market with a lasting impact on the future. Modernization in the logistics sector has supported the growth of the refrigerated logistics market. During 2020-21 there was an unexpected demand rise for cold chain logistics in ASEAN Countries. The growing urban population and changing consumer perception have boosted the demand for refrigerated storage and transport.

GLOBAL

MULTIVAC TARGETS EUR2BN IN TURNOVER

Despite the continuing challenges presented by the corona pandemic, 2021 was a successful year for MULTIVAC Group, as the company increased its turnover by approx. 15% to EUR1.37bn. 2 billion in global turnover, digital, and sustainable - these are the strategic objectives which the group is pursuing in the period up to 2025. In order to achieve these ambitious growth targets, the company is not only investing systematically in the development of new products, but also in new manufacturing equipment and production sites.

GEA INTRODUCES NEW CUTMASTER PACKED WITH ADVANCED TECHNOLOGY



GEA launched its new CutMaster Generation 3, for preparing different kinds of sausage, a wide range of poultry, fish, plant-based, vegan and vegetarian products as well as processed cheese. The new CutMaster incorporate several customer-driven technology upgrades. The flexibility, reliability, hygienic properties and longevity of the machine have been further enhanced by the innovations. The new developments featured in the CutMaster Generation 3 build on this heritage by focusing on customer requirements and leveraging GEA's experience and technical excellence to offer best-in-class cutting technology. The new CutMaster Generation 3 comes with integrated AC technology as standard. Since everything is built in and there is no external cabinet or connecting cables, the machine's overall footprint is reduced. The AC motors rely on cutting-edge technology

and are maintenance-free. CutMaster Generation 3 machines are also equipped with an upgraded control system, including a new standardized user interface employed on all other GEA equipment, such as mixers and grinders. This means operators are less likely to commit errors as they switch effortlessly between units. In addition, the software boasts a range of new features, such as advanced heating and cooling options as well as an optional off-line recipe editor. Thanks to the latter, customers can export recipes to a PC for adjusting before returning them to the system, which is much easier than fine-tuning them on the shop floor. An optional extra, GEA's new PerformancePlus predictive and preventative maintenance system uses advanced online condition monitoring to measure machine performance. With this information, customers can plan maintenance schedules, reduce costs, improve machine uptime and maximize productivity. PerformancePlus generates a monthly status report that tracks the machine's general condition, level of optimization and energy consumption, in addition to supplying GEA with the requisite information to proactively initiate remote support where necessary.

US

NEW UTZ FACILITY IN NORTH CAROLINA

Utz Quality Foods, a subsidiary of Hanover-based Utz Brands, acquired a 125,000-square-foot snack food manufacturing facility in Kings Mountain, N.C., for roughly USD38.4m from Evans Food Group Ltd. The transaction comprises the building, which can be expanded to 200,000-square-feet, and land and some snack production equipment. Based on the investor's declarations, purchasing a facility is faster and more cost-effective than renovating an existing facility or constructing a new building from scratch.

GLOBAL

GFI RELEASES STATE OF THE INDUSTRY REPORTS

The Good Food Institute has released its State of the Industry Reports, which offer a comprehensive global analysis of the alternative protein landscape. The reports dive deep into investment and sales data, partnerships, company and product landscape, technical advancements, and regulatory updates to provide a full snapshot of the alternative protein industry. The studies cover areas such as Cultivated meat and seafood, Plantbased meat, seafood, eggs, and dairy, and Alternative seafood.

GLOBAL

SHRIMP MARKET EXPECTED TO GROW

The global shrimp market is expected to grow at a CAGR of ~8% between 2021-2027. Frozen shrimp exports climbed by 4.2% in value from USD17.1bn in 2016 to USD17.8bn in 2020. Exports of frozen shrimp declined by -7.6% year over year from 2019 to 2020. Fresh, salted, and smoked shrimp exports, on the other hand, fell by 99.4% from USD522.2m in 2016 to USD3.1m in 2020. Export sales of frozen seawater shrimps were USD16.2bn in 2020, up 4.4% from USD15.6bn in 2016, but decreased -7.8% from 2019 to 2020.

EUROPE

BENEO ACQUIRES MEATLESS B.V., EXPANDS PLANT-BASED PORTFOLIO

BENEO, one of the leading manufacturers of functional ingredients, has announced the acquisition of Dutch company, Meatless B.V., ensuring it becomes a major player in the field of plant-based texturising solutions for meat and fish alternatives. The move comes amid a huge rise in demand for plant-based products, with figures showing that the market for fish and meat alternatives is expected to grow by more than 10% CAGR over the next five years. The acquisition of Meatless B.V. allows BENEO to broaden its portfolio and offer

customers a versatile selection of plantbased solutions that serve as texturisers for meat and fish alternatives. BENEO sees great prospects for the new range of solutions in Europe as a focus market in the first instance, with plans to further expand globally.







While it clearly remains in the category of comfort, frozen finger food has joined in on embracing healthier standards. This doesn't seem to have had a major impact on manufacturers, as they spared little time coming up with options that should satisfy any type of consumer.

he global frozen snacks market is projected to grow at a CAGR of 7.2% during the forecast period (2022 - 2027). During the COVID-19 situation the frozen snacks market experienced sudden increase in sales with the availability of products in the ecommerce stores along with various supermarkets and hypermarkets with home delivery option for the consumers. Consciousness and hygiene was major prospective among the consumers which has created an immense opportunity for the ecommerce stores to come up with contactless delivery with fully sanitized packaged food items in various countries around the globe, according to a new report by Mordor Intelligence. Convenience is one of the key factors driving the increase in consumption of frozen food items, globally. Hence, leading players are introducing new types and ingredients to cater to the taste of consumers, on a regional basis. The rising preference of consumer toward convenience products fuel the growing demand for frozen products

due to its effortless and time saving beneficial factor as compared to cooking from scratch. The frozen snacks food market is growing abundantly owing to the rising volume of hectic lifestyle of working population around the globe which in turn is boosting majorly the frozen snacks market. Gastronomy-wise, Italian cuisine is gaining traction in the global market. In terms of trends, consumers are showing an inclination toward vegan sources of protein, which, in turn, has created a good platform for the players offering plant-based/vegan frozen products. Across the world, the frozen or the convenience food industry, which started by offering basic frozen vegetables and fries, today offers a wide range of snacks products, ranging from vegan snacks items to frozen meats and ready-to-cook products. With the increasing customer appetite and acceptance, the frozen snacks market has recorded a healthy growth rate, complemented by an increase in selling points and deeper penetration by organized retail players, as well as an increase in the available freezer space in retail channels, the report shows. The

changing lifestyles of consumers offer several opportunities for manufacturers across industries. Several factors have led to the growing acceptance of western food in the developing countries, thereby, enabling the need for on-the-move foods, thus, in turn, enhancing the demand for frozen snacks altogether.

MORE INNOVATIONS FROM FROSTKRONE

Frostkrone Food Group has showcased its latest, varied selection of finger food and snacks at the Private Label Trade Show in Amsterdam. Amongst them is "Ready to Eat", the new snack-to-go range for the chilled cabinets, which has already been awarded distinctions several times. This range boasts a huge selection covering vegan and vegetarian delights - veggie snacks, cheese snacks, and a mix of veggie and cheese snacks - and includes chicken variations. "Every type of snack is wrapped in a luscious coating, created out of delicious spices, seeds and grains. Mango, apple and carrot blend together against a backdrop of subtly aromatic



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spring onions, enlivened by a distinctive spice kick of curry and coriander and enveloped in a coating of coconut flakes, linseeds and coriander," according to the company. These bite-size snacks are available in resealable tubs and can be eaten cold straight away. Anyone who prefers them warm just has to heat them in the oven for 5 minutes. The food range "Really?!" is exclusively plant-based. The range covers a wide selection of cheese, fish, beef, and chicken substitute products. Examples include Hot Vegan Cheese Bites with pickled jalapeños wrapped in a crispy coating; and the Vegan Beef Burger, with its full-bodied taste, in a brioche burger bun. Frostkrone has also exhibed its handy and practical Pizza Pockets, which are now also available in their vegan varieties. The Pocket Snack products are suitable for both the microwave and the oven. Thanks to their very handy shape and simple preparation, Pizza Pockets are perfect for bake-off stations, petrol stations, and kiosks. The Crunchy Emmental Cheese Sticks extend the range of the uniquely crispy "Crunchy Homies", which are guaranteed to turn out crispy even in one's home oven. The Mini Corolles from France - wafer-thin baked wheat dough filled with a variety of ingredients

- for example, Mini Corolles Spinach & Feta Cheese. The frozen finger food specialties can be prepared in the oven and are ready in just a few minutes. "Finger food and snacks are absolutely in vogue, especially when they pick up on current nutrition trends and in doing so offer new and exciting innovations," says Frédéric Dervieux. "Our claim is to fulfil the current lifestyle of our target group. That's the benchmark by which we gauge each of our products."

VEGGIE CENTERPIECES

Vegetables are central to many of Netherlands-based **Le Duc**'s products. "Broccoli is the main ingredient in our Broccoli Cheese Nuggets. We make them with whole pieces of broccoli, to give the product a nice bite. The nuggets are also filled with Gouda cheese," Le Duc representatives say. The cheese that Le Duc uses always meets two important requirements: first, it is consistently high quality, as it is important that the cheese has exactly the right firmness, creaminess, and color with every bite, in addition to taste. "Secondly, what makes our cheese special as well is that Le Duc only uses cheese made with vegetarian rennet. Le Duc is a specialist in vegetarian products and has been working exclusively with vegetarian

Finger food and snacks are absolutely in vogue, especially when they pick up on current nutrition trends and in doing so offer new and exciting innovations. Frédéric Dervieux, CEO of Frostkrone Food Group

ingredients for 20 years. This is how we ensure that our products are suitable for all," they explain. Le Duc's newest vegan finger food product, Broccoli & Cheese Veggie Fries, is also based on the same popular flavor. "This is a product we are proud of: crispy vegetable fries filled with tasty vegetable chunks. Like all our products, Broccoli & Cheese Veggie Fries are made with lots of love and attention. We start by flavoring the broccoli pieces with a unique Le Duc spice blend. They are made into a batter with potato and cheese before being shaped into sticks in the molding machine. Next, we apply a coating to give the vegetable fries a crunchy bite. The Veggie Fries are then pre-fried, so you only have to cook them for a very short time." Veggie Fries can be presented as a side dish or as finger food with a dipping sauce as they are or on a serving board. The advantage of this product is that it appeals to a broad range of guests. Because this product appeals to everyone, the target group is not limited to vegetarians and vegans only. "You can also encourage other guests to snack on veggies more often unnoticed. Children also love them as a fun, tasty and colorful way to eat more vegetables. In addition to Broccoli & Cheese, our Veggie Fries come in three other surprising flavors: Pumpkin & Sweet Potato, Mashed Kale & Potato and Cauliflower & Potato," Le Duc representatives conclude.



May/June 2022



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BVC-RSPO-GROOD178



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Frozen Snacks and Pastry By Aparna Cheela & Amarnath Rajendran, Marketsandmarkets

PASTRIES IN EUROPE

The European bakery sector is a mature yet dynamic one, with a high penetration rate based on frequent innovations and changing consumer trends. The traditional packaged baked goods category witnesses strong competition from the healthier alternatives that have started to make a name in the market. The past couple of years has demonstrated a change in consumer behavior, with a notable shift toward bakery products, such as fresh, artisanal, organic, ethnic, and valueadded baked goods, and a focus on health.

here is growing pressure on bakery manufacturers to create better-for-you products. Functional food ingredients are being incorporated into the bakery sector, for instance, functional

flour holds immense potential within the bakery market. Clean label functional flours have stemmed up as a solution to meet the major challenge of the bakery industry, be it optimization of texture, nutrition or carrier solutions, and fiber &

protein enrichment. Culinary trends influence product innovations in bread and pastries, healthy and functional being a long-lasting one. The bakery and pastry ingredients sector has transformed according to consumer perceptions, primarily focusing on experience, health, craft, and taste, and ethical attributes such as transparency. Packaged goods are gaining traction owing to their perceived freshness and hygiene. The pandemic spiked the sales of packaged products, adding safety and quality attributes to the products. Fresh food is preferred for its higher quality; however, as hygiene is anticipated to be a long-term factor, packaged food is gaining prominence. Over the past few years, especially with social media penetration, along with taste, looks have taken importance in defining

the consumer purchase pattern. As per MarketsandMarkets research, the bakery market offers different types of products, pastries, and savory pastries, accounting for approximately 14% of the market in 2021. The market is expected to witness a growth rate of 4% to 6% from 2022 to 2027. The growing demand for pastries in Europe is attributed to convenience, the growing foodservice sector, and positive nutrition. Competition is high for those bakery manufacturers and retailers that meet consumer preferences, accessing fast-growing niches paying attractive valuations for high-quality assets. Many industry players in the region are also investing significantly in the sector to establish an efficient production system of baked goods and pastries. The stakeholders across the supply chain are instrumental in promoting the growth of the industry in the region. For instance, Beneo and Sensus have invested in catering to the health attribute in the foremost step of the supply chain. Sensus expanded its chicory root fiber (inulin) manufacturing capacity in 2022, strengthening its partnership with the Royal Cosun Group (an Agro-industrial group). Functional ingredient manufacturer, Beneo, unveiled a multimillion Euro investment program to increase the production capacity for chicory root fiber, which is slated to play a pivotal role in the future nutrition profile. The investment seeks to increase production at sites in Pemuco, Chile, Belgium, and Oreye. Sugar-free or reduced-sugar baked goods are gaining momentum, and consequently, there is a high demand for prebiotic chicory fiber, an approximate 50% rise in the new products developed.

PLANT-BASED FOOD GAINING TRACTION

Veganism is the new "it" trend. Post-COVID-19, the industry dynamics have reformed, and there is an increased level of environmental and health consciousness amongst consumers. Plant-based products, produced and processed sustainably, as well as those with health-promoting benefits, have become the focus. With time, there has been a distinct increase in the vegan population, especially in Western Europe. According to The Vegan Society, the number of vegans in Great Britain quadrupled between 2014 and 2019, increasing from 150,000 in 2014 to 600,000 in 2019. An

increase in demand for sustainable products has led to a substantial rise in plant-based food. Besides, focus on health is also promoting the vegan bakery sector. According to Corbion, a leading ingredient manufacturer, in the last five years, approximately 5.6% of new product launches in bakery sweet goods carried a vegan claim. Organ, Pepperidge Farm, Pillsbury, and Schar are puff pastry brands that are vegan. Various readymade pastry brands in the UK, for instance, Jus-Rol, use vegetable fats rather than butter, however, as they contain sugar and palm oil, some vegans avoid consumption. Similarly, Asda ready-rolled puff pastry is generally considered vegan but contains sugar and palm oil. Vegan products are moving from niche to mainstream, a movement strengthened by the Millennials and Generation Z, who prioritize nutrition and accountability from the food consumed. Ingredient manufacturers such as Cargill have taken initiatives in promoting veganism, wherein it offers several plant-based ingredients to replicate eggs' functional role in the form of starches, pea protein, soy flour, and plant-sourced lecithins. These ingredients bridge the functional gaps, yet most likely need to be used in combination with other ingredients such as enzymes to extend the shelf-life.

THE EUROPEAN MARKET

According to MarketsandMarkets research, Europe is the largest market for the pastries segment, accounting for nearly 35% of the share in the global market. Consumption of pastries is further expected to grow at a CAGR of ~5% during the next five years. The increasing consumption of pastries in Europe is majorly driven by the growing consumer demand for convenience and faster-to-prepare foods, value-added products, and an expanding foodservice sector. Revenue from the production of frozen cakes & pastries in Europe reached a value of USD3.18bn in 2020. The consumption and demand for

~5.6%

of new product
launches in bakery
sweet goods carried
a vegan claim in the
past 5 years.

frozen cakes & pastries in Europe are majorly dominated by ready-to-bake technology, while ready-to-eat is anticipated to register the highest growth rate of 4.9% during the forecast period. Spain, Germany, and France are registering major frozen bakery products consumption. As per United Nations Statistics Division (UNSD), European imports of bread, pastry, cakes, biscuits, and other bakers' wares reached USD I 3.2bn and 5.0 million tons in 2020. The UK, Germany, and France were the top importers in Europe, accounting for approximately 40% of the imports in value. Germany, Italy, Belgium, and France were the top exporters. France witnessed a higher growth in value compared to the growth in its volume of export, indicating a rise in per-unit cost.

CONSUMERS ARE PRIORITIZING ON-THE-GO CONSUMPTION

Convenience is of paramount importance. A fast-paced lifestyle and an increasing affluence have triggered onthe-go consumption. Bakery and snacking industries completely resonate the convenience eating scenario. The demand for convenience and food onthe-go supports the demand for baked goods, especially the frozen category. Dawn Foods offers freeze and thaw stable choux and puff pastry mixes, which makes pastry production at-home simpler, time-saving, and convenient. Additionally, in a mature industry, these bakery stores are re-positioning and diversifying their portfolios to gather a larger market share. For example, pastries are filled with milk-based and liquorflavored creams, studded with nuts and chocolate, and include infusions of flavorful glazes and powders. On-trend savory variations of pastries constitute goat cheese, aromatics, and greens. Convenience and customization are running in parallel to meet the customer's expectations and expand the business. Various in-store bakeries are balancing trade by offering customizable prepackaged and ready-to-take home products. For instance, St. Pierre Groupe offers individually wrapped butter croissants and chocolate croissants, Bakery 6 Chocolate and Hazelnut Rolled Crepes are now available at Walmart. Such concepts are driving the demand and demonstrate positive retailing for pastries.



FROZEN PASTRY
PLATTER REDEFINING
THE PASTRY DEMAND

Frozen pastries and bread witness a progressing scenario and will continue to do so over the forecast period. Germany has been an early adopter of frozen bakeries, and time-pressed Germans are inclined towards frozen goods as staple, replacing the conventional meals. Frozen pastries include an extensive range of pastry products, including basic types of frozen pastries and viennoiseries, which are currently blooming at a high pace (including four varieties: plain and filled croissants, raisin swirls, and savory items), chocolate pastries that account for the most share, and Danish products including Danish crowns and cinnamon rolls. Since convenience remains the key, extended 'consume by' dates, coupled with ingredients such as fructose, honey, and humectants, make frozen pastry products healthy and safe for consumption. As per MarketsandMarkets, Europe accounts for approximately 60% of the global frozen pastries market, further triggered by the technological advancements within the processing and packaging sector. An example being, Vandemoortele's freezer-to-oven Bakeup technology to produce authentic, clean-label filled and unfilled croissants. Danishes, and mini-sized pastries. Processing technology prowess includes efficient filling of pastries; an example of it being, Unifiller's filling equipment which

focuses on its efficiency of portion accuracy without tampering with the filling.

ADVENT OF ORGANIZED RETAIL SPACES AND EXPANDING E-RETAILING

E-commerce is redefining commercial activities across the globe. The UK, Germany, France, and Russia registered as the top e-commerce markets in 2019. As internet penetration increases, a greater section of the population is adopting the retailing channel and turning it into mainstream, thereby gaining profound benefits. Mobile devices have mushroomed over a couple of years, and a data-driven nature is also propagating the demand for internet retailing. Besides, low cost, lucrative offers, and heightened consumer experience drive the e-retailing sector. The pandemic saw an evolved pastry platform. Shoppers preferred to shop online with home delivery or pickfrom-store options, becoming the best options for grocery procurement. Retailers adopted omnichannel retailing as the most efficient platform. Digital efficiency of retailers defined the sales and offered leverage to sales along with higher profit margins on sweet baked goods, including pastries. Brands established delivery partners like Just Eat, Delivery Hero, Deliveroo, Takeaway.com, Glovo, and Wolt, and benefitted from at-home dining sales. A greater section of bakery stores expanded its presence by partnering with

delivery partners and being active on social media and other digital platforms. Rustika Cafe and Bakery, a family-owned establishment in the US, delivers via Coco - a human-operated, zero-emissions robot. Consumer acceptance of new technology found a new level with online shopping and the active participation of retailers.

GROWTH OPPORTUNITIES

The European market for pastries currently holds a massive audience. The growth potential for the segment relies heavily on new product development, packaging transformations, and technological advancements. Product innovations and the launch of new flavors are trending in the pastries market. Manufacturers are enhancing the look and taste of products. Furthermore, manufacturers are seeking to establish new eating experiences among consumers. Lantmannen Unibake, a European bakery supplier, launched "Double Delights," a dual-filled pastry. The range has five flavor combinations, designed as a twist on the traditional pain au chocolat. New versions of established classics are in demand, particularly within the croissant and viennoiserie sector, because the pastry is light and a perfect host for new flavors and fillings. In another case, Sosa Ingredients incorporated vegetable proteins (deodorized potato protein) in pastries for the manufacturing of emulsions and gels. Besides including functional ingredients, pâtissiers are swapping traditional dough for dough featuring whole grains, nuts, and seeds, and fermented ingredients. L'Atelier Barcelona is moving toward gastronomic pastry. The bakery uses Rooftop Smokehouse brand smoked cream in a wide range of its preparations (croissants, chocolates, ice creams) and local products. Consumers are actively experimenting with food, and manufacturers are targeting this trend to establish a firm position within the industry.

bn USD was the value of European imports of bread, pastry, cakes, biscuits, and other bakers' wares in 2020.





"THE EXPANSION OF ALLOW US TO DOUB AND GUARANTEE



Italian frozen food manufacturer CGM SRL has a long history of innovation when it comes to products for both frying and baking. We talked to Giuseppino Marinangeli, CEO of CGM SRL, about the company's strategy in regard to foodservice and retail, and also the impact of the past 2 years on the overall business.

Since the beginning of its activity in 1986, CGM has concentrated its sales in the HoReCa segment as from that moment it was the concrete possibility of making our frozen products known in a constantly growing world from the point of view of consumption.

Please discuss CGM's evolution in the last 12 months in terms of actual results vs expectations. How important was the reopening of foodservice, as CGM has been traditionally focused on that segment?

Giuseppino Marinangeli: After a disastrous 2020 from a commercial point of view, caused by the shutdown of reception areas due to the pandemic problem, from mid-2021, especially after the reopening linked to the COVID problem, there were important and encouraging signs and we have recovered the lost turnover. In fact, in 2020 we have grown by almost 10%, certainly the whole HoReCa segment needed this important signal, to return to live and to the premises. Of course, as the HoReCa world is the driving sector of our sales we have had a massive impulse. Since the beginning of its activity in 1986, CGM has concentrated its sales in the HoReCa segment as from that moment it was the concrete possibility of making our frozen products known in a constantly growing world from the point of view of consumption.

What are CGM's plans regarding retail? How much interest is there from CGM's behalf towards that channel? GM: For CGM, retail has never represented very high volumes. We work with important brands in the gastronomy counters where the product is presented cooked for sale, but in that case the visibility of the brand is lost. For some months we have launched a new line in gr. 200/250 of 8 references purely studied for cooking in the oven, with the idea of proposing the possibility of encouraging the consumption of aperitifs in families. In addition to having attention to the environment, the packages have a QR code printed that periodically gives various and different news on cooking methods, combinations with other products etc.

Please comment on the recent investments CGM has made. What were those mainly aimed at?

GM: Mainly in the last two years the company has invested in the construction of a new production structure, about 4000 square meters reserved for the storage of frozen products, for

OUR FACILITY WILL LE THE PRODUCTION GREATER QUALITY"



How does CGM approach themes such as sustainability? Does this require any interventions on the manufacturing process or additional investments? GM: In regard to the production process, the new structure will be equipped with an important support of solar panels that will allow to use electricity to a minimum. Being in an area strictly exposed to the sun, we are studying new packaging and packaging that can be recycled or compostable, for easy waste management both in catering and above all in domestic consumption.

What are your current expansion plans?

GM: Productively we have already talked about the news, for the commercial discourse we are interested in strengthening the GDO market and above all the foreign markets, from where the important growth in turnover for the company will come. New markets and new areas such as the United Arab Emirates, United States and South America, CGM's participation in the SIAL international fair in Paris will also be important in October.

How would you assess the state of the industry overall, taking into account regional tensions and rising costs for raw materials and fuel?

GM: At the level of work as a post-COVID recovery we are at excellent levels, the HoReCa sector is recovering the drop in turnover of the last two years. What certainly aggravates the situation is the sharp increase in almost all raw materials and the scarcity of finding some references on the market,

We are interested in strengthening the GDO market and above all the foreign markets, from where the important growth in turnover for the company will come.

certainly behind us we also find a lot of speculation, for the moment the sales are more than satisfactory, but I think there will be critical issues from next September / October if above all the costs of energy and diesel are not lowered. The situation is certainly not simple in our sector, for many years the price increases were linked to occasional situations, and currently it seems like a fashion to change prices even on a weekly basis. We all hope to stop this trend and work with the stability necessary for the development of turnover.



THE PERFECT CUT

While food trends might impact areas like the ingredients list or the sustainability of the production process, frozen pizza manufacturers still rely on technology providers to ensure the best quality in any given context. Cutting is obviously one of the areas where machines can make a huge difference, and the above-mentioned providers constantly find new ways to assure that the output is always inching closer to perfection.

he frozen food market, including pizza, continues to be one of the fastest growing market sectors in food processing, according to Mike Jacko, vice president of Applications & Product Development at **Urschel**. Advances in freezing methods intersect with consumer trends. Consumers are seeking healthier, convenient options. These trends include increased choices of

vegetables and plant-based proteins. Traditional toppings remain popular while niche pizza toppings and styles of crusts are ever expanding. Research and development teams continue to build on new flavors and toppings. "Brussel sprouts, beets, arugula, spinach, zucchini, and yellow squash are just a few on-trend toppings. Cauliflower crusts are also at the forefront. Alternative textured plant proteins take center stage and appear on pizzas as shreds, crumbles, or dices in place of traditional meat selections. The category of cheese toppings is ever growing including

> says. "Every ingredient that goes into a pizza and what size and shape each topping component

goat cheese, feta, and non-dairy,

plant-based options," Jacko

should be an important consideration. This will determine the visual appeal, coverage, taste, and texture which are key in SKU success. A processor must then identify the proper cutting machinery to deliver just the right cut for each ingredient. A cut should be identified for each ingredient that will also result in the highest usable product from a profit standpoint." When considering the purchase of new capital equipment, he argues, processors need to identify the flow of their current system. If creating a new line, make sure each station will work seamlessly with the next. Safety and flow should be fully analyzed. Working with a line company offers an additional amount of security. "In analyzing a new purchase, such as cutting machinery, a test cut of the supplied customer product may be highly advantageous. The customer should make sure the machine fits their needs and any future flexibility that may be foreseen. If replacing an existing machine with a different model, check to see if there may be a turnkey approach. In addition to choosing the proper cutting machine, ask about spare parts availability, maintenance, and determine the degree of support after the sale. Urschel offers support to every customer for the long life of their cutting machinery." Urschel technology delivers precision and expertise to pizza manufacturers. With the extensive ability to effectively cut a gamut of shapes to provide precision cuts within the targeted specifications. Many ingredients go into creating different







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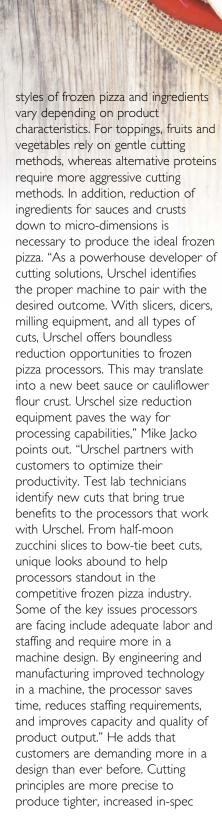




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results, dedicated to increasing usable product. Components are constructed with ease-of-use elements, such as built-in handles, while also being able to withstand rugged production environments. Tools that accompany machines are also designed to expedite routine procedures. It all relates to time savings and cost savings. Customers are looking for a machine with components that work with their fastpaced line. Small and large companies want a robust machine that will hold precision slice tolerances throughout production runs with guarantees of parts and service when they need them. "New for the emerging

alternative protein market, the DiversaCut® series and M6 offer aggressive cutting parts and feeding spindles created to overcome products that are normally difficult to process. These cutting methods also effectively reduce traditional cooked meats," Jacko explains. Also new in meat processing, the Affinity large dicer with built-in log precutter for an all-in-one log dicing solution. For cheese shredding, the MicroAdjustable® CC series Shred Head (SH-14) offers expedited knife changeovers. Urschel machinery maintains more precise control of the shred thickness, so processors use less cheese per ounce while

Every ingredient that goes into a pizza and what size and shape each topping component has should be an important consideration. This will determine the visual appeal, coverage, taste, and texture which are key in SKU success.

Mike Jacko, vice president of Applications & Product Development at Urschel



maintaining a full coverage appearance. This relates to better control in cheese melting and cost savings for the processor. The MicroAdjustable head, sanitary in design, is U.S.D.A. accepted. Other U.S.D.A. accepted offerings include the CCX-D cheese shredder and the large Affinity® Dicer along with the smaller footprint of the Affinity Integra-D. Whether shredding or dicing cheese or plant-based 'cheese', Urschel cutting solutions are ever evolving to meet the flexible needs of production lines. "The Comitrol® Processor line of machinery is unique to our company. As with all reduction machinery we engineer and manufacture, all key components are crafted, constructed, and assembled under one roof at Urschel, so strict quality standards are enforced. The size reduction heads employed in the Comitrol line achieve particles down to micro-dimensions. Potential applications include sauces, pastes, slurries, granulations, rice cuts, crumbles, powders, and flours. Comitrol reductions continue to be a sought-after resource for the frozen food industry. The word «Comitrol» means controlled comminution." The Comitrol Processor uses the principle of incremental shear to ensure highly efficient comminution by rotating the product inside a stationary reduction head at high rotational speeds. In addition, continuous single pass operation achieves consistently uniform particle size reduction at high capacities. Other methods of comminution employ some type of grinding, smashing, or tearing action which can produce excessive heat and degrade the quality of the finished product. This can also generate a higher percentage of particles which fall outside the target range of the desired particle size and negatively impact the yield, quality, and final particle size. HMI options are available. The E TranSlicer® Cutter (ETRS-C), DiversaCut 2110A® (2110A) and Sprint 2[®] Dicers feature built-in discharge conveyors to facilitate dispensing cut product into totes. The built-in conveyors assist in effectively capturing slivered, small cuts of fruit and vegetable products such as leeks, onions, tomatoes, or peppers to promote

In the past, ROI reigned supreme and if equipment didn't have a payback of two years they often didn't purchase. But with today's issues, mainly labor availability, supply chain delays, and rising ingredient costs – processors can't compare manual production verses automated, it's more like limited, sporadic production verses consistent, planned production.

Randy Medina, Pizza Application Specialist at The Grote Company



gentle and complete discharge from each machine. In addition to the new conveyor discharge option, the E TranSlicer may also be equipped with a bias slicing option. Also new for the 2110A, the DiversaCut 2110A equipped with a large product input. "Urschel delivers a targeted solution to processing whole heads of leafy vegetables - the DiversaCut 2110A® Dicer specially equipped with a large feed hopper and a new type of impeller. This new development alleviates precutting and minimizes product handling. The new Affinity CD-L Dicer, the most recent addition to the Affinity series, combines new technology with the utility of previous Urschel Model CD-A and L-A machines. Processors replacing Model L-A's with the CD-L achieved more than twice the capacity. Feed spindle, feed drum, and 5 HP (3.7 kW) motor work effectively with the cutting components in the successful processing of dried fruits and other products. Optional integrated oil spray system lubricates circular knives to assist in the processing of sticky products," Mike Jacko concludes.

PIZZA TOPPING EQUIPMENT THAT LASTS FOR MANY YEARS

"We pride ourselves on continuously enhancing our equipment line based on our 50 years of experience and processors," says Randy Medina, Pizza Application Specialist at The Grote Company. "Recent equipment enhancements include a redesigned return conveyor on our Waterfall Applicator to increase ease-ofoperation and maintenance; and a new Slicer/Applicator design with improved sanitary design, easier setup, and a reduced total cost of ownership. Earlier this year we opened a new warehouse in The Netherlands to specifically support our EU customers. Now parts orders are shipped faster and without any duty, taxes, or holds." Randy Medina recommends that processors consider many factors when deciding to invest in pizza topping equipment, not just the initial investment. "In the past, ROI reigned supreme and if equipment didn't have a payback of two years they often didn't purchase. But with today's issues, mainly labor availability, supply chain delays, and rising ingredient costs – processors can't compare manual production verses automated, it's more like limited, sporadic production verses consistent, planned production." According to him, long-term criteria the company covers with all potential customers includes: ROI/Payback, but ensuring all manual labor indirect costs and the opportunity cost of not automating are included; Production

close collaboration with pizza

W.

Since our foundation more than 40
years ago, we have been growing our
business significantly. We have been focusing
on customer-intimacy, knowing your produce,
and thinking along with you for the most efficient
cutting solutions for your application that helps you
grow your business.

FAM Stumabo

specs from rate to line space and width, to pattern size availability, and flexibility between SKUs; Accuracy of topping application, slice thickness, pattern placement, etc. to ensure optimal yield and quality with minimal rework; Aftermarket parts, preventative maintenance, and more; and dependability of the OEM customer service availability and response, experience with the equipment and application. "At Grote, we proudly serve not only the equipment we build, but also the people who run and depend on it. And with pizza topping equipment that lasts for many years, we're in it for the long haul. We offer thorough installation, commissioning, and training with all of our machines and are often on site for days to make sure operators and maintenance technicians know the ins and outs. Then we're available 24/7 for support via email, phone, virtually and in-person. We have training videos, troubleshooting tips and howto documentation available on our website or direct through our service team," Medina says. But what about which specific characteristics drive the slicers for pizza market? "First and foremost, can the machine perform the application, does it work with and fit in the rest of your operation? For

slicers specifically, there is a variety of technology available - from inline to offline, bulk slicers to targeting slices on passing crust, blade technology, and more - but many times only a few can do a given application. Once the options are narrowed, we see the following criteria driving pizza slicer decisions: Accuracy of slice thickness and placement to reduce giveaway we offer an electronic thickness adjust control to make small adjustments automatically and by recipe; Sanitary design - our newest Slicer/Applicator features an open channel frame and easy access telescopic guarding that many processors prefer; Flexibility to slice multiple pattern sizes and shapes, and rates on the same machine; and support throughout installation and training and the life of the machine. We design our equipment, especially slicers, to satisfy all of the key stakeholders - operations, engineering, maintenance, safety, quality - needs in mind," Randy Medina concludes.

CUTTING PIZZA TOPPINGS TO PERFECTION: MACHINE INNOVATION AND CO-CREATION

A variety of pizza toppings asks for a variety of cutting solutions. But machines alone cannot solve the

quest to find the perfect cutting

Photo: FAM Stumabo

solution. **FAM Stumabo** shares some of its ways to overcome the challenges of cutting pizza toppings. Cheese is a living product, which means it's hard to slice, and essential to take factors like temperature and age into account to create the ideal cutting circumstances. "We rigorously follow up on the cheese market because we want to ensure that our machines and knives generate the best results for the newest products," FAM Stumabo representatives say. "For cheese as a pizza topping, we see mozzarella and brand-specific blends as the most frequently used types of cheese. However, plantbased frozen pizzas are gaining popularity. Cutting vegan cheese requires a different approach. Traditional cheese consists of animal proteins, which do not cut well at a

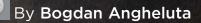


temperature above 7° Celsius. Vegan cheeses are vegetal fats and water combined in an emulsion, and we are still investigating which is the ideal cutting temperature for this type of cheese." FAM's top-level machines for cheese cutting are the Centris™ 400C Hytec with 16-station SureShred cutting head for centrifugal shredding of cheese, the Hymaks™, high-capacity cheese dicer with uncompromising sanitary design and the Flexifam 55 for medium-high capacity cheese dicing. "Next to cheese, meat - either traditional meat or the vegan alternative - is obviously a major ingredient of any pizza.. The favorite cut for pizza meat topping is the «coin cut» sliced pepperoni and salami. We have created a dedicated set of knives for the pepperoni that can deal with the occasional pepper grain, which is more challenging than meat. Furthermore, the V-belt of our FAM Volantis™ slicer combined with the angled cutting heads on the wheel ensures a very precise and consistent slicing. But also, meat and

poultry dices, strips and even shreds are popular meat toppings for which we have dedicated solutions with our CMD.2 drum dicer and Yuran™ Hytec belt cutter." When cutting meat products, temperature is critical. The high fat content forces you to cut at extremely low temperatures, in some cases even as cold as -15° Celsius. Otherwise, you would end up with some unsavory mousse-like result. But not every knife withstands such temperatures, FAM Stumabo representatives argue. "We have designed our so-called «golden knives» using a different metal alloy with a gold-like color, which is more resistant to extreme cold and cuts better through hard chilled and frozen products." The innovation in the vegetable arena is mainly in the wide variety of solutions for the same product. There is the very compact FAM Dorphy on the one hand and the gradually larger and more powerful Centris machines: FAM Tridis™ 180 and FAM Tridis™ 240. "Regardless of your choice, you will

always end up with consistently and perfectly cut vegetables. FAM Stumabo's uniqueness lies in the simplicity of design of their machines. There are no complex constructions to keep everything in place, and the spindles fit so well that it becomes effortless to clean and maintain. The centrifugal slicers and shredders are powered with GapSet technology meaning that the operator no longer must make adjustments to guarantee slice thickness consistency. All products which are fed into the machine will be processed to perfection. Waste is reduced to a minimum. Since our foundation more than 40 years ago, we have been growing our business significantly. We have been focusing on customerintimacy, knowing your produce, and thinking along with you for the most efficient cutting solutions for your application that helps you grow your business. Hence our firm commitment to food processors: «Together, we cut your product to perfection»," representatives conclude.







DIFFERENT TASTES, SIMILAR DEMANDS

Ingredients stand at the base of food production, and regardless of the actual product, focusing on healthy, origincontrolled trends are now paramount for all manufacturers. This also applies to gastronomies around the world, as the global consumer is more interested in what the label shows.

he global food ingredients market is expected to grow from USD42.88bn in 2021 to USD59.83bn in 2025, with a CAGR of 8.7%. North America was the largest region in the food ingredients market in 2020. Europe was the second-largest market in the food ingredients market, according to a report published by BRC. Based on application, although sales of food ingredients in functional foods will account for the smallest revenue share of the market, their sales are projected to register the highest CAGR through 2022. According to a new study by Persistence Market Research, in contrast, sales of food ingredients in frozen foods will exhibit the lowest CAGR in the market through 2022. In addition, sales of food ingredients in ready-to-eat foods and meat will reflect nearly similar CAGRs through 2022. However, revenues from ready-to-eat foods segment will remain comparatively higher than that of meat during the forecast period. Based on function, stabilizers, thickeners, binders, & texturizers, and emulsifiers segments are projected to exhibit similar CAGRs through 2022. Nutrients are anticipated to emerge as the fastest expanding

function of food ingredients over the forecast period. This growth of nutrients is mainly because of increasing demand for nutrient-rich food products from health-conscious consumers across the globe. Although sweeteners will account for the largest market revenue share, sales of food ingredients in nutrients will witness a sluggish expansion through 2022, the study shows.

A FOCUS ON "CLEANER" PRODUCTS

Frozen herbs are a health and sustainability benefit for the food industry, Herbafrost representatives point out. Because of regional crops in the immediate vicinity of Herbafrost's factories, the company can reduce its carbon footprint and produce "cleaner" products this way. Both Herbafrost's conventional range and its range of organic products are cultivated with the greatest care and processed into a readymade product. The range of herbal drops, both conventional and organic, is growing steadily. "An absolute added value to our range is the IQF herbal mixes, such as Italian Mix, Provence Mix and Salad Mix. They are perfect for elevating your dish to the next level,"

Herbafrost representatives say. "Especially the Mix garlic/parsley is booming, being ideal for barbecue and dressings. Also strongly catching on are the herbal drops. They are ideal for juices, dairy, and sorbets. Our herbal drops have a nice smooth and very fine structure and an intensive taste."



INNOVATIONS IN INGREDIENTS FOR MEAT & PLANT-BASED

Switching to meat, ingredients specialist Loryma recently showcased its broad portfolio of wheat-based solutions that meet the growing global demand for protein-rich, high-quality foods. These offer technological and sensory advantages for meat products, as well as to produce plant-based alternatives and hybrid applications. Loryma's new, sustainable, and economical options for the production of meat products or vegan and vegetarian products based on functional wheat ingredients include the innovative textures of the Lory® Tex range for hybrid and plant-based alternatives, as well as hydrolyzed wheat protein (Lory® Protein HII and HI2) for nutritional optimization. The extruded breadcrumb Lory® Crumb is the latest addition to the existing, comprehensive modular coating system, which also includes the starches Lory® Starch Saphir and Lory® Starch Brillant to improve adhesion of the breadcrumb to the substrate. In addition, Loryma offers further functional starches that can be used for different purposes: Depending on the production process, the wheat



starches Lory® Starch Elara or Lory® Starch Iris represent an alternative to the banned white pigment titanium dioxide for lightening meat products. The latter can also be used as a small-grain starch in the injection brines for improved texture and a higher yield. Lory® Starch Solaris is suitable as a high-performance binding and thickening agent for meat products and vegan recipes. Other binding and stabilizing systems for convenience and frozen products, such as meat kebabs or vegetarian versions, complete the range.

MORE FLAVOR TO THE MIX

Over the last few months, **Ardo** has been improving its range of fresh-frozen herbs. The company added more flavor

to some herb mixes, while others are completely new. All herb mixes are packed in easy to use 250g ZIP bags. The range features Herb mix alla Mexicana, 8-herbs mix (a versatile mix of green herbs is great with a whole host of fish dishes, salads, sauces and more. Perfect in the classic German green sauce known as Frankfurter Grüne Soße), Herb mix all'Italiana, Asian style herb mix, Thai style herb mix, Provence herb mix, Herb mix alla Napoletana, Persillade, Herb mix tartare, Scandinavian style herb mix (perfect for mussel and fish dishes, tzatziki, dressings and more), and BBQ style herb mix (a herb mix, but without the smokey flavor).





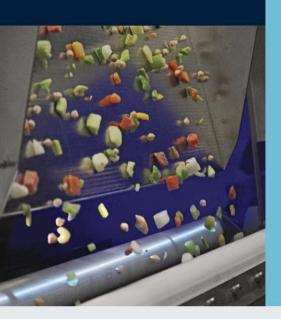
Optical sorters represent an ever-important step in the production of frozen food, and new or emerging technologies play a particularly important role in assuring steps such as foreign material removal. What are the latest demands brought forward by customers and how do equipment providers respond to them?

hen discussing the main benefits associated with an optical sorter in a production line, Ken Moynihan, the CEO of TOMRA Processed Food says that the typical benefits he discusses when consulting with TOMRA's customers are securing food safety; improving yield, quality and throughput while reducing labor costs; and innovative optimizations of other equipment throughout the line. "These benefits improve profitability and consistency, and because there is such effective control of food safety and product quality, optical sorters help protect and enhance our customers' brands." Food safety, he adds, primarily means removing foreign matter which comes

in with the product from the field. Things like mud, plastics, glass, wood, weeds, or any contaminants from issues in the process itself. Sorters can be located in different positions on the line to detect and eject these unwanted materials. "Product quality can be controlled according to several different criteria: appearance, color, shape, and size. Sorters can take care of all these factors. Even though Mother Nature can be fickle, producing crops that are not homogeneous, TOMRA's sorters make sure that quality is consistent, ensuring downstream processes are optimally fed and that the end product meets the specifications required by both the processing facility and its customers," Moynihan explains. "More than this, sorters are

also very rich and highly granular sources of data in the production line. Our sorters are designed to know everything there is to know about every single piece in the process and allow users to make effective decisions with that information. That rich data source can then be used to better understand the line performance across minutes, days and seasons, to understand better and optimize the process." According to him, the data gathered by sorters also gives processors objective information about what they are receiving from suppliers. This isn't only for supplier accountability - it can also help suppliers identify where to make improvements in growing and harvesting. In fact, by sharing data, all parties in the value chain can work

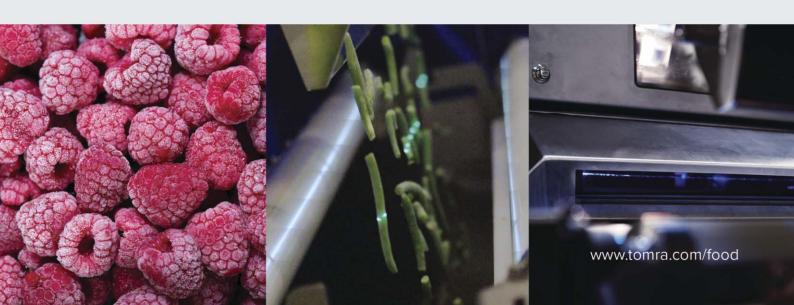




TOMRA 5C



Transforming global food production to maximize food safety and minimize food loss by making sure Every Resource Counts.



more closely together to optimize working practices. Regarding demands from customers, the CEO of TOMRA Processed Food says that the first, and universal, demand is that the sorters must perform to their full potential 24 hours a day, 7 days a week. "The sorter is in a missioncritical position in the line. This means that ease of use, very high machine reliability, and fast and effective service, supported by training and operational support services, are essential for our customers to consistently deliver their products safely and profitably." Looking forward, he adds, there is increasing pressure and legislation for growers to minimize or eliminate the use of pesticides, and this is bringing new challenges to processing lines. With organically grown foods, there can be cosmetically variable products that demand flexible and more powerful sorting parameters, and there is a greater risk of the product being harvested with extraneous vegetable matter, weeds, and bugs, which can all get onto the processing line. Some weeds, such as nightshade and datura, are toxic. This change means customers need sorting solutions capable of adapting to variable product appearance, and detecting and removing weeds even if they look very similar to the product. "Another pressure is the expectation

Consumers demand higher sustainability through the supply chain, which moves from retailers to processors. The fact that our sorters significantly reduce food waste and improve yields is desirable for both sustainability and profitability. Because there are so many variables, we aim to collaborate with each customer to identify exactly what they are trying to optimize, then calibrate their sorters accordingly. Our sorting machines are designed to be flexible and upgradeable in the future to keep pace with changing market needs."

ADJUSTING TO NEW TRENDS

Ken Moynihan points out that there is increasing demand for organic foods; for sustainability by reducing food waste; for confidence that there's no risk of allergens arising from crosscontamination; and for traceability. "More consumers want to know where their food is from and how it has been processed. As mentioned above, our advanced sorting technologies and our sorters' ability to gather data address these trends. Gathering, analyzing, and reacting to data is nearly always a missed opportunity today, and will become compulsory in the near future. This is why we introduced TOMRA Insight, a cloud-based service that unlocks the power of the data our sorters

food sorting processes in near realtime and in retrospect," he says. Because TOMRA Insight measures product quality continuously, machine operators are empowered to make prompt and optimal adjustments to machine settings in response to changes in product quality on the line. TOMRA's engineers help customers analyze critical data every month as part of the TOMRA Insight service. Accurate and timely comparison is now possible between multiple sites, shifts, batches, and seasons, to support better, data-driven, business decisions. Moynihan goes on to explain the importance of digitalization in TOMRA's machines: "At the lowest level, optical sorters have two functions: to individually understand each object in the product flow and then actuate and route that product to the right place in the line. Al technologies have been a key part of the TOMRA sorting technology for more than a decade, but recent breakthroughs in the field, supported by dramatic increases in computing power, are significantly improving the accuracy of how we understand each piece with data from

This is where

TOMRA strives to

work closely with

the customer - to









FROZEN FOOD



Accuracy and hygienic design will change the rules in frozen food quality.

The continuous research and development of new technologies is the core of Raytec's business. The company matured a long experience in X-ray technology for the inspection of canned food and is now able to provide a wide range of solutions in quality control custom projects. The significant growth experienced by the Frozen Food sorting market and the increasing demand from the Dried Food market have been an incentive for Raytec. This condition permitted to develop a revolutionary optical sorting machine, called DRYCE, especially conceived to check deep frozen and dried products.



DRYCE is able to reject all contaminants such as foreign bodies, color defects and rotten products in an extremely accurate way thanks to a 12 frequencies LED lighting system unique in the market. This innovative feature allows to discriminate between good and bad product on the basis of the product's optical properties. Light reflection, light transmission and fluorescence provide detailed information about the examined objects.

A double side view with 4 high resolution cameras, a 3-Way reject system and a smart-jet rejection system complete DRYCE's equipment, ensuring the highest standards of accuracy and safety. The machine stands out also for its innovative ultra-clean design complying with EHEDG standards, which dramatically improves sanitation to maximize food safety. Last but not least, it is particularly easy to use thanks to the new software UNYCO all-in-one, enabling to monitor the whole activity by means of a single e-board.



www.raytecvision.com

the wide range of sensors we use, and how our customers can easily and quickly change the sorting parameters to respond to incoming product changes and/or product specifications. There's more data, used in more intelligent ways, with easier and more meaningful user control," he adds. "TOMRA has a dedicated Machine Intelligence team who are focused on just this aspect of continuously implementing stateof-the-art techniques into our sorters. The enormous and rich datasets produced by these sorters through TOMRA Insight is a great example of Big Data, where mining the rich data using Machine Learning and Al techniques will provide novel and actionable insights to enhance how we think about optimizing line performance – a future for which we have already prepared our sorters to participate." Great service is a nonnegotiable in this industry, where the performance of the optical sorter is mission-critical, according to Moynihan. "We have been explicitly embedding a culture of customercentricity throughout our organization. When you work from the customer first, the opportunity to further enhance our offering and increase the value for our customers with advanced services is clear. The majority of our business is from repeat customers and great service is at the heart of that relationship. The trust in a true partnership takes years to build, is only really tested when times are difficult, and will be lost quickly if you are not there for your customer in the hard times. We know that, and have been investing heavily post-COVID to grow our service capability. With the current global shortage of talent that I'm sure your readers are feeling, it is taking more time than we would like - but our commitment is unwavering. Service is at the core of who we are and the essential glue in our relationship with our customers." Being close to your customer is critical to providing great service, so TOMRA has continued to grow its capacity closer to its customers. "Right now we have service technicians and parts inventory in all continents, additional efforts in place secure our customers against the

global supply chain crisis, and have 50 open positions in services to continue to grow our service capacity and capability," Moynihan points out.

SUSTAINABILITY GAINS MORE IMPORTANCE

TOMRA Processed Food's CEO believes that it is a general misconception that imperfect food goes to waste. "There is value in all food grown and our customers find ways to optimize that value. Using optical sorters, we can become much more precise with that optimization yields can increase, unpackable product can be recovered, product can be reworked, etc. A simple example: green beans with the stem attached will have the stem removed before they are returned to the line, processed potatoes will be optically sorted many times on their journey through the line, creating many of the different products we each consume every day." He adds that for each type of frozen fruit, frozen vegetable, or frozen meat, there are different ways of reusing raw material and optimizing what the processor can do with it. "This is where TOMRA strives to work closely with the customer to sort not only for safety and quality, but also for reduced waste, improved sustainability, and increased profitability. We also help processing facilities minimize their electricity consumption, energy and water by getting the sorting right first time and minimizing the need for reworking. Sustainability is at the heart of TOMRA, illustrated by our tagline: «Every Resource Counts». By working together with growers, packers, and food processors, TOMRA can help optimize food production, bit by bit. Focusing on customer needs and using the most advanced digital solutions can greatly reduce food loss and increase yield and throughput. This is good for our customers, helping to protect and empower their businesses, and good for reducing global food loss, which the world urgently needs." Frozen food producers will be interested in the recently-launched TOMRA 5C sorting machine. This greatly reduces the risks of consumer complaints or product recalls; enhances sorting efficiency and yields; has a hygienic

design which, compared to its predecessor the Nimbus, reduces cleaning time by about 35%; and has a capacity 5-10% greater than the Nimbus. The TOMRA 5C's sorting accuracy is made possible by combining high-resolution lasers with TOMRA's unique Biometric Signature Identification (BSI) technology. Every object passing down the line is assessed for its color and shape and biological characteristics. BSI clearly contrasts good and bad materials and is able to detect even smaller defects than those recognized by conventional spectral technology. Efficiency is also improved by connectivity to the cloud-based data platform TOMRA Insight. By accessing live data from the sorter, operators can make almost instant improvements to line efficiencies. To give just one example: when frozen vegetable products are mixed, this facility can ensure that each bag is packed with the right mix. "Keeping the TOMRA 5C running for optimal performance is aided by a Heartbeat feature, which gives one-click information about the machine's health status and automatically triggers alarms if there are faults," Moynihan says. "Cleaning is made easier, and uptime is increased by a hygienic machine design with minimal and curved surfaces and easy access. Operation is made easy with the well-proven TOMRA ACT user interface. And this machine has proven in validation that it can withstand the tough conditions found in IQF environments, with an ability to perform well in temperatures as hot as 50°C or as cold as -30°C", he concludes.

DRIVEN BY CONSUMER DEMAND

Key Technology, a member of the Duravant family of operating companies, introduced their VERYX® 2.0 line of digital sorters last year. Featuring a new mechanical layout, next-generation LED illumination, enhanced laser scanner technology, new powerful software driven by artificial intelligence (AI) and more, VERYX 2.0 advances high performance sorting of food products. VERYX 2.0 eases use, reduces operating costs and improves

SORTEX ColorCam+ cameras combine Bühler's extensive expertise in camera design with the latest data processing algorithms to achieve never-before-seen levels of clarity and definition.

Greater separation of good and bad product results in higher yields and better reject concentration, saving money and reducing waste.



Now available on the SORTEX FA, the SORTEX ColorCam+ cameras have shown significant improvements across a wide range of products with an average increase in yield of 1-3%, and false reject reduced by up to 50%.

Contact us now to upgrade your existing SORTEX F optical sorter or to enquire about a new one. sortex.sales@buhlergroup.com









the accuracy of foreign material (FM) and defect removal to optimize product quality and maximize yield. "Since its introduction six years ago, VERYX has earned a reputation as the most advanced sorting technology for the food processing industry and has achieved tremendous market success. Over that time, our focus on continuous improvement has led the VERYX family to evolve. Now, VERYX 2.0 presents the next step up in sort performance and process value," said Carson Brennan, president of Key Technology. "Driven by consumers that demand products of consistently high quality, the food processing industry is working to satisfy more stringent standards while improving profitability. VERYX 2.0 addresses these competing challenges." VERYX 2.0 features a new, optimized mechanical layout. The VERYX 2.0 belt sorters' architecture houses all utility components within the frame, eliminating the need for an external

enclosure. All door seals have been updated to a new patented design. Additional sanitation upgrades further ensure VERYX 2.0 can withstand even the harshest operating environments over long production cycles. A next-generation LED illumination system on VERYX 2.0 delivers higher intensity light with less scatter and reduced shadowing effects, which improves the sorter's FM and defect detection. Featuring components with up to twice the life expectancy of previous-generation LED lighting, Key's new LED illumination technology reduces operating costs at the same time it improves sort performance. VERYX 2.0 also introduces Key's enhanced laser scanner technology. New digital

resolution available while delivering a signal that is more accurate and consistent. As a result, VERYX 2.0 laser scanners create more contrast to better differentiate various types of objects, which enables more precise FM and defect removal while reducing good product loss and improving yield. Using AI technology, Key has enhanced the functionality of its FM Alert™ software for VERYX 2.0. FM Alert is a monitoring tool that sends alerts if a critical FM event occurs and records a time-stamped image of each critical FM object detected by the sorter. It allows an operator to verify the critical FM has been sorted out and enables the processor to understand FM trends and research sources of possible contamination onto the line. Al

consistently high quality, the food processing

standards while improving profitability. VERYX 2.0

industry is working to satisfy more stringent

addresses these competing challenges.

Carson Brennan, president of Key Technology







While freezing's main purpose is to preserve product quality over extended periods of time, requirements like advanced safety and hygiene have become paramount in recent years. This is nothing new, as attention to these issues have been on the checklists for decades, but recent years have put more pressure on manufacturers to deliver new, innovative solutions in this area. As such, new and more complex machines have been brought forward by major industry players.

EA has recently launched the new spiral freezer GEA ProEdge Drive at IFFA in Frankfurt, Germany. The GEA ProEdge Drive features a drum-free design using fewer components for a more hygienic and sustainable solution. Its innovative and patent pending spiral drive with robust sprockets ensures that the belt runs smoothly and extends the service life. This freezer fits perfectly for the processing of protein or products in the area new food as it particularly meets the desired requirements for high product yield. Standard ProEdge Drive Series models are suitable for 400mm-, 600mm- and 750mm-wide lines and offer freezing capacities of 460 to 3,600 kg/h of fully cooked products. This new alternative to traditional freezing systems with a drum-free design also offers more flexibility in adding tiers, increasing freezing capacity up to 12 percent for the same footprint. The reduction of the number of structural parts combined

with external drives makes it easier to clean and maintain, resulting in enhanced hygiene and a lower total cost of ownership. Another important aspect is that the drum-free design also makes production more sustainable, as the consumption of resources such as steel and other components is greatly reduced. The GEA ProEdge Drive is also an intelligent freezer system that provides perfect synchronization of the drives in all operating environments. The innovative and patent pending sprocket construction is a top performer, even under the most demanding cooling, chilling, and freezing conditions. The positive-edge drive limits belt tension and allows less product movement on the belt. This helps to preserve the product shape and ensures safe product handling with smooth, continuous product flow. Multiple belt

line. The GEA ProEdge Drive integrates GEA's latest freezer innovations: continuous monitoring and control of product frozenness with Callifreeze®, optimizing and control of the air temperature in the freezers with the dynamic IVS (Intelligent Valve System), and up to 14 days of operation without stopping to defrost with Sequential Defrost (SD) combined with Static Pressure Control System (SPCS) automated air balance.

SIMPLER AND **FASTER MAINTENANCE**

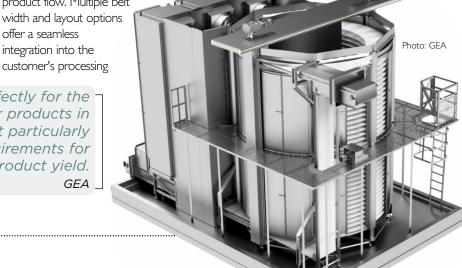
System customization, hygiene, ease of maintenance, operation in a continuous cycle, and high-quality freezing - these are the five winning assets of **Tecnopool**'s spiral freezing systems, according to



This freezer fits perfectly for the processing of protein or products in the area new food as it particularly meets the desired requirements for high product yield.

offer a seamless

integration into the







Meat patties



Smoked products



Fresh chicken fillet



Nuggets

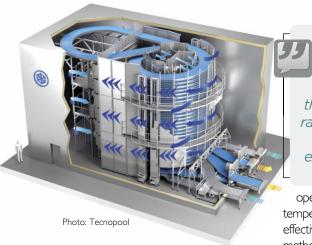
GEA PROEDGE DRIVE

A new alternative to traditional freezing systems

The GEA ProEdge Drive is a spiral freezing solution that is robust, reliable, and provides superior hygienic design and seamless integration into your processing line. The ProEdge Drive offers top performance under a wide range of cooling, chilling, and freezing conditions.







company representatives. Tecnopool's patented T-Worth technology ensures greater productivity and increased customer satisfaction in the field of frozen foods, and in particular in the growing ready-meals sector. Unlike conventional drum-based spirals, the T-Worth belt installed in Tecnopool's freezing systems is driven externally by a motor that is smaller in size and needs less power. This does not affect the system's performance, as friction is reduced and the belt is driven instead of being pushed, offering considerable advantages right from the design stage. In terms of readymeals, every producer has a specific set of requirements, depending on the type of product, volumes, and logistics. By eliminating the need for a central pivot, T-Worth technology increases the system's flexibility, enabling it to combine two separate lines with same-level entry and exit. Another distinctive feature of Tecnopool's freezing systems is the use of horizontal airflows that guarantee excellent freezing quality. The T-Worth system allows cold air to flow over the product, under the product, and throughout the spiral at a rate of up to 3 meters per second. With ready-meals, this characteristic is essential as it ensures excellent, rapid freezing while preserving the ingredients' flavor and organoleptic properties. Once in operation, every system must then be kept clean and in good repair. Tecnopool's technology offers further substantial advantages in these two strategic aspects of food processing. The entry of humid external air is limited by air cutting tools placed at the inlet and outlet ends of the belt to reduce frosting and maintain the high efficiency of the evaporators. "Moreover, for more than ten years now, Tecnopool has been using sequential defrosting evaporators that can be defrosted individually while the others continue

The T-Worth system allows cold air to flow over the product, under the product, and throughout the spiral at a rate of up to 3 meters per second, guaranteeing excellent freezing quality.

Tecnopool

operating, thus preserving the internal temperature of the cabinet and the effectiveness of the freezing process. This method allows the system to run in a continuous cycle, 24/7. The absence of a drum-based drive system for the T-Worth belt also allows easy access to every part of the freezing system, thus facilitating sanitization and achievement of the hygiene standards required by law for the food industry. Finally, easy access to internal spaces also guarantees another important competitive advantage, that is, simpler and faster maintenance, without the need to disassemble parts to access the area required. Every maintenance operation can be carried out from the outside of the spiral, thus also facilitating visual inspections."

MORE PERFORMANCE AND EFFICIENCY

For **Ashworth**, digitalization of technology is at the forefront. "It is after all, the future. For us, today's digital technologies enable decision makers to have access to all the information they need all the time, from anywhere, and from any device they choose," explains Jonathan Lasecki, director of engineering for Ashworth. As a manufacturer of conveyor belts, Ashworth supplies the belting used as part of typical processing lines. Easy-access and preventing unplanned downtime are the companies top two considerations toward improving performance and efficiencies, Lasecki says. "Ashworth offers our Smart Spiral® Monitoring System - an innovative

Ashworth offers our Smart Spiral® Monitoring System - an innovative solution that provides real-time remote monitoring of multiple spirals at different locations.

Jonathan Lasecki, director of engineering for Ashworth

solution that provides real-time remote monitoring of multiple spirals at different locations. This add-on data collection system monitors various key parameters from belt tension, system temperature, bearing wear and motor power draw which can be monitored with the base unit. Live data is collected and transferred via a proprietary application to a cell phone, tablet, laptop, or desktop computer where data can be viewed for trend analysis - all without having to use a company's intranet system." According to him, key set points can be set, and any deviation from those setpoints sends a message to the chosen device to indicate the system is operating outside set parameters. Multiple machines can be monitored in the same facility or at different plants allowing both site managers and corporate management access to machine parameters. Trend graphs are also available to indicate system performance which helps processors identify maintenance issues before catastrophic failure. This predictive maintenance saves costs by allowing for maintenance scheduling to make necessary repairs instead of emergency repairs. "Preventive maintenance becomes predictive maintenance where repairs are scheduled when needed rather than based on average component life. Preventative maintenance requires planned downtime to replace components long before they may reach the end of their useful life while predictive maintenance plans for replacement prior to failure. Predictive maintenance systems increase production time and reduce maintenance down time, improving profits for the processor," Johnathan Lasecki says. "Ashworth's development of the SmartSpiral system was developed to take the guess work out equipment failure. The system was initially released for use on spiral conveyor systems; however, we are open to working with customers to customize the system to their needs."







WE BUILD-IN HYGIENE VIDEO CONTROLLED - IN CONT

Ashworth belts are engineered to meet the most rigorous hygienic standards to provide belts and service that make food processing safe and efficient.

Eliminated areas where bacteria can grow

Strong, wear-resistant belt

Easy to clean



"GREEN" IS THE WAY TO GO

Frozen pizzas represent a very convenient solution, receiving an additional impulse during the 2020-2021 lockdown periods. And while sales have gone up all-around, some varieties seem to be getting more attention by the new, health-conscious consumer. In response, major manufacturers are bringing options that should cater to all tastes.

he global frozen pizza industry players are investing in R&D to develop generated USD 17.3bn in 2020 advanced freezing technologies, which in and is anticipated to generate turn, is presenting new opportunities for USD39.3bn by 2031, witnessing the growth of the market in the coming a CAGR of 7.96% from 2022 years. Based on crust type, the regular to 2031. According to a report by Allied thin crust segment held the highest Market Research, increase in disposable market share in 2020, accounting for income, rise in standard of living, health more than three-fifths of the global consciousness among the consumers, frozen pizza market, and is estimated to and surge in number of large retail chains drive the growth of the global frozen pizza market. Moreover, key segment is projected to manifest the

highest CAGR of 8.0% from 2022 to 2031 owing to its reduced calories as compared to the other stuffed and deep-dish frozen pizzas.



JUST FOR VEGANS AND VEGETARIANS

The "The Good Baker" pizza range from **Dr. Oetker**, launched last year, includes five varieties with a special focus on taste, nutritional values, and sustainability aspects. The exclusively vegetarian and vegan varieties of "The Good Baker" are marked with the green Nutri-Scores A or B in addition to the V-label. Additionally, the range features selected ingredients and a thin and crispy stonebaked crust made from different types of flour, grains, seeds, or with sourdough. "The Good Baker" uses no added sugars, artificial flavors or flavor enhancers. Instead, the ingredients list includes lots of colorful vegetables, plant-based proteins and, of course, cheese or a vegan cheese alternative, according to the company. The basis of the Margherita variety is a multigrain pizza base made from whole wheat, whole spelt and whole rye flours with additional flaxseeds. A topping of tomato sauce, mozzarella and basil rounds off the typical, puristic Margherita recipe. "The Good Baker" Margherita from Dr. Oetker carries the Nutri-Score B label. The indications "source of fibre" and "source of protein" on the front of the packaging make it clear that the product is suitable for everyone who places value on fibre and proteins in their diet. In addition, the variety also is provided with the vegetarian V-label. The dough used for "The Good Baker" Veggie Mix is made from wheat flour, whole wheat flour and sourdough. The latter gives the base a very individual flavor. The topping contains cherry tomato slices, grilled zucchini and peppers, marinated tomatoes, red onions, and black olives. The Good Baker" Veggie Mix carries the Nutri-Score A label, the indication "source of protein" and the vegetarian V-label. "The Good Baker" Meat-Free Bolognese is topped with a pea protein-based meat alternative, a tomato Bolognese sauce, carrots, mozzarella, edam and pecorino cheese on a multi-grain pizza base made from wheat flour, whole wheat flour, whole grain oats as well as whole grain barley flakes. In addition, sunflower seeds give the base its unique character. The variety is labeled with Nutri-Score A as well as the indication "high in protein" and the vegetarian V-label. Another variety is The Good Baker Spinach & Pumpkin Seeds (Pizza base



with oats). The dough's recipe is made of wheat flour, whole wheat flour and whole wheat oat flakes. Spinach leaves, marinated tomatoes, red onions and pumpkin seeds cover a tomato sauce and a vegan cheese alternative (based on coconut oil). In addition to the Nutri-Score B and the indication "source of fibre", the V-label on the front of the packaging makes it clear that this is a vegan frozen pizza. Finally, The Good Baker Broccoli & Mushroom (Pizza base with spinach) contains spinach which is added to the wheat and whole wheat flour dough that turns the base of "The Good Baker" Broccoli & Mushroom green. A topping consisting of broccoli, mushrooms, fine mozzarella, basil and garlic completes the vegetarian recipe. The variety has a Nutri-Score A, the indication "source of protein" as well as the vegetarian Vlabel. According to Dr. Oetker, from the very start, aspects of sustainability had a high priority during the development of "The Good Baker". In addition to a balanced nutritional profile and the positive nutritional properties of the selected ingredients, emphasis was placed on the most sustainable packaging possible: The cardboard used is certified according to the FSC® Recycled Standard and bears the corresponding FSC® logo. It is therefore exclusively made of recycled material and ensures responsible use of the world's forest resources. The transparent, ultra-thin film that protects the pizza from freezer burn and ensures transport safety is 100% recyclable, as is the box. In this way, "The Good Baker" is already contributing towards the goal of its own Sustainability Charter, to

completely eliminate plastic waste by 2030. By launching "The Good Baker", Dr. Oetker continues to live up to its commitments to introduce healthier alternatives for many products and to reduce greenhouse gas emissions.

GERMAN CONSUMERS CHANGE PREFERENCES

More and more consumers are asking

for vegetarian, vegan or lactose-free frozen pizzas, according to Christoph Schramm, founder and CEO of Gustavo Gusto. "The trend will continue this year. More and more people in Germany are eating a vegan or vegetarian meal. Around 10 million now eat no meat or fish or no animal products at all. And also the number of the so-called Flexitarier/inside grows. More than half of the population describes itself as flexitarian. Overall. demand for frozen pizzas has grown in Germany over the past 12 months. This was due to the COVID-19 pandemic, but also to new varieties. Eight of nine Gustavo Gusto frozen pizzas are lactose-free. Only the «Spinaci e Ricotta» pizza is classified as not lactosefree due to the use of ricotta. Vegetarian are the three Gustavo Gusto frozen pizzas: Margherita, Quattro Formaggi and Spinaci e Ricotta." For the first time in Germany, Gustavo Gusto is offering a frozen pizza consisting only of the pre-baked pizza base and a fruity tomato sauce, Christoph Schramm says. "Our latest product is a frozen pizza under the name «Pura». In other words. the basis for a pizza that customers can then customize according to their own tastes." Regarding technology, Christoph Schramm says the company uses







machines "where it does not harm our product. We are oriented to the way the pizza is made and do not adapt the pizza to industrial production. This would harm the quality of our frozen pizzas." The company expects continued high growth over the next two to three years and want to further expand its market share in Germany, Austria, and Switzerland. "We also recently launched successfully with Flink in the Netherlands. Our internationalization strategy is to expand into further countries in Europe."

BRINGING AMERICAN FLAVORS TO THE UK

Nomad Foods-owned Goodfella's has also added to its portfolio with the launch of three new HFSS compliant SKUs. The new Stonebaked Thin Sloppy Joe Pizza combines two classic American dishes into one, providing a twist on the popular dishes to tap into the shopper demand for indulgent pizza. Launching exclusively into Iceland from mid-April before rolling out more widely later this year, the pizza plays into Goodfellas' Italian American heritage with the authentic Italian style tomato sauce, mozzarella, spicy minced beef and diced green peppers on a stone baked thin pizza base. "As a major player in the UK's frozen pizza category with 19.5% value share, we're committed to leading the way with innovation that continues to deliver great tasting, quick and simple meal solutions for consumers. We've carefully developed our latest recipes so that we can provide retailers with HFSS compliant options of shopper's favourite toppings as well add exciting new variants that will grow the category even further," Nicola Bates, senior brand manager at Goodfella's said. Goodfella's are also rolling out a new Stonebaked Mushroom, Spinach and Garlic pizza,

which takes a fresh spin on the popular mushroom pizza. Having undertaken extensive qualitative and quantitative research, the launch looks to tap into demand for vegetarian option pizzas, which was voted as the number one topping of choice. During testing, the NPD has outperformed a leading branded competitor mushroom pizza when tested directly, scoring significantly better versus competitors across appearance, overall liking

EASTERN
EUROPE
COMPANIES
TAKE
A STEP
FORWARD

and overall flavour.

Romania-based **Verdino** has also brought new products on the German market and is now listed in Edeka with five veggie pizzas. Various cold cuts and grilled products are to follow, according to a press release. Verdino is a Romanian company that made cured meats until 2018 when it decided to focus exclusively on plantbased products. "In 2019, we took a huge step, like the one on the moon, and tested the abilities of pea proteins. We did not creat a product, but an entire market," the

company says.

From February,

the German

subsidiary's operations began in several metropolitan areas, including Berlin, Stuttgart, and Hamburg. Verdino Germany, based in Berlin, also sells the Unfished brand fish alternatives, which are already on the market nationwide. Besides Romania, Verdino conducts business in Serbia, Spain, Switzerland, the Netherlands, and Great Britain.



La Pinsa Romana

It's not a Pizza, it's a PINSA

The great Italian and international success of the Pinsa is to be found in the general health trend which tends to reward those products characterized by eating healthily and genuinely. The lightness of the Pinsa derives from a higher hydration of the dough unlike traditional pizzas, and therefore a better digestibility. Consequently, the type of water used to make a Pinsa is a fundamental element to obtain its taste. Even the ancient Romans, from whom the recipe comes, knew its lightness, so much so that they used the Pinsa in its original oval form, like an edible dish on which they spread the main dish, usually meat or fish. Svila, the company that has been producing exclusively bakery products, for over 45 years, masterfully approached the ancient Roman recipe of Pinsa, maintaining all the features connected with tradition. The company is nestled in the Sibillini mountains, where the air is always sparkling, and the pure water has always distinguished all its production, guaranteeing an index of lightness and purity among the highest in the category.

The lightness and tastiness of Svila Pinsa is also the result of the raw materials used: a mixture of wheat and cereal flours, carefully selected, which make the product crispy on the outside but extremely soft inside. The high digestibility of the Svila Pinsa is guaranteed by an exceptional water that perfectly hydrates the dough, by a very long leavening and above all from the "pinsatura" made by hand, without ever stressing the base. It is this slow movement that brings us back to the real name of Pinsa, which comes from the gesture of stretching, of enlarging, in fact the Latin word is "pinsere"!

When you cut a Pinsa produced by Svila, you already recognize the quality by eye: the presence of its innumerable alveolus represent the essence of its lightness. The crunchiness of its crust preserves the secret of softness! Svila has been producing baked products every day for 45 years. Millions of hours of experience that pass through wise daily gestures. The choice of excellent raw materials, is combined with a constant care for product control. Because everything done in Svila, before others, is eaten by them and their children. This is their quality assurance!

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Propelled by lockdowns, more time spent at home, the closure of foodservice and the desire to reduce food waste, sales of frozen foods in Italy reached historic heights in 2020 when, for the first time, the per capita consumption exceeded 15 kg. Today, almost all Italians (98%) consume frozen foods and this applies to all age groups, geographical areas, and types of family, without exclusions. The figures come from a March 2022 study conducted by the IIAS - Italian Institute of Frozen Foods and the research company BVA-DOXA. The aim was to reveal Italians' approach to the consumption of frozen food.

rom 2020 to today, more than half of Italians (54%) have increased their consumption of frozen foods (18% considerably and 36% moderately). This was more evident in the South than in Northern Italy and among young people and in families with young children. The latter, together with the under 35s, are the most frequent users of sub-zero products: they consume them on average more than 2 times a week (about 2.44). "Over the last two years, our relationship of trust with frozen products has been strengthened, as we now recognize their high quality and safety. In fact, a «culture of frozen food» has spread, which has help integrate frozen food

into our routine as a food that can help healthy choices, even for the nutrition of children. If variety is the first rule of a healthy diet, there is no doubt that frozen food has contributed to bringing some foods back into the daily life of many families. Due to their preparation time or cost, these were consumed less than nutritional science recommends," Giorgio Donegani, president of IIAS explains in the report.

A MORE VARIED DIET

According to the study, the increase in the consumption of frozen foods is also reflected in an increase in variety: 3/4 of the interviewees (74%) declare that they have put in their freezer products that they have never tried

before: from vegetables to snacks, from pizzas to fish, and ready meals. Frozen vegetables, fish, and pizzas are confirmed as the "must have" products, always present in our freezers, even after the pandemic. But with some differences: sub-zero vegetables are the most loved by singles and couples without children (44%), while frozen fish products have conquered more and more families with children (40%), generally situated in central Italy. Pizzas, snacks, and fried potatoes were noted as favourites by 26%, rising to 29% in the Northeast and 30% in families with young children. There is no shortage of ready meals in the freezer of Italians (13%), practical foods that continue to be chosen even after the first phase of

the pandemic and which are more present in the freezers of singles without children (16%) and in central Italy (15 %). In the freezer of families with older children, on the other hand, there is room for all frozen products in equal measure: 30% buy from fish to vegetables, from pizzas to snacks. Finally, four out of ten Italians (43%) declare that they also independently freeze food to stock up (such as bread, meat, sauces, or other home-made preparations). For all product categories, the main purchasing driver for Italian consumers is the practicality (70%): this is especially the case for women, in the North-East and in the age group between 35 and 54 years. This is followed by the possibility of varying the menu (37%), as declared in particular by families with young children, and of reducing waste (25%), to which couples without children show great attention. The nutritional content is also significant: 22% consider frozen foods to be similar to fresh products in this respect and convenience (22%), especially in the South and in families with children. Finally, for 17% of the sample, frozen food is also an aid to saving: this is confirmed in particular by the under 35s and single people without children. At the beginning of the pandemic (in 2020), Italy was among the European countries where e-commerce in the grocery sector grew the most: around 60%. Online shopping for food products sold by supermarkets has doubled, surpassing the share of food delivery (increased by + 46%) and reaching the value of EUR921m. In regards to frozen products, online sales in 2020 reached record figures: + 145% in volume and + 152.4% in value. And the positive trend also continued in 2021, when there was an increase of +20.6 in sales in volume and + 17.4% in value, the study shows.

MILLENNIALS ARE EMBRACING FROZEN FOODS

A December 2020 study focusing solely on millennials, also in collaboration with DOXA, revealed that vegetables are among the foods and recipes most loved by this demographic group. This applies to both regular vegetables - in particular spinach - which are the favorite for 1 in

of Italians declare that they independently freeze food to stock up.

the behavior of under 40s with respect to the consumption of frozen food "away from home". The first finding is that everyone knows (97%) that frozen products are used in bars, cafeterias, and restaurants. A figure that does not particularly affect consumers, given that



2 millennials (48%) - whether they are leguminous such as peas and green beans (30%). Next comes fish, processed (46%) and natural (42%), followed french fries (35%) and pizza (25%). Convenience remains the number one driver, as half of Italian millennials resort to frozen foods because they have little time available. The Doxa - IIAS survey also analyzed

60% choose what to eat or not at the restaurant regardless of whether it is a frozen food. Millennials attribute the use of frozen food in the kitchen by restaurants, firstly, to having products available all year round (71%), then to reducing food waste (39%), and then to a food safety issue (25%). ■



A CATEGORY THAT KEEPS ON GROWING

With its many recipes and varieties around the world, pasta remains one of ultimate comfort foods, a quality which was highlighted during the past 2 years. Sales have gone up, regardless of consumer preference towards classic pasta or those using more innovative, such as cauliflower, and predictions show an upward trajectory for the vears to come.

tatista's figures predict that, after touching USD I 23bn in 2021, global sales of pasta will continue to grow by 2.35% per year over the next four years. For the current year, the largest global market is expected to be China, which is worth almost USD25bn. On average, each global consumer eats 7.7 kg of pasta and spends USD I 6.30 on it. According to data from Unione Italiana Food partner of TUTTOFOOD - 2020 was a golden year for both domestic consumption and exports. Over 50 million more packages were sold in the country, with peaks of around +40% in March and +10% between October and November, and exports grew by 16% to over EUR3.1bn. The US has become the world's largest consumer of Italian pasta, thanks to a record +40%, overtaking France (+4.3%) and Germany (+16%). Great results also came from Great Britain (+19%) in spite of Brexit.

in customer consumption choices, and definitely the outbreak of the COVID-19 pandemic reinforced, and maybe accelerate, this trend," Surgital representatives say. More aware of the impact that daily choices have on the environment, consumers are more and more looking for plant-based options both at home and in restaurants, they add. "With the increase in dietary restrictions and the customer's attention increasingly focused on product quality, we have decided to integrate inside Laboratorio Tortellini®, a new pasta format, made from vegetables and legumes. Vegetable, peas and lentils

linguine are a light and gluten-free version bn USD was the value of global pasta sales in 2021.

of the traditional Italian egg pasta, already suitable for a vegetarian diet. Perfect to complete your menu with a vegan and gluten free option, delicious, even for the most demanding palates." Surgital representatives argue that the reopening of the foodservice sector has certainly marked an important restart for the frozen pasta market. "QI of 2022 has certainly shown us the desire of all local businesses, to return to full capacity as soon as possible and make up for lost time. The current political tensions are certainly throwing various obstacles to achieving this goal, from the difficulty of recovering raw materials to the incredible level of inflation. The added value of the frozen product certainly put us in a more favorable position compared to fresh products, as the 24-month shelf life of many of our products allows the customer to work with greater serenity and better manage his investments in



uncertain times like today." Italy remains the main market for Surgital, source of 60% of the company's turnover. The 2022 goal, however, is to increase the weight of foreign countries by strengthening the main markets which in Europe are France, Germany, England and Spain.

INNOVATIONS AROUND THE WORLD

Fresh frozen pasta brand Beroni is manufactured in the UK by **Ebrofrost**, which has supplied fresh frozen pasta to restaurants around the world since 1998. Beroni pasta dough is freshly prepared by mixing the finest French durum wheat semolina with water, according to the company. The fresh dough is then shaped through the finest bronze die-cuts into its penne, fusilli or macaroni format before being perfectly cooked 'al dente' then immediately frozen to preserve its freshness. Nissin Foods Singapore have launched "Nissin Frozen Pasta" (Spaghetti with Garlic Mushroom, Spaghetti with Bolognese Flavour, Spaghetti with Clams and White Wine Sauce Flavour, Fettuccine Marinara) last

With the increase in dietary restrictions and the customer's attention increasingly focused on product quality, we have decided to integrate inside Laboratorio Tortellini®, a new pasta format, made from vegetables and legumes.

Surgital -

year. Designed to provide convenient instant meals for busy professionals, Nissin Frozen Pasta features flavourful pasta sauce, delicious ingredients as well as smooth and chewy pasta all within a single eating tray, the company says. Starting with the frozen original egg noodle, US-based Marzetti Frozen Pasta has now expanded for foodservice applications into a wide variety of convenient precooked products that deliciously save time and labor. Preparation with our precooked products is fast, easy, convenient and with little or no waste. Finally, a company



riding the plant-based trend is **Caulipower** with its cauliflower pastas that are made with real cauliflower. They are a good source of fiber, have no added sugar, and no artificial colors, flavors or preservatives. These have just 230 calories per serving - the lowest in calories of any pasta in the grocery store. As previously mentioned, they have 48% more fiber than regular pasta.

Caulipower's pastas cook from frozen to al dente in just three minutes.







BETTER JRGE

Burgers continue to undergo premiumisation at the retail and foodservice levels.

he popularity of burgers as one of the world's most popular meal centres shows no sign of abating. Although the sector suffered to some extent during the pandemic and the subsequent closure of many foodservice outlets, further growth is expected to result from the ongoing evolution of the market, encompassing a greater range of proteins and toppings. Burgers remain a staple of the global foodservice industry, even though many of the more recent establishments have diversified slightly beyond the traditional confines of the quick service restaurants (QSR) sector. The market has also benefited from the suitability of burgers for images on social media platforms such as Instagram. According to research carried out in the US by Technomic in 2019, 56% of consumers claimed to eat burgers at least once a week, a figure which increases to 62% for those aged between 18 and 34. In the UK, meanwhile, an estimated 2.5 billion burgers are eaten every year, equivalent to 52 per capita or one per week. Research carried out on behalf of Tesco in 2021 found that around a quarter of UK consumers described burgers as a foodstuff they would be unwilling to live without.

Beef remains the choice of protein for many consumers, although the premiumisation of the market has seen more suppliers placing added emphasis on the provenance of their meat - this has been reflected in the marketing of beefburgers carrying labels such as Angus, brisket and Wagyu, as well as products sourced from grass-fed herds. However, another recent trend has been the emergence of a greater range of meats used in the manufacture of frozen and chilled burgers – examples include chicken, turkey, pork, lamb and venison. To these can be added various forms of fish and seafood (with salmon one popular choice) and the burgeoning range of meat-free burgers made from vegetables and other plant-based ingredients and derivatives.

As the market has evolved, so too has the range of toppings used for burgers. In most western markets, the traditional favourites such as cheese, bacon, pickles and various condiments (mostly ketchup or mayonnaise) still hold sway. As consumer tastes have become more cosmopolitan, however, toppings such as avocadoes, coleslaw and eggs have increased in popularity. The greater influence of ethnic cuisine upon the market has resulted in greater adoption

of toppings like jalapeno peppers, chillies, soy sauce, Habanero relish and mango salsa.

The premiumisation of the burgers market in Europe and North America is best illustrated by developments within the foodservice industry as it recovers from the effects of the pandemic. During 2021, McDonalds announced it was to trial a new Signature Collection menu in 28 of its UK outlets. The menu, which was created by the company's in-house chefs and food specialists, included burger varieties such as The Classic, The BBQ and The Spicy. Competition for McDonalds within the UK market remains strong, especially since the US chain Wendy's returned to the country in the summer of 2021 after an absence of 20 years. As of March 2022, Wendy's had opened six outlets in southern England, although it plans to increase this number to 400 in the future. Carl's |r, which is another US-based QSR chain, has also announced plans to enter European markets such as the UK and Germany. The company is owned by CKE Restaurants, which operates over 1,000 outlets in 40 countries, all via a franchise model. It is already present in Western European countries such as France, Spain and Denmark, and plans to reinvigorate the QSR sector, since its prices are comparable with rivals such as McDonalds and Burger King. Burgers

represent one of the company's specialities, examples of which include Angus Beef, Beyond Burger (which is a plant-based variety) and breaded and chargrilled chicken burgers. In Eastern Europe, meanwhile, Burger King increased its offerings within the premium burgers sector in Romania towards the end of 2021. The two new gourmet burgers were King's Whiskey BBQ and King's Chimichurri, the latter of which features a uniquely flavoured sauce associated with Argentina. At the retail level, many of Europe's leading producers of frozen foods include meat-based burgers within their respective portfolios. The Birds Eye brand owned by Nomad Foods, for example, includes frozen beef burgers available in varieties such as Premium Beef Quarter Pounders and Beef Steak Burgers. Nor is its range confined to beef - also available under the Birds Eye brand are Ultimate Fillet Burger and Sizzler Burger, which are made from chicken. The same company's Iglo brand also encompasses meat-based burgers in various European markets - one example is the Ping & Ready Burger sold in the Netherlands, which features a herb butter for additional flavour.

THE BARBECUE INFLUENCE

Consumption of frozen and chilled burgers (both meat and plant-based) remains strongly influenced by the barbecue and outdoor cooking market. This sector was one of the major beneficiaries of the lockdown measures introduced throughout Europe and elsewhere during 2020 and 2021 to curb the spread of Covid-19, as more people began entertaining themselves in the home with outlets such as pubs and bars closed. During lockdown, barbecues and in-home eating became the number one home leisure activity in countries such as the UK over the summer. Demand for barbecue foods is also shaped by the weather and climate conditions – in 2021, the European summer was the warmest on record, with many long-lasting heat waves. The

temperature was I degree Celsius above the average for the 1991-2020 period, while Italy's Sicily region experienced a provisional heat record for the region of 48.8 degrees Celsius during August. Another major driver of the market for barbecue foods is the occurrence of major sporting events based around football, athletics, etc. The delayed Euro 2020 football tournament took place in 2021, although the 2022 World Cup in Qatar is not due to begin until November, as the country's summer climate is considered too hot. In recent years, the UK has assumed the position as Europe's leading barbecue nation, ahead of Germany. An estimated 75% of the country's households now own some form of barbecue grill, with between 150 million and 200 million occasions hosted during a typical year. In addition to the reasons mentioned previously, much of the growth in recent years has been driven by the emergence of more sophisticated outdoor cooking technology and the fact that barbecues are no longer seen as a predominantly weekend occasion. Lockdown contributed towards the growth in popularity of barbecues in 2020, during which time the number of occasions soared by 40% with much of the

from GBP16 five years previously and illustrating now consumers are now actively seeking out more varied and premium products when hosting events. The UK market continues to witness a trend towards barbecue cooking styles and recipes from a wider range of geographical regions, with the Caribbean, Mexico, North and South Africa and the southern US styles well to the fore. Beef remains the UK's most barbecued form of meat, with products such as burgers and steaks continuing to feature strongly. According to data from the Agriculture & Horticulture Development Board (AHDB), sales of chilled burgers between April and August in 2020 increased by 63% compared with the previous year, which serves as an indication of their enduring popularity during barbecue occasions. A sizeable increase in sales was also reported for meat-based items such as steak and sausages. The greater premiumisation of the market for burgers has been reflected in the adoption of terminology more often associated with steak within the retail sector – one example is Hereford 30 Day Aged Beef Steak Burger from Waitrose.

amounted to GBP42.50 in 2020, up



www.frozenfoodeurope.com

56% of US consumers

of US consumers claimed to eat burgers at least once a week.



Although meat continues to represent the central menu item of most barbecue occasions in countries such as the UK, opportunities continue to exist for meat-free products. An estimated 40% of the UK's barbecues now include vegetarian, vegan or plant-based options, according to latest data.

THE EXPANDING MEAT-FREE SECTOR

The popularity of meat-free diets continues to increase across much of Europe. Much of this is driven by the trend towards healthier diets, as well as concerns over the environmental effects of animal farming. According to research from Veganz, the number of vegans in Europe doubled from 1.3 million to 2.6 million between 2016 and 2020, to the extent that this consumer group now accounts for over 3% of the regional population. Almost one-third of Europeans no longer consider themselves exclusively meat-eaters, while flexitarians (i.e. those seeking to reduce meat consumption while not eliminating it entirely) now make up 23% of the European population. At 32%, the percentage of the population classifying themselves as flexitarians is highest in Austria, ahead of Germany (30%) and Portugal (29%). Adoption of plant-based diets is expected to continue across much of Europe - by 2025, it is forecast that vegans and vegetarians will account for 25% of the total UK population. This projected growth in demand for products targeted at vegetarians, vegans and those looking to reduce their meat intake is expected to shape new product activity within the burgers market for the foreseeable future. Within the foodservice industry, McDonalds launched a new McPlant burger in 2021, which was developed in collaboration with Beyond Meat. To celebrate National Vegetarian Week in the UK during May 2022, the price of the McPlant burger was reduced from GBP3.49 to GBP0.99.

The UK market for meat-free burgers looks set to undergo further growth with the anticipated arrival of Impossible Foods later in 2022. This company has sold its meat-free burgers in the US since 2016 and is also present in overseas markets such as Australia, New Zealand and the United Arab Emirates (UAE). The key ingredient within its burgers is soy leghemoglobin, which results from implanting soy genes into genetically engineered yeast. This creates an iron-rich meat-like flavour and colour, so that its burgers appear to 'bleed' when cooked. At present, Impossible Foods is awaiting regulatory clearance from the UK and EU authorities for the soy leghemoglobin ingredient. One of the leading suppliers of meatfree burgers at the retail level is Nomad Foods, via its Green Cuisine range. This appears across Europe under brands such as Birds Eye, Iglo and Findus and represents the region's fastest growing within the market for frozen meat-free products. The Green Cuisine range comprises plant-based products such as burgers, crispy grillsteaks, sausage rolls and breaded foods (e.g. chicken-style nuggets and fishless fingers). During 2021, it was estimated that an additional of UK households own some form of barbecue grill.

2 million UK households purchased Green Cuisine products, while the brand is now valued at almost GBP I 8m at the retail level. A new campaign launched early in 2022 during so-called 'Veganuary' aimed to attract more meateaters by stressing that the strict adoption of a vegan diet was not necessary to buy into the concept of Green Cuisine.

Another company with an expanding presence within the meat-free burgers market is Kerry Group, via its Richmond Sausages business. Although the company is best known for its iconic sausages, its range was extended in the autumn of 2020 with burgers made from soya and wheat protein. During the first month of 2022, its meat-free burgers experienced an 82% uplift in sales, compared with 42% growth for its overall meat-free range.

Elsewhere in Europe, Germany's Frostkrone Food Group launched a new range of frozen plant-based foods under the Really brand at the beginning of 2022. This initially included Vegan Beef Burger and Vegan Chicken Burger. Later in the year, new frozen burger patties were added to its range, namely Vegetable Burger, Sweetcom Burger and Barbecued Gouda Patties, which combined Gouda and Cheddar cheese in a coating of potato flakes.



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Multifunctional Cooking Devices



By **Dieter Mailänder,** mailänder marketing

VERSATILITY IS THE TRUMP (ARD)

Kitchen devices that combine several functions always then come back into focus if the space conditions are very limited or the costs of large spaces of the kitchen operations burden its profitability and this is why they should be reduced. The manufacturers of hot air ovens and pressure cooking devices are still leading in speeding up the development of multifunctional devices. But producers in the other market segments are following them.

afety first! Many head chefs follow this motto. They are convinced of being on the safe side if they cover each cooking function with an own device. Then: With certain modifications, they are able to cook many dishes on different devices and therefore make provisions if some of the equipment malfunctions. This mind set is understandable for such operation which

- Have enough space in their kitchen
- Don't burden their operating income with the imputed costs for the used space and
- Have enough capital for a large equipment park for which they don't have to cover the imputed costs as well.

Especially in rural areas, space is usually no bottleneck factor. This looks completely different in urban centers like London, Paris or Amsterdam. Buyers of apartments have to frequently pay astronomical prices per square meter. Two examples from a neighboring real estate sector: Zurich is the seventh most expensive city in the world and the most expensive one in Europe just ahead of London. A square meter of living space in the Swiss metropolis costs just under EUR18,000, in London EUR17,000. In comparison: the sellers in Paris or Amsterdam call for EUR13,300 resp. just under EUR10,000. The situation for commercially used real estate is perhaps somewhat more

relaxed but will probably not differ fundamentally. Space is and remains an extremely scarce product.

IN THE HAMSTER CAGE

Whoever works in kitchens of high-rises is moving in hamster cages. Let's take an office tower with 18 floors outside of the center of a European metropolis, therefore without a trace of culinary infrastructure. Let's assume that 900 to 1,000 people work in it. They have to be provided with food and beverages at the workplace. The management has set up a conference, hospitality, and restaurant area for employees, conference participants, and visitors on one of the uppermost floors for this reason and reasons of representation (meetings with business partners). Of course, under such conditions, the architects and kitchen

planners have undertaken all possible efforts in order to keep the production space of the kitchen as small as possible: perhaps only a few square meters fully packed with multifunctional high-tech equipment – similar to what is on a cruise ship.

MINIMIZE SPACE, REDUCE COST ALLOCATIONS, OPTIMIZE PROFITABILITY

But there are other reasons for installing this kind of versatile equipment as well. In companies that are managed economically, it is common that not only the costs, which are accrued in connection to their performance (direct costs), are attributed to a service cost center. Rather the overhead, at least certain parts of it, is partially allocated to each square meter of the used space.





These shared costs can have a not inconsiderable impact on the economic viability of the operation.

Few years ago the catering manager of an automobile plant, who took over her new task, was being faced with such a constellation. She pondered intensively how she could noticeably reduce the space of her operations in order to lower the imputed costs. One of her essential measures entailed in replacing the entire traditional cooking technology with hot air steamers and pressure cookers and reorganizing the entire workflow.

MULTIFUNCTIONAL BASIC TECHNOLOGY: HOT AIR STEAMING

Manufacturers of hot air steamers, especially the world market leader Rational, have driven forward the development of different cooking functions in a single device energetically and consistently. State of the artequipped devices cover the basic technical functions in cooking, namely cooking and roasting at different temperatures and moisture levels. In addition to this the producers have made enormous development leaps in technology like control engineering last but not least by the development and use of Artificial Intelligence (AI) and Big Data. Innovative controls by sensors make it possible to redefine the process steps of the devices and record different production parameters (among others the cooking degree, moisture, browning, or air guidance). Kitchen professionals can either call up complete programs, i.e. retrieve closed processes, or influence single parameters individually. With this technological support, cooks are able to roast, sauté, grill, braise, simmer, steam, blanch, stew, or poach in

one device. Programs for long-term cooking processes at low temperatures can also be used. This range was unimaginable at the time of the market launch of hot air steamers at the beginning of the last 70's. Not all of the manufacturers of such devices cover all of the technological possibilities completely. Some have developed special expertise. Whoever purchases a new device is well advised to interview colleagues in other operations about their experiences. You should make a detailed comparison of the features of several producers, and your best bet would be to test the device in everyday operations be-fore your purchase.

SISTER TECHNOLOGY: PRESSURE COOKING

Manufacturers of hot air steamers have been working on a second technology for many years: pressure cooking. It enables particularly gentle cooking of different components like meat, fish, vegetables, or filling side dishes in a combination made of high pressure and high temperature - gentle with regard to nutritional values and culinary art. In addition, different zones of pan bases can be controlled individually so that the different food to be cooked can be finished simultaneously. As with hot air steamers, the cooks can use different technologies with pressure cookers too: for instance, cooking, roasting, deep-frying or high-speed cooking.



OTHER PRACTICAL APPLICATIONS

But there is multifunctionality in other areas of cooking technology as well. A device from the Italian manufacturer, Unox Spa, combines for example, the technology of hot air steaming with that of cooking with microwaves. In the function "Hyper-Speed", boiled potatoes can be thoroughly cooked in only 420 seconds. Multifunctionality is an important topic for Rieber/Germany too. The compact tabletop device K-Pot (I/I-GN) has two separated controllable zones over a ceramic hob that can be controlled electronically. Food can be cooked, steamed, roasted, or grilled in it. Transporting, regenerating, keeping warm at in-dividual temperatures, and serving are other functions. Therefore, the K-Pot can be used both stationary and mobile in event catering or the banquet business. Even manufacturers of combi devices for blast chilling and shock freezing have extended the spectrum of their applications extensively. Beyond cooling technology, they offer functions like defrosting, cooking at low temperatures, or keeping warm.

In dishwashing technology, there are developments in the direction of multifunctionality too. Smaller operations or those which have to save space, often have the desire to clean all of their items to be washed in one machine. That's why the German manufacturer, Winterhalter, has developed a hybrid hood machine which can process plates, pots, pans and kitchen utensils as well as delivery trays, GN Containers and European standard crates for this demand. Multifunctionality is currently still primarily a topic in cooking technology. But the example of dishwashing shows that it is relevant for other areas too.

ANUGA FOODTEC OFFERS AN INNOVATIVE TRADE SHOW FORMAT

Koelnmesse opened its doors in April, Anuga FoodTec again becoming the meeting place for the food and beverage industry, this time in a more digitalized context.







or four days, from April 26 to 29, 2022, the industry met with its supplier sector at Anuga FoodTec - Special Edition - in Cologne. A total of around 25.000 trade visitors from over 120 countries were counted. The attendance from other European countries and from Germany was very strong. Visitor numbers from the Middle Fast and some African countries were also gratifyingly good. The proportion of visitors from abroad was around 57%. As the most important platform of the year, Anuga FoodTec thus successfully arranged the re-launch of the entire industry. The great need for investment and, at the same time, the high level of willingness to invest on the part of the inquiring industry was expressed, among other things, by the fact that many of the managing directors and plant managers who attended approached the exhibitors with concrete project ideas. In some cases, machines and equipment were even purchased on the spot. The current world situation has increased the need for answers to questions in areas such as energy efficiency, resource conservation and sustainability. In addition to key players, numerous medium-sized companies, smaller specialists and 28 start-ups also

showed innovative concepts tailored precisely to the industry. "Smart Solutions - Higher Flexibility" was the highly relevant guiding theme of the trade show and its extensive technical program, which was very well received by the international audience with over 200 specialist events. The DLG played a leading role, using its expertise to organize the numerous events in a variety of formats. For example, specialist forums highlighted a wide range of current topics in food technology and linked scientific findings with business practice. Visitors also received a compact overview and orientation with regard to pioneering innovations in the field of food technology during the Guided Tours on the exhibition grounds. "Anuga FoodTec is and remains the central and international meeting place for the industry. And this leading position has been clearly underlined by the successful re-launch of the trade show here in Cologne. The right concept, at the right time," Gerald Böse, president and chief executive officer of Koelnmesse GmbH. "The high-caliber trade audience that traveled from more than 120 countries met excellently positioned and committed exhibitors here in Cologne. Intensive effective discussions characterized the course of the trade

fair. The exhibitors' feedback confirmed to us once again how important personal encounters are for successful business," added Oliver Frese, chief operating officer of Koelnmesse GmbH. 1,034 suppliers from 44 countries took part in Anuga FoodTec 2022, 60% of which came from abroad. 416 exhibitors came from Germany and 617 exhibitors from abroad. The next Anuga FoodTec will be held in Cologne from March 19 to 22, 2024. "The mix of physical and digital offerings underscored the high professional relevance of the international Anuga FoodTec platform and provided the right setting for successful business deals and investments. Compact, innovative formats offered numerous opportunities to take an in-depth look at the intelligent automation of production processes in the food and beverage industry. Along the entire value chain, new technologies and concepts were presented that push the sustainable use of natural resources. The important networking of science and business practice was again achieved in an exemplary manner in Cologne," added Dr. Reinhard Grandke, chief executive officer of DLG (German Agricultural Society) and chairman of the Anuga FoodTec Advisory Board. ■



PLMA'S WORLD OF PRIVATE LABEL RETURNS AFTER A TWO-YEAR HIATUS

PLMA's World of Private Label trade show returned to Amsterdam after being postponed for two years due to the COVID-19 pandemic, and the halls of RAI were filled with exhibitors showcasing their latest innovations.

n terms of figures, organizers expected that more than 14.000 buyers and visitors from 120 countries would be attending the two-day event, while 2500 exhibiting companies from over 70 countries including 60 national and regional pavilions were present on the trade show floor. As usual, products on display on the show floor included fresh, frozen, and refrigerated foods, dry groceries, and beverages as well as nonfood categories. As far as trends go, it came as little surprise that plant-based, vegan, and free-from dominated most exhibition stands, especially in the areas dedicated to frozen snacks, frozen finger foods, and frozen ready meals. In the Idea Supermarket area, where attendees were able to see displays of the private label products selected as winners of this year's International "Salute to Excellence Awards", these trends were also quite visible. New packaging formats and ideas stood out, especially since reducing plastic and minimizing food waste seem to be on most manufacturers' minds. The theme of this year's Show was Connect. Source. Grow. "Business is all about connections, and private label is no different. With connections, manufacturers can operate their companies and present their private label offers. With the offerings from exhibitors,

retailers and wholesalers can source for products for their private label ranges. With connections, manufacturers, retailers, and wholesalers can grow," said Peggy Davies, president of PLMA. World of Private Label welcomed trade professionals from more than 80 countries, including buyers from supermarkets, hypermarkets, discounters, drugstores and department stores, as well as importers and exporters, manufacturers, consultants, sales agents and packaging & design experts. The show covered all 12 halls of the RAI center in Amsterdam, divided over three main complexes. PLMA's New Product Expo showcased nearly 600 products of the latest innovations in the private label industry, from product to marketing to packaging. Additionally, PLMA awarded its 2022 International "Salute to Excellence Awards" including the "Wine Awards". The Awards give recognition and honour retailers for innovation and quality in the creation of their private label programmes. The Award-winning products, including all Best Quality and Best Value Award-winning private label wines, were displayed in the PLMA Idea Supermarket. Sustainable products dominated the list of retailers that won a 2022 International "Salute to Excellence" Award from PLMA for innovation and

quality in private label food, wine and non-food. "The large number of sustainable and environmentally friendly products demonstrate the commitment of retailers to a greener planet," said Peggy Davies, president of the Private Label Manufacturers Association. The 78 award-winning food and non-food products were selected by international panels of judges, including former retailers, chefs, nutritionists, and journalists. Nearly 450 products introduced in the past year by 51 retailers in 20 countries were submitted for consideration. Of the 78 awards, 27 awards went to retailers in Germany (14) and Italy (13). France and The Netherlands each won eight awards. The other 35 awards were divided between retailers from Ireland. Scandinavia, Iberian Peninsula, Turkey, South Africa and China. All in all, organizers and exhibitors alike were guite pleased with the crowd level seen during the fair and seemed confident that World of Private Label would again turn out to be a great business opportunity. All in all, the return to normality - as far as in-person gatherings go – is benefitting all parties involved in the industry, so we should expect next year's PLMA event to attract even larger audiences.



EVOIKI ZIMI PRESENTS TWISTED PIES



The famous, traditional, twisted pies of Zimi Psachnon are made with the unique country style fillo pastry. Twisted pies of Zimi Psachnon are handmade products which are distinguished by their quality, smell, and the rich taste of their filling. After baking they stay crispy for a long time. You can find them in two different fillings: cheese twisted pie and spinach twisted pie. Both are ready to bake products, their net weight is 800g and their paper baking pan is suitable for cooking in a conventional oven. They only need to bake 50 minutes at 180°C and they are ready to be served.

www.evoiki-zimi.gr

NEW GLUTEN-FREE FROZEN DESSERT FROM GOODPOP

GoodPop frozen pops launches its latest cleaned-up classic - Chocolate Vanilla Sandwiches, the first-ever gluten-free oat milk frozen dessert sandwich. The new plant-based and gluten-free frozen dessert sandwiches are GoodPop's first foray into stickless frozen treats. The Chocolate Vanilla Sandwiches are now available at Whole Foods Market, Sprouts, HEB, Gelson's, Raley's, and online at the GoodPop shop.







GOODFELLA'S LAUNCHES NEW PIZZA VARIANTS

Goodfella's is expanding its portfolio with the launch of three new pizzas SKUs, as the brand looks to add excitement to the deep-pan and thin crust segments as well as build upon its strong share within the frozen pizza category. All three launches are HFSS compliant, and with more than 50% of Goodfella's existing range already non-HFSS, the NPD is further testament to the brand's commitment to increase the proportion by the end of 2022. The new Stonebaked Thin Sloppy Joe Pizza combines two classic American dishes into one, providing a twist on the popular dishes.

https://www.goodfellaspizzas.com/

LIGHTLIFE EXPANDS IN PLANT-BASED RANGE

Greenleaf Foods, SPC, owner of Lightlife, presents its all-new Lightlife Plant-Based Chicken Breasts and Plant-Based Chicken Strips. Available now at Publix and Whole Foods Market stores nationwide, the un-breaded plant-based chicken items are a breakthrough innovation made with simple ingredients to remarkably mimic the texture and flavor of traditional chicken. Lightlife's new plant-based chicken products up the ante on plant-based protein options currently available in the category.

https://lightlife.com/



frozen dossier

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version available on frozenfoodeurope.com

STATE OF THE FROZEN FOOD INDUSTRY

CRISPY CHICKEN SHELL TACOS FROM REAL GOOD FOODS



Real Good Food has announced the launch of its newest platform, crispy chicken shell tacos. These are made from nutritious ingredients, are 100% grain-free and glutenfree, have only 2g of net carbs, and are packed with 25g of protein per serving. The tacos come in three varieties: seasoned beef & cheddar cheese, pulled chicken with cheddar & Monterey Jack cheeses, and shredded chicken with Cacique Oaxaca & cotija cheeses topped with Cacique avocado tomatillo salsa.

https://realgoodfoods.com/

GARDEIN UNVEILS NEW ADDITIONS

Conagra Brands-owned Gardein is adding to a diverse collection of meat alternatives with seven new foods that will arrive this June. The new arrivals to Gardein's Ultimate Plant-based line offer foods including Gardein Ultimate Plant-Based Chick'n Wings, available in Buffalo and BBQ style; Gardein Ultimate Plant-Based Chick'n Spicy Fillets; Gardein Ultimate Plant-Based Saus'ge Links, available in Bratwurst and Spicy Italian; and Gardein Ultimate Plant-Based Breakfast Saus'ge, available in Original and Spicy patties.

https://www.gardein.com/





HÄAGEN-DAZS LAUNCHES CITY SWEETS COLLECTION

Häagen-Dazs' City Sweets is a new collection of flavors inspired by iconic street food desserts. It is available in five flavors (Dulce de Leche Churro, Coffee Chocolate Brownie, Chocolate Peanut Butter Pretzel, Summer Berry Cake Pop, Black & White Cookie) and as snack bars in three flavors (Dulce de Leche Churro, Chocolate Peanut Butter Pretzel, Summer Berry Waffle). The City Sweets collection is available nationwide in the US with a suggested retail price of USD6.49 for 14 oz. containers and USD5.49 for cartons of three bars.

https://www.icecream.com/us/en/brands/haagen-dazs

CENTRAL FOOD INTRODUCES STRAWBERRY AND PROSECCO MERINGUE ROULADE

Frozen food distributor Central Foods has unveiled a new meringue roulade that's perfect for summer menus. Featuring a very classic British combination of strawberries and cream, the hand-rolled roulade is made of pink strawberry flavoured meringue, which is filled with fresh whipped dairy cream flavoured with real Prosecco, and a home-made strawberry compôte. The new flavour joins a range of meringue roulades offered by Central Foods to food service operators, including Black Forest, Banoffee, Cappuccino, Raspberry & Hazelnut, Raspberry & White Chocolate, and Lemon.

https://www.centralfoods.co.uk/





JANUARY/FEBRUARY

Ad closing 31.01 Publishing 09.02

Frozen Pasta for Catering and Foodservice

product innovation, manufacturers, suppliers

Bakery and Pastry

key market players, producers, suppliers

Bio and Organic Products for the Food Industry

clean label and energy saving products

Frozen Potato Market

innovative products and European overview

Frozen Potato Technology

cutting, slicing, peeling, dicing

Freezing Technology

conveyor belts, spiral ovens, IQF freezers & chillers

Transport & Logistics

trends in pallet pooling, distribution, and cold storage

Artificial Intelligence

update on applications for automation & roboting

Frozen Desserts & Ice Cream Market in Europe

market dynamics, new product development

Nutrition & Ingredients

for frozen bakery and potato products

Frozen Food in Germany

recent developments, review, estimates

Trade fairs: Biofach, Gulfood, Internorga, FoodEx JAPAN, CFIA Rennes, M.A.D.E., Alimentaria



Ad closing 27.05 Publishing 10.06

Frozen Food from Italy

market overview for retail and foodservice

Frozen Pasta & Sauces Market

trends, new product development, producers, suppliers

Frozen Pizza Market

major producers, suppliers, country breakdown

Technology and Innovation for Frozen Pizza

processing machines, toppings, portioning and forming

Ingredients for the Food Industry

for pasta, pizza, ready meals (herbs, rice, vegetables, mushrooms, processed meat)

Frozen Finger Food, Fried or Baked Mix Balls

trends and successful products

Frozen Burgers

new products, producers and suppliers

Frozen Snacks and Pastry

innovative products for retail and foodservice

Optical Sorting Technology

innovation and latest equipment Deep Freezing Technologies, Proofing, Baking, Cooling

for bakery applications Multifunctional Cooking Devices

one device for different cooking processes

Frozen Food in the US

evolution, challenges, opportunities & major players

Trade fairs: Summer Fancy Food Show New York, SnackEx

SEPTEMBER/OCTOBER **SIAL SPECIAL EDITION 2**

SIAL

Key Exhibitors Road Map and Event Agenda

SIAL Trends

special report **Bakery & Pastry**

new product innovation, suppliers, producers

Frozen Vegetables, Fruit, Mushrooms, Green Herbs

solutions for retail and foodservice

Technology Innovation for Frozen Vegetables and Fruit

cutting, slicing, peeling, dicing

Technology & Logistics

trends and solutions in packaging equipment

Blast Chilling and Shock Freezing

versatile applications between shock freezing and pasteurizing

Meat and Poultry Products

market overview in EU vs USA

Frozen Food in France

key players, product innovation, suppliers

Global Retail Market

consumer behavior, new products, processors, suppliers

Nutrition & Ingredients

for pre-baked and ready to bake foods

Trade fairs: SIAL, südback Stuttgart, INTERPOM Kortrijk



Appetizers, Snacks and Pies

high convenience, filo pastry products, pizza, ready meals

Frozen Vegetables, Fruit, Mushrooms, Green Herbs

trends and market overview

Technology Innovation for Frozen Vegetables & Fruit

cutting, slicing, peeling, dicing

Packaging Technology

state-of-the-art equipment and solutions

BeNeLux Market Review

major players and new products

Cooked & Pre-Cooked IQF products for the Food Industry

rice, pasta, sauces, cereals, noodles, vegetables

Technology and Equipment

industrial freezing, proofers, ovens, coolers, freezers

Digitalization & Networking

smart solutions for the food industry

Frozen Fish & Seafood

sustainable practices, market overview, major processors

Nutrition & Ingredients

vegetables, fruit and herbs

Frozen Food in the UK

market overview

Trade fairs: PLMA, Anuga FoodTec, IFFA Frankfurt,

Seafood Expo & Processing Global



JULY/AUGUST

Ad closing 29.07 Publishing 12.08

SIAL

Coated/Breaded/Batter Foods

new products, market evolution

Ethnic Foods - Greek, Mexican, Italian, German, French & Asian Food

product trends, producers, markets overview

Potato Market Update

frozen fries market overview in retail & foodservice

Potato Technology Innovation

new equipment for frying, cooking and seasoning Vegetarian and Vegan Food

product trends, innovations Technology & Logistics

trends in cold storage and warehousing

Frozen Food in Spain and Portugal

latest market developments

Technology & Logistics

industrial freezing equipment

Dishwashing Machines for Professional Kitchens

saving resources, networking of devices, hygiene optimization what next?

Nutrition & Ingredients

trends for coated and breaded products

Trade fairs: IBIE Las Vegas, SIAL



NOVEMBER/DECEMBER

Ready to bake & Pre-Baked Foods

market innovation, producers, new products

Convenience Food for Retail & Foodservice

European market evolution, category breakdown

Frozen Products for Catering & Foodservice

suppliers, producers, processors

Meat and Veggie Burgers

innovation and trends

Technology & Logistics

freezing and chilling equipment

Quick Service Restaurants & Bar and Snack Channel

market evolution, leading operators in Europe

Goina Green

substantial contributions of equipment manufacturers

Nutrition & Ingredients

ethnic food innovation

Frozen Food in Scandinavia

producers, suppliers, consumer trends

European Retail Market

suppliers, major retail categories, food trends

Trade fairs: Sirha 2023, Marca Bologna 2023, Fruit Logistica 2023, Gulfood 2023

Frozen Food Europe

on social media

