

Review FIE Paris 2019
December 3-5th



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FIE Figures & show events

Now in its 33rd year, Fi Europe & Ni has evolved along with the industry it serves to become a show that is unique in its innovative character.

Offering you a platform where tomorrow's trends are being born, this year we're pleased to be welcoming more than 27,000 visitors and 1,700 suppliers who will be showcasing the latest and most innovative F&B ingredients from all corners of the world.

FIE Paris 2019 Show, it is:



27,000+ attendees



1,700+ exhibitors



15,000+ ingredients

Pavilions

18 country pavilions:

Country Pavilions

If you're looking for ingredients, products or exhibitors from a particular country, our 18 country pavilions from around the world have got you covered. Stop by our country pavilions on the show floor to access a huge international base of suppliers.



Natural ingredients Pavilion

It offers an invaluable opportunity to source multiple industries, such as botanicals and natural colours and flavours along with plant-based and herbal products. The natural ingredients brand caters to suppliers of ingredients and extracts that are derived from natural sources and are minimally processed. Key focus areas this year include natural extracts and clean label products.

Free From Pavilion

Source a range of non-dairy milk, no-wheat based grains and flours, completely free from common food allergens, GMO-free...

Expo FoodTech Pavilion

To discover the latest high-tech solutions in ingredient packaging, machinery, processing equipment and a hub offering a programme on food processing technology, food fraud, supply chain management and product line safety.

Organic Pavilion

A booming trend particularly in Europe with the latest organic solutions

New Exhibitors Pavilion

To meet new suppliers.

FI Innovation awards

A total of 34 companies made it into the final round of the Fi Innovation Awards, representing eleven categories.

Future of Nutrition Award

- AAK for Akovita® for a range of lipids for tailor-made products in senior nutrition
- Arla Food Ingredients for Lacprodan® MFGM-10 contributing to brain development, gut health and immune function in infant formulas
- Nucaps Nanotechnology for bioavailable capsules with natural proteins
- [Vietnam Food Joint Stock Company for their valorisation of shrimp by-products \(Winner\).](#)

Sustainability Champion Award

- Archer Daniels Midland Company (ADM) for promoting sustainable farming practices and biodiversity conservation in South America
- [Palsgaard as the first emulsifier ingredients company to achieve CO2 neutral production \(Winner\).](#)

Organic Champion Award (All winners)

- Diana Food for organic colouring foodstuff
- Panteley Toshev for the world's first organic beverage emulsions
- Tradin Organic for its range of organic avocado oil from Ethiopia

Clean label & Natural Innovation Award

- [Chr. Hansen for the HANSEN SWEET POTATO™, offering unique coloring properties in brilliant red \(Winner\).](#)
- HI-FOOD SPA for Meltec® semi-solid fibers for syrups and sugar replacement
- Royal Koopmans for Koopmans Bind-it™, a clean label binding agent for meat-free burgers

Functional Innovation Award

- AAK for Akonino® LCP being close to human milk lipids
- [Bunge Loders Croklaan for Betapol Plus®, OPO fats for infant formulas \(Winner\).](#)
- Chr. Hansen for CHY-MAX® Supreme – A game changing cheese coagulant

Reformulation Innovation Award

- [Chr. Hansen for Sweety® Cultures for sugar reduction in fermented dairy \(Winner\).](#)
- Griffith Foods for extruded snacks using green banana flour and Sodium Flex for salt reduction
- Taura Natural Ingredients for JusFruit Fibre+: an easy way to increase dietary fibre intake

Protein Innovation Award

- Arla Foods Ingredients for a concept for infant formula with alpha-lactalbumin and whey protein hydrolysates
- Ebro Ingredients for textured organic pea protein
- [ICL Food Specialties for the development of ROVITARIS™ FBX 360, a textured faba bean protein \(Winner\).](#)
- Kerry for ProDiem™ Refresh solving challenges of low-pH protein beverage formulation

F&B Categories Innovation Award

- DuPont Nutrition & Biosciences for CHOOZIT® BC Cultures, an optimum browning control of pizza cheese
- [Griffith Foods for the vegetable-based coating system "Never Fry" \(Winner\).](#)
- PB Leiner for next generation gelatin

Food Tech Innovation Award

- BRACE for instant microspheres for beverage production
- [Corbion with Verdad® Opti Powder N350, a clean label antimicrobial system \(Winner\).](#)
- Interfood Dairy Value Engineering for innovative technical service for dairy ingredients and finished products

Diversity and Inclusion Award

- [CP Kelco for its "I belong" initiative \(Winner\).](#)
- International Flavors & Fragrances (IFF) for its diversity and inclusion initiative
- International Trade Centre (ITC) for its "Women and Trade Programme" supporting women entrepreneurs in Nigeria

Plant-Based Innovation Award

- Döhler Group for its plant-based cheese and cream cheese
- [Fiberstar Inc. for cleaning up plant-based meat alternatives using Citri-Fi® Natural Citrus Fiber \(Winner\).](#)
- Vaneeghen with Dermaval™ for their clinically researched plant-based collagen builder

New Product Zone

The New Product Zone showcases an extensive selection of the most innovative products from leading industry players and provides the perfect opportunity to give new ingredients the introduction they deserve to the market. This area is managed by the Experts of InnovaDatabase.

Agrana – Cacaobutter Crunchies

Experience a new taste with our brown or fruity Cacaobutter Crunchies for different yogurt applications. Create a palm oil free experience by incorporating our Chocolate, Vanilla, Caramel or Fruity notes in your product. This colorful inclusion will also enhance your product by adding a crunchy sensation.

Bouwhuis – Egg hite Isolate

Bouwhuis Enthoven introduces a highly purified egg protein with a protein contents of min. 93 % on solids. This product enables protein enrichment in an effective way without any off-taste.

Bouwhuis – Egg white powder Eggxtraordinary Gel

Due to superior gelling powder and water binding capacity, this product needs only 40 % compared to the market standard to reach the same structure in meat analogues, snacks, potato products etc. This enables cost savings and clean label products.

Caldic - AdalbaPro

As full-service distributor Caldic introduces AdalbaPro, a unique, sustainable, and minimally processed ingredient line made from insects which offers solutions for meat alternatives and protein fortification to all kinds of formulations. As a high quality animal protein, the ingredients contains all essential amino acids as well as essential vitamins and minerals.

CHR. Hansen – Hansen Sweet Potato™

Red is a popular shade in food. Chr. Hansen has commercialized a new vegetable variety – the Hansen sweet potato™ Ipomoea batatas – using traditional breeding methods to create a bright red, clean label alternative to carmine that meets consumer needs. The new products offer superior process and shelf life stability.

Divi's Laboratories Europe AG – CaroQuik - VitaQuik

Divi's unique beadlets are designed to enhance the rapid, cold water dispersion of fortified powder beverages. Due to innovative formulation properties, these specialty carotenoid and vitamin beadlets support improved powder beverage dissolution times. They offer fortification and/or color features for application in stick packs, dispersion caps and powder canister packaging.

DSKH - Fruit powder - Yuzu, Kabosu, Shikuwasha

Fruit powder for various confectionery applications with typical Japanese citrus taste (yuzu, kabosu, shikuwasha)

DV Supply BV – Vegan Product Group

Our dairy free range provides unique products for the food industry without interfering with taste and functionality.

TOPPICS 310 is a high performance whipping base for desserts, Creme Chantilly, cake-filling or mousses.

FOAMICS 25 CUV is a powdered foaming agent for instant beverages; Cappuccino-, foaming chocolate- and shake like drinks.

Dr. Paul Lohmann - Tricalcium Citrate 4-hydrate superfine

This newly developed product by Dr. Paul Lohmann® is especially suitable for the fortification of dairy products. Due to the superfine particle size and a narrow particle size distribution the velocity of sedimentation is dramatically reduced. Taste and mouth feeling is improved at the same time.

DSM - Probiotics

Delvo®Fresh cultures, Delvo®Pro probiotic bifidobacteria, and Delvo®Guard protective cultures that ensure safe yogurts during on-the-go situations. DSM's recipe with combined culture solutions enables yogurt manufacturers to create delicious, mild tasting, creamy, probiotic yogurt on-the-go formats with only three ingredients on the ingredient declaration (milk, sugar, food cultures).

Emsland group – Empure® ES 300

Empure® ES 300 is a clean label starch, an excellent gelling agent and texturizer, mainly used for the confectionery industry. The fast gelling properties, the low heat viscosity and the clean label status makes Empure® ES 300 an attractive and interesting ingredient, also to produce vegan, fat-free, gluten free products.

Frieslandcampina Ingredients – Resana Activating Protein –

Compact solutions to help consumers meet nutritional guidelines when health is compromised

Resana Activating Protein is a high quality dairy protein, presented in ready to drink recipes containing up to 19% protein. It has been developed to address the challenges of producing nutrient dense recipes, linked to compacting as a trend to increase nutritional intake of patients and frail elderly. Clinical studies confirm that Resana Activating Protein digestion profile delivers fast and sustainable amino acid release, contributing to muscle protein synthesis and lean body mass preservation, supporting health recovery.

Frieslandcampina Ingredients – Sleep Well

The holistic solution for adults who want to improve their quality of sleep in a natural way. A non-addictive prebiotic night protein.

Frieslandcampina Ingredients – Vivinal® MFGM

Parents are looking for products that promote their child's healthy immune system. Besides, cognitive development is identified as priority, especially in Asian countries. Clinical studies have shown that MFGM (a whey protein concentrate containing proteins and lipids) supports both immunity and cognition*. Vivinal® MFGM: Unlocking complex lipids whilst preserving bioactives.

Emsland group – Empro® E 86 F 30

The Empro® range stands for high nutritional, non allergenic & non GMO pea protein isolates as valuable ingredient for the food industry. The new Empro® E86 F30 type provides a very smooth mouthfeel with a neutral taste profile. It's designed for wet food application like beverages, ice cream or desserts.

Glanbia Nutritional - Darling Ingredients - Creabev™

CreaBev™ features a patent-pending encapsulation technology that provides a stable and soluble creatine monohydrate, making it ideal for ready-to-mix and ready-to-drink sports nutrition beverages. CreaBev™ helps you achieve advanced creatine performance with less degradation offering improved long and short term stability and a superior solution for performance beverages.

Jennewein Biotechnologie – 2'-fucosyllactose & lacto-N-neotetraose

The composition of 2'-fucosyllactose and lacto-N-neotetraose has all the health benefits from the human milk oligosaccharid 2'-fucosyllactose. It has a prebiotic effect, can stimulate the immune defense, protect against Norovirus infection and promote the brain development of babies. This combination is now closer to breast milk.

Jennewein Biotechnologie – HMO-Mix

The new HMO-Mix is a mix of five human milk oligosaccharides: 2'-fucosyllactose, 3'-fucosyllactose, lacto-n-tetraose, 6-sialyllactose and 3-sialyllactose. It has some health benefits: it protect against norovirus infection, is prebiotic and stimulate the brain development of babies. This mix is closer to breast milk.

Kancor Ingredients – OxiKan CL

Natural antioxidants like rosemary, when used in pre-packaged foods, has seen to impact the organoleptic profile of the matrix. OxiKan CL, a breakthrough anti-oxidant is fully decolourised, deodourised and deflavoured liquid extract of selective antioxidant molecules doesn't impart any flavour, colour and odour to the end application.

Scelta Inside - Vitabooster

100% Natural and Vegan vitality booster with enhanced vitamin D to support your immune system. Suitable for use in Dairy, Bakery, Supplement, Cereal, Chocolate and many other products.

Meurens Natural – NATUDRY-OAT 17

Natudry-Oat 17 is a tasty oat powder, a clean label alternative to maltodextrin. It provides texture, viscosity, structure, crispness and prevents crystallisation. Its short DP1 & DP2 level (below 10%) enables to limit the sugar content in your preparations. The natural production process guarantees a cleaner labelling “oat extract” or “dehydrated oat syrup” instead of “maltodextrin”.

PB Leiner – TEXTURA™ Tempo Ready

Hot. Cold. Reagent. No Reagent. No Matter. TEXTURA™ Tempo Ready does it all. It combines 100% gelatin with the ultimate user-friendly and timesaving experience. Whether for technical or consumer applications – just add liquid. This one simple and safe gesture will release all the texturizing power of PB Leiner's TEXTURA™.

PT Lautan Natural Krimerindo – FiberCreme

FiberCreme is a fiber ingredient with creamy taste that utilize the good of oligosaccharides as fiber source combined with good oils as a palatable, functional ingredients on food and beverages application. Due to its 30% fiber content, FiberCreme helps ensure the adequate dietary fiber intake for healthy digestive system.

Sethness Roquette – Clean Label Thickened caramel

In order to meet consumers' demand for a healthier diet, we developed a Clean Label thickened caramel, which is completing our Carasweet® range. This creamy and smooth caramel offers caramelized and bitter notes. This new Caramel is particularly adapted for topping on gelified desserts, dairy desserts or for ice-creams ripples.

Taura Natural Ingredients – Taura JusFruit Fibre+

JusFruit Fibre+ is a new range of fruit solutions with added high fibre ingredients, it allows manufacturers to create low-calorie products with more than 20g of fibre per 100g without compromising on taste or texture.

Valio – Valio Eila™ NutriF+ lactose free formulated milk protein powder

Valio Eila™ NUTRI F+ made of fresh Finnish milk guarantees the best nutrition of milk protein and milk phospholipids. Together with essential vitamins and minerals they support healthy ageing by maintaining normal muscle and cognitive functions. Great for drink powders, special nutrition drinks, dairy, nutritious food and dietary products.

Zhejiang Skyherb Biotechnology – Grape Seed Extract OPCs 35%

Skyherb produces and markets NeuGrape, a proprietary grape seed extract is developed using non-fermented grape seed from Europe. High content of OPCs (monomers up to pentamers) is guaranteed. Signature components are quantified individually by HPLC.

Zukán - Fosfruit

Fosfruit is the definitive sweetener solution to substitute sugars, polyols and intensive sweeteners in a huge range of products. It's a 100% natural ingredient made of fiber and fruit extracts that brings a perfect sweetness. The benefits of the fruit and fiber together results an innovative and Clean Label sweetener.

Startup Innovation Challenge

It takes place in FIE for the 4th edition, and it is the best place for the small companies with big idea largely unknown to the wider industry.

This year's categories are:

Most Innovative Food or Beverage Ingredient

This category covers ingredients or additives that improve taste, texture, appearance and/or nutritional value. E.g. flavours, flavour enhancers, colours, sweeteners, emulsifiers, stabilisers, (thickeners, binders texturisers), acidulants, firming agents, anti-caking agents, leavening agents, humectants, dough strengtheners, fat substitutions, yeast nutrients, PH control agents, enzyme preparations, functional lipids, dietary fibre, probiotics etc.

Most Innovative Plant or cereals Based Food or Beverage Ingredient

This category specifically covers ingredients or additives from plant or cereal sources.

Most Innovative Alternative Food or Beverage Ingredient

This category specifically covers ingredients or additives from a novel non-animal/plant/cereal source. E.g. fungi, algae, insects, micro-organisms, lab grown/cell-cultured or another non-animal/plant/cereal food source.

Most Innovative Process, Technology or Service Supporting F & B

This category covers innovations that improve food safety, efficacy, quality, traceability, transparency, ingredient sourcing or upcycling.

2019 Startup Innovation Challenge - Finalists

Category: Most Innovative Plant- or Cereal-based Food or Beverage Ingredient

Amai Proteins - Winner

Amai Proteins combines Biotechnology with Agile-Integrative Computational Protein Design (AI-CPD) to produce tasty, healthy and food-compatible proteins for the food and beverage (F&B) market. The first application is a hyper-sweet designer protein that tastes like sugar, is healthy (zero calories, zero glycemic index) and is food compatible (stable for pasteurization and low pH). Amai (means sweet in Japanese) collaborates with several leading F&B multinationals. The Amai proteins are produced by food-grade fermentation resulting in a GMO-free sweetener which is the sweetest protein in the world and is significantly cheaper than sugar. The Amai platform is targeting digestible proteins, hypoallergenic proteins, alternative proteins as meat and milk vegan substitutes and other tasty and healthy proteins.

microPow

microPow offers a new, additive-free large-scale encapsulation platform for food products. Ingredients such as flavours and colorants, as well as oxidation sensitive, unstable compounds are protected during processing and storage, which leads to improvements in shelf-life and improved product quality. Moreover, thanks to the unique physico-chemical properties, ingredients such as colours and flavours can be released at the right time, which allows us to produce long-lasting chewing gum with a constant flavour being released during the whole chewing time of 15-20 minutes. Or vegetarian burgers that look like real beef burgers, with a juicy, medium grilled core and a crispy, grilled outside.

Panvega

Panvega presents vitamIN' co: the first vitamin B₁₂ in the world allowed in organic-certified food products.

Flexitarians represent a growing section of the global population and are driving the rapidly expanding plant-based- and organic-food markets. Plant-based food lacks vitamin B₁₂, so vegans, vegetarians, AND flexitarians are at risk of developing a B₁₂ deficiency. PANVEGA AG – a startup from Zurich, – offers the first B₁₂ in the world to be allowed in organic-certified food. It sells its B₁₂ under the brand vitamIN' co, and in a stable powder form that can easily be mixed into all kinds of food products. The GMO-free vitamIN' co is as natural as sauerkraut or wine, and makes it possible for a plant-based diet to be both healthy and complete without a need for supplements.

Epinutra

Epinutra is dedicated to the development of benesco™, a targeted nutraceutical ingredient designed to support esophagus health by strengthening the esophagus wall. Three in ten of the general population and a staggering 80% of pregnant women can benefit from esophagus health support as they suffer from heartburn, caused by stomach acid rising up and irritating the esophagus. With a defined mechanism of action and solid patient data, benesco™ has aimed to catalyze the shift from synthetic medicine to natural food in this >10B € market.

Hempfy

Our focus is to use the legal Hemp ingredients (THC/CBD-free) to produce mass-market driven products. We work only with the freshest plants, promoting sustainable farming and have developed core know-how on cold-fusion technology, preserving freshness and taste of the plant. Hemp is a trendy ingredient however, we are the only company who succeeded in launching and distributing them across supermarkets in Switzerland, Germany, and other markets, continuously introducing new forms of products based on Legal Hemp.

Category : Most Innovative Plant- or Cereal-based Food or Beverage Ingredient

Better Nature - Winner

Better Nature is the world's first food-tech company focused on tempeh fermentation and innovation. By applying a modern scientific lens to the ancient process, they are developing proprietary methods and non-GMO fermentation cultures to enhance the nutritional and sensory qualities of their tempeh to make the most nutritious and delicious tempeh-based meat alternatives such as burgers, bacon, and mince. By using tempeh, they believe they can make wholefood plant-based meat alternatives that are not only high in protein, but also completely free from any artificial or ultra-processed ingredients, all to fulfil their simple mission: to create foods that are better for people, the planet, and animals.

CaffeInk

CaffeInk's aim is to offer a sustainable and healthy dark colorant to the food and beverage industry while closing the loop of the coffee value chain. This circular economy start-up works on extracting dark (brown-black) colorants and other valuable compounds, such as oil, from spent coffee grounds and collaborate with the F&B sector to offer plant-based, local ingredients with a circular economy mindset and a low energy and carbon footprint. Let's close the loop of the food value chain to make our daily espresso more sustainable!

Krusli

Krusli is on a mission to Rescue Food! Minimal 5000 kg this year, 100.000 kg next year (2020) and 1 million kg in 2025. We do this by creating delicious and healthy breakfast products made from rescued food, like brewers' grain, wheat bran, broken chips, seeds that are too small, peanut butter that would be wasted otherwise and nuts that are broken, but still perfect for breakfast. We created four different flavours: Peanut butter & Banana, Apple & Walnut, Beetroot & Ginger and Sweet Potato & Cocos. All of them contain less than 10% of sugar (only a little bit of fruit syrup) and three innovation projects are ongoing to venture out to other categories and rescue more food.

Innovopro

Innovopro is the first company in the world to launch a chickpea protein 70% concentrate (CP Pro 70®), an innovative plant-based protein that adds value to both producers and consumers. It extends customers' choices for a new, clean-label, non-GMO and non-allergenic source of protein and it brings excellent food-technology properties as well as benefits in terms of functionality, health, nutrition, taste and mouthfeel.

Several products based on Innovopro's CP Pro 70® were already launched by our customers, and hundreds of global food manufacturers are already testing CP-Pro 70 in a variety of applications.

Category: Most Innovative Alternative Food or Beverage Ingredient

FUMI Ingredients - Winner

FUMI Ingredients develops innovative biorefinery platforms for the production of novel animal-free ingredients from non-GMO micro-organisms. We are implementing scalable and ready to use technology that allows us to produce novel proteins that can be used as egg-white replacers. Furthermore, we are developing other ingredients from naturally occurring microbial strains that can find applications in the food industry. We believe that microorganisms are an untapped source of high-value compounds, which can be used in a broad range of commercial products.

Tamago Food

Tamago Food develops the food products of the future, by proposing plant-based substitutes to eggs. While there is an increasing demand for plant-based substitutes, we realised that it was not easy for the professionals to find simple plant-based substitutes for pastry. YUMGO, our plant-based egg replacer for food professionals fills a gap for the food professionals. With YUMGO we reinvented the egg. Our unique plant-based substitute allows the professionals to replace the egg they use today with no complex learning or adaptation. Simple to use, in a format suitable for food professionals, delicious, it allows to create plant-based recipes (meringues, mousses, macarons etc.) without any effort. 100% plant-based, 100% delicious.

Higher Steaks

The world's population is exponentially increasing alongside meat consumption, despite growing knowledge of its negative impacts. To ensure worldwide sustainable development and health goals are met by 2050, we must create a more efficient and sustainable food supply. Cultivated meat (meat using cell culture techniques) can have a colossal positive impact, however, key technological challenges must first be overcome to create cost-effective, scalable manufacture of cultivated meat products. Higher Steaks is a pork cultivated meat company focusing on the breakthrough technologies that will bring it to scale.

Pleurette

Will mushrooms be the next food revolution? Pleurette is an innovative Foodtech startup, based on the National Interest Market of Lille, the second most important in France. We produce fresh and organic mushrooms, we valorize oyster mushroom residues and we develop mushroom-based proteic texturing agent for food industry: an alternative to ultra-processed products with a natural binding effect. It confers to our sauces, mini-meatless balls and burgers good meat-like chewability and taste. Mushroom-based alternatives without soy, without additive, gluten-free, vegan, rich in fibers and organic, giving texture of meat without meat and satiety effect, are unique and match to 4 major trends: organic, flexitarian, local, without allergen. What's

more, we answer the increasing consumer demand for fresh products locally made and processed in an environmentally clean way.

Lab Lab

We develop, prototype and commercialise solutions to ferment seaweed, coffee beans, “medicinal herbs”, hops, and mash from beer breweries, and many berries, fruits and plants resulting in ingredients of new probiotic beverages, food and feed. We develop a proprietary, live, liquid, complex starter culture

Category: Most Innovative Process, Technology or Service Supporting F&B

Solar Foods

Solar Foods is a visionary food-tech company that develops revolutionary fermentation-based innovations for food production at a global level. As an active player in solving the global food and nutrition crisis, Solar Foods provides new solutions that secure the sustainable use of natural resources by disconnecting food production from agriculture. We produce the world's most sustainable protein: Solein®. We are on our way to make Solein® the magic ingredient for future food.

Rival Foods

At Rival Foods we provide a disruptive solution for small- to intermediate-scale production of the next generation plant-based protein products. This is made possible by a completely new process developed by Rival Foods. This process allows for transformation of plant-based ingredients into truly innovative and culinary plant-based whole-cuts. These products are similar to animal protein products in size (0,5+ square meter) and thickness (2-3 cm thick), have a remarkable meat-like or fish-like structure with fibers and/or layers oriented along the length of the product, have a high moisture content and liquid release upon compression.

Cellular Agriculture Ltd

Cellular Agriculture Ltd is addressing the technological bottlenecks of the cultured meat industry by establishing the most efficient industrial bioprocess. Scale, and more importantly peak efficiency will allow cells to be produced at price parity to traditional meat. With over 40 companies in the cultured meat landscape. Cellular Agriculture is already a second-generation business, they are not concentrated on food products but the first to solely focus on enabling technology to scale and to expedite the growth of an industry. They have already delivered a proof of concept bioreactor system which has been publicly displayed at Nemo Science Museum, Amsterdam and are building partnerships across the value chain to bring this technology to market.

Connecting Food

Connecting Food helps food industrials rebuild consumer trust. Today, shoppers want to know everything about the food they buy: where was it produced? by whom? how? We leverage blockchain technology to track in real time all food production from the farm to the consumer. What makes us unique is our LiveAudit® module: we are able to digitally audit 100% of the production, batch to batch, to ensure the product's requirements are respected, at all times. We improve customer experience by connecting shoppers with the brands, through a simple scan of QR code, providing chosen traceability information and audit results. Connecting Food is the first food transparency blockchain platform in Europe, operational in more than 5 countries.

Qwarzo - Winner

Qwarzo develops two unprecedented paper technologies providing a 100% recyclable, biodegradable and compostable solution to replace fully and cost effectively single-use plastic in numerous applications, like coffee stirrers, cutlery, straws and other packaging. Qwarzo.solid is the technology allowing injection moulding of 100% paper recyclable, biodegradable and compostable replacing solid plastic packaging. Qwarzo.stratum is a surface treatment of paper adding it unbelievable barrier properties, keeping the paper 100% recyclable, biodegradable and compostable to replace fully and cost-effectively flexible plastic packaging. Both are fluoride free, polymer free, plastic free.

Sphera Encapsulation

SpherAQ are high-quality encapsulates, totally soluble in water, that can be consumed without the addition of any flavors or aromas - a cutting-edge technology developed by Sphera Encapsulation in order to overcome the major challenges related to the intake of bio-active lipophilic ingredients, such as oils. The main points that has been addressed when it comes to this type of molecules are their scarce bioavailability, the insolubility in water and the low stability. Our technology enables us to create real barriers between the active ingredient and the external environment, protecting it from the harsh condition of the gastric media, from the action of metabolic enzymes, making the molecules easy to handle and very stable to temperature and oxidation. Totally tasteless and odorless, 100% natural and water-soluble, our encapsulates can hold any lipophilic ingredient, making it easy to incorporate in any product- from food to beverages, they can be even taken directly as a supplement. In vivo studies on different ingredients encapsulated with this system have confirmed an increased bioavailability and a supreme protection of the active ingredients inside SpherAQ.

Food Ingredients Market

According to a report from Persistence Market research, the global food ingredients market will register a 6% annual growth between 2017 and 2022 to exceed US\$ 400bn in revenue in 2022.¹

Key Trends

Five main trends are driving the global food and beverage market:

- **Convenience:** products must be easy to find, buy, transport, use, reuse, recycle, ... Consumers want to eat products where, when and how they want. On-the-go consumption leads to individual and convenient packs
- **Pleasure:** Indulgence, premium because I'm worth it !, Chief's inspiration. Sophistication. New sensory experience as consumers want products that awake their senses. But pleasure means also tradition, homemade, authenticity, ancestral recipes, local recipe
- **Health:** As people want to enjoy a healthy ageing, they are looking for healthier alternatives. Less fat, sugar, salt and more proteins, fibres, fruit and vegetables, ... Healthier alternative, naturally healthy, healthy snacking, fat, sugar, salt reduction, allergy-free
- **Naturalness:** according to GlobalData, 94 % of global consumers are interested in food/drinks with natural claims. And when they are asked about what does natural mean to them, 54 % of global consumers answer real ingredients, 39% minimally processed, 35% organic, 32% eco-friendly. Thus, the challenge of clean label is not only about taking artificial additives off, but also about sincerity. Sincerity means trustable from the farm to the fork. 73% of global consumers are willing to pay more for a product made with ingredients they recognize and trust. The boom of the organic market is also a proof that naturalness is a huge trend. Green is the new black: vegan, vegetarians, flexitarians, meat & dairy alternatives, legumes, pulses, nuts, seeds, ancient grains, ...
- **Sustainability:** people are more and more aware of the fact that there is an emergency to save the planet and anyone that leaves on it. Sustainability is about reducing gas emission, water and energy consumption, food waste...but also recycling, fair trade, organic, vegan, eat local...

¹ <https://www.persistencemarketresearch.com/market-research/food-ingredients-market.asp>

Innovation Tours

On professional shows, NutriMarketing's experts are guiding Innovation Tours on specific topics. After a condensed presentation of the topics, visitors were guided to meet leading companies innovative solutions.

At the FIE Paris, we were focusing on 6 different topics:

1. Innovations from around the World
2. Clean Label, Natural & Organic
3. Reduction & Reformulation
4. Healthy and Functional
5. Healthy Snacking
6. Innovations in Beverages

1. Innovations from around the World

Globalization leads adventurous consumers to test new products. According to GlobalData 65% of global consumers enjoy experimenting with products from different cultures/countries, and even 79% of Millennials and 78% of Gen X. Curiosity and being the first to share a new product on social media (Instagram) are among the drivers of the trend.

Take a tour around some of the 18 international Pavilions of the FIE Paris 2019!

Visited stands

Ingredia

Ingredia, in partnership with Connecting food, enables consumers to track the product from its origin, thanks to an innovative technology of real-time audit. s.lemoine@ingredia.com

Univar Solutions

PureSea® is a seaweed sustainably wild-harvested from the pristine waters of the Scottish Outer Hebrides. Each batch is DNA-authenticated to ensure full traceability before it is uniquely dried & milled using patent pending technologies. The entire range is vegan, organic, natural, halal and kosher. samuel.russell@univarsolutions.com

iSense AG

iSense creates unique sensory profiles for flavours, making it easy for flavour houses and food and beverage manufacturers to search, compare and select flavours. While iSense sensory data brings transparency and discrimination between flavours, our digital tools accelerate flavour choice and generate productivity through benchmarking, optimization and leveraging of your own flavour collection.

florence.catterson@isensegroup.com

Nactis

New range of ethnic flavours from the Middle Eastern cuisine. From Irak to Lebanon through Jordan, NACTIS FLAVOURS has been inspired by this very rich gastronomy, including floral notes, sweet/savoury blends, spices, herbs and grains. Our brand new range is composed of 10 flavours, both sweet and savoury notes, which are all natural. They are dedicated to be applied in a large scale of applications: from sauces to biscuits through beverages and dairy products. antoine.gambart@nactis.fr

Agroindustrias Amazonicas

Omega Project whose goals are the promotion and the development of the investigation, the cultivation, the production and the commerce of oils, proteins and bioactives extracted from the Inca Inchi.

Berrico

No added sweetener, soft & moist dried cranberry; a unique “no sugar” dried cranberry for the snacking and retail industry:

- ‘Less sugar’ dried cranberries. A 50% less sugar sweetened dried cranberry with the taste, bite and shelf life close to the regular sweetened dried cranberry
- Sensations: Sweetened dried cranberries with exciting and unexpected flavour combinations. guillemette@berricofood.com

Ealong Corporation

250 non-dairy flavours that deliver dairy flavour, richness and mouthfeel, while masking the often bitter off-notes of plant-based proteins. Our team carefully selects the flavour components to substitute for milk and cream with an unwavering attention to detail. Authentic dairy-free and vegan flavours are ideal for dairy-free beverages, confections, side-dishes, prepared meals, sauces and more. bcorbett@edlong.com

Fazer mills

Special oat ingredients like beta glucans with high protein content, fine flours and oat oil. They boost nutritional content in food applications and can improve the positive health effects in them. Our products are excellent ingredients for breakfast products, smoothies, drinks, pasta, food supplements, biscuits, snack bars and cosmetics. katri.makinen@fazer.com

HPE

Snail proteins, rich in amino acids, extracted from the biological potential of the snail. This extract contains the 9 essential amino acids and benefits a high nutritional quality. avi@hpeingredients.com

Sisterna

Sisterna sucrose esters have good functionality in several components.

- in mini pancakes Sisterna SP70 ensures a stable batter, less sticking to the pan and airier pan cakes,

- in low-sugar caramel syrup Sisterna SP70 keeps the fat well emulsified and gives a clean flavour,

- in sprinkles Sisterna SP50 speeds up crystallisation, which results in a smoother surface, and whiter colour,

- in vegan whipped topping Sisterna SP70 prevents churning and ensures a fine high foam.

Enjoy the typical Dutch treat and find out what sucrose esters can do for your products. sabrina.mehrezi@sisterna.com

2. Clean label, Natural & Organic

The concept of clean label food and beverages—products containing clean and simple ingredients that consumers recognize—is nothing new, but it has been thrust into the spotlight over the past few years as health-conscious consumers want to know what they are putting into their bodies.

The clean label challenge is going far beyond only taking artificial additives off of the product. It is about authenticity, traceability, organic or sustainable farming. Products made with simple ingredients consumers are familiar with, traditionally and sustainably processed by real people with total transparency about animal wellbeing and the origins of the ingredients.

The boom in the organic market (\$124.76 bn in 2017 and expected to reach \$323 bn by 2021) is one of the consequences of the consumer's quest for naturalness.

Manufacturers of food ingredients have anticipated this Clean-Label Tsunami, giving food & drink manufacturers new opportunities to develop natural products.

Thus the market for natural colourings has exceeded that of artificial colouring since 2011, reaching \$1.3 bn in 2016 and expected to reach \$2.1 bn by 2023. Now colouring foodstuffs are replacing even natural colouring in order to avoid E numbers in the ingredient list and the flavouring market is getting the same way.

New natural preservatives such as acerola or rosemary extract, that could substitute ascorbic acid, are already available. Cultures, spices and herbs could also protect food in a natural way.

New technology and smart packaging also help in developing products without adding additives.

The Swedish food tech company Micvac has revolutionised the ready-meal market with its patented in-pack cooking and pasteurisation technology, which make it possible to extend the shelf life of chilled ready-meal up to 60 days without any additives.

The French company Genialis has patented an ultrasound technology to emulsify water-soluble and lipo-soluble solution without any emulsifier, make it possible to make a clean label drink with essential oil for example.

The role of food packaging is changing from passive – being a mere container protecting its contents from contaminants, and mechanical damage, to active – capable of extending shelf life by interacting with the product, for example by releasing antioxidants, antimicrobials or oxygen scavengers to prevent food spoilage.

NanoPack is an EU-funded project developing an active packaging film with antimicrobial properties. The novel packaging films slowly release tiny amounts of antimicrobial essential oils as a vapour into the so-called “headspace” of the packaging, thereby sanitizing both the food product

and the headspace, and extending the shelf life of the product. Preliminary results have shown that NanoPack films are able to increase the shelf-life of additive free bread by 3 weeks.

With 73 % of consumers willing to pay more for a food or drink product made with ingredients they recognize and trust, no wonder why the food & beverage industry global sales of clean-label products are projected to reach \$180 billion by 2020 and the Global clean label ingredient market to value \$47.50 billion by 2023

Visited stands

Niacet

Provian line are based on organic acids and designed for shelf life extension and food safety. The latest innovations are based on vinegar, a natural source for acetic acid, the most effective food compatible organic acid. This resulted in our Dry vinegar line, which ensures the safety, extends shelf life and can even be used to improve the taste of meat products.

eelco.heintz@niacet.nl

Micreos

PhageGuard S is a bacteriophages based antimicrobial that targets Salmonella on foods. It is a clean label and organic intervention to prevent Salmonella contamination on foods like chicken, pork, beef and vegetables. Application is by tumbling or spraying and there is zero organoleptic influence on the treated foods. d.demeester@micreos.com

Weishardt

Weishardt's mix for poultry meat analogues brings pleasant fibrous and juicy texture (like meat), appetizing aspect, tasty flavour to veggie creation using additives. This mix allows the creation of attractive poultry meat analogues for consumers with Nutri-Score A, high protein, source of fibre and clean labelling. carina.golica@weishardt.com

Tipiak

Tapiocaline CR521 BioSG is the perfect solution to remove E-number from product label, and to texturize in a clean label way organic non dairy alternatives, sauces, fruit preparations, to improve consumer sensations with meat analog, to significantly reduce fat without drying textures, in grounded meat products, fish terrines, gluten-free bakery products...

elodie.lepironnec@tipiak.fr

Avebe

Plant based alternative to feta and a plant based alternative to chocolate dessert. Both are excellent examples of a plant based alternative without any

compromise in taste and texture compared to the original dairy product.

jennifer.nitters@avebe.com

Bonabio

Organic faba bean, pea and green banana flours, high in proteins with neutral taste. biogarcia@gmail.com

CP Kelco

NUTRAVA™ Citrus Fibre, a unique solution providing both nutritional benefits and distinctive rheological properties in various applications, while meeting clean label needs. A fruit-based fibre made from locally sourced and abundant intact citrus peel, NUTRAVA™ Citrus Fibre is a combination of soluble and insoluble fibres, offering dietary fibre content above 80%. With CP Kelco's patented production process, we mechanically increase the surface area of the insoluble part of the fibre and retain the soluble fibre within the insoluble matrix. As a result, NUTRAVA™ Citrus Fiber demonstrates both pseudoplastic and thixotropic behaviour, with end-use benefits such as emulsion stabilization, high water-holding capability and unique rheological properties in applications such as dressings, condiments, drinking yogurts and fruit-flavoured drinks. Charlotte.Digard@cpkelco.com

IFF

IFF TASTE ORIGINS™, new clean label brand. mahbir.thukral@iff.com

Ingredion

NOVATION® Indulge 2920 starch enables manufacturers to deliver it all – the functionality of a modified starch, supporting the nutrition claims and clean labels consumers desire. Its fat mimetic properties enable reduced fat and oil content while improving viscosity and mouthfeel to enhance product quality and texture. Suitable for a range of dairy and savoury applications, both cold and cook-ups, NOVATION® Indulge 2920 starch also supports a clean label positioning in variable processing conditions. sarah.proberthill@ingredion.com

DuPont

Different concepts for Plant-based health, Digestive health, Better nutrition, Clean label and Sustainability. Wlodzimierz.Sobon@dupont.com

3. Reduction & Reformulation

According to GlobalData, around three in five consumers globally say they are always or often influenced by a product's impact on their health and wellbeing when choosing food (62%) and soft drinks (60%). In order to meet new consumers' expectation, food & drink manufacturers should offer relevant innovations or reformulations. Advancements in ingredient innovation is paving the way for brands to develop healthier food and drink to respond to health demands; without compromising other important attributes such as taste and texture.

This trend is about fat, salt and mostly sugar reduction in order to improve the Nutri-Score® of the product, but also allergen-free products, simplest ingredient list, minimally processed products, reduction of artificial ingredients, ... etc.

Sugar reduction

After fat and salt, sugar is the bad guy of the moment. Taxes on sugar were put on different kind of products (mainly sugary beverages) in many countries. Sugar has been accused to be responsible of obesity and diabetes, especially refined sugars.

43% of global consumers said they are actively trying to reduce their consumption of sugar, among which, 53% are concerned about obesity and 55% are concerned about sugar-related health issues.

74% of women and 67% of men found no added sugar products somewhat or very appealing.

Consumers would prefer natural food and drink products with less sugar; rather than sugar be replaced with artificial ingredients. Natural sugars such as raw cane sugar, coconut sugar, agave syrup, fruit sugar, seem a natural alternative to refined sugar.

Free from

According to Mintel, the number of organic NPDs in Europe with "suitable for" or "free from" claims has risen from 20% in August 2009 to 43 % in July 2019.

1/3 of Europeans think they have a food allergy or intolerance. Fortunately, food intolerances actually affect only 1%–3% of the population – possibly up to 10%, if you consider that not all sufferers have been diagnosed

Gluten and lactose are the most common allergens

According to Mordor Intelligence, the global gluten-free retail market has grown from USD 1.7 billion in 2011 to USD 3.5 billion in 2016 and is forecasted to grow to USD 4.7 billion in 2020. 80 % of the market is made by people who are not suffering from food intolerance, but believe that gluten or lactose-free products are healthier and more natural.

Thus, according to a study from GlobalData 49 % of consumers buy products with gluten free claims among which 57 % because they think they are healthier, 15 % because they are intolerants. A new British clinical study has

shown that gluten-free diet is not healthier for people who don't suffer from Coeliac disease.

50 % buy lactose-free products among which 51 % because they think they are healthier, 21 % because they are intolerants.

Moreover an interesting study from Paul Bocuse Institute in France has shown that among people who were following a gluten-free diet, 30 % was doing so for social reasons (be part of a social group),

By the way, the free-from trend is getting way further than only allergen-free products and includes also meat-free, additive-free, GMO-free, pesticide-free, ... taking out anything that could be anxiogenic for health or sustainable reason.

Clean label

The concept of clean label food and beverages—products containing clean and simple ingredients that consumers recognize—is nothing new, but it has been thrust into the spotlight over the past few years as health-conscious consumers want to know what they are putting into their bodies.

The clean label challenge is going far beyond only taking artificial additives off of the product. It is about authenticity, traceability, organic or sustainable farming. Products made with simple ingredients consumers are familiar with, traditionally and sustainably processed by real people with total transparency about animal wellbeing and the origins of the ingredients..

With 73 % of consumers willing to pay more for a food or drink product made with ingredients they recognize and trust, no wonder why the food & beverage global sales of clean-label products are projected to reach \$180 billion by 2020 and the Global clean label ingredient market to value \$47.50 billion by 2023

Visited stands

Algaia

Satialgine DVA 198, a new seaweed-based solution. It is incorporated to fermented dairy products at a lower dosage than starch (0.2% vs 0.75%) while maintaining the same viscosity throughout shelf life. This allows for a lower cost-in-use as well as lower inventory. This new alginate solution benefits from a much lower carbon footprint than starch as seaweed does not require irrigation water, cultivation land, pesticides or fertilizers to grow. For consumers, Satialgine DVA 198 provides an excellent cooking stability and no starchy off-taste and an appealing and shiny appearance. This natural ingredient is also suitable for use in organic and vegan applications and has recently been recognized by the FDA as a fibre. frederic.faure@algaia.com

Fuji Europe Africa

Soy Delice range of dairy-free cream and semi-hard plant-based cheeses have a mild taste and excellent mouthfeel and can be used in a range of

applications, such as pizza toppings or rich creamy sauces. The low-fat soy milk used in our plant-based cheese is prepared by proprietary separation technology and has been lacto-fermented by selected lactic acid bacterial strains to give a mild but authentic cheese taste that makes this product suitable for both sweet and savoury applications. It can be eaten hot or cold, melted on pizza or can be cut, sliced or shredded as required.

liz.kamei@fujjeuropeafrica.com

Metarom

METAROM Group introduces a Nutriscore B pastry bar While the majority of pastry bars on the market are positioned in Nutriscore D, METAROM Group has developed a recipe with an equally tasty Nutriscore B. The cakes on the market are penalized by a high fat and sugar content, which negatively impacts the calculation of the Nutriscore. The ACTI'SENS range significantly reduces their use by substituting them with natural solutions. To optimize the recipe, METAROM Group combines 2 ACTI'SENS solutions in particular: ACTI'BOOST Sweet is an aromatic solution that rebalances the profile of the sugar-reduced products by giving them roundness, biscuit, vanilla and caramelized touches. It thus supports reductions up to 50% in sugar, while preserving an attractive sweet sensation. ACTI'BOOST Fat is an all-in-one response to the reduction of fat. It combines flavour and technological ingredients, capable of compensating for 50% reductions in fat by acting on taste parameters and texture. It reinforces the buttery, milky notes and generates mouthfeel to obtain a rich and harmonious final profile. This new generation of pastry bars embodies the ACTI'SENS philosophy: to offer biscuit, pastry and bakery manufacturers clean label answers, which help to improve the Nutriscore and support a healthy diet, without compromising the taste!

chloe.bard@metarom.fr

Leiber Gmbh

Allergen free (no soy, no gluten) SoYE Sauce – solely based on natural yeast extract – gives developers the tools to achieve typical soy sauce taste without using soy. Available in powder form and without soy or wheat allergens, SoYE Sauce also contains a high content of naturally occurring B Vitamins. j.blank@leibergmbh.de

Bösch Boden Spies

Acerola cherries with their almost unbeatable amount of natural vitamin C and colour stabilization properties. Our prune juice concentrates that can reduce sugar or salt content in sauces by 30% resp. 50% without additional flavour enhancement or colouring agents.

lucie.chorvatova@BoeschBodenSpies.com

Azelis

At our stand, our visitors will be able to taste a deliciously indulgent yet healthy and natural brioche from our French lab team; a pea protein drink from our Czech lab team which is a perfect post-workout snack but doesn't

have that typical yucky protein taste and much more. We've developed products for every meal of the day, which can fit a vegan, healthy and environmentally-conscious diet. sarah.vanalsenoy@azelis.com

Ebro Ingredient

Textured organic pea proteins and precooked pulse flour. ekerr@panzani.fr

Vinpai

As an expert in mineral sodium substitution solutions, VINPAI has developed a range of tailor made products adapted to industrials' objectives and products. anais.lebolloch@vinpai.com

Hydrosol GMBH & Co KG

Free From Tarte flambée – which is free from gluten, dairy and meat – a vegan clean label solution and other plant-based solutions.

swidok@hydrosol.de

Limagrain

Natural and healthier solutions to improve the Nutri-Score of your product.

walter.lopez@limagrain.com

4. Healthy and Functional

Consumers are more and more aware of the link between their diet and their health. Most of them have a holistic approach of their health with not only the look for healthier food alternatives, but also more physical activity, less alcohol and cigarettes.

The challenge is to age and even die in good health and thus prevent non-communicable diseases. In Europe, life expectancy in good health is 75% on average, which means that we will live ¼ of our life in bad health.

According to the last scientific studies the diet during the 1,000 first days of life, between conception to 2 year-old is determinant of the health status later in life ! So nutrition during pregnancy and infant nutrition are key markets.

The rise of the sports nutrition market is also a market driver for the Health & functional trend. According to Statista, the global sports nutrition market was valued at 50.84 billion U.S. dollars in 2018, and is expected to increase in value to 81.5 billion U.S. dollars by 2023.

Last but not least, as the global population is ageing, Health concerns are growing : It goes from degenerative diseases : osteoporosis, AMD, arthrosis, Alzheimer, Parkinson,... to other non communicable diseases: cancers, CVD, diabetes. Products for the prevention or the reduction all this age-related diseases are on the rise.

According to a Transparency Market Research report, sales of functional food ingredients are expected to exceed 1,900,000 tonnes in 2019 and grow by about 6% year-on-year in 2020.

Visited stands

Bouwhuis Enthoven B.V.

Eggcellent (R) egg white powders for better performance in sports nutrition, clean label products and as binder in plant-based meat replacers.

Jan.zijderveld@bouwhuis-enthoven.com

Lactalis Ingredient

PRONATIV is a high quality native whey protein giving endless flavour choices to create products with an ideal composition. 10g protein in a small format, easy to use for elderly people will help them to maintain muscle mass in order to prevent sarcopenia and maintain a good quality of life.

charlotte.magnant@lactalis.fr

Novastell

Rice bran oil actives such as tocotrienols and gamma-oryzanol with antioxidant properties, octacosanol, which have protecting effects on heart health. eric.dumont@novastell.com

Rousselot

Peptan® IIm is a hydrolysed collagen type II matrix containing hydrolysed collagen Type II in the form of bioactive peptides and glycosaminoglycans (GAGs). Its unique matrix composition provides multiple joint health benefits at a low daily dosage. Its excellent compressibility and flow properties mean that you can count on worry-free production of high-quality tablets, capsules and other applications. karine.frechet@rousselot.com

Fonterra

NZMP MFGM lipid 70, Pro&prebiotics (GOS) for adult health & wellness (focus on cognition, gut health & physical performance). alice.visser@fonterra.com

Griffith

Our Vegetable Never Fry product goes the extra mile to differentiate and deliver results, for our customers and their consumers. We create that added value – health, visual appeal, great taste and texture all married together to provide superior quality with a commercial approach.

The systems are reformulated with pure dehydrated vegetables, which retain taste and essential natural components such as minerals, proteins and fibres. We only use recognisable, nutritious ingredients that conform to consumer expectations and understanding. We don't use artificial or synthetic ingredients and we always seek a sustainable approach to production, minimising, wherever possible, the number of ingredients.

cchabot@griffithfoods.com

Stern-Wywiol Gruppe

SternGut, a combination of vitamins D, C and E, selenium, zinc and prebiotic fibers for gut health. ihuebner@stern-wywiol-gruppe.de

Friesland Campina

Sleepwell, a non-addictive prebiotic night protein, which helps adults to improve quality of sleep.

Resana, a compacting dairy protein solution for recovering patients and frail elderly, a medical market product

Hipotonic, This refreshing drink delivers all protein, carbohydrates and electrolytes needed for optimal recovery after exercise. Technically high-standing solution to get "protein-plus" benefits into a Clear drink.

Natalie.Meijers@FrieslandCampina.com

Diana Food

Ingredients answering different types of nutritional needs, depending of age, activity or gender:

Beet4perf (red beet) for preparation at a sport event

Organic Acerola and organic fruits covering kid needs.

dhilliard@diana-food.com

Epi ingredients

SoCrispies: 2 patented extruded crispy ingredients, 100 % dairy proteins crisps, anew tasty and nutritious way to incorporate protein into applications such as candy bars, granola bars, chocolate or frozen desserts and ice cream, Yogurt crisps, yogurt-flavored adding, bringing crunchiness and a distinctive yogurt-flavor to a wide range of food applications. mlucot@laita.fr

Roquette

NUTRIOSE®, a versatile soluble fiber addressing today's healthy lifestyle.
MARIE.BLONDEL@roquette.com

5. Healthy Snacking

Life is increasingly fast-paced and the lack of time influences our consumption behaviours. According to Nielsen, 76% of global consumers eat snacks sometimes or often and, according to Innova Market Insights, between 2014 and 2018, there has been a 14% average annual growth in food and beverage launches with a snacking claim.

But the way consumers are snacking is evolving and the boundary between meals and snack is fading. Already 45 % of global consumers are using snacks to substitute a meal (Nielsen), and even 63 % of millennials, who do so because they are busy (Innova Market Insights). Instead of gourmet and indulgent snacks, consumers are now opting for more nutritious products that give them extra energy to face their busy day.

This quest for healthier alternatives is led by fruit, vegetables, legumes, grain, seeds and nuts- based snacks. Products based on chia, quinoa, hemp, beetroot, lentils, chickpeas, baobab, and even food that was totally “forbidden” ten years ago like avocado, coconut, peanut and nuts are on the rise while fatty and sugary products are declining. No matter the number of calories as long as they are dense in good nutrients such as proteins, unsaturated fatty acids, fibres, vitamins and minerals.

But the healthy snacking challenge is going far beyond only taking calories, fat, sugar and salt off of the products. According to a study conducted by GlobalData, healthy means natural for 69% of global consumers, Fresh/raw for 43 %, organic for 41%, home-made for 29 % and locally made for 16 % !

In that context, there are many opportunities for minimally processed, organic or handmade local snacks.

According to Grand View Research, the global market for healthy snacking was valued at \$23.05 bn in 2018. It is expected to reach \$32.8 billion by 2025, rising at a + 5.2% CAGR between 2019 and 2025.

Visited stands

Limagrain ingredient

Micro 660, a micro pellet high in proteins,

Presco, range of puffed whole grains made from a patented process of Pressure Cooking that uses pressure and vacuum to puff grains in less than 30 seconds,

Toasted Broken Pulses, a range that brings a new texture, taste and nutritional benefits of legumes:

- Thanks to the unique process, the products are delicately toasted to give them a distinctive taste without the bitterness often found in legumes.

- Toasting also helps to preserve all the crispness of the product in all types of finished products such as breads, cookies, pastries, snacks and cereal bars

- The crushed coral and chickpea lentils can be used in particular as inclusions for an innovative and gourmet visual of the finished products
 - They are rich in proteins and fibres and can be a key ingredient in evolving Nutriscore end-product criteria.
 - These ingredients are Gluten Free and Vegan
- walter.lopez@limagrain.com

GreenFood50

Protein Rich Quinoa Flour and Quinoa Starch. These innovative quinoa ingredients enable tasty next generation clean label plant based products with a high nutritional profile. GreenFood50 quinoa ingredients are produced with sustainable mild process technology from locally cultivated quinoa seeds. marc.arts@greenfood5.com

NDF Azteca Milling

New pulses flours based ingredient, by milling and gelatinizing lentils, peas, chickpeas, beans to create a wide range of pulses flours to be mixed with other ingredient. Flours are available raw, pregelatinized or toasted, and developed in different granulations according to the application of end customers. albertoc@ndfgruma.com

Bel Industrie

High protein blend designed to provide a soft texture in an enriched-protein bar dedicated to sport nutrition.

This ingredient has been designed to provide an easy-to-chew final product over time by the selection of specific functional dairy proteins. It also matches the nutritional needs of sport persons at different stages of the activity (before, during sport and for recovery). cblanpied@groupe-bel.com

Millets

Teff grain and ingredients. MP is specialised in Teff for all purpose in the Food Industry, conventional as organic. Teff is a real innovation as ancient grain for high values and needs for consumer in segments like Sport,Care , Gluten Free, Health and convenience. Teff contents a high value of Iron and Calcium which is released to the human body. Teff can be produce in flour, puffs, flakes and soluble flakes. rvanklaveren@milletsplace.com

Diana Food

100% banana crunchies without containing any added sugar or carrier. With beige granules from approximately 4mm, the ratio of banana is 10 (1kg of banana crunchies is made from 10kg of fresh banana). Our innovation is a real added value for manufacturers who want to offer more naturalness, authenticity and trust to the end-consumers. The 100% banana crunchies bring visual impact thanks to identifiable pieces of true banana. Its taste profile offers a note of oven cooked ripe banana and give the end consumers a new sensorial experiences.

dhilliard@diana-food.com

FrieslandCampina

On the Go: Protein & Fiber Boost and Esana Activating Protein®, two compact solutions to help consumers meet nutritional guidelines when health is compromised Natalie.Meijers@FrieslandCampina.com

Tereos

Tereos has launched Actilight®, an oligofructose also known as fructo-oligosaccharides. It is a dietary fibre obtained from sugar beet. This healthy ingredient is chosen by food manufacturers for its taste and nutritional qualities. Actilight® Fibre is found in infant formula, yogurts, ice creams and sorbets, biscuits, cereal bars and breakfast cereals, smoothies, nutritional supplements... and it's already doing us good!

Cambridge Commodities

FulFibe™ is an exclusive blend of both soluble and insoluble fibres. It provides all of the benefits the body need from both forms of fibre.

SlimBiome® contains prebiotic fibre to promote a healthy gut bacteria, glucomannan to promote the feeling of fullness and chromium to maintain normal blood glucose levels.

abigail.heaton@c-c-l.com

Roquette

NUTRIOSE® 06 are sugar-free, soluble dietary fibers which can be obtained either from corn, wheat or pea. Their low viscosity, high solubility and outstanding tolerance make them simple to use to supplement almost all kinds of food in fiber. They also show health benefits demonstrated by clinical studies.

They are 85% fiber and have a low caloric value. Moreover, their sugar content is less than 0.5%, which make them easy to use in any kind of sugar-free food. MARIE.BLONDEL@roquette.com

Paradise fruits

Using state-of-the-art fruit processing lines, we specialise in the design and delivery of innovative, high-quality fruit granulates, fruit pastes, fruit Juice drops and fruit shapes. Working closely with our customers we create bespoke solutions for unique products and processing requirements. Our rapid, low heat concentration technology processes high volumes of fresh or frozen fruits, juices and purees into high fruit, low moisture ingredient and snack products. The advantage of this unique process is flexible formulation design and natural retention of flavours, colours and nutritional benefits of the fruits without the addition of artificial additives or preservatives. Almost any fruit or fruit blend – including vegetables – can be used, and depending on the desired application up to 100 % fruit or vegetable formulations are possible. Many of our product formats are suitable for fortification or addition of

vitamins, minerals, electrolytes, prebiotics, probiotics and fibre to target specific health needs or make on-pack marketing claims.

Mike.Schmidt@paradise-fruits.de

6. Innovations in Beverages

According to Research and Markets, The global beverage industry is expected to reach an estimated \$1.9 trillion by 2021 and is forecast to grow at a CAGR of 3.0% from 2016 to 2021. The major drivers for the growth of this market are growing urbanization, and disposable income. Market drivers include sugar reduction, naturalness and new sensory experiences.

Sugar reduction: After fat and salt, sugar is the bad guy of the moment. Taxes on sugar were put on different kind of products (mainly sugary beverages) in many countries. Sugar has been accused to be responsible of obesity and diabetes, especially refined sugars.

43% of global consumers said they are actively trying to reduce their consumption of sugar, among which, 53% are concerned about obesity and 55% are concerned about sugar-related health issues.

74% of women and 67% of men found no added sugar products somewhat or very appealing.

Consumers would prefer natural food and drink products with less sugar; rather than sugar be replaced with artificial ingredients. Natural sugars such as raw cane sugar, coconut sugar, agave syrup, fruit sugar, seem a natural alternative to refined sugar.

Naturally healthy snacks: As consumers are more and more aware of the impact of what they eat on their health, they are looking for healthier alternatives. But the healthy product challenge is going far beyond only taking off calories, fat, sugar and salt. According to GlobalData, for 69% of global consumers, Healthy means natural and for 43 % it means fresh/raw. According to Grand View Research, the global market for healthy snacking is expected to reach \$32.8 billion by 2025 (21,1 Mds \$ in 2016).

This tour is about minimally processed, natural, authentic, fresh, raw, local products made with naturally high in nutrients ingredients such as nuts, superfruits, legumes, seeds,

New sensory experiences: according to Innova Market Insights, 45% of, on average, US and UK consumers are influenced by texture when buying food and drinks, while 68% share the opinion that textures contribute to a more interesting food and beverage experience. Curiosity and the need to be the first to discover new products, drive this quest for novelty which concern more specifically Instagram generations (Millennials, Gen Z, ...)

Visited stands

Destilla Gmbh

Our HiPures® belong to the latest product group of Destilla. Especially developed for the needs of the flavour industry, they unite a high concentration with good solubility and are 100% from the named food (FTNF). The gentle processing of the clear distillates at low temperatures ensures pure natural taste to be used in a wide range of applications. Discover our growing portfolio of Destilla HiPures® for top and body notes in soft drinks, alcoholic beverages, ice cream, sweets or savoury. m.feil@destilla.com

Plantex

Soluble guarana extract for beverages. elsa.augusto@plantex.fr

Prova

Cold brew extract = slowly cold infused. They have a balanced profile, with typical grind top notes, bitterness and a less acidic toasted base than hot infusions. These ingredients are ideal for beverages and dairy products and go well with vanilla or caramel flavours. Concentrated, the extracts can be stored at room temperature. kevin.bangratz@prova.fr

Biospringer

Springer® Mask 101, is a natural flavour, which masks intense sweetener or vegetable protein notes. It allows the development of sugar-free or low sugar beverage and dairy substitute drinks. It has a neutral taste, is uncoloured and efficient at low dosage. c.mouteyenmigaud@biospringer.lesaffre.com

Daregal

Infuz'O, water infused with plants. Blend of herb cold infused water, and HPP pasteurized. The cold process brings a real intense flavour of the herbs. These products can easily be a flavour substitute for beverages and dairy drinks. Basil, mint, verbena, ginger, basil lemon, parsley, herbs de Provence. 4-10% to flavour the finished product. isabelle.brunetto@daregal.fr

LaVitella

The Milkshake protein drink is a sport & performance milkshake that is prepared in a shaker with water. The Milkshake Protein Drink has a pleasant mouthfeel a great taste and is available in more than 20 different flavours. cvp@lavitella.nl

Taiyo

The target of the concept "Make bad foods better" is to use products from quite "unhealthy" foods such as soft drinks, cola beverages, instant soups, ice cream and others to improve their formulations and by adding new functions for human health. Moreover, these products taste exactly or as close as possible as their unhealthy counterparts, so that consumers accept them

quite easily. At the same time these products should meet the main consumer trends such as natural, organic and free from additives as much as possible. The first product concepts that are already launched are a softdrink to induce satiety (Sunfiber® Orange) and a new energy Cola with no sugar and an alternative form of energy (Sunfiber® Cola). Moreover, Taiyo develops rehydration drinks for elderly people. c.hankeln@taiyogmbh.com

CFF

SANACEL® add 045 is a combination of insoluble bamboo fibre and a high soluble fibre with the following benefits:

neutral in colour (off-white), taste and odour

allergen free

E number free,

clean label

can be easily mixed with other powdered ingredients

SANACEL® add 045, a solution of a natural clean label thickener combined with the health factor of fibre enrichment that results in a creamy mouthfeel in protein shakes. jennifer.zamanifar@cff.de

Brace

Food industries have developed, over the last years, ways of preparing flavours to meet many of the requirements mentioned above. However, since the powderous formulations rely heavily on spray dried products, they show the typical problems for this product class of granules. As process parameters can change during spray drying, e.g. the colour of the product may change and a complete batch may be rejected by the customer. Even though these problems can be solved by the BRACE Microsphere units, the microencapsulation processes have been proven to be able to even go far beyond the capabilities of the spray dried products.

With the BRACE Microencapsulation processes it is possible to prepare core-shell-type Microcapsules info@brace.de

Seqens mineral specialities

Sodium Bicarbonate NaHCO₃ with a high purity level with no aluminum and no heavy metals. It is a useful ingredient for food and beverage markets with several properties: leavening/foaming agent (for cakes and powder drinks), buffer effect (for energy drinks). jeanne.perez@seqens.com

Nexira

Thixogum G, an all natural & unique combination of acacia & gellan gums which can be used in beverages as a clean label stabilizer.

J.IMPERATO@nexira.com

What you shouldn't miss at the show

Clean, Natural and Transparent

Mane – Trusted by Chefs

Culinary bases with a limited number of ingredients, to guarantee manufacturers a very short, culinary and natural final declaration.

To meet our transparency strategy, we are investing to integrate the various links in the chain. In this sense, MANE has recently developed a range of concentrated juices that are used in all our culinary bases. We thus control the traceability of all production stages, from the ingredient to the cooking of our culinary bases.

Partnership with local producers allows us to have privileged access to responsibly sourced ingredients. They are processed locally to preserve their freshness and limit their transport.

As taste experts, our Chefs have the know-how to create tasty and balanced culinary bases with different profiles: meat, seafood and vegetables. Since the taste is local and unique, our solutions can be reworked by our Chefs and adapted to the specificities of the different countries and the recipes in which they are used. Ingrid.ascione@mane.com

AIT Ingrédients – New liquid sourdough 100% Made in France

New liquid sourdough called "Wheat Sustainable Chain" is a 100% "Made In France" product, made from 100% French cereals and produced in France.

This sourdough will bring a beautiful aromatic richness to the finished products. It will satisfy the taste buds of consumers with breads of character with toasted, subtly acidic notes, on the border between salty and sweet.

Another new liquid sourdough based on wheat germs has been presented. With its notes of grilled cheese and dried fruit, this sourdough will flavor breads, salty snacks, pizzas and biscuits. jzeller@soufflet.com

Aptunion – New Syrup Based On Natural Colours

This "colouring foodstuff" is derived from a fruit and vegetable concentrate which has no E number and does not need to be declared as a colourant.

Amandine.dubois@aptunion.com

Bunge Loders Croklaan (BLC) – 100% Shea Based Margarine

100% sustainable shea-based margarine, ideal for baked items such as croissants and Danish pastries. The non-hydrogenated, clean-label margarine has no added colouring or preservatives and delivers high functionality and baking performance with superior handling and allows for better total nutritional value. www.bungeloders.com

Innophos – Versacal®

A safer alternative to titanium dioxide. to whiten and brighten.

Unexpected Experience

Aptunion – superfoods

Blueberry and Cranberry hearts, candied fruits, dried and coated with dextrose. These real fruits preserve their softness accompanied by an aromatic intensity bringing a real solution adapted to new customer requirements. Amandine.dubois@aptunion.com

HERZA – Three new trend lines of chocolate pieces

Caramel indulgence redefined

Caramel is one of the fastest growing sweets categories around the world, and is also becoming a leading flavour in many other product areas. The new HERZA caramel range offers six different chocolate pieces with the most popular caramel notes. There are short, narrow chips with a creamy *Toffee* flavour and extra wide chips with a caramel flavour reminiscent of *Butterscotch*. Both are made of white chocolate, just like the *Fruity Caramel* leaves, little amber flakes with a light, fruity caramel note. White chocolate is also the basis for the irregular *Burnt Caramel* cubes with their dark caramel tone and strong caramelised, burnt note, and the *Salty Caramel* chips with the salty accent that is more and more a trendsetter. Hard crunch gives the *Salted Caramel Crunch* pieces made of milk chocolate a special note. thoehne@herza.de

Barry Callebaut – WholeFruit

Chocolate made entirely from the fruit of the cocoa tree, the pod, but unlike 100% cocoa chocolates, it blends juice and pulp with beans. Naturally sweet, thanks to the sugars in the fruit, it contains on average 40% less sugar than traditional chocolate and 90% more fibre. Chocolate maker's objective: a waste-free process. Even the bark of the pod finds its food use - in cheese tiles, for example. Mathilde_henno@barry-callebaut.com

Glanbia – Crunchie™ Milk Protein Crisps

Made with 100% milk protein, these light and airy crisps are clean tasting and visually appealing with consistent sizing and light in color. Crunchie Milk Protein Crisps deliver >74% protein, giving your bar or snack an extra protein boost, especially in formulations where it's not technically feasible to add more protein elsewhere in your product. Customizable to a number of sizes, they can be used as an inclusion or easily seasoned or coated for a stand-alone snack. Crunchie Milk Protein Crisps are designed to create new opportunities for nutrition bars, confections, trail mixes, and new snack formats. ybellanti@glanbia.ie

Famille Michaud Apiculteurs – Maple Syrup Ingredients

Syrup, fondant, sugar, jelly made from maple, sweet solutions for bakery, dairy, ice cream, pastry, ... bdeyres@lunedemiel.fr

Millbäker – Verano

Sunny inclusion with crunchy squash and sunflower seeds, topped with turmeric and black pepper. 10-15% of the dough in cookies, breads, cakes... marketing@millbaker.com

Fruitofood – Yuzu

Dehydrated yuzu pieces in powder or in pieces for pastry, cookies, chocolate, tea, ... py.copy@fruitofood.eu

Böcker FRANCE – Organic Purple Potato Flakes and Organic Sweet Potato Powder

- Organic Potato Flakes, in protective atmosphere packaging without any preservative additives, of a very high quality
- Purple potato flakes, with a beautiful natural purple-blue colour
- Sweet potato powder with a beautiful orange colour, softer and naturally sweet notes
- Organic potato starch.

All these products are prepared from the highest quality potatoes, with a clean and environmentally friendly production process, without allergens, without blackheads, offering good process stability and fluidity.

They bring quality and originality to baking, pastry, baby food, meat industries, snacks, snacks, snacks, soups, sauces and animal feed.

Pcassone@bocker-France.fr

Cheese Ingredients – Mozzarella filante

Top Quality Mozzarella cheese ingredient with a strong sensory appeal, a short list of ingredients (pasteurized cow's milk, ferments and salt), a delicate dairy taste and recognized functional properties. Extra melting and hot coating, our pasta filata will bring delicacy and generosity to all your recipes, for an aesthetic and gourmet result. Jeanmarie.ollivier@cheeseingredients.fr

Expressions aromatiques – Extruded Flavors

A new range of extruded flavors with a shelf life of 3 years formulated for flavored teas. jerome.bemon@expressions-aromatiques.com

Algaia – Satialgine

To make inclusions in the form of flavor pearls, spices, essential oils and healthy active ingredients for many food matrices, creating surprising sensations in the mouth. It protects elements sensitive to pH, oxidation or temperature and releases active ingredients in a controlled way. Benefiting from the fibre content of alginates, Satialgine S 9075 NS combines perfectly with probiotics for a synbiotic effect. This product is made only with seaweed from the Iroise Sea in Brittany. Yaelle.salaun@algaia.com

Herza chocolate : Cheesecake Temptations

Cheesecake has long been a favourite in trendy flavours, whether for cake, pralines, yogurt, ice cream or cereals. With the new Cheesecake Temptations, grandmother's classic treat gets exciting nuances. Four of the six variants are based on white chocolate. These include *Matcha Cheesecake*, little green leaves with real matcha powder and cheesecake flavour, and *Lime Cheesecake*, irregular broken pieces with lime crispies. *Blueberry Cheesecake* consists of irregular pieces with a special handmade character and eye-catching purple colour from trendy blueberries. In *New York Cheesecake* the white chocolate leaves are dressed up with raspberry powder and crunchy bits for a second bite. The range also features *Crunchy Chocolate Cheesecake*, super thick chunks of milk chocolate with brownie crispies, and *Caramel Cheesecake*, whose large double leaves resemble a two-layer cheesecake. The top is delicious caramel chocolate, while the bottom is white chocolate with a fresh cheesecake note for an unusual treat. thoehne@herza.de

Chocolate Coffee Chunks

Coffee and chocolate have long been a dream team. With its new product line, HERZA puts beloved coffee shop classics into chocolate pieces. One is the *Café Latte* squares marbled in mocha and white chocolate, with a pleasing milk note. In *Latte Macchiato* the double chips of mocha chocolate is covered in white chocolate, giving it an unusual two-phase look with latte macchiato flavour. The *Frappé Xylit* chocolate chunks are a special experience. The Xylit sweetener gives these white chocolate pieces with coffee powder a cooling effect, making them refreshing like ice coffee. In contrast, the *Espresso* chocolate bits combine dark chocolate and coffee powder for a strong espresso note in a special format. As delightful as its namesake coffeeshop trendsetter, *Caramel Macchiato* features irregular white chocolate chips with coffee and caramel flavour. The milk chocolate pieces with crunchy chopped *Coffenibs* are a special indulgence. Fair visitors can experience these innovations in person at FI Europe, and learn more about their advantages and applications. thoehne@herza.de

Plantin – Truffle Paste

Ready to use truffle paste with natural flavour for industrial applications. Easy to use, it brings. It brings markers, crunch and a strong truffle flavour to ready meals, cheeses and other preparations. Florence@plantin.com

SVZ International – Chunky Puree

New range of minimally processed ingredients which retain pieces of real fruit within a rich, high quality puree – combining the rustic feel and taste of homemade purees. The new range allows dairy, ice cream and dessert producers to create the 100% natural, authentic, clean label products consumers increasingly demand. The size of the fruit pieces in chunky purees can be tailored to customer requirements, allowing brands to create a unique texture profile and extra bite for each product. Chunky purees

provide a high-quality, easy-to-use ingredients solution that is ideal for transparent packaging and 'healthier choice' of premium brands.

SVZ International – Honeyberry

Also called 'haskap', or 'fly honeysuckle', the honeyberry is a 2cm long, oblong berry that is like the blueberry in both tastes and looks – but with a lot more health benefits! With a remarkable tolerance to cold weather – it can survive at temperatures of -48°C – honeyberries are early season producers and are often the first fruits harvested in spring.

Health benefits: not only is it full of antioxidants, but it has twice the vitamin A and four times the vitamin C as blueberries. Honeyberries also have the highest content of phenolic acids and anthocyanin of the berries we grow, and contain significant sources of potassium, calcium, phosphorous, and iron. Its sour-sweet, delicious taste means that the honeyberry is often eaten fresh or in desserts, ice cream and preserves, and its rich tartness – with a taste that has been described as a cross between a blueberry, blackberry and raspberry – has the potential to be used as a filling for baked goods, or in premium beverage and dairy applications.

Capfruit – Green pistachio frozen puree

100% fruit, coloring, preservative and flavor free, no sugar added. Creamy texture and deep taste for savory or sweet applications.

Sophie.verot@capfruit.com

Herza Schokolade – Glaze based fruit pieces

Made with white chocolate base and fruit and herb concentrates, with essential oils for the flavor, the blend contains different tastes, colors and shapes – pineapple, banana, cassis, green apple, cherry, coconut, lime, mango, orange and lemon. They are available as single ingredients or as individual combinations of multiple varieties. With these fruit pieces, muesli producers can add exotic varieties to their classic range of chocolate, nut and dried fruit offerings. In the ice cream category, the fruit pieces can be used to boost special flavours. In addition, they can be used for "healthy enjoyment" products – with its close cooperation with sister company SternVitamin, HERZA can easily enrich the pieces with vitamins to transfer consumers' positive image of fruit to the fruit pieces. glamberti@herza.de

Sotecna – Horseradish Essential Oil

A natural alternative to wasabi, called European Wasabi with a pungent flavor for snacks and seasonings. sales@sotecna.com

Plant-based solutions

DuPont – Holdbac YM Vege

HOLDBAC® YM VEGE helps producers reduce spoilage by inhibiting the growth of yeasts and molds in plant-based fermented food and beverages. Thereby improving the quality of the fresh fermented product and extending its shelf life. If combined with our extensive range of Danisco® VEGE cultures, the potential for reducing food waste is significant. Loic.pellerin@dupont.com

ADM – Fibrous Soja Textura

A special fibrous soy component with structure-providing soy concentrates, to create new plant-based soy alternatives without compromising on taste or texture. Stanislas.pierron@adm.com

Dat-Schaub France – Soprotex N Slice

Textured products manufactured in an up-to-date procedure of extruding flour made of soybean with higher protein content. It is textured soybean flour - slices. They are a source of proteins, i.e. essential amino acids and protective substances: minerals and vitamins that are significant for the entire metabolism. Anti-nutritive factors are deactivated using appropriate heat treatment, thus increasing protein utilization. It has high nutritional and biological values. It is characterised by a structural integrity that remains the same during hydration, cooking, sterilisation and other similar procedures. It has a specific shape resembling meat steaks, because of their exceptional nutritive and biological values, as well as its meat-like structure, it can be used to replace meat in the diet of those consumers who are especially attentive to healthy and economical nutrition. It is used in catering industry. h.butez@dat-schaub-france.com

Hydrosol – HydroTop Vegan SF

Allergen and soy-free system based on potato and pea protein, which it claims helps manufacturers make a wide range of products, from cold cults and salami to bacon. abuenting@hydrosol.de

Vlevy – Vegetable Chorizo Analog

Fresh or IQF

Proteins are still on the game

Eurial Ingredients & Nutrition - EuriNutri™ 80 NS

It showcases two new concepts based on EuriNutri™ 80 NS, its native protein ingredient derived directly from milk.

Choc-letic is a gourmet high-energy brownie designed to boost physical endurance. Enriched with EuriNutri™ 80 NS, it boasts 8g protein per 100g – 50% more protein than standard recipes – and has a soft texture and intense flavour.

The Fizz-ical Energy concept is a clear and refreshing sports recovery drink featuring EuriNutri™ 80 NS Instant – the protein with the best wettability on the market. Packed with the amino acids required for muscle recovery after exercise, the ready-to-mix formula offers 17g protein and 7.8g carbohydrate per 100g. heloise.krotoff@eurial.eu

Eurial Ingredients & Nutrition - GrassFit™ 80 WPC

Whey protein concentrate from high-quality cheese production using 100% French milk from grass-fed, GMO-free cows.

High in protein and rich in BCAAs, it offers texturing, gelling, water retention and emulsifying properties. heloise.krotoff@eurial.eu

Aloja Starkelsen – Organic Fava and Brown Pea Proteins

Organic brown Pea Protein is a native functional protein that meets the demands of plant based applications as emulsifier, foaming agent and texturiser etc.

Distribué par Firmalis

Seah International – Organic flaxseed protein

It contains 30-35% proteins, gluten free, for beverages, sport nutrition, welcome@seah.net

Valio – Valio Eila™ NutriF+ lactose free formulated milk protein powder
Valio Eila™ NUTRI F+ made of fresh Finnish milk guarantees the best nutrition of milk protein and milk phospholipids. Together with essential vitamins and minerals they support healthy ageing by maintaining normal muscle and cognitive functions. Great for drink powders, special nutrition drinks, dairy, nutritious food and dietary products.

Reformulation

AIT Ingredients – Eat Free E Replacer

A mix of improvers that replaces additives such as mono and diglycerides of fatty acids, guar or carob. It contains enzyme complexes and ingredients that will reproduce the functionalities of emulsifiers and thickeners. It also preserves the softness and melting of buns and bread. hfrey@soufflet.com

Tipiak – Tapiocaline VA 540

In order to substitute fat markers in deli analogs, Tipiak has developed Tapiocalin VA 540. Colourless and transparent, this manioc starch has a larger grain size and can be used in sausages, pâtés and salamis. Like the rest of the Tapiocaline range, this texturizer is able to avoid syneresis and therefore brings juiciness to the finished products. elodie.lepironnec@tipiak.fr

Ennolys – Mix Coco

Flavored solutions from fermentation to bring gourmet notes and enhance the sweet perception while reducing the butter and/or sugar content of your cookies. This mix combines intensity of taste and naturalness by allowing a labelling: natural aroma. T.rager@ennolys.lesaffre.com

Omya - Calcipur®

A range of high purity mineral particles, with optimal processing and nutritional benefits. The showcased concepts demonstrated how the mineral particles positively influence the texture and colour of bakery products, cereals, extruded snacks, convenience food and beverages in a cost-effective way, and without affecting their sensory profile. Furthermore, Calcipur® as a highly concentrated source of calcium supports bone health and the function of muscles and nerves.

Omya Calcipur® contains approximately 40% calcium and is therefore ideally suited to boost calcium content in multiple applications. This means it is possible to use up to five times less of this ingredient than other available technical solutions, while achieving the same calcium dose in a finished foodstuff, and without affecting the sensory profile of the end product. Moreover, as the ingredient intensifies the taste perception of salty or sweet, it can also be used to reduce the salt and sugar content in a formulation to allow for a better nutritional profile. Another additional benefit is a decrease in harmful acrylamide formation: When starchy ingredients are fried or baked at high temperatures, the cancer-promoting by-product acrylamide can develop. Calcium carbonate reduces this chemical process and can help manufacturers to meet strict EU regulations, with no negative impact on taste or volume. Furthermore, Omya Calcipur® has a positive influence on processing operations: besides being a highly effective anti-caking aid for powders, it can also reduce dusting, improve the gelling qualities of fluids and help to correct pH-values. When used in snacks and cereals, the particles ensure better extrusion too. Shiyuen.ta@omya.com

Monfruit Corp. – Coup de Foodre

Natural sugar reduction solution for food and beverage. With monk fruit, you can create great-tasting new products, or re-create existing products with significantly less sugar and calories, all from the goodness of fruit.

monk fruit extract has received a positive safety opinion from the EU food additive regulator for use as a sweetener.

This initial approval means EU food and beverage companies can confidently move forward with trialling monk fruit in new formulations, as final approval of use rates and permitted applications will be completed before the end of 2020. hans@monkfruitcorp.com

Corbion - PuraQ® Arome

Responding to growth in the global sauces, dressings and condiments market, Corbion will unveil a new addition to its PuraQ Arome portfolio, which has been developed specifically for the unique challenges of this sector. Effective across a wide pH range and easy to use in liquid systems, this latest ingredient gives manufacturers more natural solutions to optimize flavor, even in reduced-sodium applications. At the same time, it can improve organoleptic qualities by naturally balancing sourness and enhancing spiciness and/or savory notes. Linda.Tomaselli@corbion.com

Corbion - Verdad®

The latest addition to its patented vinegar-based Verdad portfolio. Verdad is already known as an effective enhancer of both quality and safety across applications from meat, seafood and poultry to sauces, dressings and condiments, and ready-to-eat, chilled food products. For example, meat products developed with this reduced-sodium range benefit not only from an extended shelf life, but also color uniformity and a firmer texture through water binding. The new ingredient shares the same strong anti-microbial and antioxidant properties as the rest of the label-friendly range, to protect against spoilage and extend shelf life, while also inhibiting the growth of Listeria. Linda.Tomaselli@corbion.com

Eurial Ingredients & Nutrition - ImaginDairy

A new dedicated platform for innovative dairy product development. Combining R&D and marketing, ImaginDairy benefits from the industrial facilities of the Eurial group and offers expertise in specialty ingredients for protein enrichment in fermented dairy products. heloise.krotoff@eurial.eu

FrieslandCampina – Kievit Vana Monte DP580

The new Kievit Vana®-Monte DP580 enhances the firmness of instant pastry cream, making cakes look firm and creating a smooth layer and sharp swirls. With this ingredient, bakeries can offer their consumers fascinating, exceptionally delicious cakes and pastries that look fantastic and are 'Instagrammable'. Pastry that will have consumers immerse in all senses. It provides more firmness after rewhipping, resulting in no waste – an important factor to bakers. The innovative pastry cream powder works with

ambient temperature and ice water (or milk) and has lasting stability, even at room temperature. It is easy to spread in seconds, an element essential for bakers. marjoleine.bartels-artz@frieslandcampina.com

Functional food ingredients

AAK – Akospread

Spread fat based on unhydrogenated shea, with an excellent stability against oil separation. It can influence properties such as taste, consistency, structure and stability of the final product. It can give a soft creamy texture. It is a general purpose spread fat containing only a minor hydrogenated component. It has a trans fatty acid content below 2%.

hanneke.lammers@aak.com

AAK - COBAO™

Pure is a cocoa butter that delivers significantly improved bloom-retarding effects in applications as milk and dark chocolate tablets, coated and filled products, and dark chocolate with nuts. Your product's shelf life can be expanded with up to 400%. hanneke.lammers@aak.com

Fiberstar – Citri-Fi 100FG

Citri-Fi 100FG (Fine Granulation) is a finer grind version of Citri-Fi 100. It also performs as an effective fat replacer in applications where lower viscosities are desired. Typically, up to 50% of the fats and oils in a given formula are replaced with a combination of Citri-Fi 100 and water (12.5% Citri-Fi and 87.5% water). It is used for moisture and oil management where the objective is to maintain a smooth mouth feel at a low viscosity. Typical usage levels for moisture and oil management are in the range of 0.2% - 1.0% of the total product weight. It can also be used to add structure to finished products. Applications: Alfredo Sauce, Cheese Sauce, Cinnamon Smear, Cured Bratwurst, Ranch Dressing, Coleslaw, Ganache, Cereals

HI-Food – HI-Smooth

A flax fiber with high technological effect for clean label applications:

- Natural and 100% vegetable from certified sources

- Either fully soluble and partial insoluble

- Cold and hot water binding, gelling properties, emulsifying capacity

- Foam stabilization and texture improvement

Additive replacer in vegan applications (e.g. methylcellulose replacement in burger). sebastien.pierron@ami-ingredients.fr

HI-Food – Micro Zea

Cost-effective heat-treated corn fibre from Italian certified crops. Cold and hot water binding, gelling properties, emulsifying capacity.

sebastien.pierron@ami-ingredients.fr

Lyckeby – Careful 1400

Clean label potato starch specially designed for meat products to enhance texture, water retention in eat spread, sausages and chopped meat. It delivers quality and functionality similar to modified food starch:

Shiny and smooth, white in colour, will not discolour light final products.

Pleasant with a full-bodied mouthfeel.
Provides good storage stability and freeze- / thaw stability.
Products suitable for different shear forces, temperatures and pH.
Declared as starch, potato starch or maize starch/corn starch.
Distribué par firmalis

Gelita – First Gelling agent in Sheet Form

GELITA has succeeded in producing pure agar-agar as a standardized sheet. This format offers numerous advantages in culinary applications. Agar-agar sheets eliminate the ambiguity of spoon measurements and complicated conversions of different powder solutions. Every single sheet has an exactly defined and identical gelling strength, greatly simplifying its use in recipes, ensuring a successful dish every time!

Rettenmaier – VIVAPUR® Alginate CH 1000

A texturizer from algae, especially designed to overcome challenges such as high raw material cost, inconsistent protein quality and customer affordability. VIVAPUR® Alginate CH 1000 extends the yield of white cheese products by decreasing the protein content without compromising the final taste, resulting in typical cost savings of the final product of 5 to 15 percent. Whether you use recombination or ultra-filtration techniques in your white cheese manufacturing processes. VIVAPUR® Alginate CH 1000 is easy to add directly without any additional processing time and equipment. Ultimately the firmness and structure of the cheese remains unchanged, ensuring a high quality product that matches the taste of standard white cheese.

fabrice.gras@rettenmaier.eu

Algaia & Herbstreith & Fox KG Germany –

Sustainable combination of pectin and alginates for multiple baking applications, to be marketed as both single ingredients or as a blend. The combination of pectin and alginate works in synergy to provide better functionality and high stability, in specific bakery applications. It can be applied to bakery filling, bakery topping, pies, or cookies that use fruit preparations. For the last two years, Algaia and H&F have researched multiple pectin and alginates and determined the most effective solutions involving a specific combination of the raw materials (both seaweed and fruit), the extraction processes, and formulations. Yaelle.salaun@algaia.com

DKSH – Carob Germ Flour

40% proteins and 22% fibers, for bakery applications. It enhances the viscosity when it is warm and has the same functional properties than gluten. The best application will be in gluten free bread to enhance the volume and the texture of the bread. Gilles.deprelle@dksh.com

Nutraceuticals

Quimdis – BCM95, Curcuma longa L. extract

The only 100% Curcuma longa extract with high bioavailability and bioactivity
× Clinical studies available for | Mental well-being, joint health, digestion ×
Several available grades | Water dispersible - Granulated and powder forms.
nutraceuticals@quimdis.com

Quimdis – AKBAMAX® | Boswellia serrata Roxb. ex Colebr extract

Standardized with 10% AKBA - 5 times more potent than conventional extract
× Clinical study available for | Joint health × Several available grades |
Water dispersible - Granulated and powder forms.
nutraceuticals@quimdis.com

Rettenmaier – Vitacel ME 1311

A blend of insoluble fibers of wheat and soluble fibers of spyllium for an
nutritionnal enrichment.
fabrice.gras@rettenmaier.eu

Vidya Europe – Vi-Hemp

Organic blend of hemp ingredients THC free guaranteed: Vi-Hemp Oil rich in
omega 3 and vitamin E, based for dietary supplements.
Vi-Hemp Protein with 45% protein content for protein enrichment for
beverae, dairy drink and bakery. david@vidyaeurope.eu

Azélis – SureProtein Microlac MPC4850

Milk protein concentrate with low lactose content and enriched in vitamins D
and D, and in calcium. Sylvie.henry@azelis.fr

Gelita – Tendoforte®

Specific Bioactive Collagen Peptides® from GELITA, is designed to increase
health and quality of ligaments and tendons. Pre-clinical and clinical trials
show the positive effects of TENDOFORTE®, especially when combined with
physical activity. The risk of injury decreases considerably, whilst flexibility
improves. TENDOFORTE® significantly strengthens tendons and ligaments and
more studies are underway.

Arla – Lacprodan® ISO. Water

100% whey protein isolate specially designed for clear beverages. It delivers
great mouthfeel without the taste of protein, creating new opportunities for
innovative products. Barbara.jensen@arlafoods.com

Bell Flavors & Fragrances: Redsugar

Functional taste solutions for sugar reduction. Bell's latest innovation mimics the molecular composition of sugar, while being in line with the latest market needs, consumer expectations and clean label restrictions. Furthermore, all products are designed to fulfill industry standards and can be declared as "free-from" sweeteners and artificial sweeteners. They also do not contain stevia extracts.

Goodmills Innovation – MAC-Wheat Fibre

High-MAC wheat fibre (MAC stands for 'microbiota accessible carbohydrates'), a novel wheat ingredient that is ultra-finely ground and stabilised. As such, it can be metabolised optimally by intestinal bacteria. This is what makes the new product much more bioavailable than the supposedly well to metabolise standard fibres found in whole grain flour and other bran products. High-MAC wheat fibre supports the biodiversity of bacteria in the intestines and therefore promotes good intestinal health. At the same time, the ingredient contains valuable natural nutrients including iron, zinc, magnesium, vitamins and polyphenols. Technologically, High-MAC wheat fibre scores with its versatile application potential for a variety of baked goods, pasta, shakes and even spreads. In particular in biscuits High-MAC wheat fibre can impress with a short bite ("crunch"), depending on the recipe.

Polaris - Omegavie® DHA 700 Algae SENSORY Qualitysilver® 5

New super-concentrated algae oil in DHA with exceptional organoleptic properties. The ideal ingredient for your development of healthy foods or food supplements in Europe and all over the world!

Main points of Omegavie® DHA 700 Algae Sensory QS5 oil:

- Highly concentrated with a minimum DHA level of 700mg/g

- Extremely low levels of saturated fatty acids due to a purification process that targets only the fatty acids of interest (DHA)

- 100% triglyceride form, highly bioavailable

- Exceptional organoleptic properties and oxidation control to preserve the nutritional qualities of the oil

- Now available in Europe in the food supplements, food and infant nutrition segments (obtained from the Food Safety authorities in Europe).

Veronique.sanceau@polaris.fr

Disproquima - eggshell membrane ingredients

85-88% proteins of which 20% elastin, 15-20% collagen and 5% glucosaminoglycans for joint and skin health. S.dicara@disproquia.com

Japan Bio Science Laboratory Co. Ltd.

JBSL is the pioneer of Nattokinase, a thrombolytic enzyme used for food supplements improving cardiovascular health. Our nattokinase ingredient, NSK-SD® has now been available in EU as it has been approved as a Novel Food ingredient in January 2017. We also supply Vitamin K2 (MK-7) from natto, ashitaba, **ChalCurb®**, sesame minerals and biozyme. A study to evaluate chalcurb® a standardized powder derived from the sap of

the *Angelica keiskei* (Ashitaba) on markers of health in adults with metabolic syndrome

Kabosu is one of the citrus fruits and consumed primarily as food. It was used for cosmetics and medicine between the Edo period and the Second World War. The results of recent studies have shown that kabosu has many effects such as a preventative effect on liver dysfunction, an inhibitory effect on an increase in cholesterol levels and an inhibitory effect on liver fat accumulation.

Kaboseed EX is a functional material made of powderised limonoids (deacetylnomilin, limonin and ichangensin) which are the functional ingredients extracted from kabosu.

This shows that kabosu seed extract has a preventative effect and a mitigating effect on hepatic disorder and hepatitis.

Innovative beauty ingredients & Dermo-nutrition

COPALIS Industrie wild marine ingredients: collagen peptides and elastin I the same proportion as in skin (94 & 6 % of total proteins). MSC (marine Stewardship Council) certified.

Vaneeghen

Dermaval™ is a patent-pending, all natural combination of fruit and vegetable concentrates. Each ingredient in Dermaval was strategically chosen for its potential to help reduce elastase activity in the body. Our skin is uniquely comprised of structural proteins and functional layers to help protect and support our body. Collagen, a protein that gives skin its strength and framework, is commonly known; however, it is another crucial beauty protein, elastin, that is responsible for the elasticity and firmness of the skin. Elastase is a powerful enzyme known to degrade elastin, a key structural protein responsible for elasticity of the skin and other connective tissue.

Science suggests that elastase activity may be stimulated by eating and other routine activities. The result of increased elastase activity is the potential degradation of skin elasticity and downstream impacts on skin tone and overall appearance. In a recent peer-reviewed and published clinical trial, 20 healthy subjects who had been served a single 50mg serving of Dermaval™ showed a statistically significant inhibition of glucose-induced elastase activity during a two-hour period following ingestion. When incorporated into a daily healthy aging and healthy skin maintenance program, Dermaval™ can help support a healthy response to daily activities that induce elastase.

Algorithm Ingredients Inc.

Algorithm produces versatile vegan ingredients derived from Algae in the form of oils, powders, emulsions and softgels. We are focused on providing functional ingredients for use in supplements and nutraceuticals, food and beverage, and infant nutrition applications. We strive to make the consumption of Omega-3s accessible, easy, enjoyable and eco-friendly through our patented processes, innovative delivery methods and novel applications.

Our strain was wild-sourced in the Bay of Fundy, NS and is processed in Canada using a solvent-free, water-based extraction method. Not only are our products plant-based, non-gmo and kosher, they are free of pollutants such as pesticides, heavy metals and microplastics that can be found in some fish and fish oils. In addition to production and sales expertise, we offer our clients service in the areas of custom formulation, novel application, marketing/branding and private labelling.

Zhejiang Skyherb Biotechnology – Grape Seed Extract OPCs 35%

Skyherb produces and markets NeuGrape, a proprietary grape seed extract is developed using non-fermented grape seed from Europe. High content of OPCs (monomers up to pentamers) is guaranteed. Signature components are quantified individually by HPLC.

Divi's Laboratories Europe AG – CaroQuik – VitaQuik -

Divi's unique beadlets are designed to enhance the rapid, cold water dispersion of fortified powder beverages. Due to innovative formulation properties, these specialty carotenoid and vitamin beadlets support improved powder beverage dissolution times. They offer fortification and/or color features for application in stick packs, dispersion caps and powder canister packaging.

CaroQuik Beta Carotene 10%DG/Q, is the first in Divi's unique **Quik** dispersing powder product family. This specialty carotenoid beadlet is designed to support the rapid, cold water dispersion of fortified powder beverages. The **CaroQuik** and **VitaQuik** powders provide fortification and color for application in today's popular powdered beverage stick packs, dispersion caps and powder canister packaging.

To meet the increasing demand for this type of beverage product design, Divi's quick dispersing portfolio has now grown to three products ... so watch for new additions to the family!

Bioenergy Life Science Inc.

Bioenergy Ribose is the building block of ATP, the source of all cellular energy. And we focus on the importance of Bioenergy Ribose and the production of ATP to show that Bioenergy Ribose is the true source of energy. Bioenergy Ribose increases energy for Endurance, Performance and A Healthier You. Bioenergy Ribose continues to grow in use and function, and we continually look for ways to combine it with other ingredients to offer additional benefits. Our newest ingredient, RiaGev™, is the first and only commercially available proprietary composition uniquely combining Bioenergy Ribose and a form of Vitamin B3. It is distinctly formulated to enter the salvage pathway directly to more efficiently increase nicotinamide adenine dinucleotide (NAD). Increased NAD and healthy mitochondria help slow the aging process, reduce age-related cognitive decline, prevent cellular damage from free radicals, create a stronger immune system, and contribute to lower cholesterol. RiaGev helps Repair, Prevent, and Rejuvenate.

Future outlook – Top Trends 2020 by Innova Market Insight

According to Innova Market Insights', Authenticity, holistic health and customization will be on the top of the list for 2020 food trends. More than half of global consumers said a brand's or product's story influences their purchasing decision, Innova Market Insights said. Demand for transparency extends beyond product labels. Consumers are quite smart. They just want honesty and transparency, but also authenticity. Small brands have really done that well. Now is the time for everyone to do it."

Anyway, Plant-based eating is moving from trend to food revolution status. Interest in plant-based foods and beverages goes hand in hand with sustainability, another top trend for 2020. Close to 90% of global consumers said they expect companies to invest in sustainability, +22% from last year. The older consumers care more about food waste while youngers care more about plastic waste.

Focusing on feeling well, mental and emotional well-being will take center stage. Innova expects increased interest in mood-enhancing food and drinks next year, as consumers look to "star" ingredients like cannabidiol (C.B.D.) or ashwagandha to treat stress and anxiety.

Consumer demand for unlocking new experiences will move beyond flavor to include texture. 70% of consumers said texture gives food a more interesting experience, and young people are beginning to care more about a product's texture experience than ingredient list. There is also opportunity for hybrid products that combine plant-based ingredients with animal-based dairy and protein. Food launches with a limited-batch claim have increased by 36% over the past several years, according to Innova. Expect to see more brands meet in-the-moment needs with highly personalized, limited-time releases. "There's a ton of stuff around nostalgia," Innova said. "That is a great way to connect with consumer, and it goes right back to that storytelling trend."

Conclusion

Once again, ingredient manufacturers have demonstrated their inventiveness and reactivity to face the changes that are affecting the food industry.

Anticipating trends, ingredient manufacturers are a force of proposal to help food manufacturers reinvent themselves and meet consumer expectations in terms of health, naturalness, sustainable development, convenience and pleasure.

50% of the products we will consume in 5 years do not yet exist. New sources of vegetable or animal protein, but also the development of food technology (in vitro meat, synthetic honey, digital farms) will be at the heart of tomorrow's food supply

Everything still needs to be invented to better feed the 9 to 11 billion people who will populate the planet in 2050.

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