



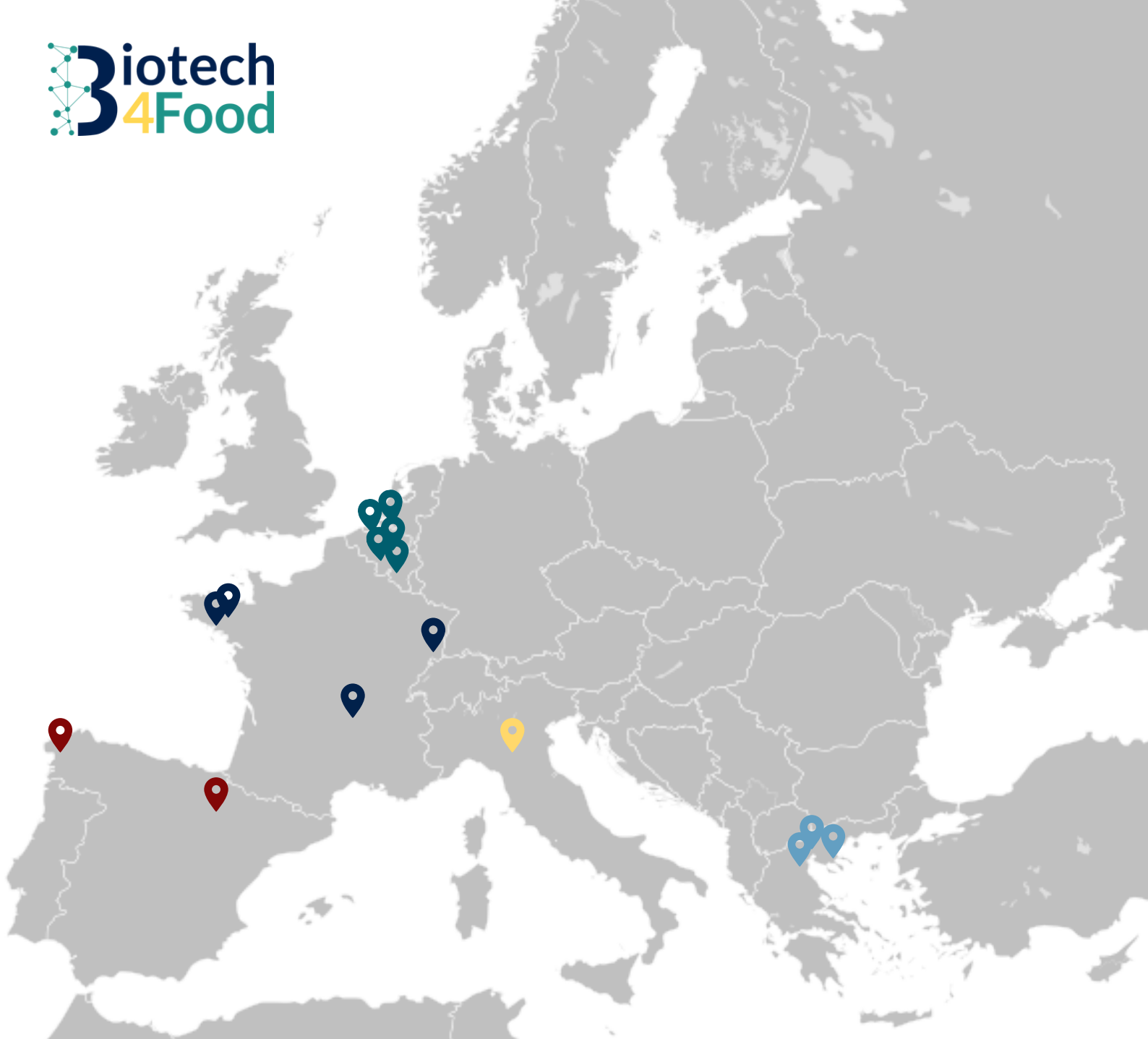
Biotech **4Food**



Co-funded by
the European Union

Presentation of the industry partners





Belgium

- Artechno
- Avecom
- Calidris Bio
- Superbiotics
- THT

France

- ABYSS Ingredients
- BCF Life Sciences
- COCONT
- SADEF

Greece

- EVYP
- KOUKAKIS FARM
- Provil

Italy

- BUGSLAB

Spain

- Ingredalia
- Hifas Innovation Hub

Biotech4Food project coordinator

Betty Milano, European Project Manager

betty.milano@wagralim.be

Natural Marine Ingredients, for health benefits, based on scientific and clinical studies

Company presentation

Abyss Ingredients was founded in 2004 on the initiative of Brittany's **fishing and fish processing professionnals** who aimed at **valuate marine by-products**. Our **R&D team** works together with **universities** and **CRO** on **innovation** and **new developments** to respond to the **growing demand of natural and sustainable healthy-aging solutions**. The efficacy of our ingredients is **scientifically proven**: we heavily invest in studies to bring to our clients full solution.



Key Figures

+20
years'
experience

65%
export sales

1/3
of our R&D
workforce

13
published
studies

AromaClean

Abyss Ingredients launch few years back the marine bioactive ingredients: **Cartidyss®**.

The typical "fishy" flavor (taste and smell) for our Cartidyss is **a barrier to our market**. Indeed, **competitive collagens are flavorless**.

Fish flavor for our Collagen is rather a **"No Go"** for cosmetic applications and cosmetic clients.

The objective of this project is to **evaluate and validate innovative biotech process from a technical and financial point of view**.

Collagen market is booming but with fierce competition (price and quality and clinical).

If success with deodorization, then we will promote this **Premium quality Cartidyss**.



Contact

Alexis Mehaignerie, President
alexis@abyss-ingredients.com

www.abyss-ingredients.com 

Abyss Ingredients 

High performance fermentation for circular food applications

Company presentation

Artechno is a **specialist in microbial solutions** developed from **fermentation of bacteria**, yeast and fungi. Supported by **more than 1,000 scientific papers**, eco-friendly solutions are proposed to our partners to meet the challenges of **healthy eating**, of finding **natural solutions in animal feed** and **plant nutrition**. Artechno's know-how is particularly developed in SPORE FORMING BACTERIA (mainly BACILLUS species).



Key Figures

Services in
5 continents

Eco-Friendly
solutions

12
employees

+3 million
turnover

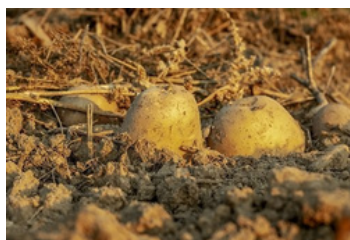
Agroflowval & Porcbiota

Agroflowva & Porcbiota are two projects part of a collaborative research programs subsidized by the Walloon region (and monitored by Wagralim).

These R&D&I projects have **allowed the optimization of the fermentation culture conditions** especially for spore-forming, aerobic and anaerobic germs or resistance to drying. The yields, especially in spores' production, have **considerably increased** and now allow to start marketing for **nutraceutical and food applications**, and also for **feed usages**, without forgetting agriculture (bio-stimulants for example).

The biomass raw material used as microorganisms' culture media are **residues of the potato** processing industry (Lutosa) and constitutes therefore a perfect example of an **integrated circular economy** approach.

One of the objectives of this program is to integrate this optimization in a scale up installation by recalculating the sparger, the gas flow, the compression and their other physiological factors (influence of the CO₂, the Oxygen concentration of the environment).



Contact

Louise Poncelet, Sales Manager
l.poncelet@artechno.be

www.artechno.be/ 

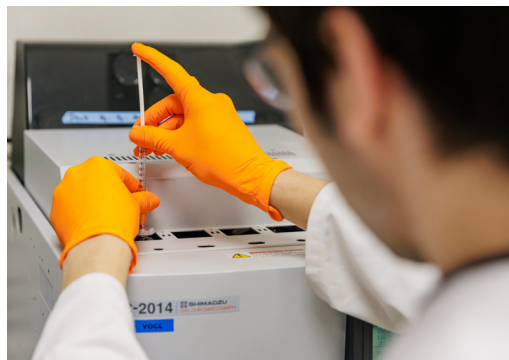
ARTECHNO sa 

@ARTECHNO_sa 

Sustainable Solutions for Environmental Recovery and Side Stream Valorization

Company presentation

Avecom is a SME that emerged as a **spin-out company** from the **University of Ghent (UGent)**. Avecom's specialization lies in the **fields of biodegradation, microbial fermentation** and the **engineering of microbial consortia**. These competences enable us to offer **sustainable and cost-effective solutions** for **environmental remediation** and **biomass fermentation**. Within their portfolio, Avecom has developed **diverse biomass fermentation platforms**, originating from byproducts generated by food, agro and other industries.



Key Figures

+20 years
of experience

1995
foundation

1M €
turnover

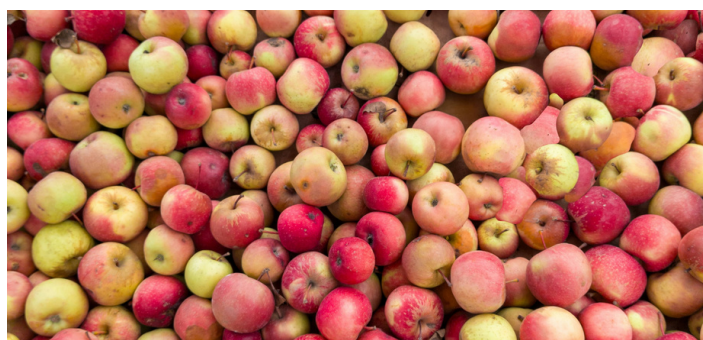
12
employees

ProMic from Apple Pomace

The project aims to establish a robust, stable and cost-efficient **microbial protein production process** through biomass fermentation, **starting from residual materials derived from the fruit industry**, notably apple pomace. Various fermentation configurations will be demonstrated and fine-tuned, including **batch** and **continuous systems**, in addition to exploring the **use of mono- and co-culture strategies**. This initiative is in alignment with the overarching goal of

advancing sustainable protein production, primarily for use in animal feed and ultimately for human consumption, by **valorizing a readily abundant byproduct** that currently lacks efficient processing pathways.

The project's primary activities are **multifaceted** and **centered around advancing the production of SCP from apple pomace**, a residual byproduct from the fruit industry, over the course of one and a half years.



Contact

Stijn Boeren, Director
stijn.boeren@avecom.be

www.avecom.be/ 

Avecom 

Specialist in the extraction of free amino acids

Company presentation

BCF Life Sciences specialises in the **extraction of natural amino acids** (L-Cystine and L-Tyrosine) **and their derivatives** (Carbocysteine, etc.) of 100 % traced origin for the pharmaceutical and health care industries. BCF Life Sciences products are marketed by the **leading names** in the fields of **pharmaceuticals**, **food supplements** (nutraceuticals) and **baby foods**. BCF Life Sciences also develops and markets a range of **highly soluble and highly bioavailable free amino acid mixes** with very low molecular weight.



Key Figures

38.2 million €
in 2018

185
employees

64 %
of sales
made overseas

2 sales offices
in Thailand
& Colombia

Scale up & reach additional food markets

The investment project consists of **securing and increasing amino acid extraction capacity** in order to **meet the sustained demand** of its customers, via the updating of part of the equipment making it possible to carry out a key to the extraction process (spinning).

This investment is also part of a **quality dimension**, given the markets in which BCF Life Sciences operates, particularly in human health (child and medical nutrition, pharmaceuticals, food supplements).

We expect this project to contribute to a **production increase objective** lying between **+3 and +5%**, thanks in particular to the following future parameters described below:

- Automatic dismantling;
- Automated spin recipes;
- Increased spin capacity;
- Remote production monitoring.



Contact

Wilfried Bayer, Engineering Manager
wbayer@bcf-lifesciences.com

www.bcf-lifesciences.com/

BCF Life Sciences

Multi-enzymatic treatment of insect flour

Company presentation

BUGSLAB SOC AGRICOLA SRL is an Italian start-up specialised in the production of **insects** (currently crickets and locusts) **and insect based products** (dried crickets and cricket flour). Bugslab's products are currently mostly used in the **pet food industry** and also starting to be used in the feed and food industries as legislation has evolved to open these new markets. Bugslab also develops **insect rearing technology** and industrial processes to continuously improve the efficiency of its production.



Key Figures

**3 Ton of
insects
per month**

**Largest cricket
producer
in Italy**

**Most
sustainable
protein**

**Lower risk
of Spillover**

Insect Flour

Various insects have emerged as **novel food** or feed resources (for fish, poultry and pigs) due to their **economical**, **eco-friendly**, and **nutritive** characteristics. However, several studies on livestock

have shown a reduced apparent digestibility coefficient when insects were supplied as a replacement for commercial meals related to chitin. In addition, when approved as novel food, some issues arose with the **safety of insects**, especially as **allergens**.

As a consequence, novel processing techniques are required to **reduce the allergic potential** of insect proteins, improve the digestibility and the biofunctional properties of insect meal.

The idea of the present project is **to develop a biotechnological and sustainable** protocol based on enzymes to deliver **insect flour** containing protein and chitin hydrolysed in oligopeptides and chitooligosaccharides respectively, to improve digestibility, prebiotic potential and reduce allergenicity, delivering **healthier insect based ingredients** for food and feed applications, stimulating sustainable food consumption.



CRICKETS FLOUR

Contact

Francesco Latino, CEO Bugslab
francesco.latino@bugslab.it

www.bugslab.it/

Bugslab 

Sustainable protein to feed a growing population

Company presentation

Calidris Bio is a **biotechnology company** who developed the **fermentative production of Microbial Protein (MP)** by bacteria utilizing renewable resources. Calidris Bio's first product is a **high-protein ingredient** for use in **food and premium feed**. Calidris Bio stands out from other microbial protein producers in that the product is **highly nutritious** (>72% protein with a high concentration of essential amino acids), and that the production process is **independent of agricultural resources** since CO₂-derived renewables are used as a feedstock.



Key Figures

> 80%
Crude protein

Rich in essential
amino acids

> 90%
Digestibility

Produced at
ton-scale

Fine-tuning the First Industrial Scale Microbial Protein Production Runs

The project aims to **improve the overall yield** of the **first industrial production** runs of Calidris Bio's alternative microbial protein.

Calidris Bio utilizes **CO₂-derived renewables** as carbon source for a methylotrophic bacterium in a fermentative process to produce Microbial Protein (MP), a **next-generation alternative protein** source that can be produced **completely independent of modern agricultural techniques**.

Expected results:

- Improve substrate to **protein rich biomass conversion rate** to at least 80% of the theoretical maximum value;
- Improve the **metabolic shift** towards protein rich biomass and decrease product loss during downstream processing;
- Interregional **dissemination and communications**/attendance of events organized by Flanders Food/Biotech4Food

Contact

Lieve Hoflack, Co-founder
lieve.hoflack@calidrisbio.com

Madiha Nazir, Bioprocess Scientist
madiha.nazir@calidrisbio.com

Sofie Snoeck, Bioprocess Engineer
sofie.snoeck@calidrisbio.com

www.calidrisbio.com/en/ 

Calidris Bio 



Sustainable plant-based food that promotes local agricultural sectors

Company presentation

COCONT's aim is to make **better use of local agricultural sectors** to develop **new fermented plant-based foods** that meet the challenges of food and nutrition, while having a **positive impact on health and the environment**. The company is committed to **ensuring France's food sovereignty**, and has positioned itself as part of a process of reindustrialisation through a low-carbon industry. To ensure COCONT's rapid development as a specialist in the manufacture of fermented plant-based alternatives, we need to **finalise the development** of these **bioprocesses** on an **industrial scale**.



Key Figures

1 Million
invested in
innovation

**Re-
industrialisation**
of France

**Food sovereignty
and
decarbonisation of
industry**

**Support from
idea to
manufacturing**

Nutriferments Industry

Nutriferments Industry's main objective is to **develop tempeh-type, soya-free** finished products with a variety of plant protein sources (cereals and legumes) and in various forms on an industrial scale. These products will be **marketed in the Biotech4Food region**.

For COCONT, this project represents an opportunity to **diversify its offering, increase its annual sales** by €1.5 million and **create four full-time jobs** by 2026.



Contact

Louis Fanget, Director
louis.fanget@cocont.fr

www.cocont.fr/ 

Cocont 

Biotechnological transformation of plant-based proteins for poultry feed

Company presentation

EVYP L.L.P. is an innovative Greek company, specialized in the production of exclusively **plant origin non-GMO hydrolyzed proteins** and amino acids for agricultural use. Its primary focus is in the production and marketing of **Food Insect Attractants** and **Biostimulants**.



Key Figures

6 decades
expertise

High quality
operation

Awarded
innovative
orientation

Carbon neutral
objective

Amino4Food

Livestock production significantly contributes to the agrifood sector. Concerns on **resource availability, animal health, productivity, and environmental impact** are of major importance.

Innovative livestock **feed solutions** can help improve feed quality and feed-to-weight ratio, hence addressing such concerns.

The project focuses on the use of **plant derived amino acids** in chicken diet to improve their well-being and performances.

The project will make use of a **biostimulant**, derived through hydrolysis procedures, to assess its impact on growth and quality of the final product.



Contact

Nikolas Paschos, Quality Assurance Manager
n.paschos@evyp.gr

www.evyp.gr/en/ 

E.B.Y.Π. E.E. / EVYP LLP 

@Amino 16 

Scaling up production of mushroom-Foods for Special Medical Purposes (FSMPs)

Company presentation

Internal Venture Builder of Hifas da Terra Group specialized in **entrepreneurship and innovation around mycology**. With an agile structure, market focus, talent at all levels (founders, employees and investors), strategic capital, knowledge and the necessary experience to **turn an innovative idea into a high impact business**. It is part of a group with **more than 20 years** of research on functional fungi.



Key Figures

+25 years
expertise

**Disruptive fungi-
based innovation**
for healthcare

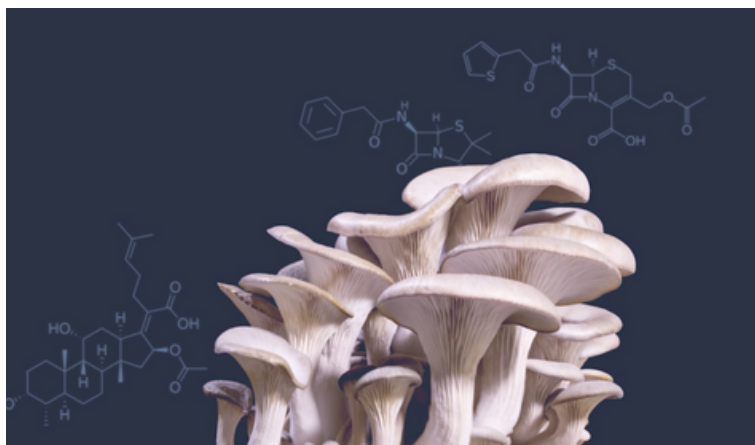
Novel drugs
from fungi

Patented
Technology

Mushroom-Foods for Special Medical Purposes (FSMPs)

Hifas Innovation Hub is interested in scaling the production of a foods for **special medical uses** for cancer patients at risk of malnutrition that incorporates **Hericium erinaceus mycelial** extract rich in beta-glucans to improve functionality at the immune level.

Hifas has developed a **new process** for the production of **fungal ingredients** through fermentation in a liquid medium that reduces waste, pollution, material consumption, energy use and increases functionality.



Contact

Diego Rubianes, Regulatory Affairs
& Industrial Property Manager
diego.rubianes@hifashub.com

www.hifasbiologics.com 

Hifas Biologics 

Enzyme assisted extraction of bioactive compound from vegetal by product

Company presentation

INGREDALIA S.L. is an innovative **technology-based** company located in Milagro (Navarra) whose business model is rooted in the **revalorization** of vegetal by-products. It was set up in 2017 to develop and commercialise **natural functional ingredients**, made from vegetable by-products originated by agri-food companies, mainly from the canned and frozen food sector.



Key Figures

Circular Economy
principle

Patented
technology

Sustainability
as their DNA

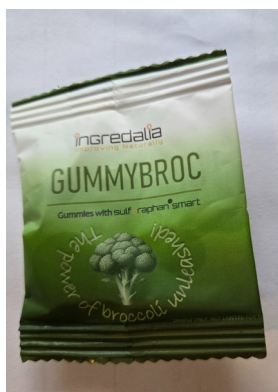
Real-time
monitoring

ByEnzyme

The current methodology to obtain high-added-value compounds from vegetal by-products is highly dependent on the use of **organic solvents**. The use of those chemicals **compromises the environmental** impact of by-product revalorization.

Their proposal is to use **enzyme mixes to pre-treat the raw material**, liberating the cell's compounds otherwise extracted by the solubilization with ethanol, acetone or other solvents.

At the same time, the **filtration process will be improved** by using **micro membranes**. This equipment is highly reusable and it will completely avoid the utilization of single-use filters (used so far). Furthermore, it will increase the extraction's **purity and yield**. The same membrane system will also facilitate **enzyme recovery**, increasing the number of cycles in which they can be used.



Contact

Miguel Angel Cubero, CEO en Ingredalia S.L.
macubero@ingredalia.com

www.ingredalia.net

Ingredalia S.L.

@ingredalia

Koukakis Farm

Thessaloniki, Greece



Further development & launch of the My VeFir vegan product line

Company presentation

Koukakis Farm is one of the **strongest milk and yoghurt manufacturers** in Greece. The factory is located at Kilkis, in a completely **natural environment**.

The company produces **premium products** made exclusively from top quality fresh milk & ingredients.



Key Figures

**CRYSTAL
Taste Awards
2023-2024**

**No1 in KEFIR
in Greece**

**Exports
+ 26 countries**

**41M €
turnover**



My VeFir

'My VeFir' is a series of **ready-to-drink** beverages from **plant-based** raw materials, offering an alternative for kefir. It will be a **fermentation based** product with special aromas and flavours aiming to cover the needs of different consumer segments. **My VeFir**, a brand name based on the contraction of **vegan** and **kefir**, will target the **average** consumer but also those who follow a **vegetarian** or **vegan** lifestyle, and consumers with **lactose intolerance** or allergic for animal proteins.

Fermentation will be explored and tested, to obtain a superior taste, texture, mouthfeel, and aromas. Additionally, by using probiotic bacteria, the product is expected to benefit the digestive and reinforce the immune system.

Based on the high nutritional value of kefir, the products are further **nutritionally reinforced** using natural ingredients to become a source of essential elements, vitamins and protein. Each product will have a distinct formula that fits the general **preferences** of the targeted consumers.



Contact

Theodoros Symeonidis, Plant Manager
T.simeonidis@koukakisfarm.gr

www.koukakisfarm.gr

Koukakis Farm S.A.

[@koukakis_farm](https://www.instagram.com/koukakis_farm)

Microalgae derived EPS as a sustainable food additive

Company presentation

PROVIL SA is a Greek company that produces **ingredients and supplements** for the food industry, mass catering, gastronomy and for meat retail business. For more than **25 years**, PROVIL has been the trusted partner of both food production companies and professionals of gastronomy and organized catering in Greece and abroad, with our name being synonymous to **know-how, quality, continuous development and reliability**.



Key Figures

+25 years
expertise

**Trusted
partner**
for companies

**Inspire
nutrition**

25 tons/day
capacity

AlgaeEPS4Food

One of the most crucial concern facing the food industry is the search of new **alternative ingredients** sources that both pandemic and energy crisis periods highlighted significantly. The project focusing on the use of **EPS derived from microalgae**, cultivated with cheese whey, as a sustainable food additive for replacement the existing ingredients.

The project will have a duration of **18 months** and the workplan is divided into **5 work packages**.

The project implementation will provide the company the opportunity to **explore, test and use** new local sources by **utilizing biotechnology**.



Contact

Thomas Koupantsis, Research & Development Manager
research@provil.gr

www.provilgr.com

Provil S.A.

@provil_greece

A fermented ingredient to replace preservation additives for fresh-cut fruit and vegetables

Company presentation

Heir to **more than 70 years** of know-how in agronomy, SADEF is now a **reference laboratory for the analysis of agri-environmental expertise**. To strengthen its research and innovation capacities, SADEF integrated in October of 2024 **senior R&D experts** from an **agri-food R&D company** with solid expertise in **biotechnology applied to the food sector**.



Key Figures

**Newly
integrated
agrifood branch**

**Sustainable
solutions
from farm to fork**

**Multi-
accredited
laboratory**

**70+ years
of expertise**

Veg'Guard 2.0

Designing healthier, more sustainable, and consumer-friendly processed food products or ingredients is **a challenger for the food industry**. One path of innovation to **create foods** that meet both **sustainability goals** and **consumers' expectations** for "naturalness and health" is to reconsider food preservatives.

SADEF's newly acquired agrifood branch is **developing a preservative fermented ingredient**. To start, two types of applications are targeted:

- Pre-cut fruit and vegetables
- Ready-to-eat salads

The project has **two main objectives**:

- **To extend the shelf-life of products** of at least 3 to 10 days
- **To replace additive preservatives** such as potassium sorbate and benzoate, whilst attaining the same level of efficiency.

After finetuning the preservative fermented ingredient, SADEF's agrifood R&D team will **develop a range of fermented ingredients** for different food matrices, testing its production at both pilot and industrial scale. Once validated at production scale, a **commercial strategy and industrial partnerships** will be developed for the ingredient's launch.

Contact

Alain Etiévant, Senior Food Technologist
etievanta@sadef.net

www.sadef.net 

SADEF – Nutrition Hub 

Development of innovative solutions for everyone's well-being

Company presentation

Founded in 2019 on the expertise of Vésale Pharma, Superbiotics' mission is to **develop innovative technologies** and **produce and formulate microbiotic solutions** comprising live probiotic strains. The company also aims to **valorize and patent processes or strains** that have demonstrated a **significant impact** on **human and animal health**. The identification of new physiological functionalities will enable the formulation of **high value-added compounds**.



Key Figures

**Global
presence**

+2500 kg
**Strains Each
year**

Intelicaps®
**micro-
encapsulation
technology**

2019
**creation of
the company**

Scaling-up & market access for food supplements

Superbiotics faces **2 major challenges** for marketing its products: the **long-term preservation of the functional capabilities of probiotics** and the **need for objective demonstration of the positive impact of probiotics on human health**.

The project aims to:

- **Replace freeze-drying** by low-energy and low temperature drying methods at industrial scale;

- **Increase the productivity** (about 10-15%) and the yield of the manufacturing process of the Intelicaps® encapsulated probiotic;
- **Extend the stability and thus the shelf-life** of our existing and new finished products;
- **Register new products** according to regulatory requirements.



Contact

Jacqueline Abrassart, Administration Director
jacqueline.abrassart@vesalepharma.com

Adrien Berger, R&D Manager
adrien.berger@superbiotics.eu

www.vesalepharma.com/ 

Vésale Pharma 

Biotechnological valorisation of probiotic byproducts

Company presentation

THT is a biotech company active in the production of **biotics via fermentation** for the food supplements (probiotics, postbiotics) and food (fermentation starters) markets. THT is particularly expert in the **selection and production** of **lactic acid bacteria**. THT differentiates from its competitors by the **diversity** of its various offer and its **ability to adapt** to customer demand. THT is part of the **Puratos Group**.



Key Figures

Diversity
offer

+30 years
expertise

High
adaptation
ability

30 different
strains produced

Surnabio

The **fermentation** processes implemented at THT generate **2 products** : **bacterial biomass** which is used to make finished products (probiotics and starters) and **supernatants**. These supernatants are known to have potential **health benefits** depending on their chemical composition. They are not valued for now and are considered like a waste.

Therefore, the aim of the project is to **use biotechnology processes** and adapt fermentation technologies to produce bacterial biomass but also to obtain **valuable supernatants** that could become new ingredients for food and health applications or even for other applications like chemistry and feed. These innovations will allow THT to **evolve to a more circular and resilient economy**.



Contact

Germain Druart, R&D Manager
germain.druart@tht.be

www.tht.be/ 

THT 

@THT 



www.i4ce.eu/biotech4food/



@Biotech4Food