



LA PIZZA DAL 1974

## La Pinsa

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



Discover the **goodness** of its ancient recipe, the lightness of its taste and our mix of wisdom and creativity in making it!

[www.svila.it](http://www.svila.it)

> Bakery & Pastry

INCREASED DEMAND  
CREATES OPPORTUNITIES

> Nutrition & Ingredients

TAKING IN AND  
TAKING OUT

> Freezing Technology

ENSURING QUALITY  
THROUGH INNOVATION





# FROZEN FOOD EUROPE



**An omnichannel communication PLATFORM**

Frozen Food Europe Magazine  
[www.frozenfoodeurope.com](http://www.frozenfoodeurope.com)  
Weekly Newsletter  
Frozen Food Dossier  
Frozen Food E-blast

Facebook: [FrozenFoodEuropeMagazine](https://www.facebook.com/FrozenFoodEuropeMagazine)  
Twitter: [@FrozenFoodMag](https://twitter.com/FrozenFoodMag)  
LinkedIn: [Frozen Food Europe](https://www.linkedin.com/company/frozen-food-europe)

Get the  
hottest news  
straight from  
the heart of the  
frozen food  
industry!





JANUARY - FEBRUARY 2023  
VOLUME 35 ISSUE 1

## REGULARS

### 04 COMMENT

A Conversation We Should All Have:  
The Security of Global Food Markets

### 06 NEWS

News from Around the World

### 48 PRODUCT UPDATES

Latest Innovations Within the Industry

## FEATURES



**8 BAKERY AND PASTRY**  
Increased Demand Creates Opportunities

**16 BIO AND ORGANIC PRODUCTS**  
Health is Defining Product Development



**22 FROZEN PASTA FOR FOODSERVICE AND CATERING**  
The Extended Process of Manufacturing a Classic



**26 FROZEN POTATO TECHNOLOGY**  
Research Drives the Technology Forward

**32 FREEZING TECHNOLOGY**  
Ensuring Quality Through Innovation



**46 TRANSPORT & LOGISTICS**  
An Ever-expanding Part of the Business



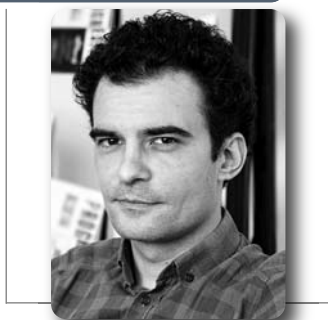
**38 FROZEN POTATO MARKET**  
Enjoying a Steady Growth

**38 NUTRITION AND INGREDIENTS**  
Taking In and Taking Out





By **Bogdan Angheluta**,  
Editor in Chief



# A CONVERSATION WE SHOULD ALL HAVE: THE SECURITY OF GLOBAL FOOD MARKETS

While global food shortages seen during the last few years have mostly been resolved, we're yet to see solutions that would guarantee the long-term security of the global food markets. It's a constant talking point at gatherings such as Davos or G20, but besides commitments regarding several underdeveloped areas, things seem to move quite slowly. A positive example is the Black Sea Grain Initiative, brokered by Turkey in 2022, which allowed for significant volumes of commercial food exports from three key Ukrainian ports in the Black Sea. The UN plan helped stabilize spiraling food prices worldwide and staved off famine. A single action, though, was and isn't sufficient. According to UN data, global prices of wheat and maize reached record highs last year and the average value of vegetable oils hit a new record, while individual indexes for dairy and meat prices also marked their highest full-year levels since 1990. There is some good news, though: the latest Food Price Index (FFPI) by the UN showed an average of 132.4 points in December, which is 1% lower than the one in December 2021. But the situation remains volatile, as this figure is more than 14% higher than the average value recorded in 2021. Another worrisome figure, easily attributable to ongoing conflicts, is the continuous decline of global food inventories. The World Bank's aggregate stocks-to-use ratio for food commodities (a measure of supply relative to consumption) was down to 27% as per November 2021 data. We should again put this into context: when compared to the 2017 record of 30.6%, the decline seems steep; but when measured against the record low of 17.2%, seen in 2006-2007, the value seems high. So while each of these figures can be looked at from a different perspective, the reality is that global mechanisms aimed at stabilizing the global food markets should be put into place sooner rather than later. What's our take? Let me know at [bogdan.angheluta@trade.media](mailto:bogdan.angheluta@trade.media) ■



*A worrisome figure, easily attributable to ongoing conflicts, is the continuous decline of global food inventories. The World Bank's aggregate stocks-to-use ratio for food commodities (a measure of supply relative to consumption) was down to 27% as per November 2021 data.*



Editor in Chief:

**BOGDAN ANGHELUTA**

[bogdan.angheluta@trade.media](mailto:bogdan.angheluta@trade.media)



Advertising Sales Manager:

**ALEXANDRU JINGA**

[alexandrujinga.pro@gmail.com](mailto:alexandrujinga.pro@gmail.com)



Production Manager:

**MARIAN CILIBEANU**

[production@trade.media](mailto:production@trade.media)



Circulation Manager:

**SIMONA ARDELEANU**

[simona.ardeleanu@trade.media](mailto:simona.ardeleanu@trade.media)



Worldwide contributors:

**EUROMONITOR INTERNATIONAL**

**LEATHERHEAD FOOD RESEARCH**

**MINTEL GROUP LTD**

**JONATHAN THOMAS**

**MARKETS AND MARKETS**

**IGD**

**DIETER MAILÄNDER** (Germany)

**ANN MARIE FOLEY** (Ireland)



Printing:

**Sothis**



Published by:

**Trade Media Solutions**



Executive Director:

**RALUCA MIHAELA CANESCU**

[raluca.canescu@trade.media](mailto:raluca.canescu@trade.media)



Managing Director:

**NICOLETA MARASESCU**

[nicoleta.marasescu@trade.media](mailto:nicoleta.marasescu@trade.media)



Publishing office:

**1 G-ral. David Praporgescu St.,**  
2nd floor, sector 2, Bucharest,  
Romania

Tel./fax: **+40 21 315 90 31**

E-mail: **office@mediatrade.ro**

Web: **[www.frozenfoodeurope.com](http://www.frozenfoodeurope.com)**



Distribution:

**Frozen Food Europe** is a bi-monthly controlled circulation magazine, mailed to major frozen food buyers who operate in the retail, foodservice, catering and private label areas, and also major further processing buyers and institutional buyers around Europe. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any information, storage or retrieval system, without the publisher's written permission.

**ISSN 1473-3382**



# Crispy Veggie Snacks



Crispy  
Queso-Potato  
Balls







## GLOBAL

## FROZEN FISH &amp; SEAFOOD MARKET TO REACH USD70BN

The global frozen fish & seafood market is expected to be valued at USD36bn in 2020 and should expand at a CAGR of 7.3% to reach USD70bn by 2030, according to a new report by Transparency Market Research. Robust growth of the food and dietary supplement industry is expected to result in higher demand for fish protein, creating a profitable opportunity for players in the frozen fish & seafood market across the globe. The nutrient profile of fish protein is compatible with the human digestion process.

## NORTHERN AMERICA

## FPS OPENS NEW CORPORATE HEADQUARTERS

In response to its continued expansion, FPS Food Process Solutions (FPS), a global leader in turn-key freezing and cooling equipment, moves into its new corporate headquarters in a high-tech business park in Richmond, British Columbia, Canada. Located at 13911 Wireless Way, FPS occupies the entire ground floor of the 23,000 sq ft facility. The new corporate headquarters is the fifth location to open in the Richmond area, in addition to its existing nearby manufacturing and office locations, all within a 10 km radius.

## ITALY

## TUTTOFOOD RETURNS IN MAY UNDER THE BANNER OF SUSTAINABILITY

TUTTOFOOD 2023 restarts at fieramilano from May 8 to 11, 2023 with an aim on sustainability. This is the first edition in pre-pandemic conditions that already hints at numbers of great relevance, such as the more than 1,000 brands present to date, representing at least 35 countries: not only an international platform for meeting supply and demand, but also a moment of training, sharing and reflection thanks to quality content, expressed in a rich schedule of events and authoritative partnerships. Also on the subject of exhibition layout, particularly large representations will come from, in order, Spain, the Netherlands, Belgium, Germany, Greece, Ireland, Denmark, Turkey and the USA. Numerous countries will also bring their first-time exhibitors, such as, Ecuador, Faroe Islands, New Zealand, Romania, Sri Lanka, Sweden, Switzerland, Taiwan, and Hungary. Among professional visitors, high-profile buyers from around the world, such as large international retail chains, are expected. This year's event is aiming for pre-Covid numbers and with four months to go before the ribbon-cutting ceremony, the TUTTOGROCERY, TUTTOSEAFOOD and TUTTOFROZEN sectors are



already with waiting lists with the participation of all the big names in the industry. Top player and strong foreign presence also in the TUTTOMEAT and TUTTODAIRY sectors. Also in the exhibition layout, new this year will be the GreenTrail: a transversal pathway identified by a specific visual identity and dedicated signage, which will help people discover green, plant-based, km zero, as well as healthy, rich-in and free-from products through all areas of the event and at the stands of all exhibitors. In this next edition TUTTOFOOD will reintroduce the TUTTOGOOD initiative in collaboration with Banco Alimentare and other Third Sector entities, including Pane Quotidiano, which over the years has made it possible to recover tons of usable food at the end of the event days.

## GLOBAL

## GLOBAL GLUTEN-FREE PRODUCTS MARKET TO CROSS USD10.96BN



The market for gluten-free goods was projected to be worth USD5.80bn in 2021 and to increase to approximately USD10.96bn by 2028. During the projected period, the market for gluten-free products is anticipated to expand at a CAGR of around 9.51%. Foods free of gluten are produced especially

for those who are sensitive to it. The number of people who are gluten intolerant has grown over time in various locations, which is anticipated to raise demand for gluten-free goods. Despite being safe to consume, those who have celiac disease, gluten sensitivity, gluten ataxia, or a wheat allergy should stay away from this protein. They can choose from a wide range of gluten-free products, such as olive oil, eggs, fish, vegetables, fruits, and other herbs, which all assist to boost energy, treat digestive issues, and lower cholesterol and fat levels in the body.

## UK

## FULLERS FOODS SOLD IN DEAL WORTH MULTI-MILLION

Fullers Foods International, a family-owned business with a revenue of about GBP400m and headquarters in Leeds, has been sold for an undisclosed value, with the whole consideration being paid at closing, according to the British Frozen Food Federation (BFFF). Former Fullers Foods co-CEOs Adam and Jason Fuller had been debating their options for how to best transfer ownership of the company, so they were thrilled that a purchase could be financed by a group of private investors who supported the current management team.



## SPAIN

# SEAFOOD EXPO GLOBAL TO BE HELD IN BARCELONA



The largest and most varied seafood expo in the world, Seafood Expo Global/Seafood Processing Global, will hold its 29th edition in Barcelona from April 25–27, 2023. The event, which was put on by Diversified Communications, made its Catalan capital debut in April of last year and was a hit at the Gran Va location of Fira de Barcelona. Building on the success of the 2022 edition, the event returns to the same location in Barcelona and, for three days, serves as the largest commercial and face-to-face trade event for the seafood industry. It has a significant economic impact on the city as well as the industry globally. A sizable display hall for Seafood Expo Global/Seafood Processing Global will highlight all varieties of seafood products as well as processing tools and services from international

providers. Additionally, the 29th edition will broaden the scope of its conference program as a forum for addressing fresh issues, chances, and solutions in the industry on a global scale. The event will feature more than 20 educational sessions led by professionals in the field. This year, the Conference registration fee includes access to the session videos. Seafood Expo Global/Seafood Processing Global held its debut edition in Barcelona, bringing together 26,703 industry professionals from around the world and 1,556 exhibitors from 77 countries in 39,847m<sup>2</sup> of sold show space. The group, which affirms the Catalan capital's considerable potential and socioeconomic worth for the industry and the city, projects an annual economic impact of up to EUR100m for it.

## GLOBAL

### MEAT SUBSTITUTE MARKET TO REGISTER A 33.6% CAGR

According to the findings of a study that was just recently released by Fact.MR, the global market for meat substitutes is anticipated to expand at a CAGR of 33.6% and reach USD235bn by the end of the assessment period that spans 2022-2032. As of the year 2021, the market was estimated to be worth USD10bn. It is believed that one of the primary reasons for the expansion of the market is the growing preference among consumers for the consumption of meat alternatives in the face of growing concerns about their health.

## GERMANY

### SÜDPACK PUBLISHES SUSTAINABILITY REP.

SÜDPACK has released its fourth Sustainability Report, which provides concrete evidence of the advancements made in 2020 and 2021. The film producer's ambitious sustainability strategy has received a lot of support thanks to the recent cross-sector ranking that placed SÜD-PACK as the 36th most sustainable SME in Germany out of over 4,000 companies. New technologies that enhance sustainability account for 57% of its total investments. Sustainable items already account for 30% of their revenue. There has been a 15% decrease in waste.

## US

### BANSK GROUP TO ACQUIRE MAJORITY INTEREST IN RED'S

Bansk Group, a consumer-focused private investment firm dedicated to building distinctive consumer brands, announced that it has entered into a definitive agreement to acquire Red's All Natural, a rapidly growing brand of clean-label frozen burritos and breakfast sandwiches in the US. Red's, a clean-label disruptor in the frozen burrito and breakfast sandwich categories, was founded in 2009. More than 20 distinct premium frozen burritos and breakfast sandwiches are available.

## CANADA

### NESTLÉ CANADA ANNOUNCES EXIT OF ITS FROZEN MEALS & PIZZA BUSINESS

Nestlé Canada, the market leader in the food and beverage sector has announced plans to wind down and depart its Frozen Meals & Pizza business in Canada over the next six months. Affected product lines include Delisio, Stouffer's, Lean Cuisine, and Life Cuisine. This choice was made in accordance with the company's long-term business growth goal and ability to reinvest in portfolio lines. Among these are pet food, infant foods and supplements, ice cream, coffee and beverages, confectionery, health science goods, foodservice, premium waters, and ice

cream. Nestlé Canada does not have a factory in Canada that manufactures any of its Frozen Meals or Pizza products. To make it easier for the affected products to be discontinued, the corporation will cooperate with its retail partners. "Nestlé Canada attributes much of its long-term success to its ability to adapt and evolve within the industry. This decision enables us to further invest in priority categories. We remain open to enhancing our portfolio where it makes sense for our business," said John Carmichael, president and CEO, Nestlé Canada.





# INCREASED DEMAND CREATES OPPORTUNITIES



*The bakery and pastry industry is a dynamic sector that produces a variety of grain-based foods, such as bread, cakes, pies, pastries, cookies, frozen desserts, baked pet treats, and related items. The sector is largely supported by bakeries, baking ingredients, equipment, and supplies.*



NEW  
RECIPE



Doce de  
Nata



# Pastel de Nata

## The irresistible Portuguese specialty



Our **clean label Essential initiative** seeks to improve our recipes **without compromising on taste**. For both the pastry and the cream, we select only the **essential ingredients, nothing more!**

A delicious and irresistible Portuguese specialty, that's perfect for dessert, a gourmet coffee break, or simply for a sweet snack.



*A traditional Portuguese recipe available in classic size (58 g) or mini size (25 g)*



Doce de Nata  
a range of  
Portuguese pastries  
from the Atelier  
Sélection brand.

Discover the other  
products of the range:



Tel : 03 25 39 40 50 - atelierselection@soufflet.com







**T**he appearance, taste, texture, smell, shelf life, and fortification of baked goods all have a significant impact on the purchasing decisions of consumers. While older consumers are strongly impacted by the pricing of bakery items, younger consumers are more influenced by the quality. Therefore, bakers are largely employing baking ingredients to maintain the quality of baked foods and cater to the demands of the expanding population. There is also an expanding market for sustainable and natural bakery ingredients like fibers, owing to the shift in food patterns brought on by food crises, environmental concerns, and lifestyle disorders. Due to the COVID-19 lockdown, consumers who were stranded at home, turned to baking more frequently, driving up the demand for items like baking soda, baking powder, cocoa powder, and other condiments. The global baking ingredients market is forecasted to reach USD22.3m by 2026 growing at a CAGR of 6.0% from 2021. The key players in the baking ingredients market include

Associated British Foods Plc (England), AAK AB (Sweden), Cargill (US), and Kerry Group Plc (Ireland). Equipment includes industrial ovens, scales, mixers, and refrigerators. Automating bakeries can reduce the expenditure on labor & energy and increase the flexibility between different operations. The latest advancement in processing technology is robotic automation, which is adopted by food manufacturers to improve efficiency, reduce costs, and improve throughput. Adopting robotics during bakery processing reduces waste and increases the quality of products by almost 20%. Automation enables the proper handling of large bulk bakery production. Also, it allows a precise and consistent mixing of ingredients during processing. Operations such as depositing, baking, and handling are relatively easy to automate. Companies such as Global Bakery Solutions (UK) and Erica Record (US) provide robotic equipment for panning and depinning bread and other bakery products. Bakery supplies are items such as food-grade packaging, pans, and utensils.

## MAIN DIRECTIONS FOR THE FUTURE

The baking market is divided into four divisions in all industrialized nations: retail, wholesale, in-store, and foodservice. The pillars of this industry are wholesale bakeries. A retail bakery is a low-volume establishment where several baked items are created and sold to customers from one location. While whole-grain and multigrain bread are now widely available in retail bakeries, flavor is still seen as being a crucial component by customers. Cake, bread, and related products, frozen bakery items, and crackers and cookies make up the three components of the wholesale baking industry. A wholesale bakery often has substantial production facilities and serves customers through retail establishments like grocery stores and food joints. A growing number of whole-grain breads are manufactured in in-store bakeries, which are in grocery stores and are relatively small but offer a wide selection of freshly baked goods. For the most part, a wholesale bakery manufactures the baked goods that are consumed in



cafeterias and restaurants in the foodservice industry. Sales of retail bakeries have decreased in the past ten years, along with those of in-store bakeries and foodservice businesses. The three main trends in bakery and pastry product innovations are convenience, pleasure, and health. Convenience is heavily correlated with shifting societal norms, longer workdays, and altered family patterns. Owing to prolonged working hours, hectic lifestyles, and lack of time, consumers are presently opting for foods that save time in the procurement, preparation, and cleanup. In developed countries like the US and the UK, several local bakery businesses, cafes, and supermarkets have emerged in recent years to cater to the increased demand for fresh and frozen bakery goods and varied bakery ingredients. There are three distinct avenues for new items in the 'Pleasure' category: 'novelty and fun,' 'ethnic and exotic,' or 'indulgent and premium.' Pleasure was the major trend in the past and accounted for half of all new launches. In fact, the health trend is a

significant driver of innovation in the bakery and pastry sectors. Many bakery products are perceived as healthy by consumers, while those perceived as decadent, such as cakes and pastries, are typically successful when given 'low and light' attributes, allowing for 'guilt-free pleasure.'

### TRENDS IN CONSUMER BEHAVIOR

The present-day purchasing behavior of consumers is largely influenced by the rising concerns of sustainability, animal welfare, and climate change. Considering the detrimental impacts of animal-based foods, many consumers are gradually adopting veganism and opting for plant-based, natural food products that ensure reduced carbon footprint. Thus, there has been an increased demand for vegan cakes, muffins, pastries made from plant-based bakery ingredients like dairy-free milk alternatives, fibers, and natural colors and flavors. Bakers are incorporating functional ingredients like oats, fortified flour, millets, and prebiotics to cater to the specific needs of health-conscious

consumers. One of the most recent advancements in the bakery sector is the development of bread that does not require yeast as a leavening agent. A yeast substitute accelerates the proofing process and diminishes the sour aftertaste of bread. The rising trend of nutritious bread in the bakery market has influenced producers to accelerate their production of gluten-free, protein- and fiber-rich, sprouted, and seeded bread. Flours fortified with a certain vitamin or mineral are also utilized in bread baking to increase their nutritional value. Eggs have been replaced by commercial egg replacers, or natural alternatives like applesauce, mashed banana, yogurt, and buttermilk which give the cake, biscuits, and cookies a comparable texture. There are also non-dairy whipping creams in the market. Natural colors such as turmeric, beetroot, and annatto are used in place of artificial ones to make the product additive-free and nutritious. The taste, texture, easy availability, extended shelf-life, convenience, and health benefits associated with frozen

*With pretzel products,  
variety is the order of the day!*

Discover our fantastic range of products at Gulfood in Dubai



**Ditsch**

PRETZELS SINCE 1919



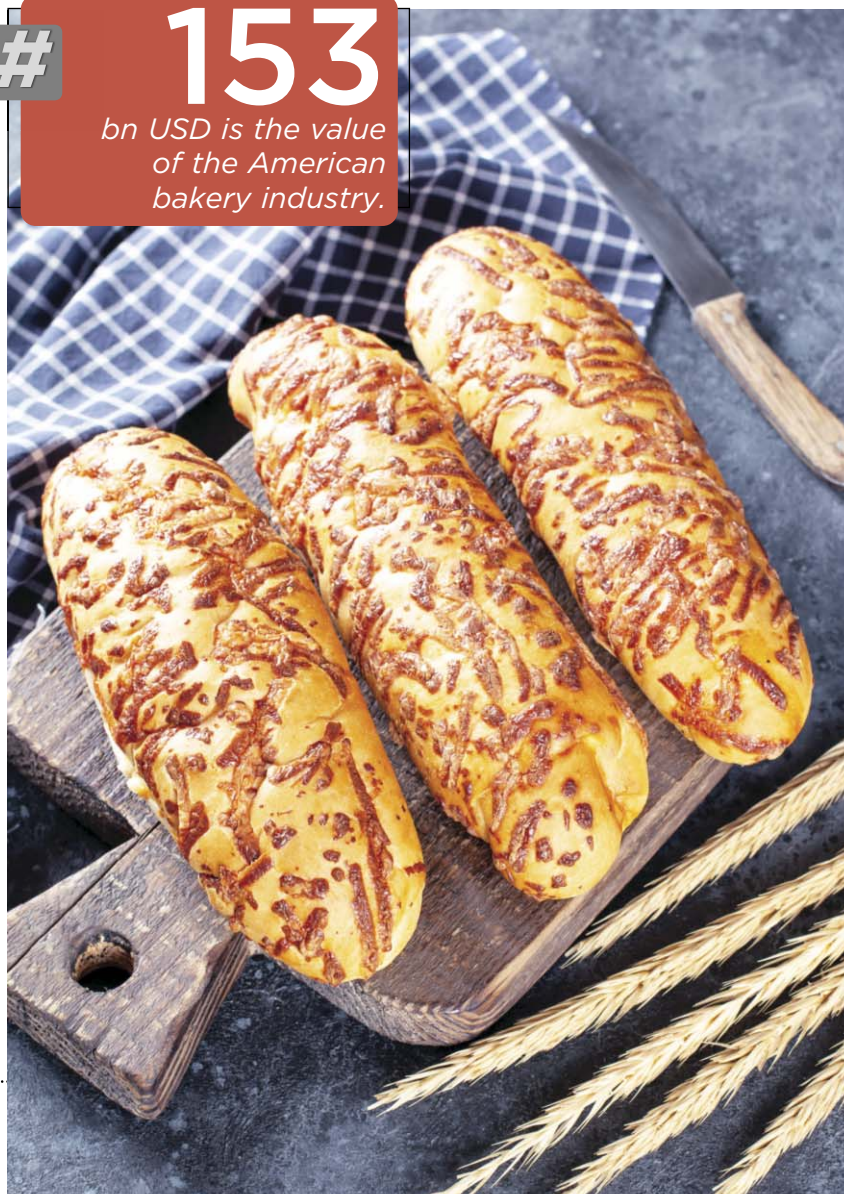


provide them with a quick baking experience. To keep up with the emerging demand for bakery processing equipment, companies such as Bühler (Switzerland), Rheon Automatic Machinery (Japan), and GEA Group AG (Germany) are expanding their facilities and adopting new & upgraded technologies. In February 2019, The Haas Group (Austria), which was acquired by Bühler, expanded in India by adding an oven manufacturing plant to its service and support facility. Some important business events in the last years include the fact that in June 2019, Associated British Foods Plc and Yihai Kerry Arawana Holdings Co., Ltd, a subsidiary of Wilmar International Limited (Singapore), executed a binding term sheet, setting out their intention to form a 50:50 joint venture in China for the manufacture, sale, and distribution of yeast and bakery ingredients. In April 2019, Lallemand Baking introduced Lal^ferm—the new brand for fresh baker's yeast. This has expanded the organic yeast portfolio of the

bakery items have increased their popularity among consumers. The increasing demand for frozen bakery foods has created opportunities for frozen bakery manufacturers to expand their business. It is anticipated that frozen bakery products have potential prospects for growth in fast-growing countries like China, owing to the increased disposable income and purchasing power parity (PPP). Bakery premixes are gaining traction in the food industry due to the increased demand for customized bakery products at a global level. Bakery premixes include unique formulations that offer various textures, tastes, and colors to bakery products, such as cakes, pastries, baking flour, white bread rolls, bakery improvers, muffins, donuts, and bread rolls. They provide numerous benefits to manufacturers, such as reducing the chances of incorrect weighing of raw materials used in the production of bakery products and enhanced product consistency. Additionally, bakery premixes decrease the inventory and labor costs involved in producing bakery products. Some of the leading players offering bakery premixes include Archer Daniels Midland Company (Finland), Puratos (Belgium), Lesaffre (France), and Nisshin Seifun Group (Japan).

Foreign Direct Investment, domestic conglomerates, and government investments. Owing to high competition, QSRs are focusing on improving customer experience. Installing automated bakery equipment helps them to improve their overall productivity. Moreover, the trend of online food ordering has led the foodservice players to adopt machines and systems that can

# **153**  
bn USD is the value  
of the American  
bakery industry.



### SOME SEGMENTS KEEP ON GROWING

The retail food industry, including quick-service restaurants (QSR), has witnessed significant growth over the past few years globally. The growth in the Asian market can be attributed to



**4** FACTORIES

**31** PRODUCTION LINES

**700** DIFFERENT PRODUCTS

**45** COUNTRIES OF PRESENCE

**40** BRANDS WORLDWIDE

## Filo Rolls with...

- > Feta PDO cheese / Spinach & feta PDO cheese (*for vegetarians*)
- > Potato / Spinach (*for vegans*)
- > Chicken & cheese / 100% minced beef meat (*for meat lovers*)

Indulge in a classic taste of the Greek Isles. Our Filo Rolls are made with fine ingredients – extra crispy sheets of filo pastry stuffed with delicious fillings made of exceptional raw materials, based on Greek recipes. Serve Arabatzis Filo Rolls as an appetizer or entrée any time of the day!

**NEW PRODUCT**

Chicken gyros & tzatziki



BVC-RSP0-GR000178



*We bake  
History*  
— since 1974 —

**MICHAEL ARABATZIS S.A.**  
INDUSTRIAL AND COMMERCIAL FOOD COMPANY  
1ST ROAD, BLOCK 24, INDUSTRIAL AREA OF THESSALONIKI,  
GREECE, P.C. 570 22, P.O. BOX 1238, T: +30 2310 723440,  
F: +30 2310 795351, E: INFO@ELZYMI.GR

[WWW.ELZYMI.GR](http://WWW.ELZYMI.GR)

  
**ARABATZIS®**  
HELLENIC DOUGH





#

6%

*is the projected CAGR  
for the global baking  
ingredients market.*

few years. The palatability, rich texture, extended shelf-life, easy accessibility, inexpensiveness, and nutrition associated with bakery foods are primarily influencing their sustenance in the modern market, propelling the growth of the bakery and pastry industry. According to the American Bakers Association, bakery products make up 2.1% of the gross domestic product of the US. The USD153bn American bakery industry is largely driven by high baked food consumption.

### IN CONCLUSION

The market for bakery and pastry is expected to grow at an exponential rate affected by changes in disposable income, consumer preferences, and



company. In January 2020, British Bakels introduced vegan suitable indulgent fillings to its vegan range of products to meet the consumer demand for quality vegan bakery products. In June 2020, Tate & Lyle and Solevo, a leading distributor of chemicals and inputs for specific industrial and agricultural segments in Africa, announced a new distribution partnership through which Solevo become the exclusive distributor of Tate & Lyle's ingredients in West African countries, including the Ivory Coast, Senegal, and Cameroon. In June 2021, Lantmännen Unibake, a leading global provider of fresh and frozen bakery products, continued to invest in Poland and announced a significant expansion plan for its bakery products in Nowa Sol.

### THE RISE OF ARTISAN PRODUCTS

Artisan bakeries are becoming popular due to the increasing demand for fresh bread and other bakery

products. Artisan bakery products are fresher and softer than regular bakery products, and this makes them uniquely preferred in the bakery market. Consumers are looking for fresh products based on the notion that they are free from preservatives and are good for health. The increasing number of in-store bakeries, such as supermarkets and hypermarkets within big retail stores, is also driving the overall bakery and pastry market. These large food chains and artisan bakers form an important growing outlet for bakery products, owing to the latest trend of on-the-go consumption. In low-income countries like India, home bakery has gained much popularity in the past

economic conditions. Large food processing players such as Associated British Foods Plc, Mondelez International, and Grupo Bimbo will continue to dominate the competition in the market, by acquiring other brands and regional bakeries, focusing on expansion strategies to widen their geographic reach to increase their customer base, and continuously upgrading their product portfolio to meet the ever-changing consumer demands. ■



**SVILA srl**  
via C. Battisti 55  
62039 Visso (MC) Italia  
Tel. +39 **0737 972811**  
Fax +39 **0737 972833**  
**vendite@svila.it**  
**WWW.SVILA.IT**





# HEALTH IS DEFINING PRODUCT DEVELOPMENT

*The advantages of organic farming go far beyond the advantages to one's health when consuming the products. In addition to helping with the current problem of climate change on our world, organic farming is the key to achieving food security.*

While it is generally considered common knowledge that organic food has health advantages because it is produced without the use of synthetic chemicals, antibiotics, or genetic alteration, including synthetic flavors, colors, sweeteners, or preservatives, organic food also contains more antioxidants, minerals, and healthful fatty acids, as well as lower amounts of resistant bacteria and nitrates. Taking these benefits from raw materials to the final product lies in the hand of the manufacturers.

## AN AMBITIOUS PLAN TO DEVELOP SUSTAINABLE PROTEINS

According to the Good Food Institute (GFI), The latest Horizon Europe funding call is "a treasure trove of opportunities for sustainable protein researchers". Scientists exploring for ways to create plant-based, cultured meat, and fermentation-based foods that can compete with traditional meat, seafood, and dairy have a lot to gain from the European Commission's recent announcement of the flagship program's 2023–2024 work schedule. The EU's EUR95.5bn Horizon Europe research and

innovation funding initiative aims to combat climate change, advance scientific excellence, and increase the competitiveness of the region globally. The program is ideal for researchers studying sustainable proteins because of its strong emphasis on open science, which enables results to be made available to everyone, and on large, multi-partner research collaborations capable of tackling a wide range of challenges. In addition, the large budgets involved mean the scale of what can be accomplished is impressive. As a supporter of this program, the GFI has managed to lobby for the inclusion of three important topics in the Horizon Europe plan: Cultured meat and cultured seafood – state of play and future prospects in the EU aims to reduce the high costs of infrastructure and raw materials needed for cultivated meat, scale up in a cost-effective way and evaluate and improve the economic viability and





sustainability of this new food; Microbiome for flavor and texture in the organoleptic dietary shift includes creating fermentation-based ingredients to improve the flavors and textures of plant-based meat, dairy and fish products, piloting new precision fermentation techniques and developing new biomass production methods; Impact of the development of novel foods based on alternative sources of proteins will assess the environmental potential of foods including algae-based products and microbial proteins, as well as production cost and consumer acceptance.

#### FOCUSING ON CLEANER INGREDIENTS

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

*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*

# HerbaFrost

The finishing touch

Your producer of  
IQF culinary herbs



Freshly frozen for your  
convenience with  
no waste.

Enhance your favourite recipes  
with nature's finest flavours.

Great for infusing sauces and  
salad dressings.

Long lasting freshness  
from your freezer.

Visit us at  
**Biofach  
Nürnberg**  
Stand 1-257  
14-17.02.2023

Fresh frozen herbs  
from Belgium

Industriepark 19 · 2235 Hulshout · Belgium  
Tel. +32 (0) 15 22 46 87 · Fax. +32 (0) 15 22 53 69  
info@herbafrost.be

[www.herbafrost.be](http://www.herbafrost.be)

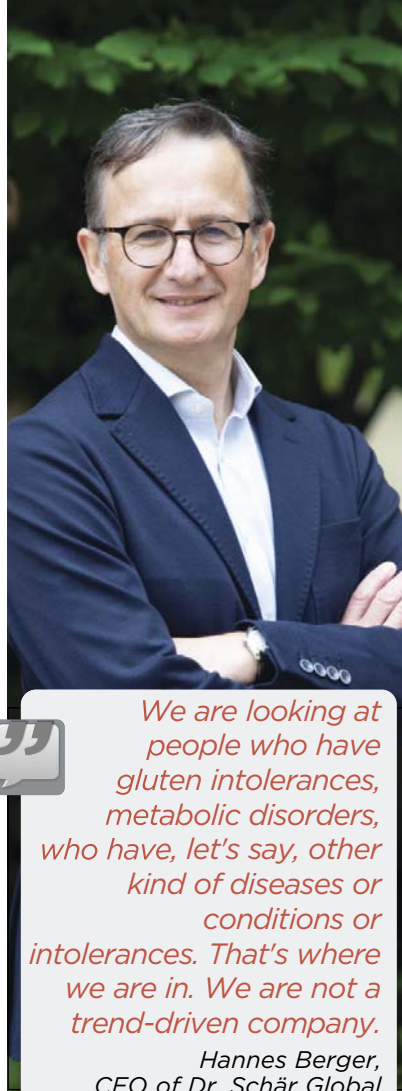




of organic products are cultivated with the greatest care and processed into a ready-made product. The range of herbal drops, both conventional and organic, is growing steadily. "An absolute added value to our range is the IQF herbal mixes, such as Italian Mix, Provence Mix and Salad Mix. They are perfect 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."

## DIET AS AN ESSENTIAL PART OF PEOPLE'S LIVES

"We are a very purpose-driven company. That means all what we are doing is coming from a very clear vision of the company, which is satisfying and improving the life of people's special nutrition needs," says Hannes Berger, who on January 1 became CEO of **Dr. Schär Global**. "We are looking at people who have gluten intolerances, metabolic disorders, who have, let's say, other kind of diseases or conditions or intolerances. That's where we are in. We are not a trend-driven company. We are dedicated to what we call our core consumers. These are people suffering from celiac disease, people who have gluten intolerances, and the company is now expanding into target groups like those who are suffering from IBS, which is irritable bowel syndrome. These people have a significant reduction in their pain when they are going on a gluten free diet. "A veteran of the company is becoming the CEO" - This is how he describes taking on the new role. "I'm entering in my 18th year with the company. I spent the last nearly six years in the US. However, I started with Dr. Schär after working for Kraft Foods, Mondelez, and other companies," Hannes Berger says. "So, when you ask me how it feels, well, simple answer, it's like coming back home, because I grew up here. When I walk in this building, in this beautiful



*We are looking at people who have gluten intolerances, metabolic disorders, who have, let's say, other kind of diseases or conditions or intolerances. That's where we are in. We are not a trend-driven company.*

*Hannes Berger,  
CEO of Dr. Schär Global*

building here, it's like I'm walking back home." When he came to Dr. Schär, the company was making close to EUR80m in revenue, and now we it is heading towards more than EUR500m. "We have defined the strategy for 2025 two years ago, and I was part of the process, so it's nothing new for me. But of course, with my arrival, we are going to do some adjustments in terms of where we are focusing the biggest attention in our portfolio, where the biggest opportunities are currently in, because in developing the strategy in 2025, we were at the beginning of the COVID. There was a complete change of the landscape, a change in how to do international business, globalization, disruption in supply chain. That means that over the last two, three years going through the COVID and coming out, and now the war in Ukraine, we had to do a lot of adjustments. We had to stop doing some things and we started doing others. So, I want to regroup the company around the strategy and

focus it back where we want it to go," Hannes Berger adds. He is currently the CEO of Dr. Schär Global, while also still holding the role of CEO for North America. Regarding the last few years, he believes Dr. Schär successfully navigated that period. "I think we are a good example of a company who managed COVID pretty well. One of the biggest challenges were how we could ship the product from A to B, especially from Europe to North America and how to deliver the product to our consumers. We had to make sure that we can deliver, and doing that was a very difficult task, but we were able to manage it with a very professional supply chain management. The second big challenge was workforce. It was extremely difficult to find people for night shifts and day shifts, 24 hours, in our 11 factories," he adds. The company is just coming out from a huge expansion project in North America, where in October it nearly doubled its. "So, we are now in the face of ramp up of efficiency, new products, and we are planning even another additional investment in North America. We have other sites in Spain. So generally speaking, we are trying now, or we are leveraging and doubling capacity in our existing plants rather than going for additional ones." The company also has an ongoing sustainability program and one of main targets is to reduce waste, to reduce packaging. "We historically had more packaging than other food products for a simple reason, because we have products who have a shelf life, when we are talking about bread of 4 months. To give them a very safe packaging, it needs to fulfill some criteria. So, what we are doing now is to reduce that part of packaging to make sure that we have less waste, a better footprint. The other area is the biodiversity, that's an area where we are doing a lot, we are using very different ancient grains to make sure we play our part in biodiversity. These are, let's say, the big ones, but there is much more to come to become neutral," Hannes Berger concludes.



## A MARKET ON THE RISE

It should be noted that the market for gluten-free goods was projected to be worth approximately USD5.80bn in 2021 and to increase to approximately USD10.96bn by 2028. During the projected period, the market for gluten-free products is anticipated to expand at a CAGR of around 9.51%. Foods free of gluten are produced especially for those who are sensitive to it. Celiac disease is another name for this ailment. People who are gluten intolerant cannot digest gluten, therefore when they eat food containing gluten, it causes an immune response. Gluten-induced small intestine inflammation may lead to a variety of health issues. Furthermore, it hinders the body's ability to absorb several crucial nutrients. The number of people who are gluten intolerant has grown over time in various locations, which is anticipated to raise demand for gluten-free goods. Despite being safe to consume, those who have celiac disease, gluten sensitivity, gluten ataxia, or a wheat allergy should stay away from this protein. They can choose from a wide range of gluten-free

products, such as olive oil, eggs, fish, vegetables, fruits, and other herbs, which all assist to boost energy, treat digestive issues, and lower cholesterol and fat levels in the body. The COVID-19 pandemic has influenced the production of gluten-free products and their global supply chains. Manufacturers of gluten-free food are unable to obtain raw materials and make enough products to meet demand because of limited supply chain activity. Most of the factories were also shut down, and some governments put their citizens under lockdowns. The expansion of the target industry has been negatively impacted by each of these factors. Global demand for gluten-free products is anticipated to increase in the post-pandemic phase as more people consume immune-boosting meals.

# **95.5**  
*bn EUR is the value  
of EU's Horizon  
Europe project.*

## INNOVATIONS FOR ALTERNATIVE PROTEINS

To jointly create future food and beverage items for the European market, **MycoTechnology** and **IFF** have recently formed a partnership. The world's foremost researcher of mycelia, or the "root system" of mushrooms, is a US-based company called MycoTechnology. With the new arrangement, it will be able to take use of IFF's RE-IMAGINE PROTEIN innovation initiative and utilize its cutting-edge Brabrand, Denmark facilities, including its Culinary Design Center, which offers specialist knowledge in cutting-edge plant-based food products. The new relationship between the two businesses in Europe underlines their common commitment to partnership and innovation in the service of a sustainable food system. The two businesses have already collaborated in the US. Through a unique liquid fermentation platform, MycoTechnology exploits the potential of mycelia to create novel components. It has collaborated with food and beverage businesses since its creation in 2013 to develop products that are nutritious, sustainable, and delicious. In the fields







of food, drink, health, biosciences, and smell, IFF is a market leader. With the use of market-driven innovation and insights, its Nourish business provides cutting-edge protein sources and future technologies for plant-based cuisines all over the world. The company helps the industry produce better, tastier, safer, healthier, and more sustainable food and drinks by anticipating and answering consumer needs. The firms intend to create fresh, cutting-edge solutions for food and beverage goods across Europe by integrating MycoTechnology's revolutionary mycelial fermentation platform with IFF's technical proficiency and skills. "This new level of cooperation is quite exciting. The IFF is aware of the value of innovation and how to use it to create a better, more sustainable food system. We are excited to set out on a new adventure together as we develop the innovative solutions that today's consumers expect for sustainability, flavor, and nutrition," said MycoTechnology's CEO, Alan Hahn. The two businesses keep looking for

fresh ways to grow their collaboration. They are now collaborating on a project in the Asia-Pacific region and anticipate expanding their cooperation there in the future. And examples continue: Haifa Group, a global leader in plant nutrition, and SimpliiGood by AlgaeCore Technologies Ltd., a food-tech pioneer, have teamed together to improve the SimpliiGood spirulina supply chain and further their respective net zero objectives. In the short term, this relationship improves both companies' bottom lines and product lines. Additionally, it puts them in a position to develop a circular carbon economy over the following few years. SimpliiGood cultivates this nutrient-rich microalgae under optimum regulated

circumstances and sells it as fresh and frozen spirulina. This startup company cultivates concentrated functional ingredients and creates a variety of wholesome foods that are pioneering the plant-based protein market. The first substitute for smoked salmon is now being created, and it just contains one ingredient: whole, fresh spirulina. The companies have agreed to a multifaceted, long-term partnership that will revolutionize the global spirulina market. The partnership will improve sustainability and lessen each partner's environmental impact. Optimizing upstream spirulina operations - perfecting production input for enhanced output - is a cornerstone goal of this alliance. "This important milestone demonstrates the maturity and potential of the entire sector, not just of our company," says Baruch Dach, SimpliiGood founder and CTO. "It will boost our supply chain efficiency, reliability and scalability, making our spirulina an even more affordable, resilient and trustworthy food source for the future of food." ■

**# 152.08**  
*bn USD is the  
projected value of the  
market for healthy  
snacks in 2029.*





## We stand by you

A selection of the most genuine ingredients, a palette of tasty recipes. CGM stands by people like you, who dedicate every single thought and every single act to restauration.

Our delicious dishes can make your menu exclusive, the unique product lines that can be chosen among a **variety of references**, turns into excellence of culinary choices.

Their BRC, IFS and ISO 22000:2018 **certified quality** is a tasty combination between innovation, expertise in the field of gastronomic culture and respect for the territory.

Since 1986 CGM has been producing frozen food in which tradition and culinary research create an awarding combination.

**to FRY**

Countless appetizing and delicious ideas to get innovative, tasty dishes.

**to BAKE**

These light and tasty dishes may be prepared in few minutes, and feature supercool recipes along with recipes from the Italian tradition.

**VegeTiAmo!**  
il cuore verde del gusto

Products of vegetal proteins-base for those who wish to propose a vegetarian menu without giving up the taste of classical snack foods.

**GRAND'OR**  
*Gourmet*  
IL SURGELATO RAFFINATO

The recipes signed by Chef Enrico Mazzaroni are dedicated to the restaurateurs who care for quality offering fancy and elaborate products and are continuously searching for new culinary approaches.







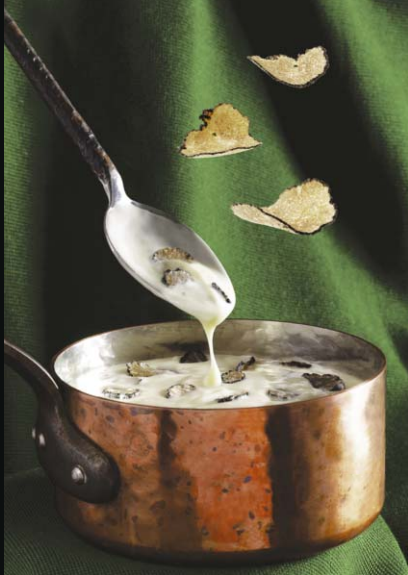
# THE EXTENDED PROCESS OF MANUFACTURING A CLASSIC

*While it may seem that innovation in the frozen pasta category is not as abundant as in other areas, crafting products that appeal to many consumers is a never-ending process. Additionally, as healthier trends become more and more prevalent, the amount of research conducted before the final product is showcased grows each year.*

“Our R&D department worked really hard to achieve a product, completely made with vegetables and legume-based flour, which had the consistency and the color of traditional pasta,”

**Surgital** representatives say regarding their latest product, Laboratorio Tortellini vegetable, pea, and lentil linguine. “Working mainly with the Foodservice, it was really important to us to avoid bright-colored pasta, which could have limited the chef for the pairing with sauces and other condiments.” The luxury par excellence, truffles are the true protagonists of the new Sugosi recipe, Sugosi Truffle Sauce, that is mixed with only a few essential ingredients that bring out their aroma. “Creamy and velvety, our Truffle Sauce encapsulates not only the unmistakable flavor and perfume of this delicious tuber, but also preserves its texture: indeed, in this sauce, the truffle is not chopped or minced, but instead sliced into flakes that remain intact, keeping their consistency, making every spoonful of sauce richer.” Surgital representatives add that in the past years, they have noticed a shift in customer consumption choices, and, the outbreak of the COVID-19 pandemic reinforced, and maybe accelerate, this trend. More aware of the impact that daily choices





have on the environment, consumers are more and more looking for plant-based, healthy, and sustainable options both at home and in restaurants, they add. According to them, Surgital is a company that was born from the dream and entrepreneurial thrive of Romana Tamburini and her husband Edoardo Bacchini, who in 1987, inspired by the work of the "sfogline", patented the machine for making graganelli - a typical format of pasta from the Emilia-Romagna region. "The intuition of using the cold to preserve pasta also dates to those years, thus we became among the first to start selling fresh frozen pasta. At the time, pasta was still always and only rigorously made by hand. The market was not immediately supportive, but Romana and Edoardo's determination did not give in, on the contrary, they strengthened behind that great dream of innovation. A dream that was then able to turn into reality and under that same determination and innovative thinking they continued over the years to challenge the catering market. The origin of our success certainly comes from the passion with which we all carry forward the corporate vision and the constant desire to improve and do better. Another distinctive element lies in having transferred the knowledge of the gestures of those who knead the pasta into highly technological production plants, supported by expert cooking professionals, who together with the collaboration of biologists and production technicians, guarantee safety and constant quality in all the production lines." Surgital is in the process of formulating business development plans. Europe remains a key continent for Surgital where a large portion of foreign turnover develops,



*Very interesting recipes and formats are in the works, but they are not yet ready to be revealed. For now, we are focusing on promoting the new truffle sauce from the I Prestigiosi line by Sugosi, launched during the last edition of SIAL in Paris.*

**Surgital**

Photos: Surgital

which today accounts for about 47% of the total. The main objectives for the near future will certainly be that of France and the United States, representatives say. "Two countries with enormous development potential in which we believe so much that we have opened two commercial branches. We will certainly aim to work and insist on the Premium line of Surgital Divine Creazioni, which offers great added value to the world of catering. Very interesting recipes and formats are in the works, but they are not yet ready to be revealed. For now, we are focusing on promoting the new truffle sauce from the I Prestigiosi line by Sugosi, launched during the last edition of SIAL in Paris." Regarding the reopening of the foodservice sector, company reps say this has certainly marked an important restart for the frozen pasta market. "Q1 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." Net of the official financial statements which will be filed by June, and Surgital s.p.a – which together with Surgital France, Surgital

America and Ca' Pelletti Retail makes up the Surgital Group – is expected to close 2022 with an increase in revenues of approximately 33% compared to the previous year, exceeding the set budget by 20%. Revenues for Surgital will amount to approximately EUR96m, while the aggregate value of the group will exceed EUR100m. The food service sector is still recovering from the COVID-19 pandemic, especially in terms of the availability of professionals working in the kitchen, but the number shows a clear motivation to come back to normality.

### EXPERIENCE AS AN INGREDIENT FOR RECIPES

Pasta along with rice belongs to the most important food product groups in the world. Italians consume over 23 kg per year, Greeks over 12 kg, and Germans just under 10 kg. Pasta is an inexpensive food product which, however, is combined more often with sophisticated ingredients like prawns, sirloin tips, and high-quality fresh mushrooms like truffles or porcini, according to **Ebrofrost** representatives. Parallel to this development, a slowly developing demand for pasta made from alternative raw materials like from chickpeas is becoming visible. "Ebrofrost works differently than most of the competitors. Innovations always come into being in close, strictly confidential cooperation with our customers and are tailored to their individual needs," they add. Before showcasing the differences between Ebrofrost's pasta products and from similar products





currently on the market, it is important to get to know the background. "Ebrofrost produces exclusively for industrial buyers. This experience flows into the development of our basic recipes. Usually, we must adapt all these basic recipes to their various requirements of course also those of our pasta and Asian noodles. That is the first difference. Specific requirements result from the very different filling systems which we must cover with high precision. Up to now we have never had to say to a customer: «What you would like, we cannot provide». That is the second difference. The third difference is that we make our pasta from fresh dough. The benefits regarding consistency, appearance, and taste are enormous. Finally: We have been offering RTE products for several years too. For example, manufacturers of delicatessen salads can process this RTE-pasta and noodles without additional process steps directly to their final products," representatives argue. "Being innovative is part of our DNA. We have proved this continually in the past. We began as a regional producer of deep-frozen spaetzle (Swabian noodles – a particular kind of pasta). Today, we are part of the globally operating group Ebro Foods. Our plants are in Great Britain, Denmark, and Germany. With ingredients from pasta to rice, grains to lentils, we are the European leader for frozen products - ready to eat (RTE) options available. We have built up a strong market position even with Asian noodles (mie noodles, soba with common wheat or buckwheat, thick and thin udon noodles as well as ramen). Freekeh and sorghum are innovative product areas with an interesting potential. Thanks to our European supply chains, our products are always available."

## A STEADY STREAM OF NEW PRODUCTS

**Zini** presents the new range of 100% vegan Gnocchi, avoiding the use of any potatoes in the recipe with a



*Being innovative is part of our DNA. We have proved this continually in the past. We began as a regional producer of deep-frozen spaetzle (Swabian noodles – a particular kind of pasta). Today, we are part of the globally operating group Ebro Foods.*

**Ebrofrost**



Photos: Ebrofrost

consequence lower glycemic index. This is an important development to provide healthier solutions to customers, according to company representatives. Zini technology and its 67 years' experience grant always a soft dough of the product using only the ingredients needed, with a single natural element as an ally: cold. "There are several requests for vegan, vegetarian and organic products as a new way to eat healthy food, more than a trend. Our customers look at the best choice of products even out of home for this reason Zini has a wide range of fresh frozen pasta with more than 350 products," representatives add. In its cutting-edge Milan pasta factory, all

freshly made products are cooked and frozen very quickly, to preserve all their taste and freshness for a long time. As a result, the quality is granted using the best raw materials in all ranges and the reheating procedure takes only 2 minutes in boiling water, in a pan or in a steam oven, according to Zini's 'zero waste' policy. Zini's effort is to respond to customers need with a proactive approach with a continuous investment on R&D, with an average of 7 new products per year. The volume trend of 2022 significantly exceeded that of 2019: this means a return to life after the pandemic period, with an important a growth of out of home consumption. ■



*There are several requests for vegan, vegetarian and organic products as a new way to eat healthy food, more than a trend. Our customers look at the best choice of products even out of home for this reason Zini has a wide range of fresh frozen pasta with more than 350 products.*

**Zini**



Photo: Zini



# TUTTOFOOD MILANO

International  
Food Exhibition



fieramilano 8-11 May 2023

## Adding value to taste

With the patronage of:



Regione  
Lombardia



Comune di  
Milano

In collaboration with:



Ministry of Foreign Affairs  
and International Cooperation



ITALIAN TRADE AGENCY



**FIERA MILANO**





# RESEARCH DRIVES THE TECHNOLOGY FORWARD

*The technology behind frozen potato products aims to ensure maximum efficiency while reducing costs for operators as the frozen potato market shows steady growth. Frozen food manufacturers look for cutting machines with high yield and capacity, as well as equipment that is both skilled and quick to use. As a result of increased competition, consumers now have a plethora of options when shopping for cutting equipment - and the situation is similar when it comes to sorting.*

When making a capital purchase, 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, explains Alan Major, chief sales officer of Urschel. "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, weigh

the benefits of different models.

**Urschel** engineering specializes in assisting customers attain the right fit for their production objectives. 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 long life of their cutting machinery," Major says. The DiversaCut series, designed and manufactured by Urschel, remains the go-to for leading global potato processors. The series excels at crinkle and straight (flat) strips and dices for popular items such as french fries and diced potatoes O'Brien or



*Many watergun systems rely on Urschel blades. Urschel manufactures segment cutters, such as the Model VSC. Larger watergun systems depend on the blades manufactured by Urschel to deliver consistent quality at high capacities backed by Urschel support.*

*Alan Major, chief sales officer at Urschel*



Photo: Urschel





# Less Waste, Increased Profit

As the #1 European and Global Leader in Food Cutting Technology, successful processors depend on Urschel's expertise to deliver optimal cutting solutions for all types of fruits and vegetables. Urschel cutting equipment delivers a full spectrum of size reduction capabilities. Explore dicing, slicing, or pureeing to achieve your processing goals.



#1 Best selling provider of industrial cutting machinery throughout the world.

## URSCHEL®

The Global Leader in Food Cutting Technology

Set up a free test-cut of your product.

[www.urschel.com](http://www.urschel.com)



hash brown dices. Other items, like popular veggie noodles and riced cuts may also be produced, according to him. Different models are available to meet small, medium, and mega processor goals. From the small footprint of the DiversaCut Sprint® Dicer (DCSPR) to the Sprint 2® Dicer (SPR) to finally the largest and highest capacity DiversaCut 2110A® Dicer (DCA). "Each DiversaCut model incorporates a similar operating principle to produce precision cutting in a compact cutting zone. Both the DCA and SPR2 may be manufactured with an optional discharge conveyor to facilitate dispensing into totes. Differences are found in the size of the infeed product accepted: DCSPR and SPR2 infeed size up to 6.5" (165 mm), DCA infeed size up to 10" (254 mm), and motor sizes: DCSPR 1.5 HP (1.1 kW), SPR2 1.5 HP (1.1 kW) or 3 HP (2.2 kW), DCA 5 or 10 HP (3.7 or 7.5 kW)," Major says. For slicer/shredders, leading processors around the world rely on the Model CC. From shreds to 'V', flat, or crinkle slices, the CC remains at the pinnacle of the crisp/chipper market. In addition to the CC, the lattice waffle version, the CCL, has established an ever-growing niche market. Ongoing improvements to the newly developed 14-cutting-station MicroAdjustable® heads benefit the global market by increasing capacity compared to an 8-station standard head. In addition, patented technology in the new series of MicroAdjustable heads expedites knife changeovers and saves labor and cleaning times. The 14-station .212 V Slice head incorporates SlideLocc™ technology to quickly change knives in an easy 3-step process. New top ring and cam design is available for all MicroAdjustable heads to increase the cam opening to 180° to facilitate cleaning without having to completely remove parts – time and labor savings. Flaking and milling potato processors turn to the Comitrol® line of reduction equipment. Differences between the models include motor sizes, feeding methods, and types of reduction heads.

The Comitrol® Processor Model 1700 is the most versatile in the line accepting all three heads – slicing, cutting, or microcut. Cutting heads offer different blade and column spacing to offer a full spectrum of reduction possibilities. Microcut heads deliver the smallest in particle size down to micro-dimensions for the ultimate in reduction. "Many watergun systems rely on Urschel blades. Urschel manufactures segment cutters, such as the Model VSC. Larger watergun systems depend on the blades manufactured by Urschel to deliver consistent quality at high capacities backed by Urschel support," according to Alan Major.

### AN ALL-IN-ONE MANUFACTURING OPERATION

Innovations in the Urschel portfolio are designed, engineered, and manufactured under one roof to maintain the quality and support customers expect. A multi-million-dollar inventory of common spares is kept on-hand for on-demand shipment. Spares are made to fit and function like the original with the same tight tolerances. "Urschel employs the best, most up-to-date manufacturing methods to deliver the highest standard to our customers. Machinery, components, and thousands of different types of knives all come together with optimal Urschel quality standards. Urschel goes to great lengths to study new cutting methods and refine existing ones. Knives and parts are invented to meet the needs of specific cutting applications," says Urschel's chief sales officer. "Urschel engineers and staff work with customers to determine the needs and

expectations of today's and tomorrow's cutting requirements. We are a company built on invention and innovation since our founding in 1910," Alan Major concludes.

### INNOVATIONS IN POTATO CUTTING TECHNOLOGY

The high-volume processing of potatoes into French fries is typically done with a hydrocutter system, using water to feed potatoes at high velocity through a set of blades in a chipgun head. Medium and low volume processing, as well as specialty cuts such as crinkle fries and dices, are best cut in mechanical drum dicers. **FAM Stumabo's** hydrocutting heads and precision blades are a perfect solution for high-volume French fries processing. They produce a very clean cut with optimized length and high efficiency. The hydrocutting heads are extremely flexible, allowing a wide variety of cut sizes and shapes such as square cuts, rectangular cuts, wedges to slices in both flat and crinkle cut. This is topped up by even more specialty cuts such as the crinkle steak, beefeater, deep crinkle wedges, etc. The Stumabo hydrocutting heads and blades can be integrated into all known hydrocutting







*FAM and Stumabo have one goal in mind: to help potato processors cut potatoes to perfection. Our combined knowledge of both mechanical and hydrocutting allows us to offer our customers the exact innovations and revolutions they have been looking for.*

**FAM Stumabo**

Photo: FAM



installations. "FAM and Stumabo have one goal in mind: to help potato processors cut potatoes to perfection. Our combined knowledge of both mechanical and hydrocutting allows us to offer our customers the exact innovations and revolutions they have been looking for. We are a well-established, global player with a strong reputation for quality, creativity, and customer support. We consider the specific needs of our customers by offering different product-driven models of machinery without compromising quality and safety. We work with you to tailor solutions to your specific needs," according to company representatives.

### **MACHINES FOR HIGH-QUALITY FRENCH FRY CUTTING AND DICING**

FAM Tridis 240P is a good example of how

innovation allows the standards to be raised. This versatile dicer/French fry cutter, running at the highest capacities, is a reliable production machine built to deliver top-quality products. The drum of 240 mm in depth, available for flat and crinkle allows to cut large diameter and long potatoes to maximum length. The curved infeed chute allows potatoes to align parallel to the slicing knife to maximize length of French fries. The Set & Forget features allow cutting tools to be replaced and adjusted effortlessly. There is no need for specially trained operators. FAM Tridis 180P incorporates the benefits of the Tridis 240P but is tailored for medium/high volumes. The 180 mm wide drum, available for flat, crinkle and deep crinkle applications, is essential if long potatoes are to be cut full length. It also benefits from the Set & Forget features. FAM Dorphy is an entry-level dicer and French fry cutter, combining the cut quality of the high-capacity machines with ultimate flexibility keeping labour cost down while maximizing productivity. Quick feeding and increased production speed

reduces preparation time from hours to minutes. The machine operates with very low maintenance costs, no lubrication required. This machine is available in 3 executions: in-line model, stand-alone model (lower infeed for batch feeding), and Eurobin model.

### **MACHINES FOR HIGH-QUALITY SLICING, SHREDDING, AND GRATING OF POTATOES**

FAM Centris 400P is a versatile centrifugal slicer/shredder with a patented DualStage impeller wheel maximizing quality and capacity. The machine is powered by the innovative SureSet 16P cutting head, which will always stay adjusted. The high cut accuracy results in a higher yield and less scrap. The incorporated "Stone Defender" offers the best protection against the impact of foreign material, lowering the total cost of ownership. The FAM Centris grating heads increase your options with a variety of cut sizes and styles that offer extra cutting possibilities. You therefore reduce the number of machines you need in your production line. The grating heads will produce all types of size-reduction solutions, starting





from whole fresh or cooked potatoes, or from pre-cut product (fries, dices, etc.). "FAM Volantis is our latest V-belt slicer designed for the precision transverse slicing of a wide variety of elongated and oblong products such as potatoes. The machine produces a high-quality cut on flat and crinkle slices, at medium to high volumes. The special infeed chute will bring the potato up to speed before entering the V-channel, preventing the potato from tumbling. The wide infeed channel will perfectly align the potatoes towards the slicing wheel," representatives add. "Programmed speed settings of the slicing wheel and the V belts allows the maximum cut quality at the highest capacity."

### KEY TECHNOLOGY INTRODUCES NEW OPTICAL SORTER FOR WHOLE POTATOES

**Key Technology**, a member of the Duravant family of operating companies, recently introduced their enhanced Herbert OCULUS optical sorter for whole potatoes at Fruit Logistica. Ideal for fresh market potatoes or whole potatoes prior to

processing, this enhanced system improves performance to better find and remove potatoes with defects. Its superior sorting capabilities help ensure product quality while reducing labor requirements and achieving consistent line capacity despite fluctuations in incoming raw product quality. "The value of Herbert OCULUS for the potato industry has never been greater. With extreme weather impacting the quality and quantity of harvested crops worldwide and labor availability at an all-time low, automating inspection with OCULUS helps customers achieve grade specifications while maximizing yield and profitability," said Antoine van Bree, president, Key Technology – EMEA and Asia. "Driven by continuous improvement, we upgraded OCULUS to offer our customers a more innovative, effective and reliable solution for the changing market." The enhanced Herbert OCULUS features new cameras that offer twice the resolution of the previous generation cameras to identify smaller, harder-to-detect defects. A more advanced 64-bit operating system replaces the previous 32-bit system to achieve a

more sophisticated analysis of each tuber. New longer-lasting air cylinders with better seals run at a lower pressure to minimize energy usage, reduce maintenance, and lessen operating noise while maintaining high performance. Lighter reject fingers move faster to improve reject accuracy. Herbert OCULUS conveys the potatoes over a series of rollers to present a complete 360-degree view of each tuber to the digital infrared color cameras. Compared to traditional cascade sorters, this unique method of sorting offers gentler handling and provides 20 percent more surface inspection to maximize defect removal. Available in multiple sizes for a range of capacities up to 40 metric tons of product per hour (88,000 lbs / hr), Herbert OCULUS recognizes size, shape, color, and texture. Its advanced detection capabilities enable the sorter to remove a wide range of color defects, diseases and surface abnormalities including skin discoloration, green and dark colors, bruising, mechanical damage, blackleg, and silver scurf.

### A FRUITFUL PARTNERSHIP

The PRO-Sort optical sorter was developed by **Haith** in partnership with **GRIMME UK** and automates the removal of stone, clod, and foreign debris from potatoes. Capable of handling up to 100 tons per hour with high levels of accuracy thanks to the integral TOMRA 3A optical sorter, the PRO-Sort is proving popular with UK growers faced with labor shortages. Rob Highfield, Haith's sales manager, is confident the PRO-Sort will also appeal to European farmers. "We have customers around the world, including USA, Canada, and Europe. As well as wanting to find cost-effective, reliable, and efficient ways to receive, wash and grade their produce they are all starting to talk about having the flexibility to move their handling machinery to where it's needed," says Highfield. "Labor shortages and the cost of labor are significant issues for growers. I think these two factors are behind the increasing interest we're seeing in our mobile solutions, such as our new mobile water treatment plant and the new PRO-Sort. We are

*Driven by continuous improvement, we upgraded OCULUS to offer our customers a more innovative, effective and reliable solution for the changing market.*  
Antoine van Bree, president, Key Technology – EMEA and Asia

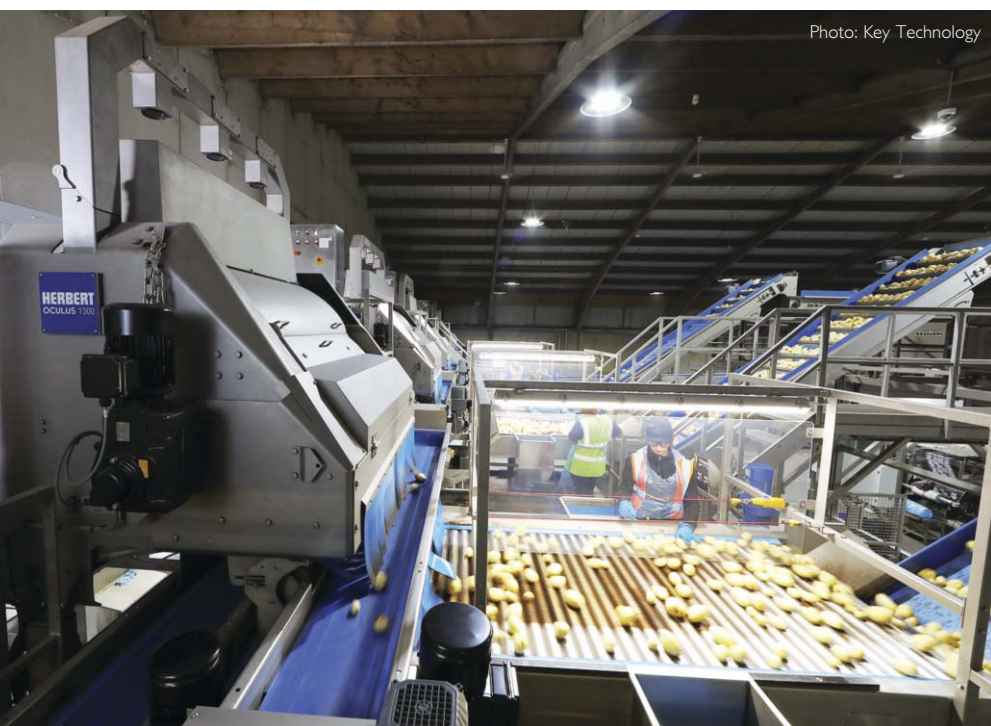


Photo: Key Technology



Photo: Haith



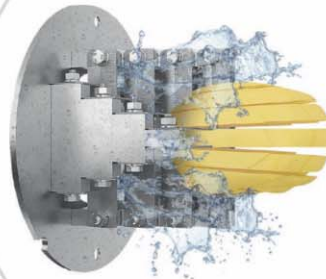
*As well as wanting to find cost-effective, reliable, and efficient ways to receive, wash and grade their produce they are all starting to talk about having the flexibility to move their handling machinery to where it's needed.*

*Rob Highfield, sales manager at Haith*



looking forward to showing visitors to Fruit Logistica just how easy it is to transport and set up the PRO-Sort." A modular unit, the PRO-Sort, can be used in the field, on a farm or integrated into a new or existing grading line. By working in partnership on the development of the PRO Sort, Haith and GRIMME have ensured that the new unit can be used in conjunction with the GRIMME RH receiving hopper to transfer potatoes into store and the GRIMME Cleanloader. Haith and GRIMME UK entered into a strategic working agreement in 2020 to deliver complete solutions to their customers, allowing them to source vegetable handling equipment and in-field root crop and vegetable machinery quickly and efficiently. ■

Together  
we cut  
your product  
to perfection



fam.be



stumabo.com



**FAM**

INDUSTRIAL FOOD CUTTING SOLUTIONS



**stumabo**





# ENSURING QUALITY THROUGH INNOVATION

*Manufacturers in the freezing business have been under increased pressure to provide novel solutions in recent years. The fundamental goal of freezing is to preserve product quality over time, but other factors, such as improved safety and hygiene, are getting increasingly significant. When it comes to massively popular products, such as French fries, the freezing process becomes essential.*

Global sales of French fries are being driven by the rising number of online food delivery service companies. According to projections published by Fact.MR, French fries are forecast to register a whopping 5.8% value CAGR over the next 10 years. This skyrocketing demand for the fast-food favorite means manufacturers require sustainable freezing systems perfectly integrated into the production process. The potato is the third most important food crop globally after rice and wheat in terms of human consumption. However, less than 50% of potatoes grown globally are likely to be consumed fresh, according to Mordor Intelligence. Most of the consumption is processed and frozen products in the form of French fries, cut chips, wedges, slices and dices served by limited-service restaurants and fast-food chains. Globally, the frozen potato market is forecast to hit a staggering 127m metric tons per year by 2025. A significant amount of energy is required to freeze potato products. For a 30,000kg/hr French fry freezing tunnel, about 6MW of refrigeration capacity at different temperature levels is needed to gradually reduce the product to frozen. The current challenge for frozen potato processors is to reduce energy and meet sustainability targets in an effective way. Freezer equipment design is vital for food safety, optimum performance throughout production, and energy savings, especially when handling massive quantities of French fries. Additionally, the right equipment can significantly reduce downtimes with fast, efficient cleaning factored in.

## GEA'S TUNNEL VISION OFFERS SUSTAINABLE FREEZING SOLUTIONS FOR FRENCH FRIES

**GEA**, a leading technology provider to the food sector has more than 160 of its French fry freezer tunnels operating worldwide and recently conducted extensive research and development into significantly improving the sustainability and energy consumption in industrial freezing equipment. A typical IQF (Individual Quick Freezing) tunnel, as supplied by technology specialists such as GEA, is composed of different temperature zones to successively decrease the product temperature from +95°C to +50°C in precool sections, +50°C to +10°C in refrigerated sections and finally +10°C to -15°C in freezing sections. For each step, a specific solution

was designed and implemented to reduce energy consumption:

- For the initial precool step, the compression refrigeration system is replaced by free cooling, utilizing a thermosyphon system to cool the air.
- The water precool step is also free-cooling and circulates plant water through heat exchangers to provide cooling capacity and save energy in the plant water heating system.
- The freezing section temperature setpoint is controlled with the Callifreeze system which continuously measures the product's frozen quality and adjusts freezer parameters according to set targets with minimum energy consumption.

GEA recently obtained a certification of CO<sub>2</sub> emission reduction for its French Fry IQF tunnel freezer with Water







Curly



Standard



Waffle



Crinkle

# GEA A-series IQF Tunnel Freezer, a sustainable solution



## 22%

Reduction of  
CO2 emissions



[gea.com/contact](https://gea.com/contact)

**GEA** Engineering  
for a better  
world.



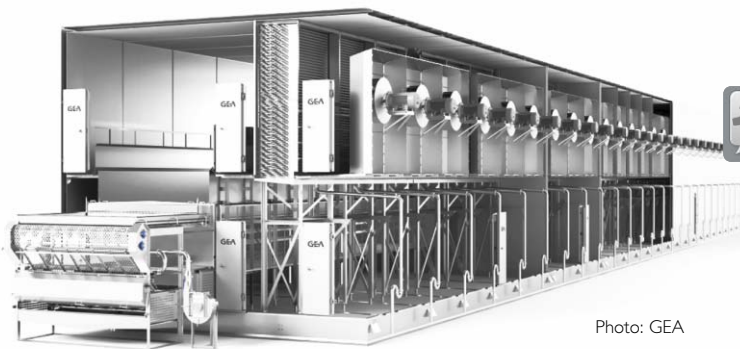


Photo: GEA

*As we know, any type of food can be frozen, but the quality of the end product is what really counts. The key criteria are the ability to continuously monitor the product's frozen state at freezer exit and automatically adjust freezer conditions when needed.*

GEA

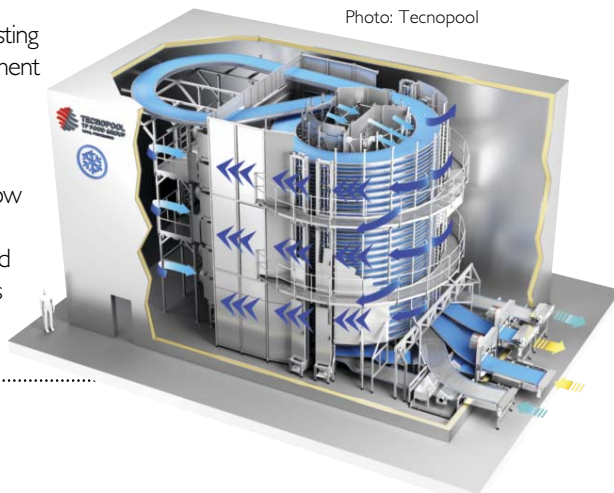
Precool because of a proven 22% to 57% drop in CO<sub>2</sub> emissions depending on the country and conditions therein. Results were certified by Ramboll, a EU Taxonomy evaluation body. As we know, any type of food can be frozen, but the quality of the end product is what really counts. The key criteria are the ability to continuously monitor the product's frozen state at freezer exit and automatically adjust freezer conditions when needed. This ensures that the products leave the freezer at the expected frozen quality. In addition to the CO<sub>2</sub> emission reduction, when applied to the French fry tunnel freezer, the Callifreeze control system leads to a minimum 9% energy saving on refrigeration system consumption. For those processors aiming for high throughput with reduced downtime, GEA IQF tunnel freezers can run comfortably for 21 consecutive days. The freezers are designed with high performance frost management systems including sequential defrost and unmatched automated controlled air balance system, reducing the need for frequent stops for defrost and cleaning. Proven CO<sub>2</sub> emission reductions and energy-saving consumption are part of the sustainable actions to contribute to and reach GEA Group's target to align with its Mission 2026 program. GEA promoted its range of equipment for the potato sector at the Interpom22 exhibition in Belgium. Its state-of-the-art freezing technology fulfills customers' needs for highly flexible and dynamically designed solutions. GEA's experience in the food industry offers customers optimal performance coupled with energy-efficient freezing and cooling systems. Considering the significant growth predicted for the French fry sector, food manufacturers are well placed to meet the increasing demand for these products with innovative processing and freezing solutions that really make a difference in the battle to prevent climate change.

## LOWERING ENERGY CONSUMPTION THROUGH SPIRAL FREEZERS

According to **Tecnopool** representatives, discussing industrial freezing machinery with potential accounts requires addressing several issues, such as ensuring that End-Users are properly trained in all aspects regarding operations, cleaning, and maintenance of a spiral freezer before it enters service. Another issue to manage is how to create and grow a relationship of trust with a potential account: a performing industrial food processing machinery is not enough on its own unless an OEM is capable to put in place a dependable aftersales support. Speaking about difficulties, the market circumstances of today may occasionally cause changes to the levels and the mix in the demand of baked goods. Making sure that industrial bakers can adjust their production to the needs of the market they serve is one of the issues that Tecnopool must address while designing spiral freezers. The industrial process that is currently being used is a good place to start looking in the short term. Optimizing processes to prevent production gaps, pursuing machine efficiency, and avoiding unneeded temperature fluctuations in machines that operate at low temperatures may be a good tactical approach. Additionally, it's imperative to follow the cleaning and maintenance schedules recommended by the OEMs. For instance, in spiral freezers, dirt can lower the thermodynamic efficiency of heat exchange batteries, and it's important to monitor the efficiency of drive transmission elements to prevent wasting energy. Bakers may search for equipment that consumes less energy if they are thinking about future investments. A spiral freezer can offer many ways to reduce its energy requirements. Airflow optimization, lower inertia of moving parts, smaller footprints, and improved designs of thermal exchange batteries

are some examples of design features that can help bakers more effectively guard against fluctuations in energy prices. Regarding freezers, technology can surely be of help in maximizing efficiency and uptime, according to Tecnopool representatives. A spiral system can integrate a data link and a wide array of sensors to collect and share with the OEM motion and energy consumption data which can help maintaining high efficiency levels of industrial operations. Furthermore, renewable energy production can be a benefit in offering a partial hedge against fluctuating energy prices that affect the operating costs of industrial freezers as a greener economy becomes more prevalent. In addition, from a fiscal point of view investments in renewable energy can generate savings anytime governments provide incentives to "green transitions". But when it comes to preventing downtime, what technology is available for avoiding or preventing an unexpected event of such kind? "OEMs prescribe preventive maintenance checklists in their «use and maintenance» manuals. Such checklists focus, most of the times, on moving parts and sensors," company representatives say. "Cleaning routines are also important. Users of spiral freezers should wash and sanitize their machines with the frequency the OEMs prescribe in their «use and maintenance manuals» which are tailored to the food product being processed. As previously mentioned, proper sensors to gather diverse «operations and consumption data» together with a policy of «data sharing» with the OEM, can surely be of help in

Photo: Tecnopool





supporting bakers maximizing freezer's uptime," they conclude.

### LOOKING AHEAD TO 2023

While 2020 and 2021 were dominated by the pandemic, 2022 represented a period of renewal and reinvigoration for **JBT**. The company welcomed several new additions to the JBT family, including alco, and it launched OmniBlu, the new AI-based platform for optimization and predictive maintenance, putting it in a better position than ever to grow together with its customers as a strategic longtime solutions partner. "But more importantly 2022 was the year when we were able to reconnect in person with customers again at trade events. JBT introduced a range of new automation and process optimization solutions, all designed to help customers grow their business with JBT, with the emphasis on achieving greater efficiencies and yield while at the same time growing productivity and profits," company representatives say. Looking back on the past 12 months, Anders Lassing, president of JBT Protein EMEA, says that the year also brought more than its fair share of challenges. Although the easing of Covid restrictions brought JBT and customers back together to exchange ideas and build personal relations, the Russian invasion of Ukraine in February 2022 led to market turbulence with rising inflation and a sharp increase in energy prices. Significant challenges for the food industry, which emerged during this period and are predicted to continue into 2023, are market uncertainty, cost increases, and staff shortages. JBT, continues Lassing, can help customers meet these challenges with solutions for automation, energy efficiency, reduced water consumption, and sustainability. "We can meet the needs of those looking to power their equipment with alternative energy sources like electricity to avoid high gas prices," he says. Lassing singles out two major developments that will make a real difference for customers in the 12 months ahead. The addition of alco's wide range of food production equipment complements and extends

JBT solutions exceptionally well and offers significant synergies. "The merger makes us a much more comprehensive supplier for our customers," Lassing reveals. "Together with alco, we can better match customer needs and deliver complete integrated solutions for every stage, from raw materials to the finished product. The customer only needs to contact JBT to get a complete line; we are a One-Stop-Shop." The acquisition of alco forms an essential part of JBT's objective to become a strategic and long-term solutions partner to customers. Another vital part of this is OmniBlu, JBT's new digital platform. OmniBlu, explains Lassing, is a set of digital tools that complements JBT's already existing competencies. "With our new solutions for connected machines, we can predict maintenance but also optimize resource consumption," he says. "Focusing on using resources and energy in a well-thought-out way is becoming increasingly important for our customers. It is an area where we already have many solutions, both products and improvements. With OmniBlu, we can offer our customers additional opportunities to minimize consumption of electricity, gas, water, and chemicals for cleaning." In addition, Lassing says OmniBlu makes it easier for customers to order spare parts directly from JBT; an option which can help customers achieve more planned – rather than unplanned – maintenance. "OmniBlu will provide customers with unmatched visibility of their operation and a powerful tool to maximize their uptime and machine performance, and we look forward to further developing it in a strategic partnership with our customers," he adds. What developments can be expected in 2023? Lassing says plant-based foods segment is likely to continue to grow despite a recent dip because of inflation. "The segment is still developing, and producers are testing which proteins are best to use, which processes are most appropriate and which products are most acceptable to consumers," he says. "Here, we can help food producers find the right methods and processes through

our Food Tech Centers in Sweden and the UK." With the acquisition of alco, he adds, JBT has also gained a Food Tech Center in Germany, which offers an essential service and development center, especially for start-ups that don't have their own testing facilities. Another significant trend that Lassing identifies for 2023 is the growth in sales of low-cost, highly processed products as consumers seek to cut down on expenses due to inflation. Here, Lassing says JBT can help thanks to innovative technologies and the knowhow needed to set-up production lines that will deliver high yields combined with low energy consumption and high throughput. In this way, he emphasizes, producers can keep their margins on a healthy level, even when producing highly processed food. JBT, Lassing adds, also offer flexible equipment so producers can quickly adapt when trends change. "By being quick-footed and responsive to our customer's needs in all sectors, we will be there for them right down the line and develop new intelligent solutions during 2023 and beyond," Lassing concludes. ■

*By being quick-footed and responsive to our customer's needs in all sectors, we will be there for them right down the line and develop new intelligent solutions during 2023 and beyond.*

*Anders Lassing, president of JBT Protein EMEA*



Photo: JBT



# ENJOYING A STEADY GROWTH

*The frozen potatoes sector, which is anticipated to expand in the projected period of 2023-2028 at a CAGR of 4.4%, is the main growth driver of the global market for frozen potato-based products.*



Europe accounted for a large share of the industry in the historical period and are expected to continue to be the leading regions in the forecast period. "This can be attributed to the higher consumption rate of potato-based products and frozen foods in the regions. Shortly, the Asia Pacific (APAC) region is expected to become one of the most profitable markets for frozen potatoes," a recent EMR market analysis synthesis reveals. In the same respect, due to the expansion of quick service restaurants (QSRs) in the region, the frozen potatoes market in APAC is expanding. Worldwide demand for frozen potatoes is rising because of rising fast food restaurants, improved food processing technology, rising disposable incomes, quick urbanization, and decreased import and export duties on frozen potatoes. Region-wise, North America is expected to hold a significant market share in terms of value in the forecast period, up until 2028, and that is owed to the growing fast food industry. According to the Food Empowerment Project (FEP), in 2015 the US fast food industry had reached USD200bn from just USD6bn in 1970. Therefore, growth of this segment should positively impact the French fries market in the years to come.


## A STABLE POTATO MARKET

Meanwhile, the fresh potato market in Europe is reportedly stable, but exports are strong. UK exports to the EU increased by 13.2% to 902,151 tons in the year ending in October 2022. Although there have been a few ground touches of frost, conditions are "surprisingly good," and the first Lady Rosetta variety for chipping is "imminently" going to be planted in the UK. Potato merchants are hopeful that prices will rise despite sluggish sales. Buyers are looking for high-quality samples, but they don't want to pay for them. Premium potato varieties that undergo a washing and labeling process have seen sporadic price increases. Throughout Europe, the potato processing markets are still robust, and export demand is high. Although

some stores will need to be moved before sprouting gets out of control, ex-farm relocation is primarily contract related and growers only sometimes give free purchases. After the holiday break, the fresh potato market started to show signs of revival. There have been some price rises due to the difficulty in obtaining red potatoes and the emergence of several new purchasers from Holland this season. "In the UK chipping produce is quiet and «typical for the time of year»." Buyers are looking for quality samples on repeat orders. The weakening of the sterling is making UK stock more accessible for export. Chipping contracts are moving ahead of program and although conversion rates are very good with almost no rejections, stocks are becoming extremely tight," according to a IFA January report. In Ireland, demand for bagging material is typical of this time of the year. Cold weather experienced recently should boost some orders. "Growers are currently weighing up their options for the upcoming season. Energy prices remain a primary concern for growers, and it is reported that many will not be able to avail of the Temporary Business Energy Support Scheme due to the reference period of the scheme," the report reveals.

## POTATO CONTRACT PRICES ARE RISING IN EUROPE

Higher production expenses, primarily from energy, fertilizer, and transportation, affected potato farmers throughout 2022. The cost of



# **4.4%**  
*is the expected annual growth rate for the frozen potato market up until 2028.*

production and storage is rising at an unsustainable rate, which is putting pressure on growers' profit margins. According to a recent Mintec expert analysis, due to greater year-over-year (y-o-y) electricity rates, potato storage and drying expenses also increased dramatically. To battle rising drying and storage expenses, several producers sold up their inventory earlier in the season. "In the 2022/23 season, demand for free-buy packing supplies was muted as many supermarkets contracted a higher proportion of their requirements to limit exposure to volatile potato prices. Therefore, significant driving factors, including higher input costs, have not been fully reflected in higher retail pricing. According to market sources, contract prices, largely finalized in Q4 2022, have risen by 20%-30% across the EU for the 2023/24 marketing year (MY) to account for this. This could potentially result in higher retail prices when the 2023 crop is harvested," the analysis reveals. The profitability and sustainability of the sector are in jeopardy in the lack of financial government support for farmers, which could limit future investments and possibly result in fewer planted areas the next season. There is a chance that some farmers will decide to cultivate alternative crops, like grain or oilseeds, in succeeding seasons to increase their yields. ■



# TAKING IN AND TAKING OUT

## *Nutritional concerns have a significant impact upon NPD within the frozen foods industry.*

**H**ealth and nutritional concerns should continue to affect activity within the markets for frozen bakery goods and potato products. However, innovation and new product development differs between the two sectors. With bakery goods, much of the recent NPD has been geared towards the incorporation of ingredients associated with healthy diets – examples include fibre and protein. Almost the opposite is true for frozen potato products, where manufacturers have been emphasising the removal of ingredients with a negative health perception, such as sodium.

## BAKERY GOODS

The bakery industry represents one of the largest sectors within the global food market. Although most bakery goods are sold fresh, sales of frozen bakery goods such as dough, pastries and cakes are also high. According to Future Market Insights, the global market for frozen bakery products is expected to increase by an annual average of 7% between 2022 and 2032, reaching a value of USD39bn. Frozen bakery products are rapidly becoming part of everyday diets for consumers throughout the world, especially in Europe. Numerous growth opportunities are also arising in China, India and South America, although further development of the market in regions such as Africa may be hampered by supply chain and infrastructure issues. Convenience represents one of the main growth drivers within the market. However, consumer interest in frozen bakery goods carrying health claims such

as gluten-free, organic, low-calorie and sugar-free continues to increase, while there is also growing demand for products fortified with additional vitamins and other ingredients. It is worth remembering that bakery goods such as bread and cakes have attracted a negative press over the last couple of decades on health and nutritional grounds, for reasons such as alleged high levels of sugar, calories and saturated fats. One of the most significant health trends within the global market for bakery goods in recent years has been the move towards clean-label products, i.e. those eschewing artificial additives and ingredients (e.g. flavours, colours, etc.) To a certain extent, this has helped manufacturers of bakery goods to address consumer concerns that their products are lacking in health appeal. In the past, new product development within this sector was held back by the various challenges, such as the problem



of preserving the quality of the finished product in areas such as crumb structure, as well as developing ingredients which can uphold dough strength and tolerance during the production process. However, products marketed on a clean-label platform are now evident in many sectors of the bakery industry, including the frozen sector.

Research carried out by C & R Research in North America during 2021 on behalf of Lesaffre (a French-based supplier of bakery ingredients) demonstrated that more consumers are now actively seeking out clean-label bakery goods. Some of the research's main findings are listed below:

- 68% were familiar with the term 'clean eating';
- 64% were familiar with the term 'clean label';
- 65% preferred bakery foods with a short ingredient list;
- 56% preferred bakery foods with recognisable ingredients;
- 37% were reluctant to purchase bakery foods containing ingredients that were hard to pronounce;
- 37% were reluctant to purchase bakery foods containing ingredients perceived as unhealthy;
- 37% were reluctant to purchase bakery foods containing ingredients perceived as unnatural.

Some of the bakery ingredients most frequently associated with the term 'clean label' included fibre, calcium and yeast. Lesaffre itself supplies a wide range of clean-label ingredients to the global bakery industry, specialising in the manufacture of yeast. Its range includes several brands which compete within the market for clean-label bakery ingredients. These include Red Star (which includes clean-label yeasts for fresh bread and rolls), Livendo (which includes clean-label flavour enhancers for bread, rolls and various sweet goods) and Saf Pro, clean-label dough improvers which can increase the tolerance and strength of dough.

## AN INGREDIENT AT HIGH DEMAND

Fibre is another nutritional ingredient strongly linked with bakery goods such as bread, especially varieties such as granary, wholemeal and pumpernickel. Its many benefits include its digestive health benefits, as well as the lower risk of conditions such as heart disease, bowel cancer, stroke and type 2 diabetes.

However, most indications suggest that most consumers are not eating enough fibre. In the US, the recent National Health & Nutrition Examination Survey (NHANES), which surveyed 14,600 people between 2013 and 2018, found that just 7% of the adult population met the daily dietary fibre recommendations. This percentage figure rose to 9% for women but fell to just 5% of men. In the US, the recommended daily intake is 28g, but the average is thought to be somewhere around the 14g mark. A similar situation exists in the UK. Although government guidelines recommend a daily fibre intake of 30g, although the average figure for adults (according to latest data) is just under 20g. This compares with 16g per day for those aged 11-18, although the recommended figure is 25g. This led to the Action on Fibre initiative from the Food & Drink Federation (FDF), which attracted the signatures of leading food brands such as Kellogg, Weetabix, Warburtons, General Mills and pladis. According to the FDF, only a third of the UK population is aware of the recommended daily intake figure of 30g, while 70% are unsure if they are meeting the target or not.

Many leading frozen bakery brands emphasise the fibre content of their products. One example is the Banquet d'Or brand from the Belgian company Vandemoortele, which specialises in bakery goods, margarines and culinary oils. The company supplies frozen bakery products such as bread, pastries and savoury products (e.g. focaccia), in raw, ready-made or part-baked formats. Health represents a major selling point for its Essential range of frozen bread, examples of which include Wholegrain (where significant use is made of wholemeal flour, a source of fibre and protein) and Fit, which contains soy grits and oat flakes.

The Essential range also encompasses

Spelt, which is based on ancient grains – these have a nutty flavour and are recognised as being rich in fibre and protein, as well as 100% plant-based. So-called ancient grains have become especially widespread in market sectors such as bread, with many carrying strong links with health. An additional advantage of ancient grains is their environmental benefit – for example, it has been shown that varieties such as buckwheat and millet are beneficial for soil health, since they deliver many important nutrients back into the earth and offer protection against soil erosion.

The popularity of gluten-free diets is another leading health driver within the bakery industry. In the US, for example, almost a quarter of the population is thought to follow a gluten-free diet, even though coeliac disease only affects 5% of people. For gluten-free bakery goods, combinations of flours are used to ensure optimal baking performance, since most do not absorb liquids as readily as wheat flour – this can result in dry-tasting finished products which crumble easily. High protein options remain a feature of the bakery industry in many parts of the world. Given that bakery goods such as bread and cakes are widely eaten, they would appear to represent a suitable carrier for protein-enriched products. Furthermore, some bakery goods are naturally high in protein – one example is bread enriched with additional seeds (e.g. pumpkin and sunflower).

According to research carried out by Glanbia Nutritionals, 40% of consumers would potentially be interested in high protein or protein-enriched versions of

# **64%**  
of North American consumers were familiar with the term 'clean label' in 2021.



bakery goods such as muffins, pancakes and waffles. The popularity of high-protein diets is expected to increase within the next few years, given the growing number of people who now claim to be following keto or low-carbohydrate diets – these emphasise a high intake of protein and fats, while reducing consumption of carbohydrates. Glanbia's range includes OvenPro, high-protein solutions allowing for the replacement of flour with protein in bakery goods such as bread, cakes and biscuits. For sweet bakery goods such as cakes and pastries, manufacturers have also been adding fruit to their products in a bid to increase their health appeal. Although tropical fruits such as pineapple have traditionally been popular, there are concerns that some ethically-minded consumers may associate these with excessive air miles, giving the final product a higher carbon footprint. To counter this, one possible solution is greater use of local fruits, especially if they are in season – examples include apples, plums and rhubarb.

## POTATO PRODUCTS

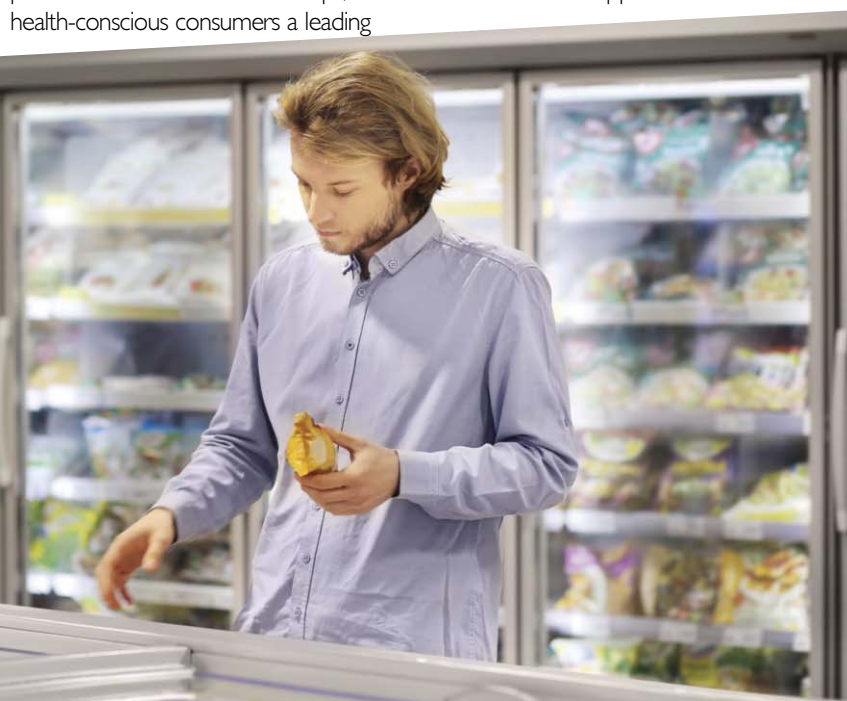
The global market for frozen potato products continues to expand, having been one of the main beneficiaries during the pandemic as house-bound consumers turned towards convenient meal options for in-home eating. The affordability offered by many types of frozen potato products suggests that demand will be boosted by the squeeze on consumer spending caused by the global economic disruption. Global sales of frozen potato products are increasing by around 6% per annum at present, with French fries accounting for up to 40% of worldwide market value. Affordability and convenience therefore

represent the main selling points for frozen potato products as far as consumers are concerned. However, health and nutritional concerns do play a role in consumer behaviour within this sector. Unlike other areas of the food industry, health-related NPD within this sector has stressed the removal of ingredients associated with poor diets, rather than incorporating ones sought by health-conscious consumers. It should be noted that frozen potato products do possess various health qualities – they are rich in vitamins C, B6 and K, for example. Market leader McCain Foods has set itself various targets to improve the nutritional profile of its products – for example, it has committed to reducing sodium levels across its range of frozen potato products and appetisers by 15% by 2025. Artificial additives and ingredients have also largely been removed from its range, while the company is also committed to the removal of palm oil from its frying operations on the grounds of sustainability. However, the situation in Ukraine has temporarily halted progress in this sphere. During 2022, the company's US subsidiary launched new straight-cut, crinkle and waffle French fries featuring no trans fatty acids, no artificial flavours and minimum levels of saturated fats. To cater towards the growing popularity of vegan and vegetarian diets, McCain also invested USD55m into the Irish-based firm Strong Roots at the end of 2021. This company's range includes frozen products such as Oven Baked Sweet Potato Fries, Spinach Bites, Cauliflower Hash Browns and Mixed Root Vegetable Fries. This serves as an example of how companies such as McCain are exploring the potential of alternatives to potatoes to create popular products such as French fries/chips, with health-conscious consumers a leading

target group.

In recent years, the market has also witnessed the arrival of more frozen products based on sweet potatoes. These carry strong health credentials, since they have a lower glycaemic index (GI) than regular potatoes – the sugar is broken down more slowly, leaving consumers feeling fuller for longer periods and therefore less likely to engage in snacking. Sweet potatoes also possess lower calorie levels than standard varieties and have been identified as a suitable source of various vitamins and minerals, as well as antioxidants and fibre. Most of the market's leading suppliers now include sweet potatoes within their respective ranges. McCain, for example, includes Sweet Potato Rustics (which are described as skin-on potato wedges with a crispy batter) within its Menu Signatures brand for foodservice customers. Elsewhere, Aviko supplies French fries, wedges and diced potatoes using sweet potato for the foodservice industry, while Lamb Weston's range includes sweet potatoes in formats such as Platter Fries, Crinkle Cut Fries, Juliennes and Thin Regular Cut Vanilla Seasoned. Other health trends evident within the sector include the appearance of varieties marketed as gluten-free, as well as organic products. More manufacturers have also been extending their ranges with frozen potato products with the skin left on. Potato skins are rich in certain nutrients such as potassium and fibre, while skin-on varieties are often promoted as having a lower fat content. However, much of the impetus behind the launch of skin-on versions of frozen chips or fries has been to address consumer demands for products offering a more homemade or rustic feel and appearance. ■

# **39**  
bn USD is the projected  
size for the global  
frozen bakery products  
market in 2032.







Get your updates  
right from the core of the  
potato processing industry

- Interactive information
- Dynamic design
- Tablet & mobile friendly

# POTATOBUSINESS DIGITAL



Loading...





# AI - THE NEXT STEPS IN THE OUT-OF-HOME MARKET

*Innovative companies test the strengths and restrictions of robots in pilot operations. Apart from a few critical voices, the perspectives are largely positive – at least in the medium term. But the more versatile robots are supposed to be used, the more complex the volume of their control data will be. Then AI tools are often required. The same applies to the field of image recognition, which has received little attention to this date. Image recognition could play a significant role in some segments of the out-of-home market in the future.*

**T**he reason why the first food robots in the out-of-home market were highly revolutionary was because they offered solutions to problems that this industry didn't know up until then. Progressive and farsighted market players have dealt with them for some time now, aware that such technological leaps and bounds take some time to find their ways into the different markets. That's why they can usually only solve problems medium-term and seldom short-term.

But AI and robotics have also arrived in the out-of-home market. One sees this from the fact that the range of applications for food and service vending machines has continually expanded in the industry. Food service Europe has reported on this several times. On pizza, pasta and coffee specialties produced by robots are followed recently by robot tortilla chips, salads, chicken wings, or double-sided fried burgers.

Since the developers have brought their robotic systems to a certain maturity, more and more innovative users are ready to test them in different areas of application. Perhaps this development reflects a new phase in the currently still

low level of market penetration. The motives of the foodservice professionals for these tests are diverse. Most of them want:

- To equalize staff shortages,
- Relieve staff,
- Reduce personnel costs,
- Optimize their workflow,
- Achieve more sales per unit of time, stationary as with drive-thru, and/or
- Implement staff-independent opening hours.

How fast, how permanent, and to what extent the desired effects occur is often very difficult to assess. For this reason, but not only, but there are also voices which currently evaluate robotics critically in multi-unit restaurants. One of the critics is the CEO from McDonald's, Chris Kempczinski. He doesn't see a viable solution in robotics for most restaurants in the foreseeable future because he is convinced that the investments don't pay off.

## PREVENTING MALNUTRITION WITH THE HELP OF AI

But AI isn't only relevant for food robotics. There are other exciting applications as well for instance in the analysis of food photos. One of the





systems could become relevant in the foreseeable future, especially for nursing homes and hospitals because elderly and/or sick people frequently do not eat enough. Perhaps the subject will also be interesting for the occupational health care system, in which diet plays an essential role. Malnutrition, especially in nursing homes, is a big challenge for the people responsible:

1. they must recognize it,
2. assess its impact and
3. take the appropriate measures.

This usually requires a high level of time commitment for which there is frequently not enough staff. That's why professionals from various fields have been searching for several years for methods that could be used to evaluate food leftovers on the plates of the elderly or patients with the help of computers. So much data is generated in the process that they can only be gathered with help of AI and processed with high performance computers. Therefore, the developers are facing demanding challenges, especially with image acquisition, recognition, and evaluation. Why?

### SPLITTING COMPLEX IMAGE MOTIFS

Food leftovers are then highly complex image motifs if they are supposed to be disassembled into their individual components after the photo shooting because they differ significantly in volume, texture, and nutrient content. Sometimes they are lying completely

unstructured on the plates. But even solid substances are often mixed with liquid pastry ones. It is not a trivial task to analyze such a mélange. When it is solved, one can identify the deficits in nutritional values and nutrients with minimal effort. With this information, the people responsible can decide whether or if applicable how the shortages are to be compensated. In the laboratory, the experts seem to come relatively close to a solution.

### AI-BASED SOFTWARE

In the recent past, a Canadian team of experts have developed a special procedure together with nutritionists and nursing professionals. With the help from AI and machine learning, they programmed a type of complex software to analyze food leftovers on plates. A key prerequisite for the subsequent process steps was that the recipes of the dishes, the nutritional values of the foodstuffs used, and the nutritional calculations for the meals were digitized, which is in the meantime state of the art in many nursing homes and hospitals. The researchers have set up a data bank with over 1,000 high resolution and caption images of food and dishes.

### DIGITAL IMAGE RECOGNITION

First, one must break down the food leftovers into their fractions in terms of images, then determine certain characteristics and afterwards quantify





their volume and put it in proportion to the portion served. Finally, one can calculate the nutritional value and the nutrients of the food that hasn't been eaten. For their photo shots with a digital RGB camera (RGB – red, green, blue; unlike CMYK, there is no black), they experimented with a novel system that can capture colors more accurately than digital cameras. In a shortened form, it works as follows: a machine-based learning system receives an image from the RGB camera (encoder), produces a picture-described data set, which it reads out as a sequence of words (decoder).

## THE BENEFITS FOR CARE OPERATIONS

In care operations, where the AI supported analysis of the part of the food that is not consumed, will relieve the burden on the nursing staff and contribute to optimizing the diet of elderly and/or sick people. Kitchen managements, who use food management systems, will have it comparatively easy to set up a digital image acquisition and recognition with this system. The prerequisite is that it is suitable for daily use, there-fore easy to handle and its acquisition and usage costs fall to a level in line with their budgets. The development is moving in this direction. Perhaps already in a few years, systems that are suitable for daily use are ready for use. Then it will also eventually be possible to analyze the



*Kitchen managements, who use food management systems, will have it comparatively easy to set up a digital image acquisition and recognition with this system. The prerequisite is that it is suitable for daily use, there-fore easy to handle and its acquisition and usage costs fall to a level in line with their budgets.*

nutrient spectrum of food leftovers extensively than it is foreseeable today so that one can make up for nutritional deficits in a more targeted way.

## AN EXTENDED APPLICATION

Even in occupational health care, questions about a healthy diet play an important role. Conceivable, for example, that the chef of a staff restaurant in a progressive company serves dishes in his line of menus with exactly calculated portion sizes. The

guests, who consume them completely, know exactly what nutritional values he or she has fed themselves. Whoever leaves food leftovers on the plate, can analyze them, and subtract their nutritional value from the calculated value of the entire dish. Therefore, even these guests know exactly how much fat, protein, carbohydrates, and energy they have eaten. Therefore, AI, automation, and robotics remain exciting for our industry too. One can assume that unexpected areas of application will be opened in the future too. ■





# [frozen dossier food]

*Click it or flip it: read, discover and lead!*



## ON-LINE

version available on  
**frozenfoodeurope.com**

## PRINT

hardcopies available complimentary to  
**Frozen Food Europe** magazine

# 2

times a year

## STATE OF THE FROZEN FOOD INDUSTRY

is a project which contains reports on the most important frozen food categories, as well as technical equipment innovation related to product manufacturing, published both in print and on-line.





# AN EVER-EXPANDING PART OF THE BUSINESS

*As essential segments of the industry, the transport and logistics of frozen products have seen several changes in recent years, mostly due to the challenges brought up by unexpected events. This does assure a certain flexibility for the medium and long term, and any investments made are likely to pay dividends.*

The global cold chain market was estimated at USD247.9bn in 2020 and is projected to reach a revised size of USD407.2bn by 2027, growing at a CAGR of 7.3% over the analysis period, according to a new report by Global Industry Analysts. Frozen, one of the segments analyzed in the report, is projected to record 7.6% CAGR and reach USD287bn by the end of the analysis period. Considering the ongoing post pandemic recovery, growth in the chilled segment is readjusted to a revised 6.8% CAGR for the next 7-year period. The North America cold chain market size reached USD67.1bn in 2022. Looking forward, IMARC Group expects the market to reach USD104.1bn by 2028, exhibiting a growth rate (CAGR) of 7.3%

during 2023-2028. China, the world's second largest economy, is forecast to reach a projected market size of USD71.4bn by the year 2027 trailing a CAGR of 6.9% over the analysis period 2020 to 2027. Among the other noteworthy geographic markets are Japan and Canada, each forecast to grow at 6.9% and 5.8% respectively over the 2020-2027 period. Within Europe, Germany is forecast to grow at approximately 5.9% CAGR.

## SEVERAL INVESTMENTS ON THE EUROPEAN MARKET

One of the top temperature-controlled storage companies in the UK, **Magnavale**, has added blast freezing solutions to its list of services at its Easton site. At its facilities in Chesterfield,

Scunthorpe, Warrington, and now Easton, Magnavale now provides blast freezing. The provider of temperature-controlled storage thinks that by including the service in addition to its frozen storage options, it will give its present clients the chance to increase the effectiveness of their supply chains and lower total costs. With one of the greatest blast freezing capacities in the UK, Magnavale has been offering blast freezing solutions for more than 20 years. With its expanded service portfolio, Magnavale is enhancing national cold supply networks with the goal of reducing food waste and boosting supply chain efficiencies. Magnavale purchased the 44,000-pallet cold storage facility known as Magnavale Easton in September 2022 with the pledge to



make improvements to the infrastructure and onsite services. Four months later, Magnavale has shown its dedication to the facility by stating that building on Phase 2 of the development has begun and that on-site services have been improved. **Oakland International's** accredited distress load management (DLM) service is continuing to experience greater demand, and there

must overcome. In this situation, an autonomous management solution for the potato supply chain is ideal to deal with these changes. Thanks to a proprietary, effective, and efficient approach, SAALTO is a pioneer in managing, monitoring, and automatically tracking the potato boxes. According to a company release, the box detection is autonomous and based on various

are plans to grow the staff over the next year. Oakland International underwent a significant shift to a dedicated purpose-built hub in 2022. Oakland International's dedicated DLM service, which has been operating successfully for two decades, prevents the waste of needless product. No matter the type of product - food, non-food, or temperature - or the circumstances surrounding the distress load - collapsed pallets, covert infiltration, temperature violations, theft, vermin, or other contamination - distress loads are a common occurrence across all industries and can be expensive in terms of both time and money. Oakland's soon-to-be released real-time DLM App will work with local and international businesses of all sizes to enhance service effectiveness by accelerating all procedures and delivering quick customer report data. In November of last year, the French company **SAALTO**, which specializes in the automatic management of boxes for a complete tracking of the potato supply chain, was acquired by the DUBRULLE group. The professionalization and digitization of farms, the labor shortage, the adherence to codes of good agricultural practices, as well as the upgrading of the industry, are some of the current issues that potato farmers

algorithms; the operator does not need to manually intervene. All box movements are managed, tracked, and analyzed using the SAALTO solution. The producer can obtain real-time information on the stock situation and location as well as the many daily motions thanks to this logical and user-friendly solution. With a high degree of client satisfaction, SAALTO has additionally demonstrated the marketability of this solution. The DUBRULLE business has played a significant role in the potato and other vegetable sectors since 1973. A pivotal move for the company was the acquisition of DOWNS in 2006, a producer of solutions for receiving and storing potatoes. Following that, a plant was built in Sainte Marie Cappel, in the north of France, a design office was established, worldwide development began, and more generally, all levels of the company were upgraded. The DUBRULLE group's growth strategy is being continued by the acquisition of SAALTO, which also brings in fresh expertise and technology. Combining the technological and human expertise of DOWNS and SAALTO will result in new advancements and integrations



# **407.2**  
bn USD is the projected  
size of the global cold  
chain market by 2027.

that will allow the company to provide its clients with solutions that are consistently more creative and effective.

## HIGHER DEMAND FOR WAREHOUSING AND STORAGE

On the other hand, in 2021, the market for warehousing and storage reached a size of USD451.9bn. Looking ahead, research firm IMARC Group projects that the market will reach USD605.6bn by 2027, growing at a CAGR of 4.9% between 2022 and 2027. For an effective and seamless setup of the inventory, every business owner needs warehouses and storage facilities. A warehouse is a location used for the accumulation or storage of finished items, raw materials, semi-finished goods, imported or exported commodities, etc. The products must be kept in storage so they can be made available to end users as needed. Every step in the value chain of any product requires storage of a specific quantity of products. Marketing success depends on making the proper arrangements to sell the products in the best possible shape. An organization can continue manufacturing in anticipation of future demand thanks to storage. Warehouses give the company the ability to keep producing all year long and sell their products whenever there is a sufficient market for them. General warehousing and storage, farm product warehousing and storage, and refrigerated warehousing and storage are the three categories into which warehouses can generally be categorized. ■







## HÄAGEN-DAZS LAUNCHES BREAKTHROUGH INNOVATION



Häagen-Dazs ice cream announces its newest innovation entering the U.S. market, the Butter Cookie Cone, as the brand looks to offer a new experience to the growing consumer demand for premium snacking. It delivers on a one-of-a-kind dessert experience wrapping its famously luxurious ice cream in butter cookie from top to bottom. The Butter Cookie Cone is a first-to-market frozen treat from Häagen-Dazs that is wrapped in unexpected moments of luxury.

[www.icecream.com/us/en/brands/haagen-dazs](http://www.icecream.com/us/en/brands/haagen-dazs)

## MONDI, FRESH!PACKING DEVELOP NEW COOLER BAG

Mondi, a world leader in environmentally responsible packaging and paper, collaborated with FRESH!PACKING to develop a novel cooler bag that consumers can use to store and transport chilled or frozen food products safely to and from their homes. The outer layer of the Fresh!Bag is made entirely out of Mondi's long-lasting kraft paper. This replaces the traditionally used, non-recyclable, multi-material packaging while simultaneously increasing the amount of cooling protection by up to 2.5 times.

[www.mondigroup.com/en/home](http://www.mondigroup.com/en/home)



## FOODIQ SHOWCASES NEW INGREDIENT FOR PLANT-BASED PRODUCTS

A ground-breaking new ingredient has been developed by the Finnish company Foodiq, whose mission is to provide sustainable solutions to solve problems related to the future of food. This ingredient has the potential to finally make it possible for plant-based food alternatives to go global. The ingredient, which goes by the name Fabea+ and is made up of fermented fava beans, provides a more nutrient-dense, environmentally friendly, and scalable alternative to conventional plant-based ingredients like soy, pea, or oats that are used in the market.

[www.foodiq.fi](http://www.foodiq.fi)



## KATERBAKE BELGIAN WAFFLES NOW SUITABLE FOR VEGANS

Central Foods, a provider of frozen foods, has declared that their well-liked KaterBake Belgian Waffle is now vegan. The KaterBake Belgian Waffle is individually wrapped, has a 45-day defrosted shelf-life, and has the same fantastic taste as before but is now vegan-friendly thanks to a little recipe change. It is prepared in Belgium, the waffle's birthplace, using traditional pearl sugar, which caramelizes when heated for a deeper, sweeter flavor.

[www.centralfoods.co.uk](http://www.centralfoods.co.uk)





# BAKE BETTER BUSINESS



High-end print magazines

- **EUROPEAN  
BAKER & BISCUIT**
- **ASIA PACIFIC  
BAKER & BISCUIT**

Certified digital magazine

- **WORLD BAKERS  
DIGITAL**

Supporting website

- **worldbakers.com**
- **WEEKLY  
NEWSLETTER**





## TATTOOED CHEF ENTERS THE REFRIGERATED AISLE



With the introduction of Oat Butter Bars, Tattooed Chef, the fastest-growing frozen plant-based food company offering a wide selection of meals, bowls, and snacks, is expanding its portfolio, and making its debut in the refrigerated sector. These novel snack foods blend the easy grab-and-go functionality of bars with the burgeoning functional nutrition trend. Tattooed Chef delivers potent adaptogens, such as ashwagandha, holy basil, reishi, and vitamin D3, in each bar.

[www.tattooedchef.com](http://www.tattooedchef.com)

## NEW CARAMILK RANGE FROM CADBURY ICE CREAM

The newest flavor of Cadbury ice cream, Cadbury Caramilk, has been introduced by the international ice cream manufacturer Froneri. The debut of Cadbury Caramilk in February 2023 will include both sticks and tubs, ensuring that everyone may find their favorite ice cream. The Cadbury Caramilk ice cream line is the brand's most recent introduction; it already offers well-known flavors including Cadbury Dairy Milk chocolate sticks and Cadbury Dark Milk. As part of the sticks and tubs line, Cadbury Caramilk will be sold starting in February at ASDA and then at all major shops.

[www.cadbury.co.uk](http://www.cadbury.co.uk)



## PUKKA EXTENDS PRODUCT RANGE



Chilled pie specialist Pukka has presented a trio of new recipes in a bid to drive further incremental sales for the Savoury Pastry sector – where the brand is already contributing more than half of total growth, according to IRI data. Pukka's demand-driven pair of new pie recipes comprise a first-to-market Pepperoni Pizza pie (intended to appeal equally to lovers of pizza and pies) and a traditional Northern favorite, Meat & Potato pie, with pie consumption at an all-time high. Along with that, a distinctive Pepperoni Pizza slice will be added to the brand's wildly popular chilled portable savory pastry line, helping to increase the 70% additional spend that Pukka slices already generate by luring new customers to the savory pastry fixture.

[www.pukkapies.co.uk](http://www.pukkapies.co.uk)

## MICHIGAN'S SKINNY BUTCHER - PLANT-BASED CHICK'N PRODUCTS

Skinny Butcher, a plant-based brand launched by the former Garden Fresh Gourmet executives behind America's #1 fresh salsa, has announced its' restaurant quality line of Crazy Crispy Chick'n Breasts, Tenders, Nuggets, and Patties is now available throughout Michigan at Costco Wholesale, all Gordon Food Service outlets, and SpartanNash corporate stores. The products are also sold in independent markets through Lipari Foods' distribution network of more than 700 stores in 27 states.

[www.skinnybutcher.com](http://www.skinnybutcher.com)





1

JANUARY/FEBRUARY

Ad closing 03.02  
Publishing 14.02**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**

trends and innovations

**Frozen Potato Market**

innovative products and European overview

**Frozen Potato Technology**

sorting, peeling, cutting, slicing, dicing

**Freezing Technology**

conveyor belts, freezers and chillers, tunnel &amp; spiral freezing systems

**Transport & Logistics**

developments, distribution, and cold storage

**Artificial Intelligence**

update on applications for automation &amp; robotics

**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 Nürnberg, GULFOOD Dubai, FOOD EX JAPAN, INTERNORGA Hamburg, CFIA Rennes, FOOD EXPO Greece, M.A.D.E. Paris, IFE London, CIBUS CONNECTING

2

MARCH/APRIL

Ad closing 24.03  
Publishing 07.04

PLMA, TUTTOFOOD &amp; INTERPACK SPECIAL EDITION

**Appetizers, Snacks and Pies**

high convenience, filo pastry &amp; pies, pizza &amp; ready meals

**Frozen Vegetables, Fruit, Mushrooms, Green Herbs**

trends and market overview

**Technology Innovation for Frozen Vegetables & Fruit**

sorting, peeling, cutting, slicing, 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, freezers, coolers, proofers, ovens

**Plant-based & Vegetarian Products**

meat-free and protein substitutes

**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 Amsterdam, TUTTOFOOD Milano, INTERPACK Düsseldorf, SEAFOOD EXPO GLOBAL Barcelona, FOOD EX BirminghamTUTTOFOOD  
MILANO

interpack

3

MAY/JUNE

Ad closing 26.05  
Publishing 09.06**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**

herbs &amp; mixed herbs, rice, noodles, vegetables, processed meat, and sauces

**Frozen Finger Food, Fried & Baked Products**

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 &amp; major players

**Trade fairs:** SUMMER FANCY FOOD SHOW NY

4

JULY/AUGUST

Ad closing 28.07  
Publishing 11.08

ANUGA SPECIAL EDITION 1

**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 &amp; foodservice

**Potato Technology Innovation**

new equipment for potato processing

**Vegetarian and Vegan Food**

product trends, innovations

**Technology for the Frozen Food Industry**

maintenance &amp; after sales services

**Frozen Food in Spain and Portugal**

latest market developments

**Industrial Freezing Systems**

latest equipment and technologies

**Dishwashing Machines for Professional Kitchens**

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

**Nutrition & Ingredients**

trends for coated and breaded products

**Trade fairs:** ANUGA Cologne, PACK EXPO Las Vegas

5

SEPTEMBER/OCTOBER

Ad closing 15.09  
Publishing 29.09

ANUGA SPECIAL EDITION 2

**Key Exhibitors Road Map and Event Agenda****ANUGA Trends**

special report

**Bread, Bakery, and Pastry**

sweet &amp; salty products

**Frozen Vegetables, Fruit, Mushrooms, Green Herbs**

solutions for retail and foodservice

**Technology Innovation for Frozen Vegetables and Fruit**

sorting, peeling, cutting, slicing, 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**

new technologies for product development

**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:** ANUGA Cologne, IBA München, INTERPOM Kortrijk, PLANT BASED World Europe, PLMA Chicago, GULFOOD MANUFACTURING Dubai

6

NOVEMBER/DECEMBER

Ad closing 24.11  
Publishing 08.12**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**

product development &amp; trends

**Freezing Technology**

refrigerating and freezing equipment

**Quick Service Restaurants & Bar and Snack Channel**

leading operators in Europe and market evolution

**Going 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 Lyon 2024, MARCA Bologna 2024, FRUIT LOGISTICA Berlin 2024, Gulfood Dubai 2024

# Frozen Food Europe

on social media

