

# The **future** of our food in Europe

EITfood.eu



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# EIT Food's Ambition

EIT Food is a consortium of over 50 partners from leading businesses, research centres and universities across 13 countries. A people-centric and resourcesmart transformer of the European food system, driving consumer confidence and improved global health.

## Goals and Impact

EIT Food's vision is to put Europe at the centre of a global revolution in food innovation and production, and its value in society. EIT Food will engage consumers in the change process, improve nutrition and make the food system more resource-efficient, secure, transparent and trusted.

#### EIT Food has six strategic objectives:

- Overcome low consumer trust: support Europeans in the transition towards a smart food system that is inclusive and trusted.
- Create consumer valued food for healthier nutrition: enable individuals to make informed and affordable personal nutrition choices.
- Build a consumer-centric connected food system: develop a digital food supply network with consumers and industry as equal partners.
- Enhance sustainability: develop solutions to transform the traditional 'produce-usedispose' model into a circular bio-economy.
- Educate to engage, innovate and advance: Provide 'food system' skills for more than 10,000 students, entrepreneurs and professionals through advanced training programmes.
- Catalyse food entrepreneurship and innovation: foster innovation at all stages of business creation.

It aims to boost the skills and entrepreneurial spirit in the sector and unlock the potential of small and medium sized enterprises (SMEs), which in turn will accelerate innovation, create jobs, benefit businesses and increase Europe's competitiveness.

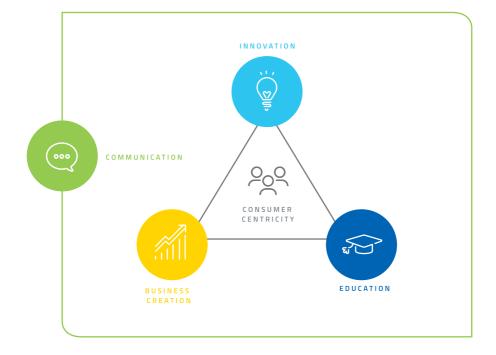
#### This will be achieved by:

- Developing new talents: attract and engage new talent through EIT Food education programmes with curricula designed to overcome the 'silos' of knowledge and skills in specific areas of the food system. EIT Food will introduce new learning methods, entrepreneurial tools, and business practices that empower students, professionals and executives at all career stages to become entrepreneurial champions in Europe's food sector.
- Delivering business creation and acceleration support: boost the competitiveness of the EU food sector and ensure that Europe remains the number one global exporter of food and drink. EIT Food will proactively support entrepreneurs in transforming their ideas into businesses through the entire start-up cycle and in clearly defining their market. It will generate future entrepreneurial champions in the food sector who will fulfil their ambition to improve nutrition, achieve food security and promote resource-efficient food systems.

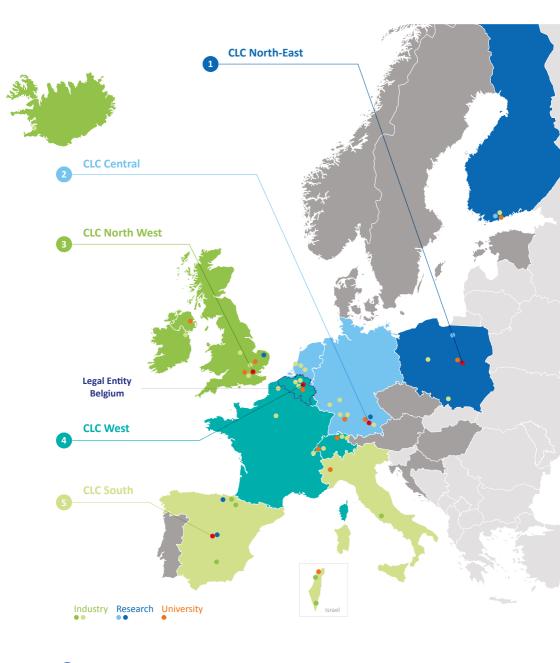
 Create consumer-valued food for healthier nutrition: develop innovative tools and technologies that support personalised diet profiles combined with the ability to self-assess the impact of customised diets through non-invasive home diagnostics, mobile devices and individual online coaching. This will help to narrow the current gap between people's intentions and actual behaviour towards healthier foods and lead to an improvement of people's health across Europe.

EIT Food links the pillars of the knowledge triangle - innovation, education, business creation - with a consumer-centred approach which gives European citizens the opportunity to become true change agents.

EIT Food will engage consumers in the change process, improve nutrition and make the food system more resource-efficient, secure, transparent and trusted. EIT Food addresses and connects leading business companies and entrepreneurs, researchers and innovators, students, academics and every European citizen to develop world-class solutions to societal challenges and create a future-proof and effective food sector.



# **EIT Food Partners**



#### **CLC North-East**

#### Warsaw

#### Poland

- Maspex
- Polish Academy of Sciences
- Raben
- University of Warsaw

#### Finland

- University of Helsinki
- VTT Technical Research Centre of Finland
- Valio

#### **CLC Central**

#### Munich

#### Germany

- Bosch, Packaging Technology
- Deutsches Institut f
  ür Lebensmitteltechnik
- Döhler
- Fraunhofei
- Herbstreith & Fox KG
- John Deere
- Siemens
- TUM Technische Universität München
- University of Hohenheim

#### **The Netherlands**

- DSM
- Koppert
- PlantLab

#### **CLC North-West**

#### UK

- Agrimetrics Ltd
- Quadram Institute (QI)
- PepsiCo
- Queen's University of Belfast
- University of Cambridge
- University of Reading
- Waitrose

#### Ireland

ABP Food Group

#### Iceland

Matis Icelandic Food & Biotech R&D

#### **CLC West**

#### Belgium

- Colruyt Group
- EUFIC The European Food Information Council
- University of Leuven (KULeuven)
- Puratos
- France
  - Roquette Frères
  - Sodexo

#### Switzerland

- Bühler
- EPFL (Ecole Polytechnique Federale de Lausanne)
- Eidgenössische Technische Hochschule Zürich
- Givaudan
- Nestec

#### CLC South

#### Spain

- Acesul
- Grupo AN S. Coop
- Angulas Aguinaga
- Azti
- CSIC
- University of Madrid (UAM)

#### Italy

- AIA Associazione Italiana Allevatori
- University of Torino (Unito)

#### Israel

- Algatechnologies
- Strauss Group
- Technion Israel Institute of Technology

# ABP FOOD GROUP



### Profile

ABP Food Group is one of Europe's largest vertically integrated Agri Food processors. Our core business is beef processing, harvesting the products from over one million cattle each year from farmers throughout Ireland, the UK and Poland. We also have a sizeable lamb business processing over 2M across ROI and UK. Products that do not make it into the human food chain are further processed in one of our other 3 divisions, Petfoods (a pan European business trading as C&D), ABP proteins (adding value to by-products – tallow, MBM, Gelatine), or our Renewable energy division (trading as Olleco).

## Master Contact

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## Competences & Capabilities

Understanding of beef / lamb farming systems and drivers of farm efficiency / profitability. Sector sustainability (economic and environmental) Harvesting and adding value to animal by products to minimize waste and maximize value. Food authenticity, security and brand protection of supply chains.



# Innovation

ABP Beef has a patented Ultra-Tender process underpinning product consistency that delivers leading consumer satisfaction metrics.

We are embarked on various Genetic and Genomic programs with leading institutions to improve sector sustainability (economic and environmental)

We have 2 trial R&D farm units to prosecute our trial activity and through Blade Farming have an integrated controlled supply chain.

We are highly active in identifying opportunities and deriving value from animal by products across the sister divisions of ABP beef.

All of the above is underpinned by significant business investment in state of the art facilities.

# Communication

ABP have c35,000 farmers supplying directly to our network of slaughter sites. From there we supply our network of beef and lamb products for retail, food service and manufacturing sectors. We would cater for 150m consumers on a daily basis to ensure they have a safe, tasty and nutritious eating experience.

Effective engagement with our farming supply base is essential to deliver sector efficiency.

Given the importance of the Agri sector to the Irish economy interactions and influence at governmental level directly and indirectly is commonplace.

We interact and collaborate joint research funded and non-funded projects with many of our customers, academics and food experts from around the world.

# **Business Creation**

From humble beginnings ABP Food Group has grown organically, by acquisition and through business creation to become one of Europe's largest integrated Agri Food Businesses. Examples of business creation would be :

Olleco (ABP renewables) originally using tallow in biodiesel has grown to become a leader in renewable energy and recycling expertise with infrastructure collecting from 50,000 outlets weekly.

Investing to add value to animal by products in ABP Proteins by constructing the first Gel Bone plant in the British isles.

Establishing our own integrated cattle supply chain (Blade Farming) across ROI / UK using a controlled system of farming.



# Education

ABP offer long and short term placements within every sector of the business if required.

We also are part of an innovative program to connect young children in schools to the origins of their food through a program called – 'Calves in the Classroom'

We work with Agricultural Universities and do farm simulation trials on efficiency and sustainability.

ABP work with leading agricultural bodies from government, levy bodies to feed manufacturers to discuss and plan for all future challenges.

ABP sponsors a number of its employees to undertake PhD's / Masters / Further education activity for the benefit of both individual and husiness.

# ACESUR Food industry



## Profile

ACESUR is one of the most important worldwide olive oil producers. With more than 175 years of experience, it has presence in each step of olive oil production, from the tree to the table. Also it has a great experience on vegetable oil, sauces and vinegar producer. It top brands La Española and Coosur have presence in more than 100 countries around the world.

## Master Contact

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# Competences & Capabilities

Main areas of specialization and technological expertise are:

- Olive oil Production and manufacture
- Vegetable oil and fat manufacture
- Sauce manufacture
- Healthy foods
- Vegetable-base waste treatment

ACESUR innovation philosophy is very close to the market, in order to offer new, healthier, sustainable and better oils and sauces according to the modern consumer demands and necessities, as well as raw material for other food industries.

To archive that goals, our R&D team collaborate with Universities, research centers, private companies and final users to solve technical difficulties and find new opportunities.



# Innovation

Our innovation is focus on final consumer and clients. Based on new technologies developed by academia, research center and food companies, we apply it to produce new foods, both oils and sauces.

Olive oil is our main raw material so ACESUR can offer an excellent and prime quality new ingredient to improve all kind of food which needs oil or fat in the production process. Also we can adapt physical-chemical, sensorial and nutritional quality of olive oil and other vegetable oil to improve food matrix adaptation.

In addition, we work to reduce the impact of waste from olive production and oil refinery, looking for ways to re-use and valorize those industrial wastes.

**Contact:** Pablo Gómez Rodríguez. R&D prodriguez@acesur.com



## **Business Creation**

ACESUR is a group which main propose is food production, however other business and companies related with food industry, as energy or waste recycling are linked with ACESUR

New opportunities to create business which can improve or help the group growth are always welcome.

**Contact:** Andrés García. R&D manager agarcia@acesur.com



ACESUR, as olive oil leader promote communication with all groups related with the oil world, from the farmer to distributors, restaurants and consumer organizations

Also we are very active to promote Mediterranean diet and a healthy way of life and remark its goodness and importance. A special mention to children, chefs and housewives.

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We collaborate with Universities, Master and PhD food science programs from Andalucía and Spain to offer industry expertise and point of view to the researchers of the future.

ACESUR offer the opportunity to acquire practical experience in the vegetable and sauce sector thought internship agreements with the Universities.

**Contact:** Andrés García. R&D manager agarcia@acesur.com

# AGRIMETRICS The Big Data Centre of Excellence



#### Profile

Agrimetrics is accelerating growth in the Agri-Tech sector, working across the Agri-Food industry to advance the development, adoption and exploitation of big data, enabling decision makers to make more informed choices on the safety, quality, security and sustainability of the products they grow, source and sell.

Agrimetrics was founded by four academic institutes: Rothamsted Research, University of Reading, National Institute of Agricultural Botany (NIAB) and Scotland's Rural College (SRUC).

## Master Contact

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## Competences & Capabilities

Born out of the UK Government's Strategy for Agricultural Technologies, Agrimetrics is a trusted, secure, independent Centre with expertise and capabilities in data science, smart analytics, bioinformatics, translational research and knowledge exchange in crops, livestock, food and sustainability.

Agrimetrics specializes in:

- Data aggregation and integration
- Data analytics and modelling
- Data mapping
- Bespoke technical architecture design (e.g. tools and dashboards)
- Best practice guidelines



Agrimetrics uses semantic web technology, creating a common framework that allows data and insights on food production to be shared and reused across the entire Agri-Food System.

- Linking data across applications, businesses and locations.
- Using machine Learning to provide real-time insights on key production performance indicators.
- Applying analytics and modelling to predict, model and horizon scan future risks under different production scenarios.

# Communication

One of four UK Agri-Tech Centre's of Excellence, Agrimetrics works across the entire Agri-Food System. Our products and related expertise bring farmers, service providers, food processors, retailers, consumers, scientists and policy makers together to share insights on those challenges that are too difficult to manage alone.

## Business Creation

Agrimetrics data platform makes disparate public and private data on the safety, quality, security and sustainability of the Agri-Food System more accessible for industry. By creating a common framework that allows data to be securely shared and reused, businesses can work with us (and with each other) to develop more effective and profitable products and services that better anticipate new food related challenges, not just react to them.



Agrimetrics make accessible to every partner within our industry the collective expertise of all. This is driven by the data that we're constantly collecting, analyzing and enabling industry to access.

Agrimetrics training programmes educate industry on the value of data science, supporting them to adopt best practice approaches, incorporating data science into their business and creating evidence based decision making.

# ASSOCIAZIONE ITALIANA ALLEVATORI – AIA



## Profile

The Italian Breeders' Association (AIA) was founded in Rome on 20 August 1944 to revitalize national livestock breeding programs devastated by World War II. Our mission is in article 3 of our Statute: "The association is of a technical and economic nature. Its aim is to promote initiatives which can usefully contribute to a rapid improvement in livestock, enhancing value and the value of products".

The initial structure has now grown and has branches all over Italy, supporting all sectors of livestock breeding and offering a wide range of technical services to boost competitiveness and sustainability for breeders.

# Master Contact

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# Competences & Capabilities

AIA is the Italian official organization in charge of livestock performance recording for management and genetic improvement purposes.

- 1100 technicians for milk and meat performance recording and 700 for extension service
- 46.000 farmers (23.000 dairy farms)
- 80% of the total milk produced yearly in Italy
- more than 250,000 days per year spent on farm
- a net of 22 laboratory for milk analysis
- member of ICAR (www.icar.org), Interbull (www.interbull.org), EAAP (European Association for Animal Productions), FIL-IDF (International Dairy Federation), WAAP (World Association for Animal Production)



**Innovation** is fundamental to success. Apart from advanced researches in animal genetics and genomics, AIA developed a set of innovative facilities:

L.G.S. (Genetics and Services Lab), a fully equipped top level laboratory for genetic and genomic analysis

LSL: Milk Standard Laboratory for calibration reference milk samples. LSL provide local laboratories with certified reference milk samples in order to constantly calibrate and check instrument according with ISO standard

**C.P.C.M.** Test Laboratory for calibration of recording devices used for performance recording at heard level.

**Contact:** Raffaele Mazza mazza.r@aia.it



During its 70-year history, AIA has promoted the transfer of agricultural knowledge from research into farming practice.

AIA shares its know-how by developing guidelines and procedures as well as by working with international partners on innovative initiatives focused on biodiversity and biosecurity.

Its mission is to guide the farmers to the use of the best practices in the management of animal welfare, productions chains, quality and traceability of food products.

**Contact:** Alessia Tondo tondo.a@aia.it



## **Business Creation**

Successful farming in the 21st century requires knowledge not only of the latest techniques for raising crops and farm animals but also of how to operate a successful business.

AIA supports the farmers by :

- introducing suitable innovations into traditional food process to maintain and increase quality and competitiveness.
- developing indicators to determine the overall farm performance in term of environmental impact and animal welfare maintenance
- identifying, testing and applying best practices and farm management innovations

**Contact:** Stefano Biffani biffani.s@aia.it



Thanks to its 2500 specialists, AIA promotes an animal welfare culture across all country.

A widespread knowledge network has been developed, supporting farmers and breeders in their everyday activities.

Meetings and symposiums are regularly organized providing the farmers with scientific and technical up-to-date information.

**Contact:** Mauro Fioretti fioretti.m@aia.it

# ALGATECHNOLOGIES LTD. *Micro-Algae*



### Profile

Algatechnologies Ltd., established in 1998, is an innovative biotechnology company specializing in the development, production and commercialization of health related algae-based products for food/ beverage, dietary supplement and cosmeceutical market segments.

# Master Contact

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# Competences & Capabilities

Algatechnologies first became known as a micro-algae leader with the production and worldwide sales of AstaPure®, a natural Astaxanthin from Haematococcus pluvialis, one of the most powerful antioxidants.

Located in Israel's Arava Desert – with its stable climate and high light intensity – Algatechnologies is ideally positioned to cultivate microalgae.

Our commitment to sustainability is rooted deeply in our eco-friendly manufacturing and support processes. We utilize natural solar energy, recycle precious resources and clean wastewater.



# Innovation

The state-of-the-art closed system, covering more than 15 acres of arid desert land, hosts a modular array of tubular glass photobioreactors, more than 500 km (310 miles) long. The entire system is automated and controlled remotely:

- A controlled closed microalgae cultivation system
- Green technology, energized by natural sunlight
- Supercritical CO2 extraction technology
- ISO, HACCP, non-GMO, kosher, halal and GMP certifications



#### Our core values

Algatechnologies takes a visionary approach to running a successful company, with a commitment to responsible practices across the business landscape. We aim for and achieve excellence in cultivation and science, leveraging green environmental approaches for a healthier planet, and provide safe, natural, high-quality products that align with our strategic priorities and values.

We implement our core values throughout our business, in our research & development. manufacturing, quality, marketing and sales.

# **Business Creation**

Develop innovative algal plantbased protein sources with important functional properties needed for a wide variety of food and beverage applications. The project aims to develop cost-effect, highly functional and good tasting specialty proteins with important essential amino acid profiles; extracted to 70-80% total protein content (MFB); to be competitive with other alternative plant protein sources.



# Education

Algatech's technology was developed nearly two decades ago in the lab for Microalgae Biotechnology at Ben-Gurion University (BGU), by Prof. Sammy Boussiba. In recent years, Algatech and the Microalgae Biotechnology Laboratory at BGU have collaborated in the European Commission FP7's consortium of the GIAVAP project.

Algatech has received repeated grants from the Chief Scientist of Israel, for development of new microalgae sources with important health and nutrition benefits

# ANGULAS AGUINAGA



## Master Contact

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## Profile

Angulas Aguinaga is a company which aim is to revolutionize the food market to serve the consumer. We want to create trustworthy brands for consumers; offering innovative, quality and convenient solutions to the food market.

# Competences & Capabilities

Main areas of specialization and technological expertise are:

- Product and process technologies: ingredients, food processing and preservation, packaging, food safety and security,
- Consumer and market area: new food
   products, consumer sciences

We offer high value surimi based products, with which we are market leaders in Spain.

Angulas Aguinaga was the first company in the world to get the certification ISO 22000/2005.



# Innovation

Innovation is one of our key pillars. Angulas Aguinaga has created not only incremental innovation, adding value to each food category it has introduced to the market; but also breaktrough innovation, with the launch of La Gula del Norte, creating a nonexistent food category.

Furthermore, Angulas Aguinaga wants to innovate to serve the consumer, identifying its demands to develop products for them.

# Communication

We fully believe innovation has to be communicated to succeed in the market and brands are very important for that.

Our most important highlights in this area:

- First company in Spain to incorporate our own single-brand exhibitors in the point of sale. This is helpful to present innovations
- First seafood company in Spain to make point of sale product testings



We have strategic alliances with some key companies, which allows us to introduce in new markets.



We offer the opportunity to acquire practical experience in the food sector through collaboration agreements with educational centres.

# AZTI Food Research



### Profile

AZTI, a technology centre with experience stretching back over 30 years, works in applied research and technology development with 400 companies per year, including 36 European projects running at present.

AZTI offers innovative solutions to the food industry to develop new or improved products solutions where prime quality, food safety and identity, respecting the environment and the consumer as its centerpiece.

### Master Contact

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# Competences & Capabilities

Research and innovation focused on offering solutions to the food industry. Managing public and private funded R&D projects: from idea generation to market. Main areas of specialization and technological expertise are:

- Food quality, safety and identity
- New food products
- Efficient and sustainable processes
- Food and health
- Sensory and consumer sciences

The innovation we generate guarantees shortterm competitiveness and long-term economic, environmental and social sustainability of the food sector.

AZTI is part of Tecnalia Corporation (www. tecnalia.es) a strategic R&D alliance with more than 1.800 staff working in multi-disciplinary projects covering 11 highly specialized business areas, among them food



# Innovation

- Innovative point of use tools for the control of food QUALITY, SAFETY and AUTHENTICITY of the supply chain: new receptors, biosensors and fast methods.
- Reduction of risks (i.e. pathogens) through traditional and emerging technologies.
- Effect of NEW PROCESSING TECHNOLOGIES on product shelf-life, sensory properties, nutritional impact.
- INGREDIENT SOLUTION for nutritional and HEALTH CLAIMS and improved SENSORY PROFILE. Product formulation, process design and INDUSTRIAL SCALE-UP.
- Eco-efficiency of the food chain. Food quality and process monitoring: Non-destructive sensors.
- VALORIZATION of food industry by-products.

# iosensors public in every scientific and industrial event we organize.

 We focus on current and future demands of consumers by identifying food trends, fostering the public participation of consumers in scientific research (Citizen Science), and integrating both in the cocreation of new products and services.

We promote the communication with society

by organizing open sessions for the general

Communication

- We have 800 registered panelists in our consumer database, classified by age (children, adolescents, adults, elderly), and by specific nutritional requirements and occupations (e.g. chefs).
- We interact with an on-line consumer platform with 2.000 registered consumers to carry out qualitative and quantitative studies.

# Business Creation

- Backed by public and private funds, we offer specialized incubators, seedbeds and accelerator covering the entire food and gastronomy value chain, to provide all the guidance that entrepreneurs need.
- We provide guidance and support instruments on sources of funding to launch businesses.
- We offer specific education and training to promote the entrepreneurial potential of the primary, food processing and gastronomic sectors from 'the idea to the market'.

# **Education**

- We collaborate in 10 Masters organized by different European Universities in relation with our specialization in marine and food topics.
- AZTI promotes scientific education and training of students through scholarships and internships.
- We offer the opportunity to acquire practical experience in the food sector through collaboration agreements with the industry.

# ROBERT BOSCH GMBH Packaging



# **BOSCH** Invented for life

# Master Contact

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## Profile

Bosch Packaging is one of the oldest packaging machine builders worldwide and has a long experience in the protecting of food during the packaging process as well as during the logistic chain. Therefore Bosch Packaging spends app 1.7 Mill Euro p.a. into R&D activities with a staff of 290 engineers.

# Competences & Capabilities

An excellent infrastructure helps to remain technology leader. On the first hand an intensive co-operation with the Central R&D activities of the entire Bosch Group (with app 1600 scientists) allows us to step into long term development. On the second hand Bosch GmbH is one of the largest producers of sensor systems, which also will become relevant for the later mentioned processes during production.



# Innovation

The development of packaging concepts are important to meet the different requirements regarding shelf life and sustainability. Projects are conducted reduce resources as energy and water during the production and the packaging process (e.g. cleanability of machine systems) Also the sensing of the hygienic level in the machine system will become a relevant factor and an USP. Finally Bosch may also become active in the field of food sensing to determine metabolites during the storage of food. This may help to determine the dynamic shelf.



Know how and experience is spread via conference, fairs and different publications.



Due to the fact that app 500 Mio Euro of equipment is delivered to Europe by Bosch Packaging, the orientation to Europe is selfexplaining. And this equipment helps to feed the world, to save food and to protect the environment.



Bosch Packaging educates app. A significant number of engineers on the job. in addition more than 50 bachelor-, master and doctoral thesis are conducted

# BÜHLER Process technology solutions



### Profile

Provider of plants, processes and services in grains and food processing.

# Master Contact

Beatrice Conde-Petit Group Expert Food Science & Technology

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# Competences & Capabilities

Buhler is the global leader in process technology solutions for grains and food and for technical materials. The technology solutions cover plants, equipment, process technology, automation and services across the value chain. For cereal (wheat, rice, maize, etc.) processing the technology capabilities reach from ship unloading and logistics infrastructure to grain storage, advanced grain sorting, milling, flaking and solutions for further processing into pasta, noodles, breakfast cereals, bread, cereal bars, pet food, animal feed. Likewise, cocoa, nuts, chocolate & confectionary technology cover the entire processing chain from bean to bar. Bühler also provides technology for pulses, oilseeds, sorghum, guinoa, soy and protein-rich foods. The advance materials solutions comprise different grinding and mixing solutions, and thin film depositions technologies for advanced packaging solutions.



Bühler's strategic fields of innovation are:

- Sustainability: energy efficiency, reduction of food losses & waste.
- Food Safety: new inactivation technologies, mycotoxin control & tracebility.
- Nutrition: alternative proteins, food structure design for healthy food & feed.
- lot & Digitalization: processing efficiency, and new services. Partnership with Bosch.

Bühler embraces collaborative innovation with scientific institutions from all over the world as partners, as well as with its employees customers and suppliers

Contact: Beatrice Conde-Petit beatrice.conde-petit@buhlergroup.com

# Communication

Bühler places emphasis on promoting the dialog with feed & food manufacturers and scientific institutions at so called networking events. The last event in 2016 gathered over 600 industry players from around the world, and further networking days are planned. Furthermore, Bühler is active on all channels to promote the dialog and advances in processing technology: the magazine Diagram with an global outreach, webinars on the internet, active presence at all major conferences & fairs, and a strong representation in several Swiss, European and global initiatives with focus on feed & food.

Contact: Beatrice Conde-Petit Beatrice.conde-petit@buhlergroup.com

# **Business** Creation

Bühler's vision is Innovations for a Better World as enabled by a strong entrepreneurial approach. Bühler strives for impactful innovation to create value as reflected by business creation, driven by global sustainability challenges. A recent example of new business creation is Bühler Insect Technology Solutions, a joint venture with Protix for scalable industrial solutions for the rearing and processing of insects.

Bühler partnered with Mass Challenge, one of the most dynamic start-up accelerators, to strengthen the startup ecosystem by offering outstanding opportunities for start-ups - many from the food sector – to grow under the guidance of an impressive group of partners.

**Contact:** Ian Roberts lan.roberts@buhelrgroup.com



# Education

Bühler is committed to education, starting with the apprenticeship programs to train the own engineering base. In the same manner, the Milling Schools in Switzerland and Kenya supported by Bühler contribute to the formation of professionals in grain processing. Bühler is partner of UNITECH, a network of leading technical universities and multinational companies in Europe. Bühler is also active supporter of the yearly workshops of PhD students of the Section on Food of the European Federation of Chemical Engineering (EFCE). Furthermore, Bühler is engaged in education and training of feed & food manufacturers through a broad range of wellattended workshops on specific topics as part of customer service.

Contact: Beatrice Conde-Petit Beatrice.conde-petit@buhelrgroup.com

# COLRUYT GROUP Retail Group

# GROUP

## Profile

Colruyt Group is a retail group active in the distribution of food and nonfood products throughout Belgium, France and Luxembourg. Other activities include fuel distribution. digital printing solutions and document management, and green energy production. Colruyt Group has its own production facilities for meat processing, bread production, cheese cutting, wine bottling and coffee roasting. All companies and supporting activities of Colruyt Group have one common identity and culture, summarised in our mission statement: creating sustainable added value together, through valuedriven craftsmanship in retail.

# Master Contact

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# Competences & Capabilities

Main areas of specialization and technological expertise are:

- Food quality and food safety
- Retail logistics and transport
- Food and its environmental footprint
- Food and health
- Innovative food products
- Efficient and sustainable processes
- Market research (trend watching, consumer needs and wants, motivational research, concept testing, product testing)
- Digital consumer oriented solutions
- Data quality
- Personalised food solutions (personalisation)
- New ways of shopping (online / offline)



The innovations we work on, and our technology investments are aimed at making our business more efficient and future proof.

- Our R&D department has technical expertise on renewable energy (off- and onshore windmills, hydrogen units), technical innovations (e.g. more sustainable ways to cool our products, robotics, virtual reality, aquaculture).
- In our own production facilities, we develop new innovative concepts (e.g. vegetable and alternative protein sources), focusing on more healthy and sustainable solutions.
- We can offer food processing (meat and meat alternatives, coffee, bread) from 'idea to market introduction' on our own premises.

#### **Contact:** Veerle Carlier, R&D Innovation Manager Food

Veerle.carlier@colruytgroup.com

# Business Creation

As a retailer we think it is important to provide more and more services to consumers, covering all his / her lifetime events: from birth to old age.

Our spin-off Smart With Food focuses on digital solutions regarding the personalization of food, applying the "PAN" principle.

Our experience in working with start-ups allows us to offer tailored business development and go-to-market capabilities.

Contact: Veerle Poppe, Sustainability Marketing Strategist

Veerle.poppe@colruytgroup.com

# Communication

We focus on current and future demands of consumers by identifying food trends, and integrating both aspects in the (co-)creation of new products and services.

Consumers are at the heart of our business. We interact with them via market research (qualitative and quantitative) and through extensive taste and performance testing.

We want to keep consumers as informed as possible through our online channels (different websites, Twitter, Facebook) and offline channels (shops, magazines, folders).

**Contact:** Veerle Poppe, Sustainability Marketing Strategist Veerle.poppe@colruytgroup.com



Through collaborations with universities we offer young people the opportunity to acquire practical experience in the food and retail sector

- Collibri Foundation offers programmes related targeting secondary school children and youngsters in developing countries
- Colruyt Group Academy is our training division. It organizes a wide range of workshops and trainings both to employees and consumers.
- Start2 Re-tail is our graduate apprenticeship programme offering graduated students a 10-week practical training programme

# **Contact:** Mieke Vercaeren, PA Officer Colruyt Group

Mieke.vercaeren@colruytgroup.com

# CSIC Food Research



### Profile

CSIC is the largest research institution in Spain with a 75-year experience. Its activity falls in the field of basic and applied research, and has a focus in technology transfer and generation of start-up companies. It has key research topics in the fields of food science, technology and nutrition, agriculture, aquaculture, livestock, environment, microelectronics and nanoscience that are relevant for the production of healthy and safe food products in a sustainable manner.

## Master Contact

M.Victoria Moreno-Arribas Deputy Vicepresident for Scientific-Technical Areas

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www.csic.es

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# Competences & Capabilities

CSIC has research institutes in eight Research Areas.

- Food Science and Technology
- Agricultural Sciences
- Natural Resources and Environment
- Biology and Biomedicine
- Physical Sciences and Technology
- Materials Science and Technology
- Chemistry
- Social Sciences and Humanities

It has experimental fields and pilot plants for the production and transformation of foods, the development of sensors and micro devices, new materials and facilities for nutritional studies. CSIC has also pilot plants aimed to test innovative processes for preserving, processing and designing foods and ingredients in a sustainable and consumer driven manner.



# Innovation

The advance in knowledge generated at CSIC leads to technology transfer and innovation to assure food security and make the agrifood industry more competitive while applying more sustainable production methods, and ensuring safety and optimal nutrition for the consumer. CSIC has skills for agricultural biotechnology, food processing and preservation technologies, traceability, labelling, quality and safety in a whole chain approach, nanomaterials and smart technologies for food production. It has also a wide background on food biotechnology, cultivars and microbial strains, and dietmicrobiota interactions.

We also aim to a better consumer nutrition through the development of personalized food products.

#### **Contact:** M.Victoria Moreno-Arribas, Deputy Vicepresident for Scientific-Technical Areas vaact@csic.es, programas.europeos@csic.es

# **Business Creation**

CSIC has a Knowledge Transfer division (http:// www.csic.es/oferta-tecnologica) that promotes the creation of knowledge-bases companies, and provides guidance, training and support to the scientists that engage in an entrepreneurial Project. In this moment, CSIC has more than 52 technologies available for commercial exploitation relating to foods. We have more than nineteen spin-off companies in most of the knowledge fields, and particularly, three spin-off in the food area.

**Contact:** Ana M. Guerrero Bustos, Deputy Vicepresident for Knowledge Transfer vatc@csic.es

# Communication

This is a very relevant activity at CSIC with a central communication office (www.csic.es) and representatives in the different institutes located in different regions. It aims to the effective communication with society through the media and in different events organized. We have also activities in the field of Information Technologies to provide updated and accurate information to the consumers.

We also have links with consumer associations, policy makers and stake holders from different sectors. CSIC provides advice on relevant food issues to the consumers and governmental institutions to inform the society with a scientific background, encouraging consumers for making healthier choices.

**Contact:** M.Victoria Moreno-Arribas, Deputy Vicepresident for Scientific-Technical Areas vaact@csic.es



- CSIC collaborates with different Spanish and European Universities in Official Postgraduate Programs, adapted to the European Higher Education Area, leading to nationally recognized Masters' and Doctoral Degrees.
- We also participate in the training of techniciens and other technical staff for the industrial sector, and host stages in our institutes to complete practical training.
- We also run some specialized courses that aim to educate and inform the food industry staff in the new scientific and technological developments and on how to guarantee and preserve quality and safety of the food products.

**Contact:** M.Victoria Moreno-Arribas, Deputy Vicepresident for Scientific-Technical Areas vaact@csic.es

# DOEHLER Natural Food & Beverage Ingredients



## Profile

Doehler is one of the world's leading producers, marketers and suppliers of natural ingredients, ingredient systems and integrated solutions for the food and beverage industry.

Using nature and innovative technologies as our starting point, we always go one step further to create real added value for customers and consumers.

From a unique range of raw materials, we extract ingredients that bring the very best of nature into your products.

# Master Contact

Marco Schmidt Head of Global Innovation Management

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www.doehler.com

E: marco.schmidt@doehler.com T: +49 6151 306 1276

# Competences & Capabilities

We offer a broad range of natural and plant based food & beverage ingredients:

- natural flavours, extracts and colours
- health & nutrition ingredients
- cereal & malt ingredients
- plant based dairy ingredients
- fermented ingredients
- fruit & vegetable ingredients
- ingredient systems

We offer a broad range of natural and plant based food & beverage ingredients:

- access to the most innovative and sustainable food processing technologies
- development of innovative products and product applications including advice on food safety and microbiology, food law as well as Sensory & Consumer Science
- comprehensive market intelligence & trend monitoring.



"WE BRING IDEAS TO LIFE." briefly describes Doehler's holistic, strategic and entrepreneurial approach to innovation.

With our integration throughout the whole value system – from raw materials via technologies to products and applications and finally to customers with the respective consumer insights – and our access to state-of-the-art technologies we are able to generate innovations on each step of the value system and are thus capable to offer tailor-made innovative product solutions.

**Contact:** Marco Schmidt marco.schmidt@doehler.com

# Communication

With our Multi-Sensory Excellence approach, we offer the food and beverage industry a unique integrated research approach for long-term product success.

We have more than 200 sensory science experts, including a large number of applications developers, sensory profiles of more than 600 products from 20 product categories & our own consumer panel with more than 2,500 participants in Germany. This allows us to interact with consumers and benefit from their feedback, needs and preferences. We have experience from sensory studies with more than 20,000 consumers and results from more than 1,300 products.

**Contact:** Marco Schmidt marco.schmidt@doehler.com

# Business Creation

Promoting and accelerating innovation & entrepreneurship is one of our main strategic company goals. We created different approaches in order to support Start Ups and entrepreneurs. To speed up go-to-market of innovations and ideas we have designed the "Doehler Seed Program". We collaborate & venture with innovators and entrepreneurs to fund food & beverage ideas.

Especially designed for entrepreneurs that do not seek a dedicated venture investment, we have created various models that take into account specific business needs. Our support isn't limited to the financial aspect, we can also help start-ups to scale-up their product and facilitate a global roll-out with our Idea Lab and through our partner network.

**Contact:** Marco Schmidt marco.schmidt@doehler.com



# **Education**

People and institutions with experience in the food and beverage industry have the chance to become part of the global Doehler Innovation Network, which consists of leading universities, research institutes, suppliers and independent F&B experts.

Being recognised as a qualified trainer at many of our locations, Doehler takes responsibility for the future. Through cooperation and partnerships with leading universities and academic institutes, B.A. & trainee programmes and programmes designed for master & PhD students we offer outstanding career opportunities for young graduates in both, our R&D / R&I and commercial functions.

**Contact:** Marco Schmidt marco.schmidt@doehler.com

# DSM DSM Nutritional Products DSM Food Specialties



#### Profile

Royal DSM is a global science-based company active in health, nutrition and materials. With annual sales of ca. € 5 billions in Nutrition cluster. DSM is one of the world's leading developers and producers of essential nutrients and food specialties for the food and beverage industry. Its portfolio of products which includes food enzymes, savory flavours, dairy cultures and biopreservatives (DSM Food Specialties) and Vitamins, Carotenoids and Nutritional Lipids (DSM Nutritional Products) enables healthier diets and solutions to fight malnutrition with an improved ecofootprint.

## 🔊 Master Contact

Vicky Sereti Project Manager Public-Private Partnerships

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http://www.dsm.com/

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## Competences & Capabilities

DSM has a broad competence base of more than 2000 people active in R&D with a global collaboration network of more than 100 academic groups. DSM has state-of-the-art food pilot facilities and established consumer panels to test novel ingredients for personalized food concepts. High-throughput facilities as well as advanced analytical and integrated statistical tools are available to create detailed molecular insights into the function of novel bio-ingredients in complex food matrices to help us develop desired functions such as improved texture, taste and nutritional value.



# Innovation

At DSM we are using our innovative strengths to address big societal challenges, using Science as the starting point. Our Scientific competences and extensive scientific network and partnerships form the basis for our many bright solutions: DSM Nutritional Products is one of the world's leading suppliers of vitamins, carotenoids, pre-and probiotics and other nutritional ingredients to the feed, food, pharma and personal care industries. DSM Food Specialties focusses on bio-ingredients derived from fermentation processes. Our mission is to enable better food for everyone. For example, we develop salt, sugar, waste reduction as well as mild processing solutions based on enzymes, savory ingredients and cultures for our food and beverage customers.

# **Contact:** Oliver May, Senior Science Fellow Oliver.may@dsm.com

# Business Creation

Innovation is what turns DSM's 'Bright Science' into 'Brighter Living'. It is about discovering and integrating the best, the most sustainable and commercially viable solutions to meet market needs and to drive profitable growth. The DSM Innovation Center, besides supporting innovation in the company's core businesses, also aims to develop its Emerging Business Areas (EBAs) established over the last five years. These are new and promising growth platforms outside the scope of the company's business groups Moreover, DSM Venturing, the outside-in arm of our open innovation approach, has invested in more than fifty emerging innovative companies in the US, Europe and Israel the last years.

**Contact:** Krijn Rietveld, SVP Partnering for Innovation Krijn.rietveld@dsm.com

# Communication

We promote the communication with society by participating in National Science days like "Wetenschapdag" and giving workshops to secondary schools reaching out to young people. Moreover, we launches campaigns like "DSM launches Know Your Ω™ at the 2016 AAFP Family Medicine Experience" to enable doctors to provide better diet advices. Moreover, we have established consumer panels to test novel ingredients for personalized food concepts.

**Contact:** Vicky Sereti, Project Manager Public-Private Partnerships Vicky.sereti@dsm.com



We collaborate closely with high schools and Universities and are currently engaged in more than 10 ITN-Marie Curie Projects focusing on the Training of young researchers. These activities bring us in contact with more than 100 Universities and R&D Organisations worldwide. Moreover, DSM promotes scientific education and training of students through scholarships and internships. With more than 20 scientist of DSM being part time professors at Universities we have fundamental ties in educating our future workforce.

**Contact:** Oliver May, Senior Science Fellow Oliver.may@dsm.com

# EPFL Food and Nutrition



## Profile

The EPFL Food and Nutrition center federates 500 research labs around the food and nutrition thematic. Diverse horizon expertise in life science, engineering, economic, environmental and food science tackle industrial challenges through pre-competitive research projects. Multi-disciplinary initiatives support entrepreneurship, education and technology transfer activities.

## Master Contact

Stefan Meyer Head of the Food Center

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nutritioncenter.epfl.ch

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# Competences & Capabilities

The Food Center supports initiatives in all fields throughout the supply chain:

- Smart and active packaging
- Sustainability
- Rapid, cheap monitoring devices for QC, authentication, safety or traceability
- Robotics for kitchen of the Future
- Interaction of food with physiology
- Bio and nanosensors to assess food safety and humans
- New ways of marketing, VR, AR
- New agricultural principles and greenhouses design
- Consumer science and diet
- New ways of cooking ready to eat meals and fermented food



The Food Center launches calls for proposals throughout the EPFL in order to attract the most competitive ideas. Professors are asked to team up with industrial scientists in order to develop new and improved solution for the food industry

# Communication

The Food Center is collaborating with the top hostel management school in Lausanne (EHL) for developing new communication paths and strategies to consumers through its Gusto Lab; where chefs meet scientists, where new technology meets consumers !

# Business Creation

The EPFL proposes an Innovation park with 120 start-ups which raised 500Mio venture funds in 2016. Coaching, mentoring and entrepreneurship courses are available. The Mass Challenge accelerator is also supporting creativity of young entrepreneurs. A food incubator with possibilities to incubate more than 50 start-ups is under construction



The EPFL student community is composed of 10'000 students dispatched over 5 faculties: engineering, life science, basic science, environmental science and computing science; and 2 college: management of technology and humanity. The EPFL is leading the development of MOOCs but also collaborates with international institutions to assure high level teaching

# SWISS FEDERAL INSTITUTE OF TECHNOLOGY ZÜRICH (ETH)

# **ETH** zürich

#### Profile

Our university for science and technology dates back to the year 1855, when the founders of modern-day Switzerland created it as a center of innovation and knowledge. At ETH Zurich, students discover an ideal environment for independent thinking, researchers a climate, which inspires top performance. Situated in the heart of Europe, yet forging connections all over the world, ETH Zurich is pioneering effective solutions to the global challen-ges of today and tomorrow.

ETH Zurich regularly features in interna-tional rankings as one of the best universities in the world (8<sup>th</sup> in 2016) and the leading university in continental Europe.

### P Master Contact

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www.ethz.ch

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## **Competences & Capabilities**

ETH Zurich's main focus areas:

**World food system**: Feeding a growing population while preserving resources.

**Cities of the future**: In their present form cities are not sustainable.

**Climate change**: The interdisciplinary approach gives a holistic perspective.

**Energy**: Towards creating a 1-ton CO<sub>2</sub> society.

**Health**: Different disciplines work to ensure maintaining a good quality of life.

**Risk research**: In an increasingly net-worked world, risks get more complex.

**Information processing**: Data can be processed more and more efficiently.

New materials: Development of new materials.

**Industrial processes**: Innovative pro-ducts through efficient use of resources.



### Innovation

Research nowadays is largely technologybased. Thanks to its modern infrastructure and highly qualified employees, ETH Zurich is able to perform at an extremely high level. National Centres of Competence in Research (NCCR) promote long-term research projects in areas of vital strategic importance for the development of science, the economy, and for society. NCCR improve the research structure, promote research of outstanding, internationally recognized quality, enable knowledge and technology transfer, offer training and foster promotion of women in research.

# Communication

The Corporate Communications (CC) office manages ETH Zurich's strategic communication. It acts as a link between ETH and the public, representing the university's interests, issues and values to both internal and external audiences and maintaining a professional and uniform corporate identity for ETH.

ETH Zurich produces all of its central communications in a newsroom: Corporate Communications Corporate Communications staff are proven communications professionals with in-depth specialist knowledge and years of profess-sionnal experience.

### Business Creation

ETH Zurich supports would-be company founders with its Pioneer Fellowships. They are given the opportunity to further develop their research in **Innovation and Entrepreneurship Labs** and to work with external coaches and industry representatives. New technologies are being researched which partners in industry convert into products and services. There are also ca. 100 patents registered each year based on the results of research carried out at ETH Zurich. Some of these patents are used by new companies founded by the inventors as **ETH spin-offs**. Surveys show that these companies are extremely successful and win prizes for young entrepreneurs.



ETH Zurich trains true experts and prepares its students to carry out their tasks as critical members of their communities, making an important contribution to the sustainable development of science, the economy and society.

ETH imparts not only methodological competences and disciplinary knowledge, but also interdisciplinary and system-oriented ways of thinking.

Student numbers have increased signifycantly at ETH Zurich over the last few years. Today the figure is roughly 18,000; by 2020 it will be 20,000.

ETH recruits 35% of its students from abroad.

# EUFIC European Food Information Council



#### Master Contact

Sofia Kuhn Head of Communication

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#### Profile

EUFIC is a non-profit organisation that provides clear, practical information on food and health, based on sound science. We believe in a world where people choose to live healthily because they know how to.

EUFIC, food facts for healthy choices.

#### Competences & Capabilities

The sheer amount of confusing, conflicting or misleading information on food and health topics is simply daunting for consumers. Equipping people with better understanding of issues of public concern allows for more informed decisions on diet and lifestyle. This is where EUFIC makes a difference. EUFIC is a unique consumer-oriented organisation which produces relevant, actionable and credible science-based information that reaches the public.

We are a group of passionate science and communication experts who believe in the power of informed consumers.



EUFIC carries out consumer research using a wide range of methods, both qualitative and quantitative. Our research areas include:

- Health claims and free-from claims: Are they understood and used?
- Nutrition and sustainability labels: Do they influence food choices?
- Drivers of choice: What matters to consumers when they buy food products?
- Portion information: What perceptions do consumers have of portion size?

## For Innovation, contact: Sophie Hieke sophie.hieke@eufic.org



What do we do?

- We give impartial information with a credible voice
- We cover diverse and controversial topics with our outreach campaigns

How do we do it?

- We use our more than 20 years of experience
- We reach 10 million people through www.eufic.org every year
- We have 47,000 online subscribers
- We have 16,000 followers in our social media community
- We talk to people in 13 languages
- We work with scientific experts to ensure our content is accurate and science-based



N/A



EUFIC's informative infographics, animated videos as well as our clear Q&As and articles are used by educators and health professionals as well as the general public. We also engage children on our interactive online platform coolfoodplanet.org.

For Communication, Business Creation and Education, contact: Sofia Kuhn sofia.kuhn@eufic.org

# FRAUNHOFER-GESELLSCHAFT



#### Profile

Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. is the leading organization for applied research in Europe, employing a staff of 24,000 at 67 institutes and research units in Germany. More than 70 percent of the contract research revenue is derived from contracts with industry and from publicly funded projects. Subsidiaries in Europe, in North and South America as well as Representative Offices in Asia, the Middle East and Africa are building bridges to local markets worldwide.

#### Master Contact

Dr. Claudia Schönweitz Vice Director Fraunhofer IVV

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### Competences & Capabilities

Our core competencies with respect to EIT Food are:

- Food and packaging technology
- Multi-sensory product perception and consumer preference
- Food quality and safety including visual inspection systems
- New technologies for the protection of crop plants and food sources
- Environmental biotechnology and bioprocess
   engineering
- Resource efficient processing in
- Industry 4.0 environment
- New solutions for material flow and logistics
- Software and systems engineering for integrated IT solutions

Our capabilities cover also pilot plant facilities to support our customers with e.g. first food samples for testing consumer acceptance or prototypes of processing and logistic units to simulate operational environment.

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### Innovation

We offer product and process development regarding: Functional food and feed ingredients based on plant and marine raw materials. Reengineering of processing technologies and food formulation with focus on healthy, vegan and convenient foods based on consumer preference. Cascade processing for the downstream recovery of high-value products. Food safety and quality with respect to environment and agrochemicals including technologies for fast detection. Flexibilisation of food processing and packaging machines including connected cyber-physical systems. Reengineering of logistic processes, including tailored packaging, digitalization of production and collaborative productivity enabled by big data processing.

# **Contact:** Dr. Claudia Schönweitz claudia.schoenweitz@ivv.fraunhofer.de



#### **Business Creation**

Fraunhofer Venture fosters entrepreneurial culture, spin-offs and contact with investors for sufficient capital endowment.

Fraunhofer has developed an integrated approach along the spin off process to support Fraunhofer researchers to develop their own business. Key element is the Accelerator program FDays®. Researchers and their industry partners can participate in several programs to identify business chances, create and evaluate their business model and finally prepare the commercialization.

Up to now more than 350 companies have been founded successfully, among these Prolupin GmbH and Amidori GmbH, both producing vegan food products.

**Contact:** Matthias Keckl Matthias.Keckl@fraunhoferventure.de

# Communication

To involve consumers as responsible cocreators in various phases of the innovation cycle we offer a set of participatory methods developed and tested at Fraunhofer.

We open up the innovation process by involving: i) laypersons in idea creation; ii) designers in translating these ideas into early prototypes; and iii) scientists in performing technical validation. The participants are of different age, gender and background. Our interaction formats help to overcome potential communication barriers.

These workshops are also a means for science communication in a well understandable way and for opening up research organisations and industry.

**Contact:** Prof. Dr. Martina Schraudner martina. schraudner@iao.fraunhofer.de



### Education

The Fraunhofer Academy is Fraunhofer's specialist provider of continuing education and part-time training for working professionals.

We offer certificate courses and seminars based on the latest scientific findings of the research activities of the Fraunhofer Institutes in collaboration with selected and prestigious partner universities.

Currently we offer around 45 programs in Germany and internationally with 3000 participants per year.

Based on our expertise as partner in EIT Digital and EIT RawMaterials new seminars could be developed for specialists and managers in the food value chain.

**Contact:** Dr. Roman Götter roman.goetter@zv.fraunhofer.de

# DIL Knowledge for superior foods



#### Profile

The German Institute of Food Technologies (DIL) is a private, independent and non-profit research provider. With around 150 member companies from the food industry and related fields, DIL operates as a research institute working in the areas of product development, process development and analytics.

DIL considers placing itself into the innovation framework of EIT Food as the unique opportunity to support its partners in the innovation process and to establish new collaborations along the entire food value chain system.

#### Master Contact

Dr. Peter Holl Senior Manager EU Programmes, Deputy Head of Brussels Office

DIL German Institute of Food Technologies Office Brussels, Rue du Luxembourg 47-51 B-1050 Brussels

www.dil-ev.de

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#### Competences & Capabilities

At the interface between applied science and engineering practice, DIL fosters the knowledge transfer from research to the industry.

In particular, the key capabilities are:

- Process development including design, construction and manufacturing of machinery and equipment
- Technology transfer from lab to pilot to industrial scale applications
- Novel process technologies: Pulsed Electric Fields (PEF), High Pressure Processing (HPP), Extrusion+ and robotics
- Processing of alternative proteins, meat, chocolate and dairy products
- Advanced chemical, microbiological and physical food analytics
- Life Cycle Assessment and Consumer Behavior



### Innovation

DIL's applied research and development aims to convert R&D knowledge into industry-ready solutions for food production. The institute is organized in the following Business Units and **Research Platforms:** 

- Food Safety
- Automation Technology
- Machine Development
- Food Physics
- Product Innovation
- Structure and Functionality
- Biotechnology
- Advanced Research

Contact: Dr. Volker Lammers. Group Leader Process Engineering v.lammers@dil-ev.de

# Communication

DIL is embedded in a multi-layer network communicating to the food industry and relevant fields, based on > 150 members, DIL coordinates the INTERREG VA program Food2020, addressing > 1000 SMEs in the DE and NL, as well as the Lower Saxony Competence Center Food Industry (NieKE) with 450 SMEs.

An open LCA tool delivers quantitative information on sustainability and environmental impact of selected food products broader public and end user.

The Food Data Group links consumer behavior and the nutritional characteristics of food with sociodemographic and geographic features.

Contact: Dr. Peter Holl, Senior Manager EU Programmes p.holl@dil-ev.de

## **Business** Creation

Business and Innovation Park Ouakenbrück (BIQ): Since 2015, companies and entrepreneurs are being provided with the opportunity to locate at the BIQ site of approximately 2'700 square meters and benefit from the capabilities available at DIL.

BIQ and DIL support partners in the development and transfer of innovative ideas into business. applications.

Regular scouting work-shops are performed in close collaboration with universities in order to identify best ideas for potential start-ups.

Split-off: Elea GmbH, a Rising Food Star (novel PEF applications).

Contact: Dr. Mehmet Cicek. Sustainability Assessment m.cicek@dil-ev.de



### Education

Since spring 2017, DIL conducts certificate course "quality management in the food and feed industry". This 12 months on-the-jobqualification educates young and experienced professional food technologists, food scientists or product and process engineers in the fields of quality management systems and analytical tools/ methods as well as novel legal and scientific aspects.

DIL does also provide trainings, workshops and symposia for professionals on extrusion, High Pressure Preservation, Pulsed Electrical Fields, other novel process technologies for food and feed, multi-hurdle-technology, food safety, nutrition, allergen management, and bioeconomy.

Contact: Dr. Mehmet Cicek. Sustainability Assessment m.cicek@dil-ev.de

# GIVAUDAN Special Ingredients

# Givaudan

#### Profile

Givaudan is the global leader in the creation and manufacturing of flavours and fragrances. In close collaboration with food, beverage, consumer product and fragrance partners, Givaudan develops tastes and scents that delight consumers the world over.

Headquartered in Switzerland with local presence in over 80 locations and 39 production sites, the Company has more than 9'500 employees worldwideand 25% world market share.

In its 2020 strategy, Givaudan Flavours has articulated the intent to grow its business in the areas "Natural ingredients", "Health&Wellbeing", "Consumer Preferred Products" and "Integrated Solutions", which means Givaudan Flavours actively persue a holistic approach towards new food product design, beyond flavour technology.

#### Master Contact

Alexandre Bastos Global Director Innovation

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#### Competences & Capabilities

Givaudan Flavours' comprehensive knowledge of local flavours, extensive global footprint and strategic insights enable close partnerships with customers across all key segments including beverages, sweet goods, savoury and snacks;

Givaudan Flavours' core innovation competencies and capabilities include

- Global Science+Technology organisation with 185 dedicated scientists and experts (located in The Netherlands, Switzerland, US, Singapore and China)
- Dedicated regional innovation centres for regional relevant technologies in CH, NL, US and Singapore, 30+ local technical application groups to develop custom-made solutions
- Multiple research collaborations with world leading Universities and Research Organisations

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#### Innovation

- Leading expertise in creating and manufacturing flavours for all types and areas of food and beverage application
- Technology leader to create great taste in low salt, low sugar, low fat and free of added MSG products
- Special expertise to create flavours to make value added food ingredients (like minerals, vitamins, proteins) palatable in final food application
- Unique expertise in analysis of Natural Material and Food stuff to understand, discover and re-apply the principles for taste and smell on a molecular level
- Strong expertise in the area of Extraction, Fermentation and Bioconversion of natural materials
- Cutting edge encapsulation and delivery systems and a dedicated research group
- Strong expertise in Consumer Science and Sensory Science

**Contact:** Dr. Thorsten Koenig thorsten.koenig@givaudan.com

### Communication

- Through its Consumer Sensory Insights teams located in all regions, Givaudan
   Flavours uncover consumer attitudes, trends, unmet needs in the context of food, in order to understand and anticipate the food & beverage industry challenges and innovation platforms.
- Givaudan Flavours translates the consumer voice in actionable knowledge for innovation, selection and creation

**Contact:** Alexandre Bastos alexandre.bastos@givaudan.com

### Business Creation

Givaudan Flavours is committed to drive a more collaborative and inclusive approach to innovation to accelerate the delivery of superior, sustainable solutions for the food & beverage industry. Recent collaboration partnerships that are crucial for for business creation include:

- Technology and innovation scouting with Swissnex San Francisco
- Founding partner of MassChallenge Switzerland
- Collaboration with IndieBio San Francisco, a biotech accelerator
- Corporate parter of Terra Accelerator, a program led by Rocketspace and Rabobank

Furthermore, Givaudan Flavours will keep building its ecosystem in the key innovation hubs.

**Contact:** Alexander Bastos alexandre.bastos@givaudan.com

# AN S.COOP Agri-food sector



#### Profile

AN S.Coop is a second-degree cooperative formed by 160 agricultural cooperatives and 31,000 farmers and livestock owners.

### D Master Contact

Maite Muruzábal Director of the Grupo AN Foundation

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### Competences & Capabilities

Grupo AN acts as a central sales agency in the following divisions:

- Cereal: Grupo AN is the largest cereal cooperative in Spain.
- Fruits and vegetables: Grupo AN is a company of reference in terms of quality and offers fruits and vegetables in a wide range of formats: fresh, frozen, tinned and chopped.
- Poultry: Grupo AN is the fourth largest operator on the Spanish poultry market.
- Pigmeat industry: At a rate of 800 pigs per day. We are involved with key industrial partners.



### Innovation

Grupo AN coordinates, promotes and encourages the development of innovation within the rural and the agro-industrial environment. The aim is to promote synergies and cooperation projects in the cooperative world.

Currently among the projects that we are developing at European level we should mention the FREQUAL (Eurostar) project dedicated to improving the quality of food processing and the AGROINTEGRA project (Life) with the aim of developing sustainable alternatives in crop protection.

Furthermore, Grupo AN is betting on innovation through start-up companies.

# Communication

Grupo AN has a great visibility and public outreach capacity, especially at national level thanks to its wide presence in most of the Spanish territory.

Besides, Grupo AN distributes monthly 15,000 copies of its magazine among its partners.

Grupo AN as a cooperative, organizes information and training sessions to promote integration in the agricultural sector.

Additionally, Grupo AN has an remarkable capacity for collaboration through the field of Social Economy.

### Business Creation

Grupo AN promotes Business Creation in the agri-food sector increasing the productivity and competitiveness, through integration and cooperative unity.

- Start-up support:
  - Grupo AN participates in the 'Orizont' project whose objective is the creation of companies, providing them with tools to convert them into a reference in the agrifood industry.
  - We also participate in the 'Clave Mayor' project with the aim of orienting research to the market and creating new innovative companies.
- We are partners of CNTA: the National Center for Food Technology and Security.



Grupo AN has a University teaching program with Public University of Navarra (UPNA) based on three pillars: research, technological surveillance and student training. In addition, we offer the chance to acquire practical experience in our company through collaboration agreements.

Our professionals cooperate in the development of Master's degrees.

At the moment Grupo AN collaborates with several universities in different fields, inter alia, Univ. Navarra (cereals and animal feed), Univ. Barcelona (poultry), Univ. Zaragoza (livestock) and with the Biotechnology Institute of Navarra (cereals and livestock).

# HERBSTREITH & FOX KG Pectin Factories



#### Profile

Herbstreith & Fox corporate group is a family owned enterprise focused on the processing of fruit industry by-products: mainly from - but not limited to - apples and citrus fruits. High quality pectins are produced from these raw materials besides dietary fibers, flavonoids, fruit sweeteners, and other by-products.

### Master Contact

Hans-Ulrich Endress Manager Research & Development, QM

Turnstrasse 37 75305 Neuenbuerg Germany

www.herbstreith-fox.de

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### Competences & Capabilities

Main areas of specialization and technological expertise are:

- production of pectins
- production of dietary fibres
- processing of by-products from the fruit and vegetable industries
- application technology of pectins and dietary fibres in fruit and vegetable products, dairy products, confectionary, baked goods and gourmet food.

Our innovation performance and the portfolio of products we develop and supply, secures competitiveness and creates a long-term value for our clients: best quality is ensured consistently and thus end-user production security and a high standard of the finished product.

Our application technology team is innovative, fast, customer oriented, and is concentrating on quality, price and dosage.



### Innovation

We are the most innovative producer of pectins and fibres for dietary but also technological applications in the food and feeding industry.

Our in-house R+D and two application labs are run by high qualified food technologists, scientists, and engineers, equipped with the latest machine technology enabling to perform highly sophisticated production processes in a technical scale.

Our dietary fibres make it possible to develop the most innovative recipes by reducing the energy density of food and feed by replacing fat and carbohydrates.

In our production we are using the most recent technologies to safe energy and water and to reduce processing aids to a minimum.

# Communication

We are running an information based internet platform demonstrating the application technology for our pectins and dietary fibres. In our brochures, detailed information can be found on the use of our products.

Our sales team of food technologists and food chemists is application-orientated and trained to communicate with customers and consumers.

The R+D team is communicating with our world wide research net work to support the multipliers based at universities, research centers, NGOs and supervising institutions.

### **Business Creation**

With our pectins and dietary fibres we provide our customers with outstanding business solutions by developing new, innovative and health-conscious products for the whole population – from children to elderly people demanding special food or diets, easy to swallow and easy to digest.

We are creating business by innovative food solutions that will bring great pleasure when being consumed.

With our animal nutrition portfolio, we are supporting farmers to avoid preventive pharmaceutical measures to maintain a healthy living stock.

We provide startups with infrastructure and technological help to develop their business in a cooperative partnership.



### Education

We are running a global network with more than 300 universities and research centers concerning our products and our experience in processing fruit and vegetable by-products and we are supporting Bachelor, Master and PhD theses.

We offer training programs in our R+D and application labs for students and research partners.

We are supporting the correspondent education of children from basic school to high school and are giving lectures at different universities.

We provide possibilities to carry out research activities in our labs.

# JOHN DEERE Agricultural Machinery Manufacturer



#### Profile

John Deere (JD) is a trademark of Deere & Company (Illinois, USA). John Deere is the largest manufacturer of agricultural machinery and equipment worldwide and also the leading manufacturer in Europe in regards to production and technology development. There is a strong focus on smart farming, which uses satellite systems, wireless communication and big data analysis to increase crop yields in a profitable and sustainable way to address the needs of food safety and security of a growing world population

#### Master Contact

Dr. Thomas Engel Manager Technology Innovation Strategy

John Deere GmbH & Co. KG European Technology Innovation Center Strassburger Allee 3 67657 Kaiserslautern, Germany

www.johndeere.com

E: EngelThomas@JohnDeere.com T: +49 160 90141373

#### Competences & Capabilities

The participation in EIT Food will be coordinated and managed by the John Deere European Technology Innovation Center (JD ETIC) which opened in 2010. It is one of the most important investments of the company in the last years and demonstrates the commitment to innovation and to Europe. JD ETIC coordinates all RDI projects and university relationships of John Deere's European units. As one of its key pillars it extends John Deere's partnerships with public research institutions, NGOs (CEMA, VDMA, VDI) and other companies in Europe. Key focus areas are:

- Sustainable technologies
- ICT for automation
- Sensor technologies
- Machine knowledge systems.



### Innovation

An important aspect of food safety and security is the full traceability in the complete value chain. This includes correct and seamless documentation of all production steps. A missing piece is the real-time measurement of soil and crop constituents during the cropping season and during harvesting operations.

Therefore, John Deere plans to develop smart sensors for constituents and to integrate these sensors into our machinery. We will enable this by close cooperation with sensor manufacturers as well as universities and other partners of EIT Food.

Contact: Peter Pickel. Prof. Dr. PickelPeter@lohnDeere.com

## Communication

John Deere is promoting and communicating the positive impact of smart farming technologies on the environment and on food safety and security in many public events, fairs and media. Examples are:

- European farm shows like Agritechnica (Hannover), SIMA (Paris), EIMA (Bologna), FIMA (Zaragoza)
- Field Days (e.g. DLG field days)
- Articles in Ag journals like 'Profi' and our customer journal 'The Furrow'
- International Conferences like VDI Ag Engineering Conference, Dublin Tech Summit, World Mobile Congress

**Contact:** Fabienne Seibold SeiboldFabienne@JohnDeere.com

### **Business** Creation

John Deere has a well-established professional distribution channel. Start-up companies typically miss distribution opportunities and connection to their potential customers. This opens up many opportunities for potential cooperation between John Deere and young entrepreneurs starting with the joint development of smart solutions up to the joint marketing and sales efforts through the existing ID channel.

**Contact:** Carsten Struve, Dr. StruveCarsten@JohnDeere.com



### Education

John Deere plans to develop, support and deliver comprehensive education programs to mainstream the application of smart and precision farming technology in the primary food production sector. This includes:

- online classes
- distance learning modules

This requires a close collaboration with universities and other stakeholders in educational areas, which are not fully defined yet.

Contact: Thomas Engel, Dr. habil. EngelThomas@JohnDeere.com

# KOPPERT BIOLOGICAL SYSTEMS Biological crop protection & natural pollination



#### Profile

Koppert Biological Systems produces sustainable cultivation solutions for food crops and ornamental plants. Together with growers and in partnership with nature, we work to make agriculture and horticulture healthier, safer, more productive and resilient.

#### Master Contact

Peter Maes Corporate Marketing Director

P.O. Box 155 2650 AD Berkel en Rodenrijs The Netherlands

www.koppert.com

E: lbreugem@koppert.nl T: +31 10 51 40444

### Competences & Capabilities

Sustainable farming requires sustainable inputs. Koppert is helping growers produce environmentally sound and healthy food by offering a complete portfolio of farming inputs that covers all steps of production – from soil care to post-harvest pest control.

Our core disciplines include:

- Resilient growth with NatuGro
- Pest control
- Natural pollination
- Application techniques & Monitoring
- Seed treatment



### Innovation

Our close relationship to customers is of paramount importance and allows us to anticipate future needs and gaps in the field of crop production.

With a highly skilled workforce in marketoriented tasks, research and development, as well as logistics and engineering we can meet our clients needs with the most innovative. cost-effective and sustainable solutions on the market.

# Communication

Koppert values the direct exchange with customers and is proud of its large network of experienced and highly skilled consultants supporting our customers in every aspect of crop production.

At the same time, we provide simple software tools that allow customers to access the vast trove of knowledge accumulated over the past 50 years of operation and effectively share their experience and ideas.

This healthy combination of traditional and modern customer interaction puts us in the position to keep optimizing our offering and maximize value to the customer.

### **Business** Creation

Sustainability and profitability can not exist without the other. Turning an environmentally friendly and healthy solution into a profitable business is our daily work.

With the help of our vast network of partners and an abundance of talent, we manage to scale our sustainable solutions, without jeopardizing environmental integrity or the health of our clients and their customers.

As a family-controlled company we strive for stable and long-term impact, with the freedom to capture opportunities when we identify them.



### Education

Koppert is primarily known for its premium products, but the company is also recognized as a knowledge company that provides helpful guidance and advice to its customers. With our strong R&D base, we believe that sharing knowledge and training staff is an important step towards sustainable agriculture and horticulture. Koppert offers a variety of courses and works closely with universities around the world to make knowledge accessible to a wider target group. Our 300 professional consultants devote much time and effort towards communicating their knowledge concerning nature and its solutions to ensure that dealers and growers are supported in handling their challenges on a daily basis.

# MASPEX Food processing



#### Profile

The Maspex Wadowice Group is one of the biggest food producers in Central and Eastern Europe, which operates on the food market for over 25 years.

The company aims to be the leader in the food industry in the Central Europe in terms of both market share values and brand power.

#### Master Contact

Marta Kutyna-Bakalarska Director/ Innovation Management Team

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www.maspex.com

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#### Competences & Capabilities

Maspex employs approximately 6,500 people in Poland and abroad (Romania, Bulgaria, Moldova, Czech Republic, Hungary, Slovakia, Russia, Turkey). Its products are sold to over 50 countries worldwide.

The company operates in the market of production of juices, nectars and soft drinks, instant products (cappuccino, cocoa, coffee milk powder, instant tea), pasta, jams, ketchups and sauces as well as in the segment of ready meals and processed vegetables. Moreover, the company manufactures vitamins and supplements.

In addition, Maspex operates in other related fields, i.e. logistics (most modern logistic centers in CEE), agricultural production (cooperation with farmers) and environmentally friendly solutions (photovoltaics, close water circuits, BAT for the food industry, sewage treatment plants producing biogas for trigeneration).



### Innovation

Innovative activity of Maspex is mainly focused on the development of:

- new recipes of offered products (better quality, healthier etc.),
- new methods of production (more efficient, ecological),
- new methods of side streams management,
- new types of packaging (ecological, more customized),
- new methods in logistics processes,
- effective methods of agricultural production for cooperating farmers,
- advanced consumer research (using virtualization, eyetracking etc.).

**Contact:** Bartłomiej Mielniczuk b.mielniczuk@maspex.com

# Communication

Maspex operates within the organizations: The Polish Association of Juice Producers, Polish Federation of Food Industry, National Federation of Grain, Food and Nutrition Institute.

The company cooperates with Institute of Mother and Child – Partnership for Health is spreading awareness on the importance of a healthy diet of children (last school year alone, more than 7300 schools took part in the programme).

Maspex is visible in national TV stations (occasional morning programmes) and as the organizer of football Tournament for children, the company promotes sport activity (over million children taken part in all editions).

**Contact:** Bartłomiej Mielniczuk b.mielniczuk@maspex.com



As the market leader in food sector in Central and Eastern Europe, Maspex attracts ideas from the market. Innovators apply to us asking for the financial support for the development and implementation of their ideas.

The company invests in new ideas, promising inventions and start-ups located in CEE.

Maspex is interested in investing in areas included in section (Strategic Pillar) "Innovation"

**Contact:** Marta Kutyna-Bakalarska m.kutyna@maspex.com



### **Education**

As the part of educational pillar Maspex:

- is conducting educational programmes ("5 portions of fruit, vegetables or juice", "Kubuś Friends of Nature"- largest nationwide Polish educational programme for kindergartens "Puchatek Safety Club", "Grain is tasty and inspiring") - millions of children taken part in these initiatives,
- cooperates with universities and colleges in the designing of dedicated courses to teach students subjects needed in food processing industry,
- organizes career days, internships and summer internships for students,
- provides financial assistance (by Foundation) to students who are the children of Maspex employees and wish to study abroad in a business or technical university.

**Contact:** dr Maciej Combrzyński m.combrzynski@maspex.com

# MATIS Biotech R&D



#### Profile

Matis is an independent, governmentally owned, food and biotech R&D company headquartered in Iceland. We are active participants in many national and international R&D and innovation projects, including FP7 and Horizon2020 programs (33 projects since 2010), and have an ongoing fruitful global cooperation with many of the largest food and ingredient companies, a large number of SMEs and entrepreneurs, as well as universities and institutes.

#### Master Contact

Dr. Hordur G. Kristinsson Chief Science and Innovation Officer

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www.matis.is/english/

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### Competences & Capabilities

Matis, though its staff of over 100 experts and its seven locations, has the following expertise:

- Food processing, quality and safety
- Biotechnology and genetics
- Innovative processes and ingredients
- Product and process development
- Food and environmental analysis
- Consumer and sensory science
- Sustainability/full resource utilization
- Traceability and logistics
- Aquaculture
- Market analysis and trends
- New business development
- Training and education programs

Matís has especially strong competence in the blue bioeconomy sector (marine and freshwater resources and products), placing great emphasis on the circular economy and interdisciplinary activities across food and biotech sectors, with the consumer at the center.



### Innovation

Matis focuses on food and biotech innovation by applying state-of-the-art and emerging technologies with consumer health and safety as our priority.

We follow a co-creational holistic approach to solutions involving consumers, companies, institutions and universities from the start of an idea.

Our project cover a range of innovative solutions throughout the food and biotech value-chain, with focus on sustainable value creation contributing to environmental, social and economic sustainability.

Contact: Dr. Anna K. Danielsdottir, Chief **Research** Officer annak@matis.is



#### **Business** Creation

Matis provides our clients with a range of support tools for increased value creation along the food and biotech value chains, leading to new innovative products, solutions and businesses.

We offer state-of-the art infrastructure and expertise, including Food Innovation Centers, to help companies and entrepreneurs bring their ideas to market.

Matis has provided direct support to over 100 start-up innovation companies and entrepreneurs since 2014, resulting in innovative new food, ingredient, biotech and personal care products.

Contact: Arnljotur B. Bergsson, Chief Impact Officer arnljoturb@matis.is



Matis is actively engaged with consumers, stakeholders and its collaborators, with special emphasis on communicating value creation, innovation, sustainability and social impact.

We have produced a range of innovative dissemination material on the bioeconomy for students and the general public, and operate our own YouTube channel.

Matis regularly participates in dissemination and marketing campaigns, consumer studies, and has a large consumer database.

Matis actively uses social media as a communication tool, having over 5000 followers on Facebook, about 6000 followers on Twitter and 700 connections on LinkedIn.

Contact: Steinar B. Adalbjornsson, Head of **Dissemination and Marketing** steinar@matis.is



### Education

Matis hosts approx. 10 PhD students, 15 MSc students, 10 trainees from developing countries and 20 interns in collaboration with various universities and companies.

Matis hosts the MSc program in Food Science for the University of Iceland in close collaboration with the industry, and plays an active role in the BSc and PhD program. About 50 Matis staff are directly involved in advising and teaching students.

Matis trains university students in innovation and entrepreneurship through national and European competitions. We also train entrepreneurs with low education levels the basic principles of developing products and starting businesses from scratch.

**Contact:** Professor Gudjon Thorkelsson gudjont@matis.is

# NESTLÉ Nutrition, Health & Wellness



#### Profile

Nestlé is a global company and home to some of the world's most recognizable and trusted brands. With over CHF 88 bn in sales in 2015, Nestlé is the world's largest food company. With our Nutrition, Health and Wellness strategy, we support people who want to live a healthier lifestyle. We take pride in providing our consumers with products and services of the highest quality, building trust with every consumer contact we make. By sharing our insights, building partnerships and by engaging with policymakers and other stakeholders, we strive to have a positive impact on society. For our business to prosper over the longterm, we must deliver value to the communities where we have a presence and to society as a whole, as well as to our shareholders. This is what we call Creating Shared Value.

#### Master Contact

Ariane Andres Head-Academic Alliances Open innovation & Venturing Nestec S.A.

Nestlé Research Center Vers-chez-les-Blanc Lausanne 26 Switzerland, CH-1000

www.nestle.com

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#### Competences & Capabilities

Put simply, Nestle Research is the engine of innovation for Nestle. Our task at Nestle Research is to convert exemplary scientific expertise and knowledge into product innovations and renovations in line with our Nutrition. Health and Wellness ambition. We do this through product and technology leadership that has a positive business impact based on our 'Discover-Develop-Deploy' approach. Our work affects every aspect and touchpoint of the business. It means going beyond products and technologies. It means finding solutions across the value chain that make good, long - term business sense - and create value for society. All that we do is consumerbased. A major part of our work is to deliver products that offer superior nutrition, health and wellness in a forward-looking and creative way. To achieve our goal and fuel sustainable success for Nestlé, we have the largest research network of any food company in the world, with 39 Research facilities, and over 5000 people involved.



### Innovation

Innovation boosts our ability to deliver products to the consumer which they can trust, manufactured to the highest specifications and completely safe. Our researchers deliver innovation we can apply throughout the value chain from the sourcing of ingredients, to manufacturing, packaging and distribution, and to offer consumers new types of product or services, or benefits through our brands. In addition, we are driving advances in agricultural practices and biotechnology to help secure the food supply, from developing new preservation technology to contributing to better food safety. We are improving our ability to produce more with less environmental impact, reducing carbon emissions, water consumption and waste. At the same time, we are working hard to identify ingredients we use with less environmental impact and find ways to accelerate the usage of plant proteins.

#### **Business Creation**

Under the Corporate R&D function of Open Innovation & Venturing, broadly speaking, we engage with 3 segments for bringing in external innovation and creating new business opportunities in Nestlé:

- Industry innovation partnerships: We collaborate with a range of industry partners, both large multinationals and SMEs with technological differentiation for innovation and renovation projects leading to industrialization.
- Academic alliances: We partner with leading academic institutions globally for path breaking, jointly funded fundamental research for advances in food and nutrition.
- Venturing: We actively scout for technologies and make venture investments in start-ups which can further drive external innovation and new business creation into Nestlé.

# Communication

The Nestlé Research Center (NRC) in Lausanne, Switzerland – the world's largest private food and nutrition research institute has published over 1000 scientific publications in peer review journals and files over 80 patents annually.



We are committed to contributing to the higher education of the next generation of nutrition and food science scientists and participate, for instance, in Horizon 2020 Marie Skłodowska-Curie Actions. We sponsor PhD Theses worldwide.

# PEPSICO Food and drink manufacturing



#### Profile

PepsiCo is one of the world's leading food and beverage companies with over \$63 billion in net revenue in 2015 and a global portfolio of diverse and beloved brands. Our complementary food and beverage portfolio enables us to provide more choices for our valued consumers; from oats and juice and yoghurts, to snacks, dips and soft drinks. Our products are available around the world and our portfolio includes 22 brands that each generates more than \$1 billion in estimated annual retail sales.

#### Master Contact

Imran Afzal Senior R&D Manager

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www.pepsico.com

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#### Competences & Capabilities

We see PepsiCo's Global R&D organization as a catalyst — transforming the company, its portfolio and the industry. Every day, R&D helps drive PepsiCo's business by providing unrivalled technical skills and solutions to offer more enjoyable and nutritious products to more people, in more places, engendering more trust worldwide. As an academy R&D organization and a destination employer, we are able to use experts to drive science, technology and innovation thought-leadership. Fifty per cent of our team is made up of individuals with advanced technical degrees; food chemists, microbiologists, biologists, who are able to develop unexpected and unique innovations. In addition to in-house chefs, scientists, nutritionists and technical experts, PepsiCo R&D maintains a network of academic and professional relationships worldwide to partner with on everything from agriculture to flavours to biology.



### Innovation

Within Europe we have two of our Global R&D hubs (Cork, Ireland and Leicester, UK), attracting and employing world class R&D talent to deliver our technical agenda. Including our other European R&D locations, we have more than 500 Scientists and Engineers working within the technology arena, supporting both European and Global agendas. These teams are responsible for delivering technologies to innovate, renovate, and deliver the substantial growth agenda that PepsiCo has.

# Communication

Understanding current and future consumer demands is critical to unlocking differentiated innovation, thus PepsiCo is increasingly using design led innovation.

Effective dialogue with our consumers through traditional or digital channels, co-creation, focus groups or other research approaches is critical to partnering with an active consumer.

#### Business Creation

Business creation & sustainability is core to PepsiCo's vision, recently our Vice Chairman and Chief Scientific Officer, Dr Mehmood Khan, summed up PepsiCo's attitude: "Partnerships are crucial, because global value chains are so large and involve many interconnected players... public, private and non-profit sectors must work together." To support this we are increasing our engagement with startups and innovators to build sustainable businesses.



PepsiCo currently collaborates with over 50 Global R&D academic partners across five continents, including many high- prestige academic institutions. Providing support through research placements, industrial internships and teaching support. In addition we have a commitment to STEM engagement that is global, and underpins our citizenship agenda.

# PLANTLAB The Next Generation of Growing



#### Profile

PlantLab 'The Next Generation of Growing' is on a mission to change the way the world is fed. Our ultimate goal is to ensure that plants can reach their full potential, to feed a growing population with a sustainable source of safe, tasty, affordable and nutritious food.

PlantLab provides turnkey solutions for indoor, vertical farming, based on its patented technology and in-depth plant science, enabling the production of sustainable, safe and nutritious crops and high value food ingredients.

#### Master Contact

Vera Colstee Business Developer Food

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www.plantlab.nl

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#### Competences & Capabilities

PlantLab develops and operates custom-build Plant Production Units (PPUs) integrating;

- Controlled environment technology to mimic any climate possible.
- Plant science to research optimal growing conditions for plants and their purpose
   Steering plants primary and secondary metabolites for fresh produce and extraction of ingredients.
- New value chain solutions for a sustainable, optimal supply chain.

Our state of the art R&D center in 's-Hertogenbosch we have numerous R&D chambers, scale up units and production facilities where we operate for various markets such as breeding, fresh produce, young plants and plant derived ingredients for food-, pharmacy- and nutrition industries.



#### Innovation

- Technology innovation on climate-, growing-, water- and nutrient systems - Circular Approach.
- Operational integration in a high tech environment automation.
- The plant as production medium for specific compounds/ingredients.
- (Fresh) Food production with desired flavor profile.
- Improved nutrient-dense production by natural bio-fortification in growing conditions.
- New generation production systems with in-line measurement of safety, quality and taste, made available for end-users by smart labeling (digital).

# **Contact:** Vera Colstee vcolstee@plantlab.nl

# Communication

Producing locally in cities or communities encourages interaction with end-users such as consumers, supermarkets or restaurants. Indoor Farming enables a high tech farm experience where end-users can make demands to the specifications of their products and personalize their fresh food to a high degree.

PlantLab is young, post-start-up company, our communication expertise is still evolving. Currently we are developing communication tools and concepts to interact with end-users. Think of us as a perfect test-bed, we still have the start-up mentality and can quickly respond to changes!

**Contact:** Vera Colstee vcolstee@plantlab.nl



#### **Business Creation**

We see the opportunity to initiate and join forces with others to create new ventures for developing and deploying new technologies across the food value chain.

Our experience as a start-up company bringing new emerging technologies to the market can benefit the RisingFoodStars and SPV with necessary insights and mentorship.

**Contact:** Vera Colstee vcolstee@plantlab.nl



We have several internships for students, who will be given the opportunity to work on radical new solutions for our food system.

We cooperate on project basis with universities worldwide in the field of food and agriculture.

**Contact:** Vera Colstee vcolstee@plantlab.nl

# POLISH ACADEMY OF SCIENCES Food & animal sciences



#### Profile

The Institute of Animal Reproduction and Food Research, Polish Academy of Sciences is a leading life sciences centre carrying out interdisciplinary basic and applied research, explaining the mechanisms of environmental impact on the wellbeing of humans and animals.

#### Master Contact

Dr. Tomasz Jeliński Assistant Professor

10 Tuwima Str. 10-748 Olsztyn POLAND

www.pan.olsztyn.pl

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### Competences & Capabilities

The versatile team of the Institute conducts basic and applied research in the areas of food, in respect to health and consumers' perception, farm animals reproduction & aquaculture.

Institute's areas of expertise comprise:

- developing safe and valuable food, ensuring a high level of animal welfare and a limited impact of agriculture on the environment;
- achieving and maintaining personal wellbeing, with a focus on the prevention of allergy, obesity, diabetes type 2, infertility;
- exploitation of agri-food biomaterial for new food products.

Institute is a part of Polish Academy of Sciences, a leading research institution in Poland.



#### Innovation

- Primary production biotechnology and biotechniques of reproduction.
- Processing innovative food products design.
- Nutrition study of relation between diet and health.

Its expertise include (•) separation and identification of functional compounds with their application in the food systems;

(•) technology for biosensors development;
(•) animal in vitro reproduction, fish semen cryopreservation.

Core facilities: Microbiology, Animal Facility, Molecular Biology, In Vitro, Sensory Analysis, Proteomics, Reproduction Biotechnology, Metabolomics, Experimental Farm, Bioimaging

**Contact:** Tomasz Jeliński, Dr. t.jelinski@pan.olsztyn.pl



#### **Business** Creation

- Liaison Officer initiative facilitating the networking between science and industry.
- Brokerage meetings and specialized innovative trainings providing agri-food stakeholders with advances in state of the art knowledge in food and animal sciences.
- Fostering entrepreneurship via core facilities, blending real-world innovation experience with proven research models.
- Active agent in the business environment.

Institute delivers tailored-made and complex solutions to SMEs and bigger scale enterprises to boost their innovation capacity.

#### Contact:

Marek Bogacki, Dr. m.bogacki@pan.olsztyn.pl Anna Bednarska, MSc a.bednarska@pan.olsztyn.pl

# Communication

Institute undertakes continues efforts to increase public awareness of the key benefits innovations in food and health bring to everyday life.

Spearheading a variety of public engagement events such as science festivals, open lectures, showcases of research facilities, tailored workshops, Institute promotes dialogue involving diversified audience to keep abreast of public concerns and maintain mutual trust.

Institute cooperates with news media, policy makers and business to disseminate its research achievements, enhance appreciation of science-driven industrial solutions, and inspire consumers of all ages.

**Contact:** Iwona Kieda, MSc i.kieda@pan.olsztyn.pl



Institute conducts PhD studies in agricultural sciences: in the field of animal husbandry and food technology and nutrition.

Students are provided with cross-disciplinary knowledge and transferable skills to be used in both commercial and academic centres.

Granted scholarships, they develop and manage their own research with the access to highly specialized scientific facilities.

Students and professionals take part in shortterm scientific missions, specialised trainings and industrial internships.

MSc students are offered opportunities to perform research for their graduate theses.

**Contact:** Aneta Andronowska, Dr. hab. a.andronowska@pan.olsztyn.pl

# PURATOS NV Bakery, Patisserie, Chocolate



#### Profile

Puratos NV is a global leading manufacturer of ingredients for bakery, patisserie and chocolate. The vision of Puratos is built around taste and nutrition and a strong commitment to help to prepare the world for the next generation. This vision translates in products and solutions optimizing nutritional profiles of baked goods, bringing more grains and fruits in the diet, creating transparency in the supply chain, mobilizing new sources of raw material and reducing food waste.

#### Master Contact

Filip Arnaut R&D Director GRS Lab

Industrialaan 25 B-1702 Groot-Bijgaarden Belgium

www.puratos.com

E: farnaut@puratos.com T: +324814253

### Competences & Capabilities

In depth knowledge of consumer expectations and needs in the field of food and more specifically related to Baked good and chocolate.

Expertise on ingredients and technologies used in bakery patisserie and chocolate field

State of the art pilot facilities technologies in bakery patisserie and chocolate field that can be activated in projects exploring market access for new ingredients or products with optimized nutritional profiles or health benefits.

Due to the global presence of Puratos : positioning new products and solution in a non-European context and to increase the potential for export outside of the European union.

Sensorial analysis expertise and the Sensobus (mobile sensorial lab)



Yearly, 2,5% of revenue invested in research and development

58 Innovation Centers worldwide

- 800 R&D researchers and technical advisors
- 30 formal partnerships with 3rd parties: the innovation is done in close collaboration with universities and knowledge centers inside and outside of Europe.

Entrepreneurial innovation process Student Internships: around 75 per year

# Communication

Puratos is actively communicating

- Through a recently updated corporate website: www.puratos.com
- On social media
  - Linkedin
  - Facebook
  - http://www.tastetomorrow.com/
- By organizing dedicated customer events
- By organizing open scientific seminars with academic partners

**Contact:** Philippe Arnauts External communications Manager Parnauts@puratos.com

### Business Creation

Creating value through lose collaboration with startups and high tech SME's is part of our business model.

We have adapted partnering models for collaborations with companies and academic institutes.

We collaborate in early stage phase with startup to validate and mature the technology

# **Contact:** Filip Arnaut R&D Director GRS Lab Farnauturatos.com



#### There is a Puratos University where we train our employees on technical and managerial skills

- There are two campuses (Belgium and China)
- There is an extensive e-learning platform with in house developed technical courses from basic to advanced: nutrition sensorial analysis, food technology topics, management training...

**Contact:** Klaar Roeland HR Learning & Development Manager Kroeland@puratos.com

# QUADRAM INSTITUTE BIOSCIENCE

Research



### Profile

The Quadram Institute is a new state-of-the-art food and health research and endoscopy centre on the Norwich Research Park.

It will be at the forefront of a new interface between food science, gut biology and health, developing solutions to worldwide challenges in food-related disease and human health.

Our mission is to understand how food and the gut microbiota are linked to the promotion of health and the prevention of disease. We will use this knowledge to develop evidence-based strategies to maximise positive impacts of food on health, from early life to the extension of a healthy lifespan into old age, and reduce the economic and social costs of chronic disease.

Our research spans four interconnected areas:

- Food Innovation
- Gut microbes
- Food safety
- Population health

### Master Contact

Dr Christian Roghi Head of Business Development

Norwich Research Park Colney Lane Norwich, NR4 7UA UK

www.quadram.ac.uk

E: christian.roghi@quadram.ac.uk T: +44 (0)1603 255 182

### Competences & Capabilities

QI carries out fundamental and applied research into links between food and health, microbial food safety, and interactions between food, the microbiome and health.

Expertise includes:

- Understanding the gut microbiome
- Innovative foods for lifelong health
- Microbial food safety
- Food structure
- Microbial ecology, AMR & biofilms in the food chain
- Food authenticity
- Food databanks

QI works with commercial partners in relevant industries to translate its research into new foods and technologies and provides evidence-based advice to ensure maximum societal benefit.



### Innovation

QI seeks to generate innovative new foods and therapies from its research, responding to industry and consumer needs, including

- Extending chilled food shelf life
- Nutritionally enhanced foods
- Novel analytical techniques to combat food fraud
- Engineering new probiotics
- Exploiting gut bacteria enzymes
- Tackling pathogen populations in the food chain, incl. biofilms
- Bioprospecting, screening for new compounds

# Communication

QI encourages its staff to partake in science communication and public dialogue and to engage with the news media, to raise awareness of advances in knowledge in the food and health area.

OI maintains a network of over 250 food and health businesses, providing channels for dialogue ranging from one-to-one access to its scientists to larger meetings on specific industry-related subjects.

QI works with governments and regulatory authorities to ensure its science contributes to evidence-based policy making.

### **Business Creation**

QI takes a proactive approach to business creation. We have setup a contract research organization, QI Extra Ltd. that undertakes short-term and applied research projects or consultancies for SMEs and large multinationals.

OI seeks to commercialise its research.

- The Dynamic Gastric Model
- Nutritional Information Solutions based on our food databanks expertise.
- The SUSSLE Process safely extending shelf life of minimally processed foods
- Novel methods to combat food fraud
- Developing future consumer products with proven health benefits



### Education

Training the next generation of food and health scientists is integral to QI's mission. As part of the Norwich Research Park Doctoral Training Partnership, we offer innovative, sought after 4-year PhD studentships that include a professional internship, and a full professional development plan, providing students with a range of vital skills for food research or careers in industry.

QI offers training and knowledge exchange services for industry to access expertise, e.g. QI has with UEA developed and successfully run a MOOC - 'Identifying Food Fraud'

# QUEEN'S UNIVERSITY OF BELFAST

Agri-Food & nutrition research / Education



#### Profile

The Institute for Global Food Security (IGFS) is part of Queen's University of Belfast, specialising in the key areas of the integrity of global food supply, farms of the future and nutritional challenges for the 21st Century. IGFS plays a major role in delivering safe, sustainable and authentic food to the world's growing population, and has become globally recognised for its excellence in research and education.

#### Master Contact

Stephane Durand Head of Innovation, Institute for Global Food Security

Northern Ireland Technology Centre Queen's University of Belfast, Cloreen Park Belfast BT9 5HN, United Kingdom

www.qub.ac.uk/igfs

E: s.durand@qub.ac.uk T: +44 7799471254

### Competences & Capabilities

We drive research, educate tomorrow's leaders and create a culture of entrepreneurship, through:

- International research and collaborations in food safety and food integrity
- expertise in animal nutrition, behaviour, welfare and precision farming
- facilities for Genomics, Imaging, Mass
   Spectrometry and Bioinformatics research
- big data management centre with unique big data access to explore links between diet, behaviour and health
- access to dietary research, especially in targeted and precision nutrition.
- number 1 in the UK in research intensity in Agriculture, Veterinary and Food Science



#### Innovation

- We provide solutions to some of the world's biggest food safety problems, from the contamination of crops, animal feeds, ingredients and food products, and fighting fraud across the food supply system
- With a proven track record we provide a crucial interface between industry and regulators to bring about solutions globally in the area of nutrition, food fraud and integrity and precision agriculture.
- We apply methodologies developed for the Medical and Pharma industries to the agrifood space.

**Contact:** Mr Stephane Durand s.durand@qub.ac.uk

### Communication

- We're connected to schools, colleges, health agencies and government departments
- We develop tools to help those at risk of chronic illness to monitor their diet and its effect on conditions such as obesity, diabetes, Alzheimer's disease, via a citizen participation forum.
- We piloted an incentive programme to encourage schoolchildren to make healthier food choices
- We developed a smartphone app to support the self-management of type 2 diabetes.
- We publish research in world leading peer review journals

**Contact:** Mrs Isabel Jennings i.jennings@qub.ac.uk

# Business Creation

- Through QUBIS Ltd, we commercialise
   university research and development
   opportunities by forming spin-out
   companies.
- Since 1984, QUBIS has created 80 companies, with an active portfolio of 34 companies, employing over 1800 staff.
- These companies have raised £83.4m in outside investment.
- Our lean start-up approach saves time in building businesses in the food sector.
- QUBIS spin-outs benefit from seed-funding, office space, access to our business network and ongoing support

**Contact:** Mr Brian McCaul b.mccaul@qub.ac.uk



**Education** 

We foster an open, entrepreneurial approach to food security education.

- nine high quality degree programmes and two online courses focussed on food and nutrition, educating hundreds of students each year.
- expertise in the running of MOOCs.
- exchange programmes in Vietnam, France, Brazil and China.
- 150 students working globally in the agrifood, environmental and life sciences areas.
- upcoming summer schools to develop outstanding PhD students.

**Contact:** Dr Katrina Campbell katrina.campbell@qub.ac.uk

# RABEN GROUP Logistics Services Provider

# Raben

your partner in logistics

#### Profile

Raben Group is a Third Party Logistics operator with 85 years of experience. Present in 11 markets of the Western, Central, and Eastern Europe with its own logistic network, Raben Group is providing services to small, mediumsized and big companies which have decided to outsource their logistics processes.

### Master Contact

Zbigniew Kępiński Genius Lab Manager

Raben Management Services Sp. z o. o. ul. Zbożowa 1 62-023 Robakowo Poland

www.raben-group.com

E: zbigniew.kepinski@raben-group.com T: +48 61 89 888 78

### Competences & Capabilities

Main areas of specialization are:

- Contract logistics
- Road network
- Fresh logistics
- FTL & intermodal
- Sea & air
- Logistics integration

Raben Group services a wide variety of industries ranging from FMCG and retail to automotive and chemical.

Dense and well planned network of branches allows for rapid transport of goods while optimization of processes and IT systems ensure constant increase of quality.



## Innovation

Every day, systematically Raben Group investigates, discovers, creates, develops, and implements new solutions or improvements for our customers. We ensure innovations or significant improvement in processes, systems, organization and services which are provided for our customers.

In 2016 we launched Genius Lab (Research and Development Department) to better, structurally invest in trends research and solution development. To enable collaboration we are going to bring together customers, academic institutions, research center, market partners and logistics experts within business units and departments.

We support our customers delivering better services and providing accurate high value business information from logistics processes.

Contact: Zbigniew Kepiński Genius Lab Mananger zbigniew.kepinski@raben-group.com

## Communication

We do not operate in a detached social space. We follow the words of Milton Friedman who wrote that a company may continue its activity as long as the society believes that they need it. Our development, growth and innovativeness translate into the quality of life in the environment. We execute projects focusing on the areas nominated by our stakeholders. The key identified areas were: local communities, the natural environment, education and road safety. One of our aims is also to increase the awareness of the role of transport.

Our communication platform myRaben.com provides on-line whole business information for our customers, partners and consignees. There are over 10 000 registered users who day by day take and exchange necessary business information.

#### Contact: Sylwia Tylińska Group Marketing Manager sylwia.tylinska@raben-group.com



## Education

Sharing our knowledge is an inherent part of Raben Group philosophy. We offer professional advice for our customers and all players on the logistics market.

We cooperate with several universities, e.g. Higher School of Logistics in Poland, Poznań University of Economics and Business and University of Warsaw, SGH Warsaw School of Economics as well as with numerous secondary schools.

Our experts are often invited to speak during industry conferences and business meetings. Knowledge sharing is one of our company's cornerstones.

Contact: Zbigniew Kepiński Genius Lab Manager zbigniew.kepinski@raben-group.com

## ROQUETTE Specialty Food Ingredients



#### Profile

A family-owned Group serving customers globally, Roquette is a leader in specialty food ingredients and pharmaceutical excipients. The products and solutions developed by the Group deliver proven technological, nutritional and health benefits precisely tailored to the pharma, nutrition, food and selected industry markets. Roquette's offer is produced from plant-based raw materials such as corn, wheat, potatoes and peas.

Roquette operates in over 100 countries, has a turnover of around 3.3 billion euros and currently employs more than 8,000 people worldwide.

### Master Contact

Frédéric BOUVIER Scientific Advisor, Nutrition & Health R&D

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www.roquette.com

E: frederic.bouvier@roquette.com T: +33 6 12 09 42 14

### Competences & Capabilities

Our ambition is to be the natural source of innovative plant-based ingredients and formulations for highly demanding industries. We bring high-value nutritional and functional ingredients to our markets, backed by the cocreation services our customers require.

At Roquette, food producers find a range of plant-based solutions: plant proteins (peaor wheat-based), soluble fibers, polyols, maltodextrins, native and modified starches, dextrose, glucose syrups and many more to discover.

Roquette's development is based on a long history of company technology and expertise on plant-based raw materials, leading complex projects from the laboratory to the factory, as well as on the long-term partnerships the Group establishes with its customers.



#### Innovation

Since its foundation over 80 years ago, the Group's growth has been based on innovation, a passion for the job and a commitment to achieve.

Responding to the needs of the market, Roquette is constantly developing ever more innovative, competitive and sustainable food and nutritional solutions, bioactive ingredients and performance material systems.

Roquette's renowned Research & Development is key to Group strategy by deploying the stateof-the-art science and technology essential to creating the applications, ingredients and formulations that best support its customer's ambitions.

**Contact:** Frédéric BOUVIER, Scientific Advisor frederic.bouvier@roquette.com







## SIEMENS AG Digitalization / Automation

# SIEMENS

#### Profile

Siemens is a global powerhouse focusing on the areas of electrification, automation and digitalization. The company is active in more than 200 countries. In fiscal 2016 Siemens generated revenue of  $\in$ 79.6 billion and net income of  $\in$ 5.6 billion and had around 351,000 employees worldwide. Siemens is the only provider that offers a comprehensive range of products and systems for automation in all sectors and is a leading supplier of automation systems to the food & beverage industry.

### Master Contact

Rudolf Sollacher Senior Research Scientist

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www.siemens.com

E: rudolf.sollacher@siemens.com T: +49 152 22 79 79 87

## Competences & Capabilities

Siemens is active in the areas of electrification, automation and digitalization with products and solutions like

- Totally Integrated Automation (TIA) portal
- Product Lifecycle Management (PLM) software
- Energy management and efficient drives

Corporate Technology, the central research & development arm of Siemens, develops the company's technology and innovation strategy. It has 7,400 employees worldwide, holds 59,800 granted patents and collaborates with 9 centers of knowledge interchange and 16 principal partner universities worldwide.



### Innovation

Siemens looks back to a history of 170 years of innovation from telegraph and dynamo to computer tomography, high speed train, Totally Integrated Automation (TIA) portal and Product Lifecycle Management (PLM) software.

Current research & development focuses – among others - on technologies for the Internet of Things (IoT) and for Industrie 4.0.

We are supporting the application of Industrie 4.0 and IoT concepts to the food production value chain and contribute to field trials and demonstrators

Contact: Rudolf Sollacher. Senior Research Scientist rudolf.sollacher@siemens.com

## Communication

As a leading supplier of automation technology Siemens is presenting innovative solutions at basically all important fairs of the food & beverage sector

Other means of publication reaching a large audience are e.g.

- Customer Magazine: Information about main developments in technologies and markets (https://www.siemens.com/customermagazine/en/home.html)
- Pictures of the Future: Presents important technology trends and research at Siemens (https://www.siemens.com/innovation/en/ home/pictures-of-the-future.html)

Contact: Florian Martini, Press Officer Research and Technology florian.martini@siemens.com

## **Business Creation**

In 2016 Siemens – itself a global player founded as a start-up in a Berlin backvard - opened a new unit: next47 will cooperate with innovative partners to identify new trends, invest in them and turn them into viable business. These partners may include entrepreneurs from Siemens as well as external start-ups and established companies. A team of dedicated managers will build a bridge between the world of start-ups and of Siemens.

Contact: Lamin Ben-Hamdane. Venture Technologist lamin.benhamdane@siemens.com



## Education

Siemens Professional Education provides first-class vocational education, combined vocational and academic education, as well as further education to our internal and external customers. These programs secure nextgeneration skills for the digital world. One example is a Massive Open Online Course (MOOC) offering curriculums, automation training and learning concepts for conveying know-how on Industrie 4.0

Contact: (temporary) Rudolf Sollacher, rudolf.sollacher@siemens.com

# SODEXO



#### Profile

With **425 000 employees** in **80 countries**, SODEXO provides daily **Quality of Life Services** to over **75 million consumers** at more than **32 000 sites** : schools, universities, production, administration or business centres, detention centres, hospitals, senior homes, ...

We experience daily, at field level where consumers live, that Quality of Life Services and Food Services at a special position, directly contribute to **progress of individuals** and to the **performance of their organization**. We also know how much Food Service can contribute to health & wellness for our guests, nutritional education for the youngest, social interaction and sense of recognition, personal development, facilitation for ease and efficiency in daily activities and tasks, for providing a safe and secure living environment. We also have clear commitments and important role to play for our environments (planet, local communities) in a sustainable development perspective.

#### Master Contact

Laurent COUSIN Group SVP R&D

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www.sodexo.com

E: laurent.cousin@sodexo.com T: +33 6 07 44 90 16

#### Competences & Capabilities

We are committed to bring to EIT-Food our **consumer knowledge** and **50 years of experience** in food service. We also bring our **expertise of supply management** and partnerships with **all food categories** (we are a generalist food service company, not specialized in any type of food or products).

Connected with **all types of public and private institutions**, we also have more than 45 years of **international experience**, internal **coordination** and **multicultural cooperation**.

With the **agility** and **reactivity** of a pure service company, we have a robust experience and know-how in **innovation development**, **piloting** and **testing** for life validation after lab confirmation, precise outcomes **measurement**, large scale **deployment** across our organization (over 17 500 sites in 22 EU countries).









## STRAUSS GROUP Food & Beverage company



#### Profile

Strauss Group is an international Food & Beverage company that strives to improve people's lives, headquartered in Israel. Our portfolio includes five businesses: Strauss Coffee B.V., Strauss Israel, Strauss Water, PepsiCo – Strauss Fresh Dips & Spreads International and Max Brenner, aligned with two global consumer trends: Health & Wellness and Fun & Indulgence.

The Group has 14,000 employees worldwide, is active in more than 20 countries. The Group's turnover is estimated at 2 billion USD in 2015.

## Master Contact

Eyal Shimoni CTO, VP Technology

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www.strauss-group.com

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## Competences & Capabilities

Strauss Group is active in the following categories:

- Coffee
- Dairy
- Confectionary & Salty Snacks
- Home water appliance
- Vegetarian fresh dips & spreads
- Fresh cut vegetables
- Honey, olive oil, jam

In each of these categories, Strauss Group has product development, process development, manufacturing facilities, marketing, distribution and other various capabilities.

Strauss Group pioneered the creation of the Israeli FoodTech ecosystem with innovators and startups through Alpha Strauss platform and "The Kitchen" incubator.



Strauss Group's innovation is managed in four layers:

- Product and process innovation in the business units on an ongoing basis.
- Testing and disseminating post proof-ofconcept technologies into the group through our "Migrating technologies" platform.
- Developing new product processes and business models through our "Breakthrough Technologies" platform.
- Nurturing early stage technological startups in our incubator (The Kitchen).

Alpha Strauss venture is Strauss Group's main vehicle to create technological edge.

**Contact:** Jameel Istaitih, Alpha Strauss Email: Jameel.istaitih@Strauss

## Communication

As a food and beverage company, Strauss Group communication efforts face both consumers and professionals:

 Consumer facing communication involve: Blog, Website, Tweeter, Facebook, YouTube, Instagram, etc.

Our unique mobile application "Strauss plus" serves over 100K users in tracking their retail shopping and composing unique offers for consumers.

 For the professional community we hold professional Meetups, annual FoodTech conference and a listing of over 1500 members of the FoodTech community also through our LinkedIn group "Israel FoodTech innovations".

www.alphastrauss.com www.thekitchenhub.com



Strauss Group is the leading industrial player in the Israeli FoodTech ecosystem, pioneering collaborations and investing in startups and technologies using two main platforms:

Alpha venture is Strauss Group's vehicle to collaborate with the FoodTech ecosystem through providing beta sites, professional advice, and creating shared value through collaborative projects. Alpha also engages in the connection between the "technology providers" and venture capital funds, market service providers, government representatives, our strategic partners etc.

"The Kitchen", founded by Strauss, is the first Israeli FoodTech incubator. It provides funding and support for early stage FoodTech ventures in all areas of the Food & Beverage value chain, from Farm to Fork, taking innovative ideas and creating successful startups.



## **Education**

Strauss Group is collaborating with universities and colleges in Israel.

Strauss Group's mangers lecture in various academic institutions. We also provide scholarships for young researches focusing on health and nutrition research. We are also open for interns on a need basis.

We also support academic education by professional visits of students in our facilities.

## TECHNICAL UNIVERSITY OF MUNICH University

Technische Universität München



### Master Contact

Christian Körner EU-Officer

Technical University of Munich Arcisstr. 21 80333 Munich, Germany

www.tum.de

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### Profile

The Technical University of Munich (TUM) combines top-class facilities for cutting-edge research with unique learning opportunities for students. It is committed to finding solutions to the major challenges facing society as we move forward: Health & Nutrition • Energy & Natural Resources • Environment & Climate • Information & Communications • Mobility & Infrastructure. TUM thinks and acts with an entrepreneurial spirit. Its aim: to create lasting value for society. All this combines to make TUM one of Europe's leading universities.

## Competences & Capabilities

In line with its institutional strategy TUM. The Entrepreneurial University, is committed to address all aspects of the innovation triangle: education, innovation and business creation.

TUM's mission is to spearhead the education of top-talent and the development and marketing of new technologies, innovative solutions and services that support people in their right to a healthy diet and in their duty to improve nutrition, achieve food security and promote a sustainable bioeconomy.



## Innovation

End-to-end coverage of the Agro-Food-Nutrition-Health chain: TUM School of Life Sciences Weihenstephan (78 Profs.), ZIEL Institute for Food & Health (12 Profs.) TUM Dept. of Sports und Health Sciences Entrepreneurship and Business Management incl. Operations & Supply Chain, Management. Digitalization, Sensors, and Automation; Dept. of Mechanical Engineering, Dept. of Informatics, Dept. of Information & Communication Technologies; network partners: Center Digital Bavaria, Leibnitz Supercomputing Center (superMUC)

Munich Center for Technology in Society (MCTS). Interactions between science, technology, and society, understand TechnoSocieties and actively contribute to their positive development.

## Communication

The TUM Media Relations team has offices on all three TUM campuses. It has considerable experience with EIT Health setting up communication channels. It is the first point of contact for journalists, employees and university associates. Outreach Partners in the region are:

- German Museum Munich (~1.5Mio visitors p.a.; "traveling exhibition", "Digital German Museum").
- Airport Munich GmbH (~130.000 travelers per day; demonstrators mounted at physical spaces ("FoodConnects Showroom").
- The Competence Center Nutrition (KErn, subdepartment of the Bavarian State Ministry of Food, Agriculture and Forestry: regional exchange research-industry-educators.

## **Business Creation**

## TUM proactively encourages its members to

found growth-oriented startups and support them with non-bureaucratic services until they achieve a strong foothold in their market.

- UnternehmerTUM: is one of Europe's leading entrepreneurship centers: 100staff, >40technology-based start-ups p.a., technology scouting, start-up incubation/ acceleration, start-up coaching, team matching & development, start-up financing.
- TUMentrepreneurship program for a proactive entrepreneurial support of students and scientist (12 staff members) and recognition of innovative talents.
- Incubators: GATE Garching on TUM's Science & Engineering Campus Garching, Innovation & Start-up Center Biotechnology (IZB) on TUM's Life Science Campus Weihenstephan.



## Education

Thematically relevant study programs: 11 BSc & 17 relevant MSc 3 MBA and advanced training courses, seminars and conferences.

Wide experience in setting up Europe's largest summer school for climate innovation and entrepreneurship (Climate KIC).

Extra-curricular as well as add-on study programs to facilitate the growth and foundation of entrepreneurial ventures (CDTM).

Divers formats (MBA and workshops) for professional and executive training by TUM School of Management.

TUM publishes its own MOOCs on renowned US platforms. An ever-expanding MOOC offering enriches the university's teaching repertoire.

European Venture Programme for PhD student and Postdocs.

# TECHNION, ISRAEL INSTITUTE OF TECHNOLOGY

Research University



#### Profile

The Technion, Israel Institute of Technology, is a science and technology research university dedicated to the creation of knowledge and the development of human capital and leadership for the advancement of the State of Israel and all humanity.

Since founded in 1912, Technion has become a global pioneer in both traditional and novel engineering fields including biotechnology, space, computer science, nanotechnology, and energy. Three Technion professors, and one former graduate have won Nobel Prizes. The Technion is currently participating in 80 H2020 projects

#### Master Contact

Yoav D. Livney Assoc. Professor

Biotechnology & Food Engineering Department Technion, Israel Institute of Technology Haifa 3200000, Israel

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### Competences & Capabilities

Technion has 18 academic departments in engineering, natural sciences, medicine and architecture as well as 60 research centers. embracing the interdisciplinary research approach that is driving new developments worldwide. Among Technion's outstanding interdisciplinary research centers are the Grand Water Research Institute, Russell Berrie Nanotechnology Institute, Nano-Med Initiative, Lokey Center for Life Sciences and Engineering, Grand Technion Energy Program, Technion Autonomous Systems Program and Technion Computer Engineering Center. World-class laboratories such as the Electron Microscopy Centers, Genomics Center, and Micro-Nano Fabrication Unit enable the cutting-edge research that has empowered Technion to build its reputation for academic excellence and boldly inventive research.



## Innovation

'Necessity is the mother of invention'. For Israel and the Technion, this is not a cliché but rather a way of living. Israel's institute of Technology produces both world-class basic science and applied research, generating numerous patented technologies, which position it as a world-renowned technological university and the beating heart of the Israeli high-tech- and start-up nation. The Technion fosters out-of-the-box thinking. It is home to various multidisciplinary centers of excellence, generating a diverse portfolio of groundbreaking innovations, from computer and data science, through electrical- and mechanical engineering, to the fields of agricultural-, biomedical-, biotechnology & food engineering, nutrition and health.

**Contact:** Uri Lesmes, Associate Professor lesmesu@tx.technion.ac.il

### Business Creation

Entrepreneurship is coded in the DNA of the Technion. Between 1995 and 2014, more than 1,600 startups were founded and/or managed by Technion graduates. The total capital raised by these startups was over  $6B \in .42$  of the 72 Israeli companies on NASDAQ, with a total market-cap of \$22 Billion, were founded or managed by 64 Technion graduates.

We at the Technion believe that Entrepreneurship is not a gift but rather a set of interrelated skills that a student could be equipped with. We are trying to implement this policy in different organization and programs that exist on campus. These include the Entrepreneurship center, the BizTec competition and the Technion's accelerator.

**Contact:** David Shem-Tov David.S@technion.ac.il

## Communication

The Technion promotes evidence-based informed decision making in science and technology related issues, with special focus on the role of the mass and social media. Expertise include:

- Data mining, quantitative and qualitative research of public engagement with science in offline and online environments.
- Supporting scientists and other stakeholders in communicating their research via mass and new media, including practical media training.
- Initiating citizen science and public participation projects.

**Contact:** Ayelet Baram-Tsabari, Associate Prof. of Science Communication ayelet@technion.ac.il



#### The prestigious Shanghai Ranking placed the Technion at the 69th place of the world's leading academic institutions. The Technion is home for 10,000 Bachelor and 4,200 Master and PhD students mostly in the fields of exact sciences, engineering, medicine and science-education, guided by more than 550 active faculty staff members. Most of the 50 undergraduate and 83 graduate programs can contribute to the strategic goals of EIT Food.

The Technion already offers several MOOCS and Technion students enjoy an interactive e-learning environment.

The Bronica Entrepreneurship Center and the Technion Knowledge Center for Innovation provide hands on training in entrepreneurship and innovation.

**Contact:** Avi Shpigelman, Assistant Prof. avis@bfe.technion.ac.il

# UNIVERSIDAD AUTÓNOMA DE MADRID

Education and Research on Food&Nutrition





### Profile

#### Universidad Autónoma de Madrid

(UAM) is a Life Sciences specialized academic institution, ranked 11th worldwide and 4th in Europe in QS < 50.

UAM campus hosts two complementary **Food&Nutrition** Institutes:

**CIAL (UAM-CSIC):** Focused on innovation in food design for nutrition and health.

**IMDEA Food:** Targeting Precision Nutrition for human chronic disease prevention.

## Master Contact

Ana Ramírez de Molina Deputy Director IMDEA Food

Einstein 3, E-28049 Madrid Spain

www.uam.es

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## Competences & Capabilities

Working for the increment of competitiveness and innovation of food industry through knowledge transfer from bench-to-fork. An integrated ecosystem is located in our Campus to comply with the 3 pillars of knowledge: R&D, entrepreneurship and education.

- Technological platforms:
  - Food and Nutritional Genomics Platform
  - Service platform for food industrial sector
  - Metabolomics platform
  - Bioanalytical techniques unit
  - Gastrointestinal simulator
  - Laboratory of cooperative activity in R&D
- Genotyped cohort with more than 1200 volunteers. Active collaboration with the major Hospitals
- 20 research clusters and > 100 researchers allowing the development of added value food through genomic nutrition
- Scientific Park with capacity to hold > 400 start-up companies



UAM prioritizes innovation as an engine for the food sector development reflected on:

- A mean of 143 new patent applications per year (5 on Food&Nutrition)
- A mean of 25 licensed patents per year (2 on Food&Nutrition)
- International collaborations with special emphasis on activities developed with industries and Latin American partners
- Strong national presence through competitive consortia (i.e. Predimed)

UAM harbors a platform design to promote knowledge transfer between academia and industry, and a Scientific Computing Centre serving the whole scientific community.

**Contact:** Ana Ramírez de Molina, Ph.D. ana.ramirez@imdea.org



#### **Business Creation**

To provide support to the creation of technologically-based companies, UAM supports the following structures:

- Scientific Park of Madrid, an incubation organization with almost 400 start-ups
- UAM-Foundation, sponsored by many industries, enhances technological transfer and provides continued formation
- > 5000 m2 brand new building to host research infrastructures and private companies

To date, 15 start-ups/spin-offs have been created.

**Contact:** Guillermo Reglero, Prof. guillermo. reglero@uam.es

## Communication

Contributing to the dissemination of scientific knowledge on Food&Nutrition is a key element to improve well-being of society and to valorize new added-value foods and ingredients by consumers. On-going activities:

- Nutrigenomics Interactive Center is a permanent exhibition to educate society about the interaction genetics-food-health
- UAM Gazette disseminates our scientific knowledge (i.e. European Night of Researchers, Science at School infodays)
- Infodays addressed to food industry & retailers to spread out innovation outcomes
- Specialized courses on Science Communication & Dissemination

**Contact:** Sara Castillo, M.Sc. sara.castillo@imdea.org



The UAM campus hosts > 28.000 students and > 2.000 teachers in its 2.252.000 m2 area. It is one of the top environmental sustainable campuses in the world

The academic offer on Food Technology and Nutritional Sciences comprises 2 BSc, 2 MSc and 1 PhD program

Our University implements the latest information and communications technology applied to Education. In addition, the university provides lab support for food and nutritionrelated degrees, masters and continuous education programs.

**Contact:** Tiziana Fornari, Ph.D. tiziana.fornari@uam.es

# UNIVERSITY OF CAMBRIDGE

University



#### Profile

A world-leading University whose mission is to contribute to society through the pursuit of education, learning, and research at the highest international levels of excellence.

## Master Contact

Dr Mercedes Hernandez-Gomez EIT Programmes Coordinator

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## Competences & Capabilities

- World-class research expertise across the whole food value chain from farm to fork;
- Collaboration with colleagues worldwide; including large-scale partnerships with Europe, Asia, Africa and America.
- Engagement with peer institutions, governments, NGOs and policy-makers to translate research into global benefit;
- Promotes the interface between academia and business, with a global reputation for innovation;
- At the heart of one of the world's largest technology clusters - the 'Cambridge Phenomenon' has created 1,500 hi-tech companies.



## Innovation

World-class research expertise across the whole food value chain, including in plant and crop science; modelling and epidemiology in plant and animal production systems; supply chains; diet/nutrition and health.

Encompasses Strategic Research Initiatives in Global Food Security, Infectious Diseases, Big Data, Energy, Conservation, Public Health. Also Cambridge Algal Innovation Centre, Cambridge University Farm, and Cambridge Centre for Crop Science.

Firmly established infrastructure and track record of working with industry, fostering entrepreneurship and promoting spin-out companies.

**Contact:** Howard Griffiths, Professor of Plant Ecology hg230@cam.ac.uk



#### **Business Creation**

Entrepreneurial Learning within Cambridge Judge Business School (JBS) provides networking opportunities with peers, and a range of open programmes for aspiring entrepreneurs.

**Contact:** Shima Barakat, Director of Entrepreneurial Learning & Engagement, JBS sb679@cam.ac.uk



Active programme of public engagement and communications, including annual Festival of Ideas, Science Festival, and Summer Schools for all ages.

**Contact:** Mercedes Hernandez-Gomez, EIT Programmes Coordinator mch73@cam.ac.uk



We run:

- MBA and Executive MBA programmes (Judge Business School);
- Customised professional development programmes (Institute for Manufacturing);
- Customised executive education programmes (Cambridge Institute for Sustainability Leadership);
- Online adult-learning courses (Institute of Continuing Education).

**Contact:** Howard Griffiths, Professor of Plant Ecology hg230@cam.ac.uk

## UNIVERSITY OF HELSINKI Public non-profit research and higher education institution



#### Master Contact

Dr. Kati Vierikko Project Manager

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#### Profile

University of Helsinki (UH), established in 1640, is the largest institution of academic education in Finland, and an international scientific community of 40,000 students and researchers. UH operates in four campuses in Helsinki (City Centre, Kumpula, Meilahti and Viikki) and in nine other localities in Finland, UH has 11 faculties, several research-orientated institutes, multidisciplinary research networks and campus units, and units attending to the duties of a national authority. UH has an annual budget of 750 million euros. UH's vision for 2025 is encapsulated in the slogan "Global impact in interaction".

## Competences & Capabilities

University of Helsinki is among the top 1% of the world's research universities, ranked 1st or 2nd among the Nordic countries, and it is a founding member of LERU. Scientific quality is manifested for instance by 44 ERC grants, 50% of Thomson Reuters' highly cited Finnish researchers are in UH, and the University has over 100 European projects running annually.

Scientific spearheads cover entire spectrum of disciplines. Within food research those include

- food production and quality
- food safety and veterinary medicine
- healthy nutrition and consumer behaviour
- remote sensing, precision farming, big data
- multidisciplinary research and education platforms
- modern infrastructure (including research farm, animal hospital, green houses, laboratories)
- Nordic dimension and expertise
- Close collaboration with companies



## Innovation

Helsinki Innovation Services (HIS), the fully owned technology transfer company of University of Helsinki, is responsible for identifying and protecting inventions arising from research at the University of Helsinki, including food and environmental safety related research. Our activities are manifested by nearly 100 invention disclosures and tens of patent applications annually. We work closely with different industry sectors to better understand customer and end-used needs, market potential and competitive advantages of our inventions, aiming to serve food industry with solutions promoting development of sustainability.

**Contact:** Jari Strandman, CEO jari.strandman@helsinki.fi <u>www.his.fi</u>



### **Business Creation**

University of Helsinki supports the commercialisation of food research via Helsinki Innovation Services (HIS). Two major routes for commercialization are out-licensing and spinout creation. The technologies and solutions invented at University of Helsinki are offered to food industry for licensing and further development. HIS also supports the formation of several start-ups annually. HIS provides support in putting start-up teams together, and guidance to the teams on finding investors and other sources of funding to launch new businesses.

**Contact:** Jari Strandman, CEO jari.strandman@helsinki.fi <u>www.his.fi</u>

## Communication

University is a respected public actor and it is extensively engaged in communication with the society, including the private and public sector, NGOs, political decision makers and legislators, media, funders, alumni and the general public, among others.

Communication is built to support researchers and happens via news and press releases, events, workshops, discussion forums, networks, interviews, expert seminars, meeting places such as Think Corner, using both digital and physical media.

The communications team at University of Helsinki supports scientists on communication matters. The communications team is known to be a pioneer in adopting and developing new communication channels.

## **Contact:** Ville Korhonen, Comms specialist ville.korhonen@helsinki.fi



## **Education**

UH offers the widest selection of Master and PhD level programmes in Finland, also as MOOCs. Multidisciplinary programmes cover the entire agri-food chain from primary production to nutrition and consumer economics. Examples in doctoral programmes include "Food Chain and Health" and "Sustainable use of renewable natural resources". Student mobility are integral parts of the activities.

UH provides training to promote innovation, entrepreneurship and impact of research. Topics include for instance pitching, development of commercial potential, identification of funding opportunities, scouting of industrial opportunities and industrial collaboration.

**Contact:** Maija Tenkanen, Professor maija.tenkanen@helsinki.fi

## UNIVERSITÄT HOHENHEIM University



#### Profile

The University of Hohenheim is the leading University in agricultural research and food sciences in Germany, and is ranked #3 in Europe. With its three faculties/colleges of agriculture, natural science and social and economic sciences, the university is able to address holistically most aspects of the food system.

It has extensive experiment stations with associated acreages that make it possible to carry out field research. The University maintains an international network with numerous partners and has a strong foothold in Africa and Emerging Countries.

### Master Contact

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## Competences & Capabilities

The University of Hohenheim is divided into three faculties:

- The Faculty of Agricultural Sciences,
- The Faculty of Natural Sciences, and
- The Faculty of Business, Economics and Social Sciences.

With 10.000 students, 2500 staff members, 1000 Ph.Ds and about 140 professors, the University carries out interdisciplinary teaching and research, finding solutions for key global challenges like transforming the economy to a biobased one, addressing resource shortages and environmental challenges taing social and economic aspects into account. Being located in the capital of the state of Baden-Württemberg, one of the most prosperous and economically dynamic states in Germany, it has strong links to local businesses and governmental organizations. An extensive state-of-the-art research and teaching infrastructure exists.



## Innovation

Our vision is to combine actors across the food chain in a new way to share knowledge and develop new products and technologies.

Our institutes and institutions are internationally and interdisciplinary aligned to carry out basic and application-oriented research providing innovations in the food arena. We are one of the top players in Germany when it comes to joint industry-academic research and innovation grants.

In addition to its KIC participation, Hohenheim is building a regional food and agricultural innovation network including local startups.

Contact: Jörg Hinrichs, Prof., Dept. Chair J.Hinrichs@uni-hohenheim.de

Andreas Pyka, Prof., VP International inno@uni-hohenheim.de

## **Business Creation**

Several institutes of the Faculty of Business, Economics and Social Sciences cover the field of Business Creation. Amongst them the department for Business Start-Ups and Entrepreneurship that addresses all aspects of the entrepreneurial process. A recently awarded program supports student entrepreneurship and startup creation ("Hohenheim Creates", & the "StartUp Garage").

A dedicated technology transfer office is fostering a continuous dialogue between companies and scientists to ensure that IP is turned into products and services. A speciality of Hohenheim is its extensive seed bank and plant breeding programs continuously generating new and improved plants.

Contact: Andreas Kuckertz, Prof., Dept. Chair andreas.kuckertz@uni-hohenheim.de

## Communication

Nine Professors from the Institutes of Communication Science and the Institute of Marketing & Management focus on communication aspects at the University of Hohenheim. Health and Food Communication is a dedicated focus at the department of Communication Science.

To foster a collaboration along the food chain and to build and maintain networks, a new Research Center for Bioeconomy was set up in 2015. An extensive European partner network through joint grantsmanship has been established.

Contact: Sabine Trepte, Prof., Dept. Chair sabine.trepte@uni-hohenheim.de

Susanne Braun, Mrs., Chair of Center susanne.braun@uni-hohenheim.de



## Education

Hohenheim is a full University offering all academic degree levels to students:

- Various food system oriented accredited degree programs with demonstrated excellence in teaching (e.g. Ars Legendi award, Humbold-reloaded)
- The only Master Program in Bio-economy in Germany (EU Master's Program)
- Various structured Ph.D. degree programs (food engineering, biology, agriculture, economics)
- An University Spanning Graduate Academy (supports Ph.D. students and Post-Doctoral workers)

Contact: Jochen Weiss, Prof., Dept. Chair j.weiss@uni-hohenheim.de

Lutz Fischer, Prof., Dean of Studies Lutz.Fischer@uni-hohenheim.de



## UNIVERSITY KU LEUVEN – LFORCE Food Science, Technology and Nutrition

# **KU LEUVEN**

#### Profile

KU Leuven is a core partner in EIT Food and is also taking the lead in setting up the Western Co-Location Centre (CLC West). The KIC's mission lines up very well with the University's mission, aiming at strengthening the knowledge-based socio-economic fabric within the Leuven region and bevond that in an EU context. Its activities cover the different corners of the knowledge triangle, i.e. Innovation, (entrepreneurial) education and business creation, and offer plenty of opportunities for collaboration in these areas via an integrated approach.

## Master Contact

Dr. Kurt Gebruers, Innovation Manager

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### Competences & Capabilities

The Leuven Food Science and Nutrition Research Center (LFoRCe) groups the University's expertise in the agro-food-nutrition area (> 550 researchers, > 50 professors) covering plant- and animal-based food systems, nutrition and health, consumer science and cross-cutting fields. The University fosters an entrepreneurial spirit in its R&D community and closely supported more than 110 start-ups (10 in the agro-food area) with more than 87 still being active (> 4100 employees). Combined with its BSc and MSc education programs of high international standards, the University will offer in the KIC win-win opportunities in terms of e.g. branding, attracting/educating top talent, leveraging (disruptiveness of) innovation by interdisciplinary partnerships and accelerating time-to-market of innovations via the KIC's network, tools and resources.



## Innovation

KU Leuven has internationally renowned expertise on plant-based food systems from 'farm to gastrointestinal tract' and a strong competence base built on research of high international standard in areas along the animal-based food value chain and in crosscutting research domains. This includes:

- Agriculture: crop (bio)technology, agricultural/ harvesting technology, ...
- Post-harvest technology
- Livestock genetics, physiology and nutrition, precision livestock farming
- Food technology/(bio)chemistry (cereal-, fruit-, vegetable-, meat-based food systems)
- Food quality and safety
- Nutrition and health
- Sensor technologies, industry 4.0, ...

#### **Contact:** Dr. Kurt Gebruers, Kurt.gebruers@kuleuven.be

## Business Creation

Via its knowledge and technology transfer office, Leuven Research & Development (LRD), the University is dedicated to building bridges between science and industry. By transferring knowledge and technologies to society and the marketplace, it advances the impact of research results on people's lives around the globe. We have a tradition of collaborating with industry, securing and licensing IPR, creating spin-offs and stimulating knowledge-driven regional development. Herein, LRD supports researchers throughout the entire knowledge and technology transfer process and helps them to best leverage the societal and economic potential of their research. To this end, KU Leuven created its own VC fund, incubators and science parks.

#### **Contact:** Dr. Kurt Gebruers, kurt.gebruers@kuleuven.be; Dr. Bart Motmans, bart.motmans@kuleuven.be

## Communication

The KU Leuven performs advanced market/ marketing, consumer and consumer communication research to study consumer behavior, judgement, preferences and decision making. Research at the University also includes the exploration of potential strategies supporting sustainable change in consumer behavior. Our interests cover for instance the potential role of labels and packaging herein, the impact of traditional/novel communication media, the relation between reward sensitivity and food choice, endorser effects and persuasive communication in food marketing and food nudging.

Contact: Dr. Kurt Gebruers, kurt.gebruers@kuleuven.be; Prof. Liesbet Vranken, liesbet.vranken@ kuleuven.be



The University organizes several Master programs and a Doctoral program in Bioscience Engineering and other fields, offering a multitude of courses that are highly relevant for the agro-food sector sensu lato. Herein, international students make up about 16 % of the total student population (about 35 % international PhD students). To stimulate entrepreneurship, we offer dedicated communication, awareness creation, training, coaching and matchmaking activities and share best practices.

**Contact:** Dr. Kurt Gebruers, kurt.gebruers@kuleuven.be; Prof. Christophe Courtin, christophe.courtin@kuleuven.be

## UNIVERSITY OF READING University



#### Profile

The University of Reading is among the UK's top universities, with a world-class reputation for the quality of our teaching, research and links to business, and a proud history of innovation and social influence that stretches back over 125 years.

The University of Reading is ranked #1 in the UK and #12 in the world for agriculture and food, based on quality of research, teaching and impact.

### Master Contact

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#### Competences & Capabilities

The University of Reading has a long-standing, international reputation for integrative, interdisciplinary research across the whole food chain; to understand how interventions can be optimised to sustain and improve the provision of safe, healthy and nutritious food for consumers.

The University has the largest range of dedicated food laboratories in a UK university, enabling us to support our clients and collaborators with access to state-of-the-art facilities and technical services, including: a farm with a large dairy herd and experimental metabolism unit; the international cocoa quarantine centre and plant research facilities; human nutrition trials facilities, with body composition and brain imaging scanners; large suite of in vitro gut models, representing the gut microbiome under various physiological and pathological states; a sensory science unit and a food processing plant.



## Innovation

The University of Reading actively seeks opportunities to collaborate with industry to enhance innovation, and to promote the benefits of research for end users. We support a range of innovative and exciting projects including student placements and Knowledge Transfer Partnerships, and provide access to cutting-edge technical equipment & facilities.

The University jointly established one of the first commercial R&D centres exploring Big Data in agri-food (Agrimetrics Ltd) and is currently developing the Thames Valley Science Park, which will be the biggest dedicated science business park in the region and one of the largest in Europe.

## Communication

Our expertise in understanding consumers is particularly noteworthy and includes consumer sciences, ranging from flavour to sensory sciences, food and behavioural economics, diet, nutrition and health linked to food value chains.

The University of Reading will be able to play a central role in communication activities based on our long-standing experience, access to large cohorts of consumers and our highly committed network partners. For example, the Museum of English Rural Life at the University of Reading has worked alongside rural people, local communities and specialist researchers to create displays and activities that engage with important debates about the future of food.

## **Business Creation**

The University of Reading delivers entrepreneurship education throughout our curriculum. The University is home to Henley Business School, leading providers of entrepreneurship advice and training, who run business plan competitions, nurture innovative start-ups and link to investment opportunities.

The University is a major investor in incubation and science park facilities in the Thames Valley region as the heart of a strong, high-growth business community. We have a range of facilities and capabilities available to support developing companies operating within EIT Food's scope and aims.



## Education

The University of Reading has a strong reputation for innovation in training students and upskilling employees from the agri-food industries. We offer 27 undergraduate courses and 17 postgraduate courses directly in the agri-food area, including dedicated courses in consumer science and behavioural economics. The University has also developed a series of MOOCs, e.g. 'Obesity: Causes & Consequences'.

Our Food Advanced Training Partnership provides postgraduate-level taught and research training to food industry professionals, encouraging industry-wide 'without boundaries' thinking to stimulate innovative and sustainable approaches to the production of quality food that benefits human health.

## UNIVERSITY OF TORINO Education, Research and Technology Transfer



UNIVERSITÀ DEGLI STUDI DI TORINO

#### Luca Simone Cocolin Full professor

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#### Profile

The University of Torino (UNITO) is one of the largest Italian Universities, with about 70,000 students, 3,900 employees, and 1,800 post-graduate and post-doctoral research fellows.

It manages roughly 500 projects per year (among which 115 FP7 research projects and 46 H2020 projects funded up to date).

## Competences & Capabilities

UNITO has a long standing experience in EIT Food relevant research. UNITO main areas of specialization and technological expertise are:

- Crops and primary production: plant biodiversity, crop production, environmental pollution
- Food safety and production: biosecurity, risk assessment, food hygiene and quality control, livestock farming, food processing and traceability
- Environmental and socio-economics aspects: ecology, soil-crop-climate model systems, assessment of economic sustainability and of agro-environmental and socio-cultural impacts, food policies and legal framework
- Consumers and health: nutritional profile and safety aspects, health effects of dietary supplements, specialised nutrition for vulnerable sub-groups (e.g. infants, elderly), rising consumers' awareness about healthier and more sustainable nutrition



## Innovation

UNITO's vision embraces the development of a strong inter-sectorial innovation ecosystem, connecting technological advancement to new production systems embedded in Italy and Piedmont territory and culture. This leads UNITO to actively participate in many regional, national and European clusters and **platforms**, which bring together representatives from academia, industry and consumers. A high number of UNITO funded research and innovation projects relate to EIT Food issues, both at national and international level. involving a multitude of diverse research skills and a strongly interdisciplinary approach along with up-to-date research infrastructures available at UNITO's premises.

**Contact:** Mara Ghiazza eitfood@unito.it

## Business Creation

UNITO provides active support and services to knowledge and technology transfer and to the commercial valorization of the results of academic research through the Office for Research and Third Mission. Spin-off creation and incubation activities are managed by UNITO business incubator 2i3t (www.2i3t.it). UNITO accounts for **36 academic spin-offs**, **8 of which operate in agrifood value chain related sectors**, and holds cooperation agreements with more than 30 regional, national and international industrial partners.

**Contact:** Giuseppe Caputo eitfood@unito.it

## Communication

At UNITO the specialized unit Agorà Scienza is dedicated to spread awareness of the social responsibility of R&I, while enhancing the dialogue between science and society. Science communication and public engagement are promoted through events presenting UNITO scientific competences and research project results, e.g. the Researchers' Night of Piedmont and Aosta Valley, an ongoing UNITO-coordinated initiative funded by the EC since FP7. Such events target not only academic and industrial researchers, but also other stakeholders of our territory and the general public. In addition, an innovative on-line research communication and valorization **platform** is available at UNITO both for research professionals and for the general public.

**Contact:** Chiara Abrescia eitfood@unito.it



UNITO hosts several academic courses and training activities focusing on food-related issues, including:

- 12 first cycle degrees spanning from biotechnologies to chemical, agricultural and environmental sciences, to food technology, veterinary sciences and nutrition.
- 12 second cycle degrees encompassing medical, molecular and plant biotechnologies, chemical, agricultural and environmental sciences, food technology, human nutrition sciences, veterinary medicine.
- 3 PhD courses and 5 Master courses (of which 1 of international level) on agricultural, biological, veterinary and foodrelated topics, among which sustainability and circular economy.

**Contact:** Giulia Maccario eitfood@unito.it

## UNIVERSITY OF WARSAW Education, Research & Development



## UNIVERSITY of Warsaw

### Profile

The University of Warsaw, the largest and top-ranked university in Poland, Polish leader in implementing R&D projects, has scientific expertise in multiple fields: social and economic sciences, mathematical and computer sciences, chemistry and biology as well as research strengthening the sustainability of the food system.

## Master Contact

Dr Magdalena Klimczuk-Kochańska Assistant Professor, Rector's repr. in EIT Food Consortium

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## Competences & Capabilities

Main areas of research and development expertise in the field of food are:

- Research on consumer behaviour combined analysis in psychology, sociology, social anthropology, marketing and economics
- Regulatory frameworks for the food industry
- Operations and strategic management in FMCG sector
- Corporate Social Responsibility in the food sector
- Big data analytics
- Assessment of biological and chemical hazards and food spoilage
- Research on food ingredients and nutrient biofortification of food crops



### Innovation

- We have best-of-breed research infrastructures, including the largest supercomputing centre in Warsaw and over 100 modern laboratories, representing science and technology fields as diverse as medicine, biotechnology, food research, cosmetology, environmental monitoring, waste management, renewable energy and data mining.
- The main research centers which aim is to run interdisciplinary research are Centre of New Technologies and Biological and Chemical Research Centre.

#### Contact: Dr. Magdalena Klimczuk-Kochańska mklimczuk@wz.uw.edu.pl

## Communication

- The UW co-operates with over 800 international partners. It is a member of 90 international research initiatives.
- We have orchestrated a network of over 30 food-related stakeholder organisations in Poland and other countries.
- The UW is engaged in community outreach activities, aimed at popularising sciences and entrepreneurship, including Warsaw Science Festival, Science Picnic, Start-up Grind and TEDXUW.
- We manage the UW Botanical Garden, which is a popular sightseeing spot in Warsaw, offering opportunities for thematic exhibitions drawing the attention of international visitors.

#### Contact: Martyna Czerniakowska mczerniakowska@wz.uw.edu.pl



- Our scientists have experiences with IPR management, technology transfer, incubating and accelerating technology-based companies.
- We have experts with a good track record in patenting, technology licensing, spinningoff businesses and forming corporate partnerships.
- Special purpose vehicle UWRC Sp. z o.o. could actively support the process of commercialization of research results for the food sector.
- We have excellent links with the local startup and venture capital community with the ability to support the development of innovative firms in the food industry.

Contact: Dr. Magdalena Marczewska mmarczewska@wz.uw.edu.pl



## Education

- We offer undergraduate and doctoral studies, organise summer schools, postgraduate studies and vocational courses, and initiates interdisciplinary programmes.
- The UW brings together scholars from a variety of disciplines including biology, chemistry, computer science, quantitative data analysis, psychology, management and law.
- Our Executive MBA programme is leading in Poland.

Contact: Dr. Agnieszka Wiśniewska awisniewska@wz.uw.edu.pl

## VALIO Food production



#### Profile

Valio Ltd is Finland's leading dairy cooperative owned by Finnish family farms.

Valio was established 1905 and today has production in Finland, Estonia and Russia. Subsidiaries are in Sweden, Denmark, Baltic countries, Russia, USA and China. The amount of employees is 4 000 and the net turnover was € 1.7 billion in 2015.

### D Master Contact

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## Competences & Capabilities

Valio operations are divided into five integrated key areas:

- Farming and milk production
- Milk processing
- Research and development
- Sales and marketing
- Logistics

Personal responsibility is our core value. We listen to customers and consumers, and aim to exceed their expectations. We care for people, animals and the environment. Our goal is international profitable growth with world class value added.

Valio is the only dairy company with a Nobel prize winning innovation heritage. Our R&D staff includes 130 researchers, technologists, product developers and experts. Besides innovative product development, we have built superior know-how in separation and powder technologies and in novel process concepts.



#### Innovation

Valio creates innovations that deliver benefits to milk producers, food manufacturers and consumers. Valio is known globally as a leader in functional foods and unique milk processing technologies. Valio leadership and competitiveness is based on scientific research, leading technological expertise and superior raw material – Finnish milk.

Valio is famous for its patented nutritional innovations including lactose free Eila® and milksalt ValSa® licensed and sold globally.







# VTT TECHNICAL RESEARCH CENTRE OF FINLAND LTD



#### Profile

VTT Technical Research Centre of Finland Ltd is the leading research and technology company in the Nordic countries. Our research and innovation services give our partners, both private and public, all over the world a competitive edge. We pave the way for the future by developing new smart technologies, profitable solutions and innovation services.

VTT creates new businesses for the food and beverage sector. Our pilots and even ready-to-launch products present new opportunities for any size of food industry.

#### Master Contact

Kaisa Poutanen Research professor

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#### Competences & Capabilities

VTT's services increase the competitiveness of our customers' businesses, promote the creation of new business and improve and speed up R&D. In our personnel of about 2600 persons we have a wide expertise base ranging from solutions for natural resources and environment to smart industry and energy systems and knowledge intensive products and services. All these skills are also used to improve the competitiveness of the food sector, where we are specialised in bioprocesses, biological tools and biomaterial science. VTT also has tested tools and methods for companies to move forward with digital transformation.

We offer our customers access to our cross-disciplinary technological and business expertise, unique research infrastructure and comprehensive partnership networks. We create customised solutions in close cooperation with our customers.



## Innovation

VTT's research and innovation strategy aims at clean world, good life and sustainable economy. The focus areas implement the goals of our vision and include: bioeconomy, low-carbon energy, digital world, clean technologies, resource efficient production systems, as well as health and well-being solutions.

VTT's vision of an era of smart consumercentric food production has just been published as the roadmap "Food Economy 4.0" http://www.vtt.fi/inf/pdf/visions/2017/V10.pdf.

It consist of three themes: Consumer centric manufacturing, Agile manufacturing technologies and Vertical food production. The core is in efficient use of plant raw materials and healthy nutrition.

Contact: Research professor Kaisa Poutanen Kaisa.Poutanen@vtt.fi



#### **Business Creation**

VTT brings a broad understanding of industrial ecosystems and value chains, including foresight and impact assessment. We help to discover current and future business opportunities. We commercialize patented technologies through licensing or spinoff creation. VTT Ventures co-invests to VTT spinoff companies.

VTT is actively developing our own long-term collaboration models. We have for instance, launched the General Finland Initiative to boost the business ecosystem of small and mediumsized companies targeting new international markets.

**Contact:** Vice President, Sales and business development John Kettle John.Kettle@vtt.fi

## Communication

VTT has an active communications policy both towards scientific, industrial and societal & consumer communities. VTT communicates methodically and consistently on its activities. the results attained and their impacts.

The latest news are published on VTT's web site: www.vttresearch.com. VTT is active in social media channels such as Facebook.com/ VTTFinland, Twitter @VTTFinland, YouTube. com/VTTFinland, LinkedIn/VTT, VTTblog.com and SlideShare.net/VTTFinland. VTT publication series include VTT Visions, VTT Science, VTT Technology and VTT Research Highlights. For the food cluster there is the specific VTT platform www.nutritech.fi.

**Contact:** Specialist, External Communications Paula Bergqvist Paula.Bergqvist@vtt,.fi



## Education

VTT collaborates with Finnish and European universities and offers internship possibilities for students at all levels: BSc, MSc, PhD and Post doctoral. A large number of doctoral theses are produced at VTT annually. Many of VTT researchers are connected to university education programmes.

We have internal project manager training programs and support our employees in getting IPMA certifications; Several of our Food Research Seniors hold IPMA Clevel certificates.

Contact: EVP Strategic Research Anne Ritschkoff Anne.Ritschkoff@vtt.fi

# **RisingFoodStars** Association

The Association serves as an umbrella association for high potential agrifood start-ups. It is a core partner of EIT Food and allows as such its members to participate "on equal height" in all EIT Food activities. The RisingFoodStars are involved in key communications and key events of EIT Food and, as such, contribute to deliver on EIT Food's strategic objectives.

This unique international innovation vehicle offers outstanding start-ups access to knowledge, networks and the opportunity to actively engage in EIT Food's activities. They are benefitting from the access to the partners, the expert network, programmes, technological infrastructure and business creation support as well as potential customers and distribution channels, which will significantly accelerate their international growth. On the other hand, as agile and swift partners, they can drive the innovations of the future within this large network. The collaborations between start-ups and the other EIT Food partners provide an entrepreneurial and agile innovation culture which will bring complementary competences of start-ups lined up along the food supply chain and unprecedented value in terms of cutting-edge technologies and innovative business models.





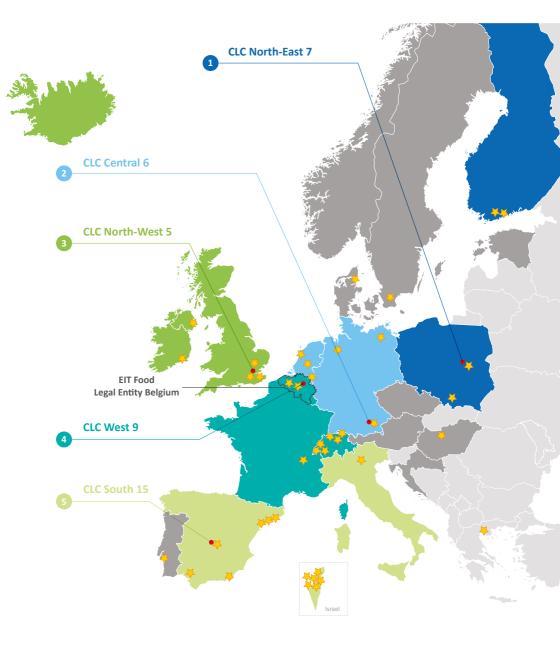
Clear entry and exit criteria<sup>1</sup> are defined for new start-ups to become member of the Association to guarantee the high level of excellence and added value within the network.

The RisingFoodStars can participate in activities as linked 3<sup>rd</sup> parties, subgrantees or subcontractors, depending on their role.

<sup>1</sup> Start-ups will enter and leave the RisingFoodStars according to their growth in the market and involvement in the network. We assume an average membership of max 70 start-ups per year.

# RisingFoodStars

108





#### **CLC North-East**

#### Poland

- GeoPulse
- Kontakt.io

#### Hungary

Fitorex

#### Finland

- Foller
- GrainSense

#### Sweden

Glucanova

#### Denmark

TellSpec

#### **CLC Central**

#### Aunich

Warsaw

#### Germany

- Agrilution
- Elea
- ProLupin

#### **The Netherlands**

- In Ovc
- Phenospex
- Protix

#### **CLC North-West**

#### UK

- Analytics Engines
- BioBear
- Entomics
- FoodMaestro

#### Ireland

Nuritas

#### **CLC West**

#### Belgium

- FoodPairing
- Porphyrio

#### France

MonPotager

#### Switzerland

- Ecorobotix
- Flatev
- Gamaya
- Morphotonix
- QualySense
- RethinkResource

#### CLC South

#### Madria

#### Spain

- AlTalentum
- BeYou
- Eskesso
- NanolmmunoTech
- NaturalMachines
- Ypsicon Advanced technologies
- Italy
- Micro

#### Portugal

Energy Pulse Systems

#### Israel

- CropX
- DayTwo
- DouxMatok
- Fitto Worl
- GreenOnyx
- Tipa

#### Greece

Brite Solar

## AGRILUTION GMBH New Technology

# agrilution

#### Master Contact

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## Profile

agrilution is a startup company active in the smart home appliances and vertical farming space. We have developed a complete vertical farming ecosystem consisting of a smart plug'n'play home-growing appliance and consumables (pads with seeds), as well as a smartphone app that eliminates the need for a green thumb. Thereby we enable consumers to grow the healthiest, freshest most taste intensive greens in their own homes.

### Competences & Capabilities

Main areas of competences and capabilities include:

- Vertical Farming
- Controlled Environment Agriculture
- Hydroponics
- Data Science
- Food and Health
- Plant Growth Optimization
- Climate and Light Recipes for Plants

agrilution is a data driven Internet of Things (IoT) company with expertise in hardware, software and plant sciences.



## ANALYTICS ENGINES Big Data/AI



#### Master Contact

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#### Profile

THE COMPANY: Analytics Engines was founded in 2008 in Belfast, Northern Ireland.

THE SOLUTION: Custom data analytics solutions using ANALYTICS ENGINES XDP™: a Turn-key Data Platform providing fast, easy and affordable real-time analytics and reporting across organizations and supply chains. It facilitates data fusion, analytics model building and executing analytics workflows at scale.

CURRENT CLIENTS: large- and mid-cap companies across all sectors and geographies, examples include ALMAC, Midasproject.eu, University of Ulster, TheDetail.tv.

OPPORTUNITY: Large data and machine Learning solutions in healthcare, life sciences and Smart Cities.

### Competences & Capabilities

Analytics Engines provides organisations with the ability to quickly and easily combine data sets and run analytics and machine learning operationally and at scale. We can build interactive, intelligent dashboard and reporting applications or tie in with your existing BI toolsuite. Our core Technology is Analytics Engines XDP™ which is used in life sciences, enterprise, food security, supply chain, healthcare and finance among others.

The platform provides solutions across 4 key areas in building big data solutions:

- Deployment and Management
- Unified Data View
- Analytics/ML Execution Environment
- Dashboard and Reporting Tools

## ARTIFICIAL INTELLIGENCE TALENTUM ITC/Data



#### Master Contact

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### Profile

Al Talentum is an innovative technology-based company specialized in artificial intelligence and high performance computing, with a set of algorithms capable of providing predictive insights in a wide range of fields. Our team consists of data scientists, computer experts and economists, that get the most of data to improve and accelerate the decision making process.

We are backed from national Spanish institutions as the Centre for the Development of Industrial Technology (CDTI), of the Spanish Ministry for Innovation and Science, or the Spanish Ministry of Industry, Energy and Tourism, through the Spanish National Innovation Enterprise (ENISA).

### Projects

We are interested in projects with big amounts of data that need to deal with the information to make decisions. Our predictive algorithms detect underlying patterns from consumer behavior, forecast demand, prices, energy consumption... and give us the support needed in the decision making process. We are working in the 'smartisation' of industrial processes in the canned food industry, analysing machine data, quality control and production performance.

### Competences & Capabilities

We develop predictive models using techniques of artificial intelligence and machine learning.

Our expertise and technology is focused on the development of simulation, forecasting and decision models in real time, through expert systems, algorithm development and the processing of internal and external data.

Main areas of expertise and technology are:

- Data Intelligence & IoT.
- Evolutive prediction of raw materials prices.
- Consumption and price forecast of electricity and related variables.
- Biotechnology. Advanced computational drug discovery technologies.
- Industry 4.0. Predictive quality control. Analysis of machine data in real time.
- Web services development.



## BEYOU HEALTH COACH Nutrition/Health



#### Master Contact

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## Profile

BeYou is a unique digital health platform that offers a holistic suite of support in one, costeffective mobile app. It's the first app that designs custom fitness and nutrition plans for users and then pairs them with three human coaches to ensure sustained progress.

#### Competences & Capabilities

BeYou is the only service that addresses each pillar through behavioural change theory and tangible rewards, such as wearables, product discounts and more.

We've created a comprehensive programme that is designed to disrupt unhealthy behaviours, and which can be used anywhere and on any budget.

Most importantly, users are motivated and supported until they reach their end goals and beyond.

We have strong partnerships, Technogym is our investor & sponsor



Eat Better

A personal diet to get your ideal weight in a healthy way



Move better

A personalized training program to reach your goals



#### Feel better

Dedicated coaches will support you with chat and tips



## BRITE SOLAR Energy Efficient Crop Growth



### Profile

Brite Solar is a nanomaterials company dedicated to the deployment of **innovative** nanotechnology materials and deposition techniques to deliver a new class of glass materials for building construction. These materials either save energy in the case of Dynamic Glass and Smart Glass, or generate energy in the case of Solar Glass. Our technology constitutes an industry disruptor in the field of energy, producing at very competitive price transparent power producing glass for greenhouses, homes and office buildings by lowering the building's environmental footprint, while reducing energy for heating and cooling and at the same time producing electrical energy from sun light. Company's presentation: Youtube video.



Master Contact

Nick Kanopoulos CEO

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## Competences & Capabilities

Brite's **Solar Glass** is 70% transparent and heavily reduces a greenhouse's energy cost, thus contributing to a sustainable and costeffective world food supply with a positive environmental impact. Brite Solar is the only company in the world at the moment that has a technology which can meet greenhouse applications requirements in terms of transparency, optical spectral selectivity and efficiency.

Brite has developed this patented solar panel technology using Dye Sensitized Solar Cells (DSSC), which offers significant advantages to the greenhouse market by positively impacting both the growth of plants and the financial performance of the greenhouse operation. By retrofitting a traditional greenhouse with Brite's technology, an existing greenhouse can be rendered almost energy autonomous. Additionally, the technology is implemented with ink-jet printing which profoundly decreases manufacturing costs and substrate size flexibility.

## DOUXMATOK Food Technology

## PouxMatok

#### Master Contact

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### Profile

DouxMatok is a food-tech company and a leader in targeted delivery of flavor ingredients, such as sugar and salt, enabling healthier consumption of foods without compromising taste. DouxMatok offers sugar and salt reduction solutions to the Food and Beverages industry, enabling use of 20%-50% less sugar and salt in multiple applications, while retaining identical taste and sensory profiles with no aftertastes.

### Projects

We are involved in a number of JDAs with leading food manufactures. We are looking to partner with interested companies in the framework of Horizon 2020 and FTI projects.

### Competences & Capabilities

Main areas of specialization and technological expertise are:

- Sugars, polyols and salt chemistry
- Behavior of sugars in food matrix
- Compositions and methods of coating/ loading sugars, polyols and salt on carriers
- Ingredient manufacturing engineering
- Substituting sugar functionalities in foods (fillers)



## ECOROBOTIX Field robotics

#### Master Contact

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### Profile

ecoRobotix develops autonomous weeding robots to reduce or even suppress herbicides in a large variety of crops, resulting in lower weeding cost and benefit for human health and environment.

ecorobotix builds together different technologies such as machine vision, field robotics, embedded computing and knowledge on weeding techniques to obtain novel intelligent weeding machines.



#### Competences & Capabilities

The key competences of ecorobotix are :

- Advanced visual weed detection and recognition systems based on machine learning (especially deep-learning) and proprietary image databank.
- Accurate weed spraying with robotic arms using optimal herbicide dosis and product adapted to weed size and specie.
- Fully auto-piloted and solar-powered robot design for unlimited energy autonomy and low maintenance costs, embedding algorithms for autonomous navigation and positioning in crop fields.
- All competencies to design, produce, test and sell autonomous weeding machines for several crop markets.

## ELEA GMBH New Technology



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## Profile

We are the leading supplier of Pulsed Electric Field (PEF) systems to the food, beverage and scientific sector worldwide. We design, build and install PEF equipment suitable for a wide range of applications and outputs.

Elea attaches importance to develop new possibilities of PEF-treatment in the food and beverage industry. We also generate applications in non-food areas.

## Competences & Capabilities

One of the main emphasis of our work is located in Research and Development, therefore almost the half of our employees work in the R&D.

Elea offers their customers the possibility to test the PEF equipment in a well equipped pilot hall. Different PEF systems as well as equipment for analyses are available. The purpose of all trials is a successful demonstration of PEF with regard to a possible scale up on industrial standards.

Since our foundation 2012, we already have retailed over 70 PEF-systems worldwide.



Specialists in Pulsed Electric Field Technology.





Premium quality

Shelf life increase



## ENERGY PULSE SYSTEMS *New Technology*



#### Profile

Energy Pulse Systems, EPS, researches, develops, produces and sells pulsed power modulators based on state-of-the-art, high efficient semi-conductors, assembled in very flexible and modular Marx topologies which are designed to add value to several industrial sectors such as Food, Feed, Microbiology, CleanTech, Oil & Gas, Automotive and Health.

#### Master Contact

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#### Competences & Capabilities

Main areas of specialization and technological expertise are:

- Pulse Power Modulators
- Pulse Electric Fields
- Electroporation
- Mass Transfer
- Microbial Inactivation
- Advance Oxidation Processes

Main areas of specialization and technological expertise are:

EPS is composed by a multi-disciplinary team with complementary skills and competences, from electronics to physics and biology.

EPS is committed in improving food processing, especially regarding extraction and microbial inactivation steps, using an innovative and sustainable approach.



## ENTOMICS BIOSYSTEMS LTD

Waste (Recycling, food waste)



#### Profile

Entomics 'closes the food waste loop' by transforming organic waste into sustainable agricultural inputs, using an insect called the Black Soldier Fly (BSF) as a conversion catalyst.

BSF larvae efficiently convert 95% of organic waste into complex fats and proteins in their bodies. Leveraging our novel post-processing technology, we refine these compounds into aquaculture feed and organic fertilizer in a cheap, scalable and sustainable manner.

Overall, this is an innovative way of turning waste material into a set of valuable, sustainable resources.

#### Projects

We are very interested in collaborating with other organisations involved in the food industry who share a similar vision around the Circular Economy. We are particularly focused on developing partnerships in the following areas: Waste feedstock assessment & analysis; Prototype system design and deployment; Nutritional analysis & benchmarking; Food safety assessments & pathogen testing; Plant trials; Fish trials; Market sizing & supply chain analysis; Regulatory approval, licensing & planning assessments Master Contact

Matt McLaren CEO

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## Competences & Capabilities

Our main competencies and capabilities are in the following areas:

- Organic waste conversion trials
- Insect protein / oil feed preparations & formulations
- Biological conditions experimentation & optimization
- Engineering design & operation for insectrearing at large scale
- Organic fertilizer preparations and trials
- Supply chain & logistics model optimization

We have a strong team of biologists and engineers that take a flexible and pragmatic approach to problem solving for a range of customer contexts in the food and feed sector.



ESKESSO Consumption -White Goods, Equipment

# eske‰

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#### Profile

Eskesso is a startup company that has developed a complete solution, from preparation to plate, to create perfectly cooked healthy meals in an easy and hassle-free way. Eskesso has a smart cooking appliance, a mobile App to control it and an online marketplace where users can order different food packs.

#### **Competences & Capabilities**

Main areas of specialization and technological expertise are:

- IoT hardware devices development
- Mobile apps development
- Web services development
- Domestic cooking appliances
- Sous Vide cooking
- Fresh food delivery

We have a technical team of hardware and software engineers with broad experience in development smart products and solutions in different verticals.



#### WHAT'S ESKESSO?

Introducing Eskesso – a smart immersion circulator that allows you to easily cook sous vide meals like a professional chef at home saving your time and improving your diet.

Eskesso is the sous vide cooking appliance that simplifies your life. Just fill a pot with water, put your Eskesso Inside and cook your favorite meal using your smartphone.

FITOREX Processing - High Value functional ingredients

## FITOREX

#### Master Contact

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## Profile

Fitorex Ltd. is a Hungarian R&D oriented innovative company devoted to the development and production of YASO specially sprouted soybean and value added functional products based on YASO.

Fitorex has pioneered the world's first high yield, industrial-scaled sprouting process of soybean with unique patented composition.

By exploiting the favourable composition and nutritional benefits of YASO® Fitorex aims to develop products that are: innovative, highest quality, value added, GMO free, nutritious, 100% natural, chemical free and fit into the line of sustainable development.

#### Competences & Capabilities

Fitorex offers a solution for industrial scale sprouting, with the following uniqueness:

- Standardized germination process
- Maximized germination ratio (95% of germination ratio compared to average 60%)
- Minimized germination surface (small area need compare to monolayer sprouting)

Know-how elements:

- New sprouted raw materials and their use
- New food product recipes
- Production technologies
- Production equipment
- Flexible production system
- Specific information (Weight Management, hospital catering, healthy aging)

FLATEV AG Consumption -White Goods, Equipment



#### Master Contact

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#### Profile

The Flatev Artisanal Bakery and Flatev Dough is Your Personal Baking System (PBS)! The closed baking system expertly prepares single servings of fresh tortillas, rotis, flatbreads, cookies and more with no fuss and no mess. A consumer simply pops a proprietary, recyclable, single serve dough container into the Flatev Artisanal Bakery, selects their desired setting, and soon enjoys a delicious, fresh treat in seconds.

#### Projects

Food Packaging; Shelf-life of dairy products without refrigeration need; Food sustainability; Healthy food and super foods

#### Competences & Capabilities

Main areas of specialization and technological expertise are:

- New food and packaging products
- Organic food
- Smart appliance
- Consumer centered design

Organic, all natural, with no artificial preservatives or additives, Flatev allows busy users to nourish themselves or nurture their loved ones in a thoughtful, yet efficient way.

Ready in sixty seconds or less, Flatev provides time-constrained consumers the opportunity to efficiently enjoy high quality meals with their loved-ones, rather than to spend precious hours cooking and cleaning, and provides a much welcome alternative to preservative laden, frozen foods, reconstituted in a microwave or toaster.

#### HOW IT WORKS

#### Choose your Dough









Enjoy it hot

FOLLER OY Waste (Recycling, food waste)

# Foller

#### Master Contact

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## Profile

Foller is an IoT solution for reducing food waste. We combine technology and innovative solutions to motivate stakeholders from producers to consumers to generate less food waste to our planet.

Foller is a patented (pending) platform providing service for reducing food waste in the whole supply chain. It enables automated, real-time inventory, pricing, marketing and tracking of expiring food.

## Projects

Projects related to creating and storing information on the food items regarding food parameters (freshness, storing conditions, content, etc.), and piloting opportunities in any part of the chain from production to end user with e.g. retail business, restaurants, etc.

#### Competences & Capabilities

Foller is founded in December 2016.

The strategic partner Link Design and Development Oy is behind the conceptual creation of Foller.

Link has an astonishing team of professionals with multifaceted backgrounds, providing strategic integrated product and service development, originating from user-centric design and innovative strategies to boost your business.

We are based in Espoo, Finland and a subsidiary of Link Design and Development Oy, an awarded (red dot, Brunel, Fennia Prize..) design company.



## FOODPAIRING

## F

Master Contact

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#### Profile

Foodpairing is the leading business intelligence company for predictable product success.

Foodpairing is the most accurate artificial intelligence platform for personalized food & beverage recommendations.

Foodpairing is the world's largest creative chef community inspiring chefs to create new sustainable recipes through science-based unique food data.

#### Competences & Capabilities

The key competences of Foodpairing are:

- Consumer Flavor Intelligence (CFI) is a web of machine learning algorithms and millions of data points that demonstrate network effects and predictive power to increase the success rate of new product launches. (http://cfi.foodpairing.com)
- Powered by Foodpairing is a series of customized algorithms available through an API that enable personalized food recommendations for e-commerce, smart kitchen and mHealth.
   (http://developer.foodpairing.com)
- Foodpairing Inspire<sup>®</sup> helps chefs to discover new flavor combinations in seconds. (www.foodpairing.com)

## GAMAYA Crop Intelligence



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### Profile

Gamaya is a crop analytics company that empowers farmers with unprecedented, indepth information about their land and crops. Gamaya is a spin-off of Ecole Polytechnique Fédérale de Lausanne in Switzerland. Founded in 2015, it is a result of multiple research projects in the fields of mobile robotics, remote sensing and environmental monitoring. Gamaya is supported by prominent Swiss investors including Sandoz Foundation, Peter Brabeck Family Office, Seed4equity and VI Partners venture capital funds.

#### Competences & Capabilities

Gamaya utilises a unique combination of sophisticated sensing and computational methods, including airborne hyperspectral imaging, satellite observations and machine learning to help farmers significantly improve the efficiency, productivity and sustainability of their businesses. Gamaya helps farmers to use less water, fertilisers, chemicals and fuel; improve the quality and quantity of their production; as well as reduce the risks associated with drought, extreme weather conditions and climate change.

Some examples of our analytical solutions include the detection and diagnostics of weeds, pests, diseases, and nutrient deficiencies and the corresponding recommendations for the optimum delivery of crop protection products and fertilisers. Gamay has developed the world's smallest and lightest hyperspectral camera.



## GEOPULSE Precision agriculture



#### Master Contact

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### Profile

GeoPulse, and sister company SatAgro, have been founded by a group of enthusiasts in the areas of satellite monitoring and agronomy. By now, solutions for individual farms are already operational (SatAgro), while crop intelligence at regional scale is at the phase of a prototype (GeoPulse)

### Competences & Capabilities

The key competences of GeoPulse are:

- Environmental modelling with inputs from satellite sensors
- Optimisation of agrochemicals and water use in crop production
- Crop recognition and yield forecasting
- Satellite driven crop intelligence at scales from individual fields to regions
- Internet interfaces for end-users

GLUCANOVA AB

Processing - High Value functional ingredients



#### Master Contact

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## Profile

Glucanova is a research-based company situated in Lund, Sweden, driven by innovation and curiosity. The company was founded in 2012 with focus on IP protected fiber rich liquid oat ingredients/technologies. Our vision is to address global health and sustainability concerns with documented healthy liquid oat fiber products.

We work closely in cooperation with Lund University and a large external network of world class expertise which means that our innovations and deliverables are the result of well documented scientific findings.

#### Projects

Studies on nutritional benefits. Clinical- and in-vitro studies. Development of functional drinks and spoonable concepts based on fully substantiated nutritional benefits and health claims.

## Competences & Capabilities

Glucanova capabilities are based on full upstream as well down-stream integration in the value chain. This is achieved through in-house knowledge combined with an extensive diverse network of expertise and partners. Those capabilities contribute to a business focused innovation pipeline based on our liquid oat technology:

- Oat science and technology
- Enzyme technology
- Oat breeding, production and selection via part ownership in www.croptailor.com
- Milling and dry processing
- Innovation partner: Product and concept development.



# GRAINSENSE Agtech

# GrainSense

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#### Profile

GrainSense – we help farmers through science

GrainSense has developed the world's first hand-held device for grain quality measurement. For the first time, farmers, seed producers and plant breeders will be able to instantly and rapidly measure the key parameters of their crops in the field and make decisions that can improve profitability. We are bringing a major improvement to food supply chain. Our hand-held device measures the protein, moisture, oil, and carbohydrate content of cereal grains and other crops. The service utilizes GPS positioning and offers cloud based big data services.

## Competences & Capabilities

Main areas of specialization and technological expertise are:

- Optics, near infrared spectroscopy
- Material calibration and quality measurements
- Mathematical algoritms
- Cloud based data service offering

We are bringing an easy to use hand held device and solutions for farmers to improve crop quality and revenue.

GrainSense device will be introduced in spring 2018 on the Nordic market. GrainSense is looking for suitable distributors for the sales on the European market 2019 and beyond.





# GREENONYX

Processing - High Value functional ingredients or Consumption -White Goods, Equipment



#### Master Contact

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## Profile

GreenOnyx is a privately held startup company based in Israel that was founded in early 2012 and is led by two experienced entrepreneurs with complementary skills in high-tech and in cell and plant biology.

The company is developing a revolutionary in-doors automated food platforms, which supplies an edible traditional micro-vegetable called Khai-Nam that resembles green caviar.

This nutrition-dense and protein-rich aquatic micro-vegetable has been naturally cultivated and consumed for generations in indo-china.



## Competences & Capabilities

The GreenOnyx food platform converges hightech, clean-tech with cutting edge botanical, nutritional and food science disciplines.

Our technology, developed and validated over the last 3 years, is capable to deliver a nutritional-dense and protein-rich plant source from which endless healthy food offerings can be formulated without compromising the foods palatability or taste.

We have gained unique expertise in aquatic plant cultivation and developed the needed technology to precisely control, adjust and customize the nutritional content of the produce. As a result, we can deliver produce variants with diverse nutritional profiles such as sodium-free produce, mineral enhanced variants (Iron / Magnesium/ Zinc) or with high fiber to name a few.

In addition, we have developed novel capabilities to maintain an exceptional level of cultivation safety and process tractability.

# IN OVO Poultry & Biotechnology



#### Master Contact

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#### Profile

In Ovo is a spinoff from Leiden University and develops technology which increases both animal welfare and efficiency in the poultry industry. We're one of only a few companies that use biotechnology in the poultry industry. Our first product under development is a gender test for chicken eggs, which will make the killing of 3.2 billion male chicks yearly obsolete. We want to improve the lives of billions of chickens and thousands of farmers around the world. As the demand for poultry meat and eggs is increasing, we want to make scaling up of the industry possible in a responsible way.

#### Competences & Capabilities

We focus on increasing profits for poultry farmers, while also increasing welfare for the animals, through effective R&D. We're very agile, have a multidisciplinary approach (e.g. diagnostics, electronics, nutrition) and combine technology with a strong business case. We've been able to create a broad consortium around our products and love developing novel product/ prototypes with large industry players. Our projects are always based on a solid business case. We are young, passionate and are open to new technology. We're a team that is motivated to solve major issues in the poultry industry.



# KONTAKT.IO New Technology

kontakt.io

#### Master Contact

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kontakt.io

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## Profile

Kontakt.io empowers businesses to build Bluetooth-based asset tracking solutions cheaper and faster.

Having shipped over 800,000 beacons and serving more than 17,000 customers, we design products that deeply integrate into clients' solutions, enabling them to build, scale, and succeed – seamlessly.

# Competences & Capabilities

Kontakt.io's main area of specialization and technological expertise is Asset Utilisation with Bluetooth-based Real-time Location Tracking.

Our complex IoT systems for the food industry are designed to optimize processes on 3 levels:

- Reduce food waste by introducing ultra low cost end-to-end condition monitoring solutions
- Shorten the farm-to-fork distance by optimizing manufacturing and logistics processes (based on real-time tracking and Al/machine learning algorithms)
- Reduce manufacturing costs through better Asset Utilization (optimizing workforce, tools and space)



# MICROBION Food Safety

# noidoucium

#### Master Contact

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# Profile

Microbion is a Contract Research Organization in the field of molecular microbiology applied to agriculture, food, nutraceutical, pharma industry.

We are a Verona University spin-off serving start-ups, SME and large enterprises with technology transfer applied to products development and processes optimization.

Microbion provides custom-based research services and is developing innovative tools to understand and valorize microbial biodiversity.

# Competences & Capabilities

Main specialization is the application of cuttingedge DNA based technologies for the detection, identification, characterization and tracking of microorganisms and microbial communities.

Microbion know-how includes:

- Genes, genomes and metagenomes characterization
- DNA fingerprinting typing and authentication methods
- Selection of best-performing strains
- Detection of emerging contaminants
- Microbial stability of products and challengetest of processes
- Optimization and validation of new technologies for microbial load reduction

MORPHOTONIX Food safety, packaging security, brand protection, consumer trust



#### Master Contact

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#### Profile

Morphotonix protects citizens' health and well-being by supporting brand owners with an environmentally friendly anti-counterfeiting solution for food and beverage packaging.

Morphotonix is a privately owned, Swiss hightech company. Based on our patented and proprietary technology platform, we provide instant authentication and anti-counterfeiting solutions for supply chain management, border control, and consumer interaction which involve zero-additional production energy and no consumables.

#### **Competences & Capabilities**

Our solution is seamlessly integrated in production and it is applicable from low to large volume production of plastic products and parts, such as bottles & closures, containers, and sealed flexible packaging.

Morphotonix nano-engraves the steel molds/ sealing jaws with uncopiable, visible and invisible security features, with a precision of 120,000 dpi. The optimized nano-engraving is replicated in the plastic during standard industrial manufacturing. The features allow law enforcement officers to check the originality of the product instantaneously and empower the consumers to verify the supply chain and origin of their merchandise.

# NANOIMMUNOTECH

Processing - Technology



#### Master Contact

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# Profile

nanoimmunotech was founded in Spain in 2009 to be your benchmark and reference partner within the nanobiotechnology world. Our core business is the Oriented Functionalization and Characterization of nanoparticles, prior to their use in different applications and industries.

# Competences & Capabilities

We offer you a complete range of products, services and tailor-made projects:

- design of your nanoparticles and nanomaterials
- oriented bioconjugation of biomolecules to nanoparticles
- design of highly competitive biosensors allowing a fast and highly-sensitive multi-analytes detection.
- characterization assays to check the properties of your products, the reproducibility of their production or their biological effects.

nanoimmunotech is highly committed to R&D as demonstrated by their participation in many European projects with the aim of providing better solutions in the field of nanotechnology.

#### Revolutionary Biosensor Technologies

# nitbiosensing

# NATURAL MACHINES

Professional & Consumer Smart Kitchen Appliances: 3D Food Printing + IoT Services



#### Master Contact

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# Profile

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Natural Machines are the makers of Foodini – the first smart kitchen appliance peeding up the process of making food with fresh ingredients: encouraging more people to eat healthier and rely much less on highly processed foods.

We have created a new type of kitchen appliance that utilizes 3D printing, IoT data and Artificial Intelligence technologies to conveniently make a wide range of fresh savory and sweet foods.

Recipient of 20+ awards including being named as an incredible food innovation that will change lives and a top emerging health & wellness startup.



## Competences & Capabilities

Main areas of specialization and technological expertise are:

- 3D food printing
- IoT (Internet of Things) appliance & data
- AI (Artificial Intelligence) & artificial vision
- NFC (Near Field Communications)
- New energy efficient patented cooking system
- Food customization

With IoT and sensors in Foodini we can collect, record and process data to provide services such as tracking nutritional information and printing foods with customized nutrients per individual. Via APIs third parties can create applications on our platform and integrate with other services, e.g. health apps and wearables.

Foodini is now in production and shipping to customers in Europe, the US and China. Our initial focus is professional kitchen users: mainly Michelin starred chefs, food brands, restaurants, clinical nutrition companies and educational institutions. With the introduction of our cooking version we will target home kitchen consumers.

NURITAS Processing - High Value functional ingredients

# NURITAS

#### Master Contact

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#### Profile

Nuritas uses Artificial Intelligence and DNA analysis to data-mine the billions of molecules locked within everyday sustainable foods and food side-streams.

Our unique technology enables the rapid discovery, validation and full characterisation of high value bioactive peptides "on demand".

#### Competences & Capabilities

As our technology allows us to discover molecules on a "target focused" basis the potential areas of application are unlimited.

These could include:

- Plant health
- Food preservation from food waste
- High-value nutritional ingredients to address:
- Aging population
- Malnutrition
- Metabolic disease

Nuritas has received global recognition for the impact its technology will have on the future of food and health. This includes winning the Forbes Reinventing America overall Innovation Award and being recognized as one of the 21 most innovative startups globally by Business Insider.physics and bioinformatics.



# PHENOSPEX Plant vision sensors

Plant vision sensors & Agtech

# PHENOSPEX

Smart Technologies for Plant Analysis

#### Master Contact

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# Profile

Founded in 2011 Phenospex became one of the leaders in plant vision sensors. Our 3D imaging sensors and smart data analysis algorithms help our customers to understand and evaluate the performance of plants in various environments. In plant breeding and research our technology enables our clients to objectively quantify the performance of new genetic material for future food production. In Agtech, our innovative sensors automate complex tasks such as precise harvesting of high value crops based on a visual 3D assessment.

#### Competences & Capabilities

Our technology focuses on:

- Design and production of specialized imaging sensors for plant analysis such as sunlight resistant 3D imaging & multispectral scanners
- Development of specialized algorithms and data analysis chains to extract knowledge from the gathered data
- Integration of our technology into various platforms from lab equipment over large harvesting vehicle to autonomous field robots

We develop all this knowledge with our extremely inter-discplinary team that combines experience from agriculture, plant physiology and ecology as well as computer science, physics and bioinformatics.

# PORPHYRIO

# (Porphyrio turning data into profit

#### Master Contact

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# Profile

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Porphyrio is a spin-off company of the KU Leuven University, founded in 2013. Porphyrio develops cloud based Business Intelligence software (SaaS) for professional livestock & pig production.

The Porphyrio solutions "Lay-Insight", "Broiler-Insight" & "Pig-Insight" make use of state-ofthe art concepts of IoT, Big Data & Analytics to monitor and predict performance & quality of livestock production chains.

Dr. Kristof Mertens is an expert in the EU EIP focus group "Mainstreaming Precision Agriculture".

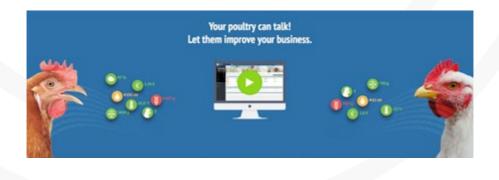
## Competences & Capabilities

The main expertise & technology of Porphyrio are:

- IoT data platform
- Big Data ICT
- Advanced Biostatistics
- Livestock production
- Animal protein supply chains
- Sustainable livestock production

The innovation we generate guarantees shortterm competitiveness and long-term economic, environmental and social sustainability of the food sector.

The multidisciplinary expertise of the Porphyrio team, enables development of solutions for the challenges of modern animal protein production.



# PROLUPIN GMBH

Processing - High Value functional ingredients



#### Master Contact

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## Profile

Prolupin produces unique, premium lupinebased plant proteins. We are creating value through our patented extraction process, our own B2C food portfolio and B2B business partners.

We want to contribute to a more sustainable living. That's why we focus on producing and offering the world's top high-value plant proteins.

We want to inspire all of us to enhance the health of people and the planet by providing best plant-based protein alternatives. Our local sourceable plant-based protein alternatives ignite the acceptance and usage around the world. Without any compromise on your sensorial requirements due to replacing animal protein.

#### Projects

Beside the B2B portfolio we are building strong expertise by selling our own B2C umbrella brand MADE WITH LUVE to retailers across Europe.

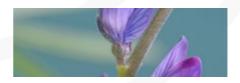
Thus we are able to offer different levels of co-operation: From a B2B supplier of functional ingredients to shared efforts in building a branded business based on our B2C expertise.

## Competences & Capabilities

Prolupin facilitates the whole value adding chain starting from planting lupines towards the process technologies and further product innovations.

We may optimally process regional lupines mainly due to our knowledge on ingredients and specific properties of various lupine seed varieties. However, we are focused on Sweet Blue Lupines.

The food industry uses in limited amounts mainly flour or concentrates from lupines. However, the isolates we are producing contain more than 90 % of proteins in dry matter. Lupine Protein-Isolates (LPI) provide compared to flours very specific technological, functional and material properties such as emulsion capacity, gel and foam creation and solubility. These properties may shift structure, texture or sensory properties in food. Protein isolates also may completely substitute milk, meat or egg in foodstuff.



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PROTIX Processing - High Value functional ingredients

# **PROTIX**

#### Profile

It has been our life mission since 2009 and will be in the decades to come. We have developed smart technologies that efficiently convert endof-life organic waste into valuable nutrients like proteins for humans and animals. Our insect derived ingredients are used across the food chain in concepts that disrupt the status quo.

With our rapidly growing and dedicated team of 55 people today, we already serve customers in food, animal feed and petfood markets across Europe.

We are excited to further increase our impact together with EIT Food consortium partners.

Master Contact

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E: Kees.Aarts@protix.eu T: +31-6-10556811 Founder & CEO

#### Competences & Capabilities

Our production methods and insect derived ingredients can offer you:

- Sustainable food concepts through a closed circular nutrient cycle
- Animal friendly and sustainable egg, meat and fish production
- Functional food ingredients
- Functional ingredients for young, sensitive animals
- Functional pet food ingredients
- Produced under strict EU food and feed quality standards and certification schemes



# QUALYSENSE AG New Technology

# QualySense

#### **Master Contact**

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## Profile

QualySense, a Swiss company, is pioneering the proprietary QSorter® technology, a sophisticated high-speed single-kernel robot designed to measure the compositional and physical properties of each individual grain and to sort it accordingly.



#### Competences & Capabilities

Main areas of specialization and technological expertise are:

- Food quality and safety
- Quality inspection of grains
- Allergen-free ingredients
- Development of new products
- Enabling premium quality

The QSorter® technology is at the heart of the new generation of sorting and analysis devices for soft commodities, with the objective to bring efficiency, productivity and outstanding benefits in the food industry.

The unique single-kernel approach provides food companies with unprecedented qualitybased sorting capabilities facilitating the development of new products, premium quality ingredients, and giving access to the full data for each grain.

# RETHINK RESOURCE

*Circular Economy; Focus on Food Waste* 



#### Master Contact

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#### Profile

RethinkResource is a Swiss company facilitating the implementation of circular economy business models for the producing industry. To jumpstart product and process innovation with secondary resources we offer consulting services. Working in close collaboration with our customers we identified the need to automate the exchange of side and waste streams in an efficient and transparent way. This led us to develop Circado, the leading digital trading platform for sellers and buyers of secondary resources. As early adopters, our customers profit from cross-industry know-how sharing. This combination of a marketplace and community is a platform solution that allows active users to emerge as industry leaders with respect to resource stewardship.

## Competences & Capabilities

The key competences of RethinkResource are:

- Cross-industrial matchmaking of buyers and sellers of side streams
- Consulting services around innovation with secondary resources
- Analysis of Material Streams

The innovative approach of RethinkResource brings resource efficiency to a digital level by removing barriers from access to secondary materials and increasing transparency.



# TELLSPEC Food Safety



# Profile

Tellspec is a data company that offers real-time, affordable, reliable, non-destructive, handheld food analysis.

We provide predictive intelligence about food, by combining spectral sensors, bio-informatics techniques and learning algorithms, in a revolutionary technology that analyzes foods, in real-time and at the molecular level.

#### Projects

Any project related to improve the efficiency of food testing for contamination or fraud. We provide a handheld food scanner that can get testing in the field and results in less than 5sec. We are currently enlarging our detection capabilities from the current 20 detection models we already offer. We currently have retailers, supermarkets and food manufacturers using our technology for Quality Control and agriculture producers using it for detection of food contamination.

#### Master Contact

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## Competences & Capabilities

Main areas of specialization and technological expertise are:

- Food quality, safety and authenticity;
- Diet tracking, calorie counting and nutrient information;
- Spectroscopy and chemometric analysis;
- Data analysis, data treatments and machine learning;
- Android and iOS Mobile application development;
- Cloud computing: front end platform, back end platform and cloud-based delivery.



TIPA CORP. Processing - Packaging



#### Master Contact

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# Profile

TIPA is a developer and producer of breakthrough compostable packaging for the food industry. The company's game changing technology addresses a particular segment in packaging: flexible packaging, which today are non-recyclable and as a result end their life in landfills where they will remain for 500 years or more.

The company's novel technology is relevant for packaging a wide variety of food goods including: snack food, confectionary, baked goods, fresh produce, frozen food and more.

#### Competences & Capabilities

TIPA develops fully compostable and biobased flexible packaging solutions for the food industry. Key capabilities include:

- Producer of breakthrough compostable/ bio-based films and laminates with matching properties to conventional films.
- Customization based on customers' needs
- Strong R&D team
- Production throughout supply chain based in Europe with local partners at all relevant countries



# YPSICON ADVANCED TECHNOLOGIES

New Technology



#### Master Contact

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## Profile

Ypsicon is a technology-based company with headquarters in Barcelona. Its activity is focused on the development of new technologies, as well as on the design and manufacturing of components and equipment for the food, pharmaceutical and cosmetics industries.

Ypsicon commercializes three patented technologies on a global basis which have great potential for the beverage industry: Ultrahigh pressure sterilization / homogenization, Ultraviolet-Thermal pasteurization and UV-C bottle sterilization.

# Competences & Capabilities

Main areas of specialization and technological expertise are:

- Food technology development
- Design and development of equipment based on its patented technologies
- Sterilization of pumpable fluids (beverages, liquid foodstuffs, etc.) by means of continuous ultra-high pressure
- Pasteurization by means of combination of ultraviolet light type C and thermal treatment at moderate temperatures
- Sterilization of bottles by means of ultraviolet type C for aseptic bottling (no chemical products are used during the process)



# Engage with us!



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## Teams

#### Supervisory Board

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**Prof. Dr. Christine Williams** CLC North-West

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### www.eitfood.eu



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