

# Fooduristic<sup>22</sup>

The 50 people leading the future of food

**KMZERO**  
the food changemakers  
**SQUAD**



Impact Investing / Resilience & Biodiversity / Health, Taste & Wellbeing / Protein 4.0 / Zero Waste / Data, AI & Robotics / Retail & Food Service / Food Education

**KMZERO**  
CREATING THE FUTURE OF FOOD

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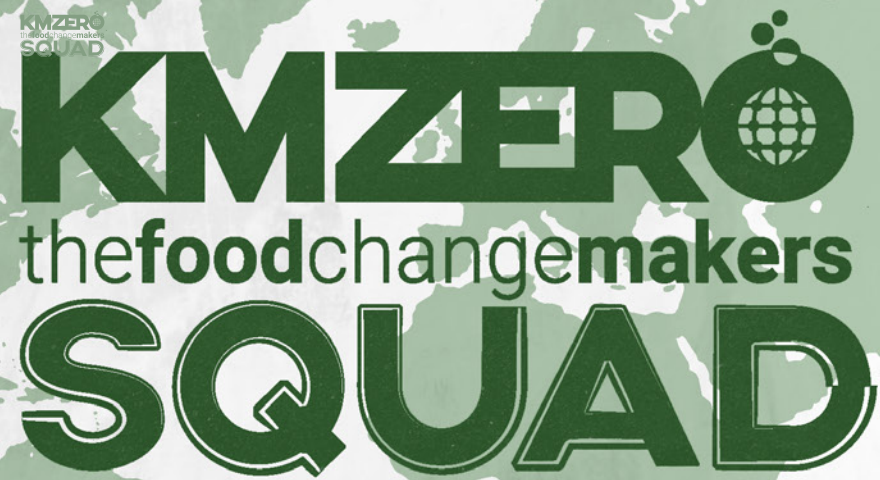
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# 01

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**LEADING CHANGE  
IN THE FOOD  
INDUSTRY:**  
KM ZERO SQUAD

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# KM ZERO SQUAD

Changemakers in the food industry

For yet another year, we capture the future of food in these pages. On this occasion, led by 50 people whose vision, effort and action are transforming it.

**Why is it necessary to transform food system?** In a scenario in which the population will increase by more than 2 billion people in the next 30 years, it is imperative to transform the way we produce, distribute and consume food. Increased production has a direct impact on the use of arable land, water, and other increasingly scarce natural resources. A case in point was the “Overcapacity Day” on July 29 this year when we exhausted all available natural resources for 2021 according to the World Wildlife Fund (WWF). The natural capital we had available for a whole year, we used up in just seven months. “The uncontrolled increase of carbon emissions in the atmosphere poses a risk to our evolution.” So noted broadcaster, writer, and naturalist David Attenborough during his speech at the opening ceremony of COP26 in Glasgow held in November 2021. Our stability could falter if we do not join forces.


This great responsibility prompted the creation of the **KM ZERO Food Innovation Hub** four years ago, with the aim of understanding the major challenges facing our sector and the desire to support those who have the solutions. One year after its creation, the opportunity arose to hold a meeting with the protagonists of the transformation of the food ecosystem. **Joseph Puglisi, the scientist behind the creation of the well-known Beyond Meat; Sam Kass, Obama’s advisor on food policy and promoter of the strategy against obesity in the United States; Sara Roversi, founder of the Future Food Institute; Mario Ubiali, founder of Thimus; Ido Golan, of Infarm, among many others, came to Valencia to share their vision of the future of the sector.** People who are changing the world with their work. This is how ftalks Food Summit was born. Since then, we have held two more editions of our annual meeting, bringing together more than 150 top international speakers, involving more than 50 industry partners, reaching more than 100,000 people around the world, and generating more than 11 million impacts on social networks and media.

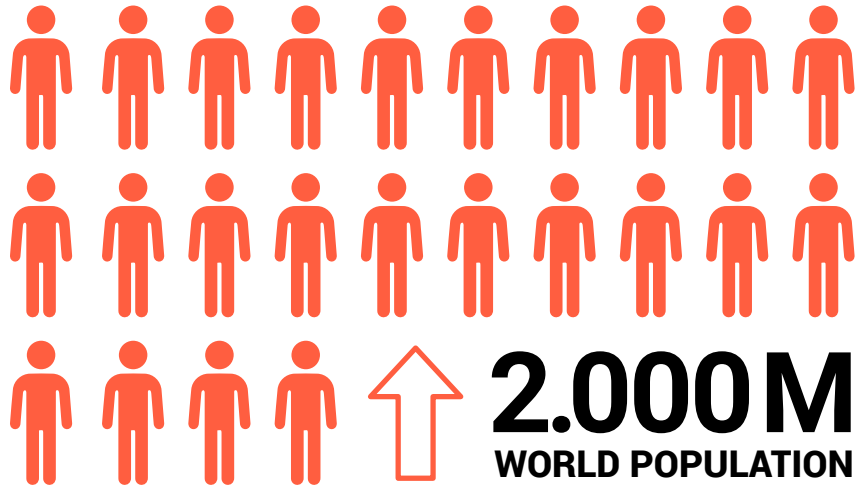
As a natural evolution of this forum, the KM ZERO Squad emerged in January 2021 to move from inspiration to action. **This global network was born with**





the mission of leading the transformation towards a healthier, sustainable, resilient and fairer food system, connecting people and projects that are working to make a positive impact across the value chain. Our network of ambassadors is made up of 50 people who are shaping the future of food from different perspectives: investing in impact solutions; researching how to

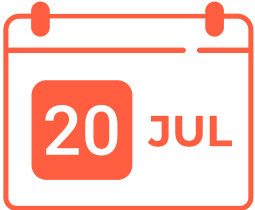




**2.000M**  
WORLD POPULATION

The population will increase by more than 2 billion people in the next 30 years.


Scan QR codes like this one throughout the report to **learn more about some of these changemakers.**




**Overcapacity day:**  
"we deplete all available natural resources by 2021"

**ftalks Food Summit**


2019- 2020 - 2021




**+150**  
INTERNATIONAL  
SPEAKERS




**+50**  
PARTNERS &  
COLLABORATORS



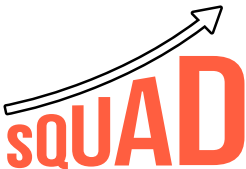
**+11M**  
SOCIAL MEDIA  
IMPACTS



**+100mil**  
PEOPLE  
REACHED



x50 people  
in 2021



year by year, the squad will incorporate new people to increase this "family."

reinvent livestock and agriculture; bringing delicious and beneficial products to market for consumers and the planet; developing solutions from waste revaluation to waste reduction along the entire chain; thinking about new models for distribution channels; and thinking about how to raise awareness for future generations. Each year, the Squad will incorporate new figures who are contributing to this same mission, thus increasing this "family", generating synergies and accelerating the pace of the sector's transformation.

During 2021, week after week we have met with these people to discuss the major challenges facing the sector relating to the reduction of emissions and waste; the development of new, more sustainable ingredients; the promotion of more resilient and safer production systems; the application of new technologies to improve production, distribution, and consumption systems; and the rethinking of diets to improve everyone's quality of life.

The intensity of these meetings showed us the urgency of the challenge, while at the same time filling us with inspiration and hope that it is possible to face it through collaboration and support for good practices and emerging solutions in every corner of the world. This forum has fostered, over the past year, synergies between people with a shared mission to improve our food system through collaboration, because if we have learned anything from COVID-19, it is that you cannot place borders on social challenges, and therefore the response and innovation must inevitably be joint.

On each page you will discover the faces behind the innovations in the sector. And in the links, you can learn even more about some of these protagonists who have accompanied us in our events and podcasts. Investors, entrepreneurs, researchers and representatives of institutions that are setting the roadmap for the coming years. Faces that reflect the passion and the will to revolutionise the sector from knowledge and action. **People with a common denominator: the conviction that only together we can do this, and the desire to be part of the solution.**

We are driven by the well-being of society, and that is why we will continue to do everything in our power to positively impact the economy, the environment, and the quality of life of all through exponential changes in food, paying special attention to the visions of these people, and supporting solutions and technologies with a positive impact. **This forum is just the beginning of a great movement based on collaboration and knowledge to create a better food future, in which you are all invited to participate.**

Enjoy your meal!

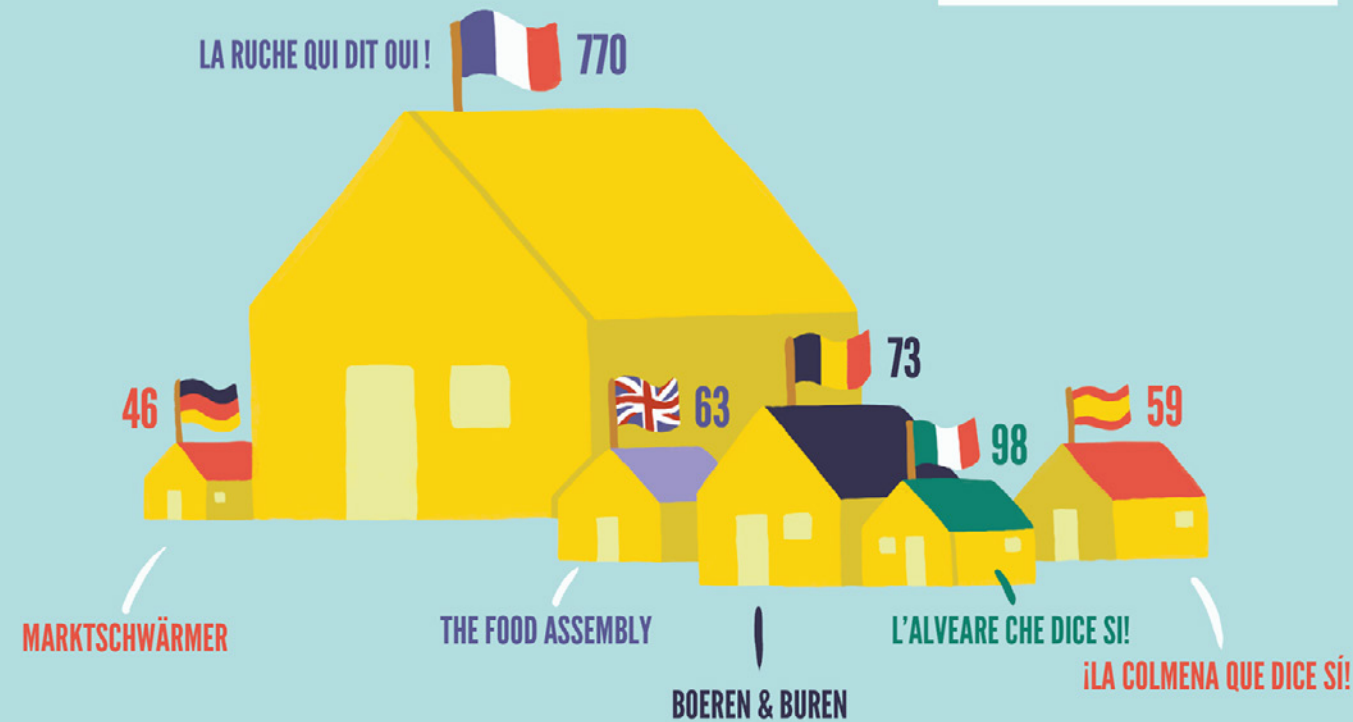




**Josep Segarra / Andrew D. Ive /  
Dan Altschuler / Nadav Berger / Sam Kass**



# 1109 RUCHES



## Josep Segarra

Investment Manager at Quadia

**Areas of expertise:** impact investing, venture capital, private equity, sustainable nutrition, circular economy, energy transition.

**Favourite food:** anything I haven't tried yet.

QUADIA



### What do you consider to be the main challenge currently facing our food system?

The food system faces major challenges in overcoming the many dysfunctions along the value chain that have harmful effects on our environment, our economy and our health. We urgently need to transform the intensive agriculture model that today feeds the world by combining the efficiency provided by technology with the urgent need to implement solutions to preserve our biodiversity and regenerate our soils. It is not necessarily a matter of producing more, but of producing and distributing better, with a real responsibility towards social and environmental externalities, strongly tackling the problem of food waste. To all this, we need to add strong doses of innovation to accelerate the pace of this transformation and implement large-scale disruptive solutions in fields such as alternative proteins, bio-stimulants or new materials for packaging.

### How are you contributing to the transformation of the food system?

Through Quadia, one of the pioneering funds in impact investing across the sustainable food value chain in Europe, my mission is to support those entrepreneurs and companies financially and strategically with the greatest potential for growth and impact. Our European approach allows us to provide entrepreneurs with a vision and network beyond their markets, with the objective of leveraging and improving those technologies and business models that prove to be successful.

### What company or solution would you highlight for its potential in solving our greatest challenges?

I would highlight two very different but at the same time complementary and necessary companies and solutions for creating more sustainable food systems, reflecting Quadia's investment philosophy based on Regenerative Economics: 1) **Ynsect**, given its potential to revolutionise the field of alternative proteins for animal, human and vegetable consumption by greatly reducing the carbon footprint 2) **La Ruche Qui Dit Oui** (The Food Assembly), for being an alternative model in food distribution, promoting the fair remuneration of farmers while advocating for local and quality food consumption.

### The food of the future will be...

Taking Slow Food's manifesto as a reference, the food of the future will have to be healthy, clean and fair... yet it will be achieved in a different way than imagined today and will be driven by solutions and innovations that we must promote without delay.



## Andrew D. Ive

Managing General Partner at Big Idea Ventures

**Areas of expertise:** Working with entrepreneurs and their teams to grow companies in the alternative protein and future of food categories.

**Favourite food:** popcorn.



### What do you consider to be the main challenge currently facing our food system?

The alternative protein category is one of the most innovative and forward-thinking sectors in food. Over the last decade we have seen true innovators partnering with global corporates and investors to bring new products and technologies to consumers around the world. Despite the innovation, creativity and funds in alternative protein, the production capabilities are not currently aligned. There are so many great new products and approaches that the production partners (the contract manufacturers) have not kept pace with the volumes demanded by consumers hungry for cleaner labels, more nutritious plant-based meat, seafood and dairy. The main challenge for the alternative protein sector is the ability for the small and fast-growing innovators to produce their products in the quantities demanded to meet local, national and international demand. A further challenge is the reliance of the alternative protein category, particularly plant-based alternatives, on a small number of crops. The alternative protein sector is currently focused on soy, pea and wheat, which puts pressure on pricing and is building a significant production volume of just a few commodities. This puts undue risk on a small number of inputs. It would be far safer if we expanded the crops used to include a wider variety of ingredients and crops.



### How are you contributing to the transformation of the food system?

The mission of Big Idea Ventures is to solve the world's greatest challenges by supporting the world's best entrepreneurs, scientists and engineers. Our first fund, the **New Protein Fund**, is focused on finding 100 entrepreneurs, scientists and engineers in the alternative protein sector and giving them the funds, mentors, networks and resources to allow them to create new protein industries. Specifically, innovators in the plant-based, cell-based and fermentation-enabled meat, seafood and dairy sectors. We have already invested in more than 65 alternative protein companies who are reimagining and developing the meat, seafood and dairy industries of the century ahead. Creating products, ingredients and technologies which will help us to produce the foods we love but in a way that is far more sustainable for the planet, more nutritious for us and safer for our growing population.



### What company or solution would you highlight for its potential in solving our greatest challenges?

**The two dramatically impactful technologies and all the companies within the sectors which will change the entire landscape of the food industry over the next two decades are cell-based and fermentation-enabled food development.**

Huge progress has already been achieved, but there is far more to be delivered using these technologies. We increasingly have the capability to replace animal protein, seafood, dairy, plant-based / animal-based oils and other products and ingredients. **Farmsow**, for example, is a company creating tropical oils with the performance of palm and coconut oil without another palm tree needing to be cut down anywhere in the world. **Shiok Meats** is Asia's largest cell-based crustacean company creating shrimp without the need to harvest another crustacean. And **Jellatech** is creating gelatin without the need to harvest or process bones or skin.

### The food of the future will be...

The ability to create and provide all the foods we have grown up loving in ways that are far more sustainable for the planet. The future of food will be abundant but without the risks to our seas, our forests, or animal welfare.



## Dan Altschuler

Managing Partner of Unovis Asset Management & New Crop Capital

**Areas of expertise:** alternative proteins, international business, strategy, negotiation, branding, business development.

**Favourite food:**  
mole poblano (vegan) with heura.



### What do you consider to be the main challenge currently facing our food system?

The complexity of the food system gives rise to many challenges of great magnitude. Our focus is on eliminating animal protein from global consumption given the positive effect this change would have on the environment, consumer health, and animal welfare. At the same time, it will allow us to feed a global population that continues to grow.

### How are you contributing to the transformation of the food system?

Through our investments in companies that develop alternatives based on plants, fungi and cultivated proteins.

### What company or solution would you highlight for its potential in solving our greatest challenges?

**NOVAMEAT** is introducing a new category of plant-based products, creating whole steaks that can replace beef, pork or chicken fillets. In turn, **Anina**, an Israeli startup, creates ready to cook food capsules that are 100% natural, rich in vegetables and nutrients, easy to use and developed by designers and prepared using “unattractive” products. They prepare food using a unique technology to create the future of a healthy culinary experience for the consumer.

### The food of the future will be...

One which is healthier, cheaper, with less or zero impact on the planet and which protects animals and all living beings.



## Nadav Berger

Founder and Managing Partner of PeakBridge Ventures

**Areas of expertise:** investing in foodtech.

**Favourite food:** Greek cuisine and my favourite dish (still) would be a chicken Schnitzel fresh from the fryer.



### What do you consider to be the main challenge currently facing our food system?

The foodtech scene is growing and there are more and more exciting opportunities all the time. However, we are still at the early stages of the investment ecosystem and state of maturity of companies in the sector.

### How are you contributing to the transformation of the food system?

We are a team of professionals with experience in the food industry and investments. We try to be the bridge that helps entrepreneurs get to the top and we do so through funding and value-adding activities such as Biz Dev, presentations and strategic thinking and alliances.

### What company or solution would you highlight for its potential in solving our greatest challenges?

We believe that the winners will be those that apply technological advances from both tech and non-tech industries to food. That's why we only support tech companies that use data and **artificial intelligence, biotech and new crops**. The best ones will be those that truly combine more than one.

### The food of the future will be...

Affordable and nutritious food, which is produced more efficiently, using smart technologies (AI, fermentation, biotechnology) and with much less of an impact on our planet.





Sam Kass

Partner Acre Venture Partners.  
Former White House Chef and Senior Policy Advisor for Nutrition.

Areas of expertise: impact investment, foodtech, nutrition, sustainability.  
Favourite food: uni.



What do you consider to be the main challenge currently facing our food system?

Food is truly at the centre of some of the biggest issues we face around health and climate change. Among the multiple challenges we are facing as an industry and as a society, our top priority is addressing climate change.

**Farming is the number two producer of global greenhouse gases and agriculture uses 71% of the world’s fresh water.**

We must finish with monoculture, encouraged by our diet which reduces itself to about twelve crops and five types of animals, which has a negative impact on the soil and on human health. We should, of course, face other persisting challenges such as global health and the use of plastic, without losing sight of our biggest threat, which will make all other problems more severe. Everybody should focus on climate change to get the food system right!

How are you contributing to the transformation of the food system?

I am investing and building next generation companies which are transforming the food system by solving large scale problems in human and environmental health.

What company or solution would you highlight for its potential in solving our greatest challenges?

**Loam Bio**, formerly called Soil Carbon Co. This company is dedicated to removing carbon from the atmosphere and improving the world’s soils. They develop technology to capture carbon from the atmosphere on a gigatonne scale and return it to the soil. This improves soil health and allows farmers to trade a new commodity: carbon offsets. This breakthrough technology can create new planetary-scale opportunities for carbon sequestration and improve agricultural productivity.

The food of the future will be...

Carbon-reduced.





The agritech and foodtech sectors are in the sights of all investors. In the first six months of 2021, foodtech startups raised the same capital as in the whole of 2020: a total of €20 billion. Interest arises along the entire agri-food chain, ranging from solutions in the field for soil regeneration and smart farming, to technologies such as artificial intelligence or robotics to improve industrial processes. Moreover, although delivery is usually the subsector that receives the most investment, it is striking to see how in 2020 those startups that operate closer to the farm and the supply chain raised more money than consumer-oriented ones, according to **The Tech-Food Magazine**. In this sense, 2020 was a particularly positive year for Spain, which ranks sixth in the world in agri-foods investment, with over €611 million invested, according to the specialised fund **AgFunder**.

The profile of many of the investors operating in this sector is that of impact investors, who, beyond generating financial returns, seek to support projects that have a positive social and environmental impact. Likewise, many of the most prominent entrepreneurs strive to improve the world through the products and services they offer, even introducing impact measures in their bylaws. This is why many funds have rethought their value propositions to take into account not only profitability and risk, but also impact.

More and more consolidated companies along the entire chain require financial support to be able to industrialise and scale their processes while backing them up throughout their different growth phases. **More and more investors are committed to having a portfolio of investees that look to benefit the environment and people's well-being. This represents a great opportunity for entrepreneurs in the food sector**, given that it is one of the sectors that has the greatest impact on the well-being of the planet, people, the economy and humanity.

An important trend is the growth of investment in the Latin American region. A recent study by Endeavor and PepsiCo reveals that 64% of foodtech investment in the area occurred during the pandemic, where delivery and e-commerce have skyrocketed like never before.

According to Forbes, “the three categories with the highest representation within the sample correspond to logistics and data management companies (22%), sales (17%) and organic, natural or healthy products (16%); of which, 24% managed to scale and generate 50 or more direct jobs, despite having less than a decade of operation”. This same study shows how LATAM has all the potential to become a foodtech hub, with more than 300 startups and scaleups.

In addition to impact investment, corporate venturing in the agri-food sector is gradually growing. Companies, usually industrial ones, are increasingly looking to collaborate with startups and attract talent and innovation to

solve challenges arising in relation to their activity, such as sustainability, food waste management, new distribution channels, changes in consumer habits or the creation of clean label products. At KM ZERO we promote our **“Innovation Opportunities Club”** in which we periodically present startups that are not only developing solutions along the entire chain but also looking for synergies, investment, industrial partners and collaborations. From the Club, we highlight the success story of the well-known startup Plant on Demand, which received investment from one of our partners, Dacsa Group.







# 03

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## **RESILIENCE & BIODIVERSITY:** KEY ASPECTS OF TOMORROW'S FARMING

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Borja Lafuente / Ido Golan /  
Howard-Yana Shapiro / David Caré / Alina  
Zolotareva, RDN / Dorothy Shaver



## Borja Lafuente

Head of Sustainability Iberia at Danone

**Areas of expertise:**  
sustainability & public affairs.

**Favourite food:**  
thistle mushrooms.



### What do you consider to be the main challenge currently facing our food system?

The construction of a modern food system must involve as many players as possible to join forces and achieve common objectives. Considering how demanding the global climate and social agenda is, we must attain synergies to achieve a sustainable model.

The food system is intertwined with a myriad of different stakeholders whilst it affects and is affected by industries and players with impacts on each of them, therefore, cooperation is crucial to advance on the challenges depicted by the future of food. The inter-related nature of the system means that it can be a benefit and a threat at the same time, both in local communities and globally.

**One challenge is obvious: the world population is expected to grow from 7 to 9 billion inhabitants, which in practice will require an increase of at least 70% in the food supply by 2050.**

The challenges that are already being tackled to consolidate this transformation include the use of local products, regenerative agriculture, the protection of ecosystems and the fight against food waste.

### How are you contributing to the transformation of the food system?

On a personal note, I was born and raised in Sigüenza, in a rural area, the kind of environment which encourages a very respectful mindset towards food, on the one hand, because there are those who have nothing to eat and, on the other hand, because agriculture and livestock constitute the main livelihoods of many families. My contribution has to do with continuing to encourage respect for this aspect of the food chain. I have been lucky enough to eat products such as spelt flour, organic eggs, fresh vegetables, mushrooms, game, nuts, which for many are considered a luxury, as though they were normal everyday products, but the respect for food as a livelihood is something we should hand down to our children. It is therefore necessary to encourage as many social players as possible to participate in this transformation process. Companies, governments, academia, and citizens all have the responsibility to inspire, raise awareness and act in a holistic manner



### What company or solution would you highlight for its potential in solving our greatest challenges?

At Danone, we want to lead the transition to a fair, healthier, sustainable and, above all, inclusive food system. A food system that leaves no one behind, that respects the environment and uses resources efficiently. Food education is key to managing strong future prospects. Therefore, through projects such as **"Alimentando el Cambio"**, we aspire to turn new generations into conscious agents of change. We sow this seed because we believe that empowering them with the necessary tools and information about food habits, style and origin will turn them into responsible citizens who are aware of the impact of food on the planet.

We are committed to a sustainable and proximity family farm management model, based on long-term contracts, generational handover and animal welfare. We establish long-term relationships with our farmers to provide them with both security and a guarantee to plan and make long-term investments and improvements. In addition, we support young farmers in the process of generational handover and contribute to professionalising their work. This is key to consolidating the local population. Letting rural Spain die out would have social, demographic, economic and environmental consequences that must be prevented. Ensuring quality employment and purpose are the keys to maintaining a sustainable food system.

### The food of the future will be...

The food of the future will be - or should be - a reflection of how the world works: through an apple we will be able to understand what its environment of origin is like, how the local communities live, what apples contribute to our health and why we choose apples over pears. The food of the future will arrive on our plates responsibly, and will be sustainable, local and, above all, fair. We must re-learn to eat responsibly because every time we eat and drink, we choose the world we want to live in.





Ido Golan

Culinary Product Development Senior Manager at Infarm

Areas of expertise: explorer and implementer of non-standard crops into indoor farming environments.

Favourite food: free-style Shakshuka.



What do you consider to be the main challenge currently facing our food system?

I can point out two main challenges:

The establishment of the emerging high-tech alternative branch of agriculture called urban indoor farming in a productive, efficient and sustainable way that can justify its increasing share in the industry.

Another challenge closer to my work is the incorporation of many more potential types of crops on our shelves and in our diets. In addition, reintroducing the tasty and nutritional heirloom varieties that have been left behind, instead of industrial crops designed for intensive agriculture and global supply chains.

This (re)introduction to the public will require time and effort in educating people about those new crops and how to include them in their lives and cuisines. I see chefs as excellent and natural ambassadors of new crops implementation in local cuisines and cultures.

How are you contributing to the transformation of the food system?

Infarm is one of the leading companies who are revolutionising the agricultural world. We are creating a local/urban alternative that gradually replaces the contaminating, wasteful global food system. This activity provides cities with locally grown, fresh and diverse food.



What company or solution would you highlight for its potential in solving our greatest challenges?

The solution needs to come from revolutionising the way we do agriculture.

**Bringing to the mainstream two distinct approaches that currently sit on the edges of farming practices. Those are regenerative farming and indoor-urban farming.**

Those two alternative approaches should be promoted simultaneously because they hold solutions for both rural and urban populations. While regenerative agriculture such as permaculture, biodynamics or food forests can support local/rural communities and provide nearby cities, it cannot bear the heavy burden of supporting big cities around the world, where most of the population will soon be found.

This is why, at the other end of the spectrum, **indoor farming** can become a local base of security of food quality and availability for cities all-year-round.

Furthermore, strong urban farming systems can reduce the pressure on rural farmers that have to rely on conventional methods to feed global demand.

The establishment of urban farming might allow rural farmers to implement more sustainable practices and produce seasonal, high-quality crops.

The food of the future will be...

Locally grown, healthier, sustainable and diverse.





## Howard-Yana Shapiro

Distinguished Senior Fellow, Resilient Landscapes, CIFOR-ICRAF; Senior Fellow, College of Agriculture and Environmental Sciences, UC Davis; Principal, Double Helix Consulting

**Areas of expertise:** agriculture and landscape performance systems; plant sciences; plant genetics, plant breeding; nitrogen fixation; nature-based solutions, conservation, biodiversity and carbon, based on detailed technical, social, environmental analysis, scientific research and evidence.

**Favourite food:** tofu and fermented vegetables

Vegan dishes: Thai, Mexican, Indian, Francophone African, Vietnamese, Middle Eastern and Italian cuisines. Vegetables, grains, cereals, herbs and fruits from each cuisine.



### What do you consider to be the main challenge currently facing our food system?

Ending chronic hunger and malnutrition, providing nutritious food to all, loss of natural habitat, land degradation, inequality in supply chains, illegality/irresponsibility in supply chains, waste, lack of big data accessibility and social and political acceptability in embracing technology. Followed by the efficient use of water and plant nutrients, climatic resilience in production, nitrogen fixation, profitability at the farmgate, etc

### How are you contributing to the transformation of the food system?

Through the African Orphan Crops Consortium, the African Plant Breeding Academy, the African Plant Breeding Academy CRISPR; Resilient Landscapes and the Agricultural and Landscapes Performance System; the Foldit Aflatoxin Puzzle; advances in plant breeding particularly in climatic resilience, yield, pest and disease resistance, drought tolerance, multiple solutions to nitrogen fixation and the efficient use of water and plant nutrients. I have scientific advisory roles for many ag, agtech and food startups.



### What company or solution would you highlight for its potential in solving our greatest challenges?

**Machine learning** and artificial intelligence, helping to make faster, better, more efficient decisions that are democratised for everyone.

### The food of the future will be...

The global supply chain must initiate true cost accounting for agriculture and landscape production systems. We must ensure that deriving the dividends of production systems happens without damaging the landscape. We must ensure that food produced is nutritious, not just calorific, and safe to eat, free of all contaminants.

**We must design scalable, scientifically sound, investable projects with high social and environmental impacts.**

Giant steps need to be taken to ensure no one is left behind, because the alternative of continuing to slide backwards towards a time when our damaged ecosystems can no longer support our economies and food systems is totally unacceptable.

“What did they live on” said Alice, who always took a great interest of eating and drinking.

“They lived on treacle” said the Dormouse, after thinking a minute or two.

“They couldn’t have done that, you know,” Alice gently remarked, “they’d have been ill.”

“So they were,” said the Dormouse, “VERY ill.”

*Alicia en el País de las Maravillas*







## David Caré

CEO for Southern Europe for the Ecotone Group and Director General of Biogran

**Areas of expertise:** bio-nutrition, business development, international market & sales in the FMCG sector.

**Favourite food:** risotto ai funghi, with Isola Bio cooking cream.



### What do you consider to be the main challenge currently facing our food system?

**The main challenge of the food system is to achieve a change of mentality and an evolution in the way we eat, through more sustainable and organic food that looks after the planet and its biodiversity.**

This challenge will be tackled by diversifying the raw materials of our food while taking care of the fields in which we grow them. And it necessarily implies a shift from animal protein consumption to plant-based foods.

For this reason, at Biogran we believe it is essential to encourage, from an early age, environmentally friendly and sustainable eating habits that allow us to produce responsible adults who are aware of their environment.

### How are you contributing to the transformation of the food system?

Our commitment to health and to the planet is anchored to the essence of the company, and proof of this are the more than 1,000 vegan products that we offer today. In addition, 90% of our portfolio is organic and we use alternative ingredients to conventional food. We are pioneers and benchmarks in the sector, starting to trust these products almost forty years ago, leading the plant-based movement and being an example, with launches as innovative as Abbot Kinney's yoghurts and desserts or the well-known Ecocesta vegetable drinks, (which do not taste like a vegetable drink), that were awarded the Sabor del Año Innovación 2021 prize a few months ago.

### What company or solution would you highlight for its potential in solving our greatest challenges?

Our latest launch, the **LIKE BURGER**, is a good example, since though not the first to launch a vegan burger, today it is the only one that incorporates pea protein, achieving excellent flavour and texture, without the use of flavour enhancers or other artificial ingredients. Moreover, it is also **ORGANIC**. A disruptive product that implies a turning point in the plant-based market.

### The food of the future will be...

Undoubtedly, ecological, plant-based and local; committed to the planet and its biodiversity.





## Dorothy Shaver

Global Marketing Sustainability Lead, Knorr at Unilever

**Areas of expertise:** food system sustainability with a focus on thought leadership and behaviour change for an equitable, efficient, and lucrative system that benefits people and the planet.

**Favourite food:** roasted kale topped with seasoned cashews and olive oil / mangoes.



### What do you consider to be the main challenge currently facing our food system?

Knorr, Unilever's largest food brand, focuses on three big challenges with efforts to change the direction of the impact of food on human and planetary health. These are 1) lack of nutrients and biodiversity loss as a result of growing and eating the same foods repeatedly, 2) impact of food on climate change with >60% coming from animals and 3) foods grown in ways that are using excessive resources and harming the land. Therefore, Knorr champions more variety, less meat and more plants grown in sustainable, restorative and regenerative ways through products, programmes and partnerships.

Knorr has the ambition to get food that is good for people and the planet on 7 billion plates by 2025 via the Future 50 Foods. **Future 50 Foods**, created by Knorr and WWF-UK, is a thought leadership piece that summarises food system issues and goes on to identify 50 foods that we should eat more of to help address those issues. Recently Knorr announced the roadmap to grow 80% of Knorr's key ingredients following Unilever **Regenerative Agriculture Principles** by 2026.



### How are you contributing to the transformation of the food system?

As well as my work for Knorr at Unilever, I am a founding board member for Food for Climate League and Senior Health and Wellbeing advisor for SYD/iamYiam wellbeing AI driven application. My interest in and love for food began at a very young age, being known in our family as the 'food boss'. This led to my decision to become a Dietitian and to further study health promotion and education to unlock how to enable people to take action for better health. For the past 18 years, I have worked across the industry in marketing, media, PR, research and development, product development, retail, health care, food service, AI, fitness, and wellness, facilitating the shift to better food habits and ecosystems. I have a deep understanding of the importance of food from the emotional and cultural role it plays in personal lives to the impact it has on human and planetary health.



### What company or solution would you highlight for its potential in solving our greatest challenges?

This year (2021) Knorr led the celebration of the Inaugural World Eat for Good Day when, together with celebrity chefs and partners, Knorr asked the world to make swaps to the Future 50 Foods in everyday meals to change the world by changing what's on your plate.

**Join us on 19 February 2022 on World Eat for Good Day to inspire the world to change what's on their plates!**

### The food of the future will be...

I am hopeful that efforts will be galvanised to enable delicious food that is good for people and the planet, and that will be available and desirable to all - unlocking optimal human and planetary health. This will require collaborative efforts to swiftly transform the who, what, why, when, and how behind food. I will champion the idea of shifting to all of us identifying our way of eating as "Varietarian" – enjoying a wide variety of foods with the power to transform to an efficient, equal, healthy food system that lovingly nourishes all people and our precious planet.





## Alina Zolotareva, RDN

Marketing Director at AeroFarms

**Areas of expertise:** agtech/indoor vertical farming, food marketing, nutrition science.



**Favourite food:** EAeroFarms salad with baby watercress, microgreens, local roasted vegetables and a homemade pesto dressing (+ a glass of skin-contact wine).



### What do you consider to be the main challenge currently facing our food system?

Controlled environment agriculture, particularly indoor vertical farming, has received more funding, attention and interest than ever in recent years. Moreover, the COVID-19 pandemic has underscored the need for a major redesign of our food system, and the urgent need for a more distributed food supply chain, particularly when it comes to all-year-round fresh produce production. Our industry is at an important turning point where we have the opportunity to scale our operations in a significant way to shift our fresh produce supply chain from a centralized, resource-intensive model to a distributed, regional one, all over the world.

### How are you contributing to the transformation of the food system?

With population growth, food production will need to increase by 69%. AeroFarms is up to 390x as productive as a field farm.

### 70% of freshwater goes to agriculture and a significant amount of freshwater contamination comes from agriculture.

AeroFarms uses up to 95% less water than regular field farmers. The world has lost 1/3 of its arable land in the last 40 years. At AeroFarms we grow with up to 99% less land than field farming. With pesticide residues on 70% of washed produce in the US, people are concerned with sustainability and chemicals on their food. AeroFarms' greens are grown using zero pesticides, herbicides and fungicides. Food loss and waste is a growing issue with \$1.2 trillion worth of food lost or wasted each year. AeroFarms' greens are locally grown and distributed for fresher food and less waste along the supply chain.

Our environmentally-controlled indoor farms can grow all year round regardless of climate and weather events. This means we don't have to worry about frost or crop protection and can grow just about any crop by replicating their ideal environment in our aeroponic vertical farms with a fraction of the land, water, resources and a fraction of the negative environmental outputs. Food security and climate resilience are also strongly connected, and by growing indoors, we are able to ensure fresh food production regardless of climate or weather events and a much more judicious use of our precious resources, such as water.

### What company or solution would you highlight for its potential in solving our greatest challenges?

On a mission to grow the best plants possible for the betterment of humanity, AeroFarms is an award-winning vertical farming company and Certified B Corporation with global headquarters in Newark, New Jersey. AeroFarms patented, award-winning indoor growing technology provides the perfect conditions for healthy plants to thrive, taking agriculture to a new level of precision, food safety, and productivity while using up to 95% less water, 99% less land, 390x more productivity and no pesticides ever versus field farming. Through our unique agriculture platform, AeroFarms has multiple major strategic partnerships to help solve global supply chain needs. We aren't just a business; we want to be a force for good in the world. We place our team, customers, community, environment, and investors at the heart of every decision we make. Our business model was strategically built to address 12 of 17 United Nations' Sustainable Development Goals and was honoured to be a recipient of the inaugural Global SDG Awards celebrating private-sector leadership in the advancement of United Nations 2030 Agenda.

### The food of the future will be...

Fresh and local. Developed by smart, sustainable growing technologies like AeroFarms indoor vertical farming technology.





A lack of arable land space, desertification, the inefficient use of limited resources, the use of fertilizers or pesticides, and an unfair system of benefits for farmers are some of the main challenges affecting farming today. In addition to these challenges, we must take into account imbalances in the supply chain caused by the rising costs of raw materials, energy and transport, as well as the lack of digitalisation of processes in the countryside.

The regeneration of land and its biodiversity arouses interest. Moreover, products that are rich in microorganisms, coming from soil-friendly agriculture, are becoming increasingly popular.

It is becoming imperative to support producers to improve their quality of life and remuneration, using technological know-how to facilitate their management and assist the process towards more sustainable and resilient production. This will give them the opportunity to return to a form of agriculture that does not require pesticides and chemical fertilizers, whilst ensuring good yields.

Data, data, data! It will provide valuable information to improve their *modus operandi*. **Aiming to obtain higher yields and tasty and highly nutritional products, we will move towards mixed models between the ancestral knowledge of regenerative agriculture, and other current ones such as gene editing, artificial intelligence or robotics.** The digitization of the countryside could make it less arduous and more attractive to new generations, thus combating rural depopulation and encouraging production methods that are in harmony with ecosystems.

At Bayer, we are committed to digital agriculture and work to ensure that our digital tools help farmers not only to take decisions but to use resources such as water, soil, energy, fertilizers and phytosanitary products in a more efficient manner. With digital tools like **FieldView®**, Bayer brings technology closer to farmers and enables them to track the impact of their decisions on crop yields from their mobile devices. Thanks to an algorithm, farmers can both monitor and inform themselves about the state of the field while obtaining prescriptions of cultivation and fertilization rates. It moreover looks at each area of the examined field in a customized way to make the most with the available resources.

**BAYER**

At Idai Nature we believe that respect for biodiversity is essential, which is why we were the first company to launch a specific line for **biodynamic** agriculture, inspired and developed from nature, to revive and regenerate soils, naturally improve plant and crop protection, and promote **sustainable, profitable and high-quality agriculture** for both producers and end consumers.

For us, it means a return to our origins without going backwards, as we apply the most innovative technologies to the traditional way of cultivating soils, coexisting with the present ecosystem and trying to give back to the land more than what we take away from it.

**IDAI NATURE**

In a globalised world, we coexist with multiple models of food production. Maximising the use of the products we generate, in a sustainable way, is and will continue to be the big challenge. In the design of new foods, from their conception, lies the key to taking advantage of existing biodiversity and creating products that can be used down to the last gram, as fresh products or as healthy ingredients. New foods will be **“alive” and their functional characteristics will be preserved for longer and in more formats**. We share a healthier future from the seed. The future is already present.

**RIJK ZWAAN**







# 04

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## **HEALTHY, SUSTAINABLE , & TASTY FOOD**

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**Rubén Hidalgo / Jordi Barri / Karl De Smedt  
/ Oriol Reull / Mónica Navarro / Guillermo  
Milans del Bosch**



# Rubén Hidalgo

Director of Innovation and Entrepreneurship at CAPSA FOOD

**Areas of expertise:** trend studies, exploration project management, impact investment, strategic communication.

**Favourite food:** steamed sea urchins.



## What do you consider to be the main challenge currently facing our food system?

There is no doubt that we, fundamentally in the West, are living through a paradigm shift. Until now, our train of thought when considering the way we produce, live and consume has been based on a basic law: more is always better. Now, having seen the limits of this approach and having advanced our knowledge in these matters, we are creating a model with a new basic law: balance is better. We keep facing the challenge of producing food without deteriorating natural ecosystems, aiming to improve the relationship between people and nature, the nutritional balance of people, the balance between urban space and food sources. It is here that we find the challenges of our time.

**The biodiversity that surrounds us, as well as our own, needs a renewed approach regarding the way we think about our food system.**

## How are you contributing to the transformation of the food system?

Once both the problem and the purpose that mobilises us are identified, as always, we need to create new tools that allow us to achieve our objectives. As producers, and in my case, from the area of open innovation, we seek to help consolidate the foundations on a business project that is based on its financial sustainability, but also incorporating in a decisive way, the social and environmental impact. To this end, we incorporate exploration processes that allow us to collaborate with innovative entrepreneurial projects, which not only search and identify problems quickly, but are innovative when creating sustainable business models by applying new knowledge. This working mechanism allows us to act on very specific problems within the food value chain while incorporating creative solutions in an agile way. Both agility in the transfer of knowledge to the problems of the food value chain and the orientation to social and environmental impact, are some of the greatest strengths reflected in the current time of transformation.

## What company or solution would you highlight for its potential in solving our greatest challenges?

Right now, we are working on several challenges throughout the value chain. At source, we are working on applying knowledge to help farms minimise their environmental impact and improve their role in the management of natural capital. We do this through the so-called **#LaGranja** initiative, working on crop rotations, new animal feed formulas and a long list of innovations that seek to anticipate the neutrality scenario of our sector, and assuming an active role in biodiversity management. In the transformation area, the role played by the Spanish Microbiome project is very relevant, given that not only will the intestinal microbiota of Spain be mapped, but it will also help us understand the role and relationship between our food, the bacteria in our intestine and the consequences it has on our long-term health.



La Granja

OUR MISSION IS TO CREATE THE FARM OF THE FUTURE

1  
#LAGRANJA  
NEUTRAL

2  
#LAGRANJA  
ECO-EFFICIENT

3  
#LAGRANJA  
MULTIPURPOSE

## The food of the future will be...

It will resemble that of our ancestors, so it will have a more basic presentation, it will recover its essence and nutritional contributions, it will become more accessible to the entire population worldwide and it will reconnect with cultures and local identities, rescuing the importance of food not only in our health as individuals, but also in our quest to live in healthy communities. And, of course, it will be surrounded by extraordinary technological capabilities that will disrupt current supply structures and our understanding of diet.





## Jordi Barri

CEO of Flax & Kale

**Areas of expertise:** consulting, management, finance, marketing, healthy food, plant-based foodtech.

**Favourite food:** all types of salads, rice and fish dishes.

FLAX & KALE



### What do you consider to be the main challenge currently facing our food system?

I would highlight three major challenges in the current food system: first, the development of a more sustainable model that respects the environment and our relationship with the animal world; second, food safety and health; and third, innovation and technology as the drivers of change. It is essential that we build sustainable, safe, healthy and inclusive food systems, as well as ensure a transition towards models that democratise access to healthy and nutritious food, rebalance the relationship between humans, the flora and fauna and the environment, while increasing the intake of plant-based protein.

### How are you contributing to the transformation of the food system?

Food companies have a considerable social and health responsibility. While society seems to be ready to change its consumption habits, the sector must respond with quality, tasty, healthy and sustainable proposals, in addition to disseminating the benefits of the plant-based diet for both human health and the environment.

Flax & Kale was born with the purpose of contributing to a healthier, happier and more sustainable world through healthy eating. This mission has been maintained throughout the more than 40 years of the group's history. Our contribution involves promoting a lifestyle in which respect for health, the environment and people predominates, and making healthy options available to consumers that are also delicious. If this duality is unbalanced by one of the two sides, that type of diet becomes meaningless. We firmly believe that companies like ours can lead the transition to a new, much more committed food model.

At Flax & Kale we are committed to a flexitarian diet, a food trend where 80% of the products are of vegetable origin and the remaining 20% of animal origin, as long as they are environmentally friendly and of the highest quality. From 2019 to 2021, the sum of vegans, vegetarians and flexitarians has grown in Spain thanks mainly to the flexitarian section, which has increased from 8% to 11% of the Spanish population. This is a more inclusive type of diet that represents a natural transition between omnivore and vegetarian or vegan for people who are concerned about their health and the environment and want to start reducing their intake of animal products, without facing a restrictive diet.

In addition, for more than 40 years our proposal has been committed to the following characteristics: tasty, because we put all our experience and creativity into creating recipes that achieve organoleptic pleasure and are deliciously balanced; healthy, because we pamper the choice of food with criteria of proximity and sustainability and carefully look after all the cooking processes; and sustainable, because our origins and traditions begin in the countryside and, just as our grandparents did, we are committed to reducing, reusing and recycling as much of the value chain as possible.



### What company or solution would you highlight for its potential in solving our greatest challenges?

We are facing a trend change in food consumption. Consumers are increasingly demanding healthy products that are easily prepared, and not only in restaurants. At the same time, they are much more informed and aware of health, animal welfare and waste management, among other issues.

Health continues to be the main motivation for consumption among flexitarians, therefore positioning ourselves beyond our restaurants means advocating for our vision and mission to be the driving force for change through healthy eating: **EAT BETTER > BE HAPPIER > LIVE LONGER**. We are committed to plant-based products that maximise the absorption of nutrients that a person needs to function properly and that, in addition to being sustainable and healthy, are as tasty as the rest of the products on the market. Proof of this is our latest launch of the largest range of plant-based meats and cheeses manufactured in Spain: 14 products in meats and 31 in cheeses created by an R+D+i team, and tested for flavour, texture and experience over the last 3 years in the group's restaurants.

### The food of the future will be...

Plant-based! The future of food must be driven by health and sustainability, where R&D will play a fundamental role. This involves the development and consolidation of plant-based proposals as an alternative to animal protein.

This is why we are investing in our R&D department, aiming to achieve differentiating projects that will help us to develop healthy plant-based products that are increasingly similar to their analogous products and might even improve their taste and nutritional content.



## Karl De Smedt

The Sourdough Librarian at Puratos

**Areas of expertise:** Bakery.

**Favourite food:** I love all kinds of food, as long as it's prepared with love.



### What do you consider to be the main challenge currently facing our food system?

There is no doubt that commercial yeast, discovered 150 years ago, has reduced the time it takes to make bread considerably. And yet, while it has enabled bakers to make more bread, more quickly, it's also meant that the skills required to prepare sourdough bread, the original method of bread preparation, have been lost. With sourdough now rising in popularity – science continues to reveal its health benefits – bakeries will have to adapt their way of working and their recipes to bake this better bread. Now bakers already have their hands full controlling the fermentation of yeast, but when you add sourdough to this, with all its complexity, you have a serious cocktail of challenges! Added to this is the constant need for more skilled labour. This shortage is a story I hear from bakers everywhere. No wonder there is such high demand for “masterclasses” and that online courses are so popular.



### How are you contributing to the transformation of the food system?

I'm promoting sourdough bread everywhere I can and, thanks to the **sourdough library**, I'm in a unique position to do so. Together with my colleagues and peers, we are in touch with all the biggest players in the bakery business, as well as artisans and influencers, and have been able to convince early adopters to add it to their recipes. Puratos is very much committed to the Health and Wellbeing of food. In practical terms, this includes helping customers add more grains & seeds into their baked goods; reducing salt, sugar and fat; increasing fruit content; making labels clean(er); and encouraging responsible sourcing and local production. We recently started a project to bake the first bread on Mars! This mission imagines future settlers on Mars having access to healthy and nutritious bakery products. The cutting-edge research programme and foodtech centre, **PuraDome**, were inspired by the harsh conditions on planet Mars. But more importantly, we want to apply the results of the research here on Earth. Why wait if we can already contribute to a more sustainable “vertical” agriculture now by using less water, less nitrogen and fertilizers, and impacting air and water, for example?

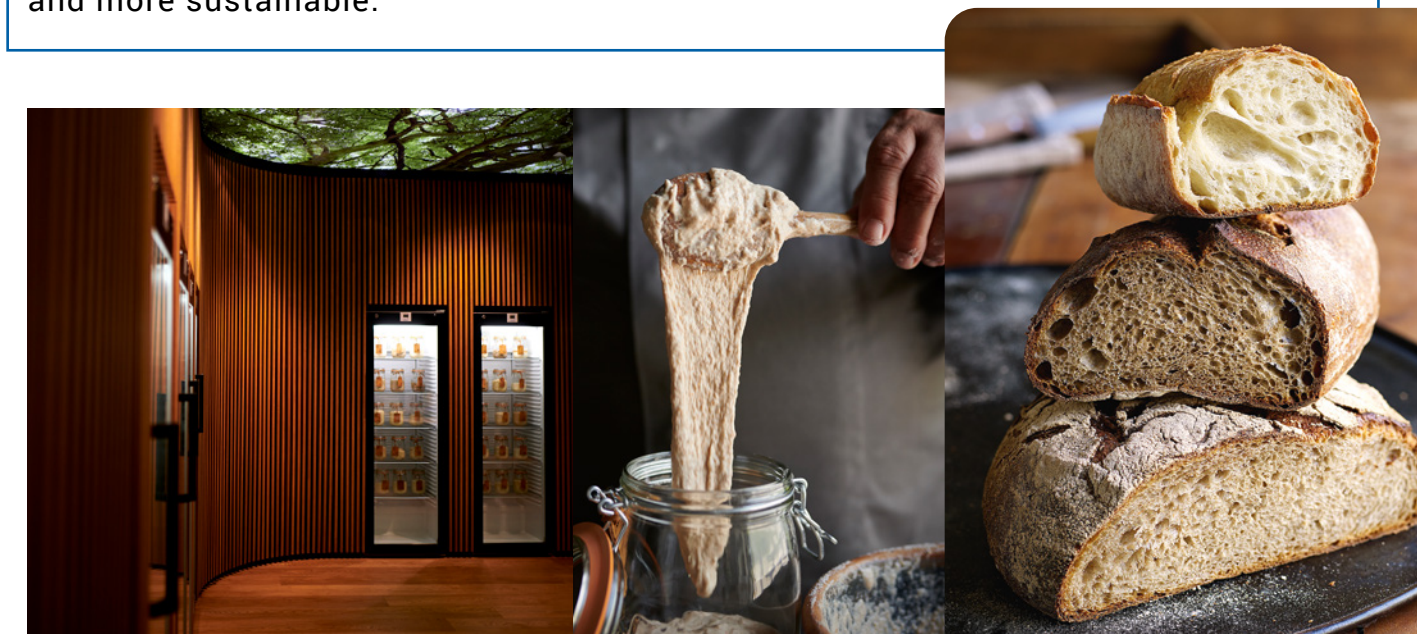
**We are convinced that by looking into the type of sourdough, ingredients and recipe that will work best on Mars, we can improve our food system here on Earth in the coming decades.**

### What company or solution would you highlight for its potential in solving our greatest challenges?

One company will not be able to do the job. It must be a joint effort done at all levels in every corner of the planet. I'm convinced education will play a role in this. If you have the right **education** and information, you can make the right decisions. The media can play an important role too.

### The food of the future will be...

Bright. With consumers increasingly conscious about the quality of their food, we have to take this into account when doing new product development or research. The pandemic has only confirmed how important healthy and nutritious food is. And if you ask me, this is not going to disappear. Let's learn from the past and build on what has been done before by previous generations to make things better, cleaner and more sustainable.





# Oriol Reull

Co-founder of ROOTS Mindfoodness

**Areas of expertise:**  
finance, strategy, operations.

**Favourite food:**  
eggs benedict.



## What do you consider to be the main challenge currently facing our food system?

How we will feed the world's growing population. That to me is the main food challenge. If we analyse it, we could argue that the food system has two driving forces that are progressing extremely quickly to solve this problem, but they are neither following the same direction, nor moving in parallel. These driving forces are technology and sustainability. For me, the main challenge is to make these two levers of change work together while growing at the same speed, and in the same direction.

3D printing and local consumption. Artificial intelligence and big data to make decisions to reduce environmental impact.

## How are you contributing to the transformation of the food system?

I contribute to transforming the food system through education and by inspiring the new generations, the youngest ones, to understand the new food reality from their earliest years.

Sowing a seed in children's first years of life while at the same time encouraging mothers and fathers who will influence food decisions in future years. Advocating food, which is real, sustainable and adapted to nutritional needs, and at the same time made with quality ingredients, is in my opinion the greatest contribution to changing the way people interact with food.

I contribute to changing the food system by supporting young entrepreneurs with disruptive projects by consulting, advising and investing.



## What company or solution would you highlight for its potential in solving our greatest challenges?

At **ROOTS Mindfoodness** we committed ourselves to translate all the adult innovation that we have seen in the last decade, to the child population. We have tried to unite three pillars that do not usually go hand in hand: technology, nutrition and healthy eating.

**I believe that, given the main challenge we face is to feed the population, starting from the roots and creating good foundations is key to sowing a seed that will transform the relationship between people and food. Forever.**

## The food of the future will be...

The food of the future will be disruptive, innovative, and futuristic (pun-intended). Likewise, it will be close, fair and sustainable in all its dimensions.

The coming years will see the consolidation of many trends that are here to stay, and we will use technology more than ever to improve efficiency, surprise the end consumer and solve complex and massive challenges.

Vegetable proteins, local consumption and extreme food customisation are for me the three pillars of the food of the future.



# Mónica Navarro

CEO & Co-Founder of Delicious & Sons

**Areas of expertise:** food strategy, food sustainability, mediterranean diet, vegan, plant-based food.

**Favourite food:** Cualquier proteína vegetal con nuestra Salsa Putanesca Vegana.



## What do you consider to be the main challenge currently facing our food system?

The main challenge of the food system today is the same one in every sector: how do we achieve a sustainable system without causing more damage to our planet? There is no system that is more dependent on the health of the planet than the food system, and that is because raw materials come directly from the land. We must be able to produce, not only avoiding harming but also aiming to improve the current state of the planet. Two further major challenges also arise: on the one hand, how to feed future generations while dealing with population growth, and, on the other hand, the fact that we have to change the nutritional content of the food we consume. We must work in a direction that entails better and healthier food.

## How are you contributing to the transformation of the food system?

We actively contribute to tackling several of the challenges mentioned above, starting with sustainability. We are 100% dedicated to organic farming, therefore we only use organically grown raw materials.

As well as using only organic ingredients, we strive to be as sustainable as possible at every step of our value chain. For example, more than 70% of our manufacturing is made with renewable energy, we have eliminated single-use plastic, all our packaging is made from recycled paper, our food containers are made from recycled glass, and our labels are made from FSC-certified paper. In addition, to achieve our commitment to zero emissions, we offset our CO2 emissions through a reforestation program. Moreover, we passionately believe that **"we are what we eat"**, and that we should eat better and healthier. Our products are natural, we only use fresh vegetables, we don't add sugars, we use extra-virgin olive oil, and obviously, everything is plant-based.

Nevertheless, I would like to add that organic farming goes far beyond a simple stamp, therefore, after over 15 years in this sector, we believe in the genuine need to shift our current consumption to an organic one, to stop using what is not certified, to ensure the well-being of society and the planet. All these new proteins that appear in the market should look into how sustainable they are given that the vast majority are not organic, thus not only encouraging serious problems to sustainability and health, but confusion to the consumer.



## What company or solution would you highlight for its potential in solving our greatest challenges?

One of the projects we run that I would highlight is the launch of a legume pasta product made from only 1 ingredient, and integrating all our certificates: **organic, vegan, vegetarian, gluten-free, GMO-free, sugar-free**, only Chickpea, Lentil and Pea.

**We work on 10 of the 17 UN SDGs, which I believe is also a very useful tool to create an honest and powerful value chain.**

Regarding innovative solutions from others, I think that although the NGO **1% for the Planet** does not directly impact the food domain, it certainly helps the sector. The formatting of both its NGO and donation system is far from what we are used to and it even allows you to include in your donations those projects that need help in the sector of your choice.

## The food of the future will be...

Basically plant-based, healthy, organic and within everyone's reach.



# Guillermo Milans del Bosch

Co-CEO of Baia Food

**Areas of expertise:** nutritious, tasty and sustainable food.

**Favourite food:** any form of rice: paella, arroz meloso (creamy/sticky rice), arroz caldoso (rice broth).




## What do you consider to be the main challenge currently facing our food system?

In my opinion, the main challenge facing the food system is the depletion of resources and soil. There are more and more of us, and to feed so many mouths, we need to find alternatives that ensure the sustainable use of resources to curb climate change.

Improving on productivity is not the solution, as it is directly affecting the depletion of the soil, which is progressively becoming more deteriorated and infertile. Soil erosion is considerably dangerous; it destroys surrounding biodiversity and directly affects the nutrients in the food we eat. Moreover, quantity should not be more important than quality, because we must not forget that to live healthily, we need to eat correctly.

While it is true that technology and industrialisation in the food sector has allowed us to have affordable access to food at any time of the year, it has done so by sacrificing and directly affecting the nutritional content of that food. We could therefore say that food no longer nourishes us as it used to. Supermarket shelves are full of ultra-processed products, full of empty calories that do not nourish us.

The challenges are therefore to reverse this situation, to guarantee proper access to food without impacting the environment and to ensure better nutritional content.



## How are you contributing to the transformation of the food system?

**To this end, it is necessary to promote sustainable and organic crops in a “multicropping” model, rather than using an intensive monoculture model. In this way, we not only ensure soil biodiversity but make sure that the food we consume is more nutritious.**

This is the model we promote in Baia, backtracking directly to the origin of the food, and working side by side with the farmer in small, local and organic farms.

## What company or solution would you highlight for its potential in solving our greatest challenges?

Returning to the previous subject, technology and industry, apart from making things much easier, have allowed us to improve the taste of food, making it more appetising. For example, it has enabled us to synthesise sugar from either sugar cane or sugar beet, and incorporate it into processed foods to make them sweeter.

The problem is that our genetics have barely advanced, plus the functioning of our organism does not differ much from that of our Paleolithic ancestors. In the case of sugar and/or artificial sweeteners, this causes a serious detriment to our health, not only affecting our microbiota, but causing metabolic alterations that can have serious consequences.

At Baia, we are working to provide a healthy and sustainable alternative through **miraculin**, a plant-based protein that transforms sour flavours into sweet ones, allowing you to enjoy the result without having to ingest the calories of sugar or resort to artificial sweeteners.

## The food of the future will be...

Sweet, rich in miraculin and low in added sugars.





How can we promote a diet that improves our quality of life? This question is multifaceted, meaning that challenges such as the increase in diet-related diseases like diabetes and obesity are becoming complex social problems to address.

Spanish scientist **Daniel Ramón Vidal** has been studying the connection between the gut and the brain for decades, providing pioneering knowledge on the health of the human microbiome. In his words: “Almost 2,500 years ago Hippocrates said that food was our best medicine. Since then, research has advanced significantly and today we have a large arsenal of therapies and drugs that have allowed the average life expectancy of the human population to exceed 72 years. **Even considering these data, the opinion of the experts is that an adequate diet, together with a healthy lifestyle, continues to be the best medical insurance for our future. What is more, over the last twenty years and thanks to the advent of genomics, we have learned that there is an interaction between our genes and our diet and that our body, and in particular our digestive tract, is full of microorganisms that are modulated by our diet and have a noticeable effect on our health.**

It is therefore becoming more and more common to talk about the boundary between food and health. We talk about functional foods containing ingredients that favour the health of the consumer, about diets based on genetic passports, so-called personalised nutrition, or probiotic microorganisms that we ingest in our diet and modulate our microbiome. This food is of great interest to both the agri-food industry and the pharmaceutical industry. The former sees in them the possibility of developing more sophisticated products with higher margins, while the latter sees the option of increasing sales by targeting customers other than the sick, thus expanding its commercial offer to healthy people who want to prevent or delay the onset of disease. What is important is that in both cases they are obliged to use science as the basis for their developments”.

Factors such as the lack of nutritional education from an early age, misinformation, misleading advertising, professional intrusion or the lack of commitment at governmental and legislative level, make this one of the most controversial issues.

**Consumers are nourished by knowledge and are increasingly demanding more effort and transparency from the sector to make wiser decisions when filling their shopping cart.**

The **KM ZERO Squad** proposes the generation of guidelines and new policies aimed at healthier eating, from the standardisation of legislation to make it clearer, to the introduction of dietitians/nutritionists in public health to educate new generations from reputable bodies/institutions/organisations. Another challenge is to promote quality nutritional education

from childhood, considering all groups, and to provide understandable information on food for the consumer, starting with labelling.

It is essential to give science a voice and make it understandable to everyone, as well as to make healthy eating extremely easy to prepare, accessible and delicious. This also involves education and more established culinary habits in society, as well as “fast-healthy-food” concepts in restaurants, retail and food service, so that the healthy option is always the most attractive. Likewise, the marketing and labelling of products must be ethical.

Whoever wants to work in healthy food must generate scientific knowledge, but also understand that the health properties of what we eat begin with the health of the fields where our fruit and vegetables grow, continue with the health of our farms and take into account the circular economy to recycle and damage the health of the planet as little as possible. This concept of “One health”, originally defined by the WHO, must be present in the development of any new healthy food for the health of consumers.

**ADM**





We know that the future of food will be marked by sustainability, by the return of local products and naturalness. This poses great challenges in terms of reformulation and research in food ingredients as well as in sourcing and logistics. Consumers and industry are not only interested in knowing the history of the ingredients we eat, where they come from, but also, for example, where their packaging goes, to understand the full life cycle of the product. We want to know more about its aroma, its nutritional properties, its benefits. An undoubtedly interesting future for curious minds eager to research and discover new creative solutions that will ensure a greener, healthier and, above all, more delicious future.

**CEYLAN**



Producing healthier food in a more sustainable way is needed to improve the health of people and the planet. At Kerry, we understand the importance of healthy food, and our vision is to be our customers' most valued partner, creating a world of sustainable nutrition. To us, sustainable nutrition is the ability to provide positive and balanced nutrition solutions that help maintain good health, while protecting people and the planet.

We are embedding sustainability into everything we do at Kerry. We co-create innovative solutions with our customers, designed with sustainability at the core, that meet evolving consumer demands. And through our Kerry Health and Nutrition Institute, we make the science of healthier food more accessible to everyone. With our ambition to reach over two billion people with sustainable nutrition solutions by 2030, we are helping our customers to create healthier food in a more sustainable way.

**KERRY**





# 05

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## **THE NEW GENERATION OF COMPLEMENTARY PROTEINS**

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**Andrés Montefeltro / Giuseppe Scionti / Liron  
Nimrodi / Miguel Calatayud / Iñigo Charola /  
Priyanka Srinivas / Marc Coloma / Didier Toubia**



## Andrés Montefeltro

CEO & CO-founder of Cubiq Foods

**Areas of expertise:** Development of alternative vegetable fats as well as cultured animal fats and protein used as ingredients for food products.

**Favourite food:** grilled meat (like a good Argentinian).



### What do you consider to be the main challenge currently facing our food system?

Due to climate change, rainfall and temperature patterns will shift, forcing a closer review of cropping areas and crop types to maintain or even improve current food production levels. This is reflected in the increase in commodity prices in recent years.

The demand for protein, in human (and therefore animal) food, will continue to increase, therefore sustainable alternatives must be implemented to avoid the collapse of traditional methods. Current systems cannot keep up with the demand for protein without having an impact on the development of monoculture plantations (soy) and intensive livestock farming (which leads to animal abuse and a lower quality of both meat and fat).

Portion sizes and food packaging. We are currently generating huge amounts of plastic waste considering the small number of vegetables we eat. Smaller portions will not only reduce waste but encourage a balanced diet.

### How are you contributing to the transformation of the food system?

**I have focused on developing in-demand ingredients that will help the meat production value chain evolve.**

Meat products, and now meat substitutes, call for quality fats and other value-added ingredients to develop new products. At Cubiq Foods, our aim is to incorporate more sustainable ingredients into the value chain while reducing the consumption of traditional meat.

### What company or solution would you highlight for its potential in solving our greatest challenges?

Both genetic engineering and the development of new seed varieties will allow a prompt adaptation of crops to climate change. GMO consumption will soon be the norm. Up to now, it has faced barriers to moving forward due to political reasons and other interests, which have nothing to do with health.

The development of plant-based products, such as **Beyond Meat**, has created an opportunity to consume less meat. It has become a milestone in the food industry, and we must promote more products like these. Still, the quality of what is being currently delivered is far below this standard, therefore we must help to improve these products with new ingredients.

The development of cultured animal proteins and fats, at an industrial level and with enough food (not pharmaceutical) quality, will allow us to produce peptides and fatty acids that can only be found in the animal kingdom. These will complement plant-based nutrition and enable the development of complex flavours that are exclusively obtained by natural fermentation.

### The food of the future will be...

Pure beef will soon be like caviar; super-premium and for exclusive events, at 100 €/kilo. At most, we will consume chicken at a high price of €20/kilo, pork will reach €40/kilo and meat as we conceive it will only cover 50% of demand.

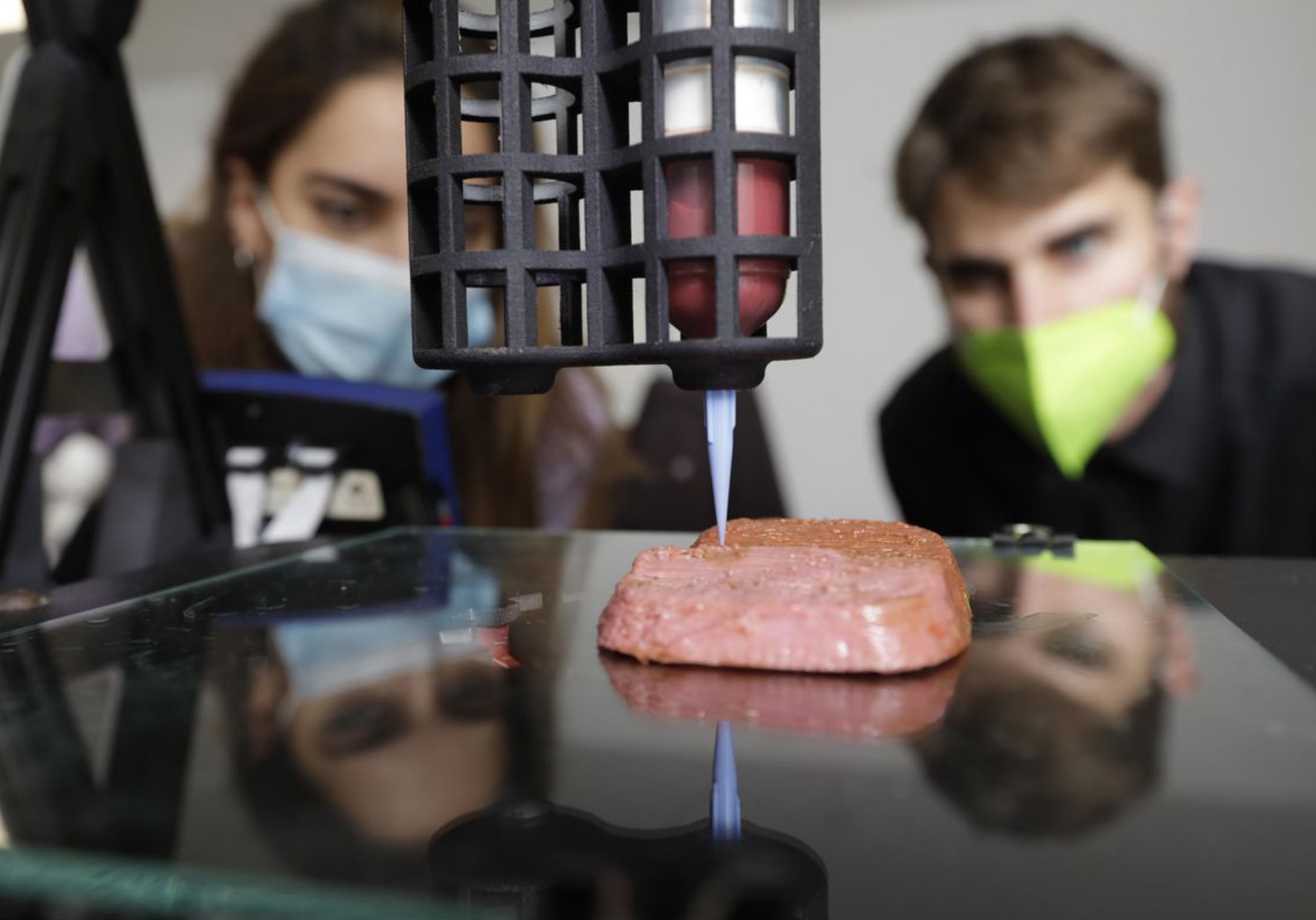
These will mostly be products based on high quality ingredients. Optimised for consumer segments; by taste, nutritional profile, texture, flavours and depending on the time of consumption.

**Much more varied.** We might see dozens of different sausages with complex flavours or meatballs in fruity sauces for new palates. I wouldn't be surprised to see different options according to mood or weather (sunny, cloudy). Food, as part of an experience that must be integrated into the environment and with the person himself or herself. The ceremony of preparation and tasting will be replaced by thematic consumption, in a context and in a convenient unit of time.

**Ready to eat.** Food will come pre-cooked, and dishes will be ready to eat just by heating them up. The preparation of products with complex ingredients requires a lot of time and care, and will therefore be very difficult. Cooking will be relegated to grandmothers and a few purists.







## Giuseppe Scionti

Founder & CEO of Novameat



**NOVA  
MEAT**



**Areas of expertise:**  
bio-engineering, foodtech.

**Favourite food:**  
pizza.

### What do you consider to be the main challenge currently facing our food system?

The food system faces the challenge of being the main cause of biodiversity degradation. Livestock contributes to 41% of all deforestation in the planet's tropical zones. By the same token, the people working to innovate the food system are fortunate to be the ones who can contribute the most to saving the planet.

### How are you contributing to the transformation of the food system?

**The most direct ways to reverse the collapse of biodiversity are fourfold: switch to renewable energy, stop deforestation, stop overfishing and switch to a healthy plant-based diet.**

Three of the four strategies can be addressed by offering consumers plant-based alternatives to meat and fish. Around 80% of retail meat sales in the West come from whole cuts of meat, such as beef steaks, pork tenderloins and chicken fillets. Novameat focuses on producing the world's most realistic and advanced alternatives to whole cuts.

### What company or solution would you highlight for its potential in solving our greatest challenges?

In my opinion, the projects that contribute the most to the ongoing urgent food challenges are projects working on **alternative protein products, food education for youth and food waste.**

### The food of the future will be...

Art, not just science.

I think the rise of foodtech is getting a lot of talented innovators interested in the sector, coming from other fields of technology. This allows an accelerated path to the future of food. The food of the future will be a mix of tradition and novelty, and there will even be hybrid meat containing ingredients from all kingdoms of living things: algae, fungi, bacteria, animal cells and plants. What is certain is that it must be sustainable.



# Liron Nimrodi

CEO & Co-founder of Zero Egg

**Areas of expertise:**  
egg alternatives.

**Favourite food:**  
red curry vegetables and tofu.



## What do you consider to be the main challenge currently facing our food system?

From meeting consumers, I see that people want to eat more plant-based foods, but the challenge is that it's not accessible or easy to find and often demands compromises on taste and experience. Animal-based food is much easier to eat daily when you are in work, on the go and at home.

Zero Egg is here to tackle it and empower the era of sustainable food, we are empowering restaurants chefs, caterings, and food service operators to offer their consumers more plant-based options starting from breakfast to lunch, dinner and deserts.

Our next phase will be offering Zero Egg to consumers in retail.

## How are you contributing to the transformation of the food system?

If you think about it eggs are the basics of our food, they are in almost in every dish that we eat. Zero Egg is a versatile product that replaces ordinary eggs and can create a wide variety of dishes, from scrambled eggs, omelettes and frittata to baked dishes and sauces.

**We are here to revolutionise the egg industry which is unsustainable and cruel. When you use Zero Egg instead of a regular egg you reduce the use of water & energy by 93%, the use of land by 92% and greenhouse gas emissions by 60%.**

There are 6 billion laying hens in the world with the sole purpose of laying eggs. 1 trillion eggs are produced each year. Think about the environmental impact Zero Egg can have if we just switch 10% of eggs to Zero Egg.



## What company or solution would you highlight for its potential in solving our greatest challenges?

All the alternatives to animal-based companies are taking us forward to a better world. I see Zero Egg collaborating with other brands like plant-based butter cheese and meat in order to bring consumers the most complete solution. In the US we have just launched a **plant-based egg patty** for a breakfast sandwich, which has 10 grams of protein and a clean label. Our egg is perfect in a breakfast sandwich together with a plant-based sausage and melted plant-based cheese. Creating enough solutions for consumers will change our food system.

## The food of the future will be...

Completely plant-based.







## Miguel Calatayud

CEO of -iwi-

**Areas of expertise:** food innovation, agriculture, productive processes, branding & communication, always planet and consumer centred.

**Favourite food:** traditional food with new ingredients that come from non-conventional sources.



### What do you consider to be the main challenge currently facing our food system?

The main challenge we face is to be able to create products that outperform all aspects (organoleptic, nutritional, price, convenience...) of conventional products, but to produce them in a sustainable way (in all aspects of sustainability, including economic), at scale, and as close as possible to the consumer. One essential element that many of the new technologies tend to forget is the nutritional and health aspect. Our challenge is to do all of the above and do it in a healthy manner.

**“Together we create sustainable food solutions for everyone and our planet.”**

### How are you contributing to the transformation of the food system?

At iwi we grow what I consider to be the most effective plant on the planet, called **Nannochloropsis**. We do it in open ponds, using non-arable land, salt water, the sun as our main source of energy and consuming thousands of tons of CO2 per year (while producing oxygen). The products we market are impacting hundreds of thousands of families by helping them maintain healthy cholesterol levels (we have clinical studies and hundreds of customer testimonials to prove it), improving mobility due to the anti-inflammatory effects of our exclusive EPA, improving concentration levels and encouraging them to enjoy life positively.

### What company or solution would you highlight for its potential in solving our greatest challenges?

We will soon be commercialising **a protein that comes from the same algae**, that is not only superior to any other animal or vegetable protein but will transform the way we look at all aspects of nutrition by significantly improving the nutrition and quality of life of millions of people by allowing us to develop solutions that were technically unthinkable until now.

### The food of the future will be...

Fun, tasty, varied, surprising, innovative, changing, exciting, thrilling, nutritious, healthy... It will have global ingredients but adapted to local dishes, palates and traditions.

**I believe we have an opportunity and an obligation to preserve the flavours and culinary traditions of each region while being able to do so using more sustainable, healthier and scalable ingredients.**



# Iñigo Charola

CEO of BioTech Foods

**Areas of expertise:** business administration and analysis, planning and execution of projects oriented to new markets.

**Favourite food:** food produced in a healthy way and in line with responsible consumption.

**Bio.Tech.  
Foods.**



## What do you consider to be the main challenge currently facing our food system?

We are facing a crucial challenge: to attain a more sustainable and efficient global food system. As scientific reports show, the numbers don't add up.

**Population growth demands urgent solutions to meet food demand, and technological innovation has much to contribute.**

## How are you contributing to the transformation of the food system?

At BioTech Foods we have been working on the cultivation of animal cells to produce healthy meat since 2017, in a more efficient way and avoiding animal slaughter. Innovation has been a constant in the food industry, so I believe that, thanks to the various technologies we are working on today, the future of this sector is going to translate into a wide variety of sustainable, healthy and safe products. In short, I believe we are in the midst of a revolution that is both unprecedented and necessary for global food viability.



## What company or solution would you highlight for its potential in solving our greatest challenges?

The revolution that alternative proteins represent and the **AgroTech** ecosystem in which we work. Being able to contribute to food demand by using innovation and observing sustainability criteria whilst upholding respect for the environment and animals is in my opinion an important milestone. And it is thrilling to be part of something whose objective is to offer an alternative to the problems faced by the current food system. As I often say, work towards something because it is good, not just because it can be successful.

## The food of the future will be...

More respectful with not only natural resources but the environment that surrounds us, thanks to the incorporation of alternative proteins into our menus.

**Achieving a balance between the eating habits we are used to, and the new solutions offered by science, through constant research, becomes the only recipe for reducing the worrying environmental impact that is caused by our current food system.**





## Priyanka Srinivas

Founder & CEO of The Live Green Co

**Areas of expertise:** Food technology, sustainability, retail.

**Favourite food:** I'll go with mango! I love this fruit. Anything with it is yummy... raw mango dal, pickle, shake or ice-cream...



### What do you consider to be the main challenge currently facing our food system?

The main challenges being faced in the food industry right now are multiple but generally run along two lines: health and sustainability.

**Today's Western diet consists of ultra-processed and additive-filled foods which are contributing to countless diseases, including heart disease, diabetes and depression.**

More than half of the calories consumed in the US and UK consist of ultra-processed food, and we're missing out on many important nutrients that are vital for healthy bodies and minds.

On the other hand, our eating habits are contributing to the ongoing climate crisis and mass environmental damage. Animal agriculture increases greenhouse gas emissions, and our rainforests and oceans are being destroyed to cater for the high demand for animal products. The impact of this is not limited to the "natural world" – humans are already being displaced due to extreme weather and food security is at risk if we don't drastically reduce our carbon emissions.

Combating these challenges will require a complex, multipronged and united approach on a global scale, with the responsibility lying with all of us, as well as governments and big business.

### How are you contributing to the transformation of the food system?

At The Live Green Co, we're blending **ancestral wisdom** of plant nutrition with biotech and **machine learning** to take a data-centric approach to uncover healthy alternatives to harmful animal-based, synthetic & ultra-processed food additives. As a result, we've been able to create all-natural, nutrient-dense, and sustainable plant-only products.

Our products contain clean and functional ingredients, with ingredients provided by local SMBs and farmers. Our packaging is made from vegetable plastic and is biodegradable and home compostable. In doing this, we hope to address three of the UN's sustainable development goals: good health & wellness, decent work & economic growth, and responsible production & consumption.

Ultimately, we aim to disrupt the way the world consumes by providing 360° green solutions that are available for everyone.



### What company or solution would you highlight for its potential in solving our greatest challenges?

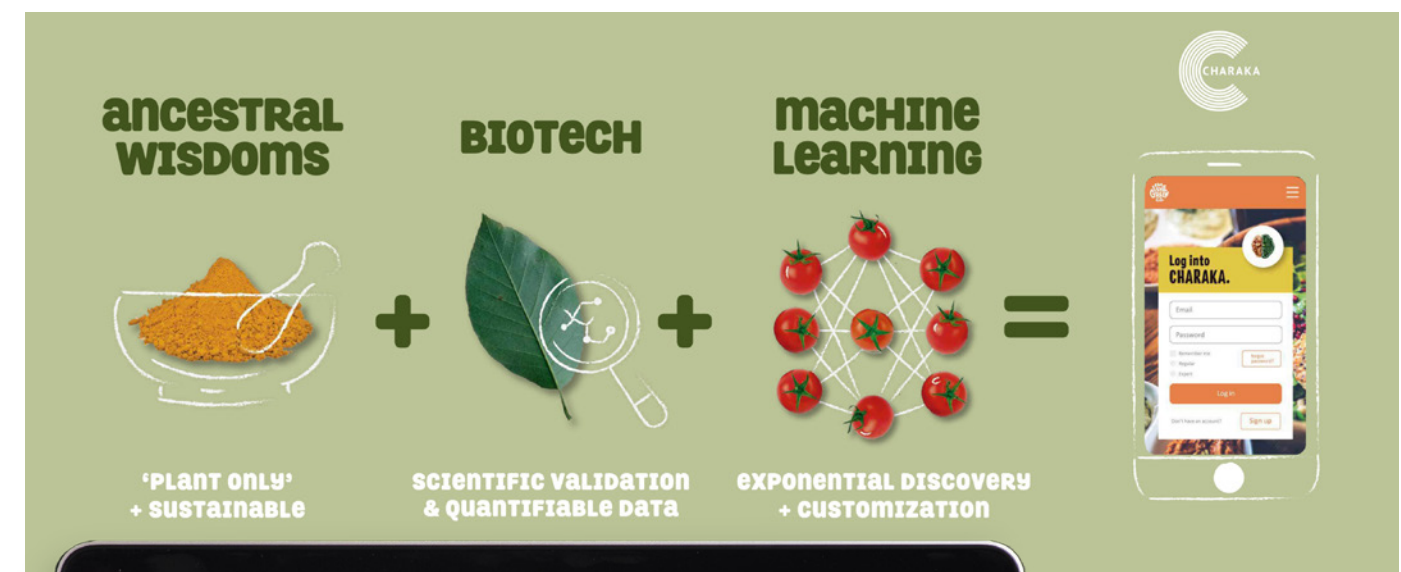
**Pachama** is an organisation that's leveraging data, AI, and automation to project ecosystems, restore forests, and improve carbon markets.

### The food of the future will be...

The future of food will be one where planetary health and human health are prioritised above all else.

We cannot afford to continue eating the same diet that's contributing so heavily to carbon emissions and environmental degradation.

**I see a future where we use modern technologies to help us return to ancestral ingredients that allow us to get the nutrients we need and look after our planet.**





## Marc Coloma

CEO & Co-founder of Heura

**Areas of expertise:** food technology, environmental and animal rights activism, sustainability.

**Favourite food:** any Mediterranean vegetable protein dish.

heura



### What do you consider to be the main challenge currently facing our food system?

Our food system is obsolete and can only be transformed by removing animal protein from the equation.

**The main challenge is the dependence on animal protein that produces 14.5% of global greenhouse gases and contributes to the creation of dead zones in our oceans.**

In a context where animal protein consumption has more than doubled in the last 50 years, we have to feed a growing population, almost 9 billion people by 2050, while reducing the environmental impact of our system.

### How are you contributing to the transformation of the food system?

Our contribution is always oriented towards providing solutions. One of the big motivations that led us to create Heura is that people had no alternative options to animal protein when they went to the supermarket. Heura, together with other companies in the plant-based sector, are democratising and facilitating access to proteins that are healthier and more sustainable than animal proteins. We are working to constantly improve sustainability, not only in terms of the impact of our production but also to make the most of the essential ingredients of our Mediterranean diet.

### What company or solution would you highlight for its potential in solving our greatest challenges?

One of our most outstanding contributions is the animal fat substitute. The great minds of our R&D team have succeeded in using **solidified olive** oil to emulate animal fat in our products. Our great achievement has been to reduce saturated fats in our products by an average of 85%.

### The food of the future will be...

It will be plant-based, safer, more sustainable and more nutritious than animal-based food.





## Didier Toubia

Co-Founder & CEO of Aleph Farms

**Areas of expertise:** food technology, biology, sustainability, social impact, innovation management.

**Favourite food:** carrots.



### What do you consider to be the main challenge currently facing our food system?

One of the big challenges of cultivated meat is the ability to produce large quantities efficiently at a cost that is in line with the meat industry. Aleph Farms has developed five different technologies which are put into a proprietary large-scale production process and patented by the company. This technology platform provides us with a clear path to price-parity within five years from our initial launch in 2022. The cost reduction process is faster than the new generation of plant-based alternatives to meat.

Building trust with consumers is also capital to our strategy. From Aleph Farms Community Center to extensive market surveys around the world, we listen to consumers and provide transparency into our business practices and production methodology. Through research we're currently conducting, we're gaining insights regarding our future customers that will further inform our marketing strategy.

### How are you contributing to the transformation of the food system?

Aleph Farms aims to create resilient food systems and to be part of an inclusive solution for achieving local and global food security. To accomplish this vision, we have a comprehensive approach to sustainability.

- **Environmental** – develop sustainable manufacturing facilities that incorporate practices that allow us to use all resources in an efficient and circular manner. Prioritise the conservation, protection and enhancement of natural resources
- **Economic** - produce affordable products in a sustainable way, strengthening local and global food security. Work alongside the existing meat and food industry through an inclusive business model with local partners
- **Social** – create inclusive business models and collaborations that empower local communities. Introduce cultivated meat as part of and in collaboration with livestock agriculture.
- **Health & Nutrition** – take part in the Sustainable Diet movement, provide nutritional accessibility and address issues of both under-and-over nutrition throughout the world

Our strong commitment to net zero carbon and partnerships with the world's leading food and meat companies empower our inclusive model that utilizes the infrastructure and expertise of global meat companies to help rapidly drive and scale the cultivated process. In turn, this will lead to a broader positive impact and will help us fulfil our vision for an inclusive food systems transition toward a more sustainable, equitable, and secure world.

### What company or solution would you highlight for its potential in solving our greatest challenges?

The key to mitigating climate change is methane emission reduction, and livestock (cattle) are the largest methane emitters in the western world. Methane has 80 times more warming power than carbon dioxide. Thus, one base point of methane reduction is equivalent to 80 base points in CO2 emission. In addition, because it does not stay for long in the atmosphere, reducing methane emission leads to decreasing greenhouse gases in the atmosphere - which is not the case with CO2.

**We therefore need to invest in both methane emission reduction with conventional cattle farming (incremental innovation) and in new production methods for meat, such as cultivated meat (transformational innovation), which are neutral in terms of climate impact.**

At Aleph Farms, we believe that in order to transition to a more sustainable and resilient food ecosystem, we must combine sustainable methods of agriculture (supported by incremental innovation which aims to make our existing practices better) with complementary transformational innovation, supported at all times by local regulation and policies.

### The food of the future will be...

Inclusive, in harmony with nature and delicious!





The range of complementary products to traditional protein is opening up more and more: with proteins of plant origin; the use of artificial intelligence to improve flavour; the use of fermentation techniques or 3D printing to improve texture; advances in the field of laboratory meat and fish substitutes; experimentation with insect meals; as well as the rise of hybrid products.

Is society ready for these new foods? New proteins are entering the industry and with them new challenges, such as factories that need new investment in infrastructure, adapting or waiting for new regulations, managing to simulate or approach the taste and texture to which the consumer is accustomed, in order to adapt to the market

**Price and legislation will initially be limiting factors for this type of product. Hybrids will bring to the market acceptable (if not good) products at an affordable quality.**

It is vital to educate consumers so that they know which new foods are going to be introduced into their diet and which production method they have gone through because, thanks to these technological advances, it is possible to achieve ecological and sustainable production with high product quality, good taste and benefits for the health of the planet and people.

The future of the food industry is to produce increasingly natural and healthy food. We all know that our health is affected by what we eat, so there is an increasing tendency to take care of what we eat.

Therefore, our responsibility is to meet this demand with foods that take care of people's health and have a positive impact on it. But also, food that is more natural, which inevitably involves innovation in plant-based products and improving agricultural productivity in a sustainable way.

Consumers of plant-based products are increasingly demanding. They consume these products out of conviction because they are aware of and committed to their health and to the planet.

This is a sector that is constantly growing in terms of demand, but also in terms of supply. However, consumers demand quality and versatile products with nutritional value that make their lives healthier and improve the planet.

The demand for protein-rich products and foods is increasing, but studies warn that the production of meat protein as we know it today is not sustainable to meet this demand. For this reason, the future lies in offering animal protein substitute products made from natural ingredients.

In this sense, investment in innovation is key to offering alternatives, basically proteins made from plant-based ingredients. Solutions with high protein value but environmentally friendly and a healthier alternative for consumers. Demanding consumers that call for quality solutions without sacrificing taste and texture. The future of proteins lies in providing the food industry with solutions with innovative **clean label** and allergen-free ingredients to meet the most demanding consumer expectations.

**DACSA GROUP**







# 06

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## **FIGHTING FOOD WASTE** WITH INNOVATION

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Solveiga Pakšaitė / Santi Mier /  
Daphna Nissenbaum / David Kat /  
Michael Haase / Rodrigo García



# Solveiga Pakštaitė

Founder & Director of Mimica

**Areas of expertise:** user centred design, foodtech, food waste.

**Favourite food:** Lithuanian stuffed cabbage rolls have to be up there for me - we call them 'little pigeons'.



## What do you consider to be the main challenge currently facing our food system?

Globally, a third of food produced is wasted (FAO, 2015), with up to 83% of food wasted in Europe being still safe for consumption (FUSIONS, 2016). When we waste food, we also waste land, water, energy and other scarce resources used to produce, transport and refrigerate food. Alongside the methane we know cattle produce; rotting, avoidable food waste generates even more preventable methane, a greenhouse gas 23 times more potent than CO<sub>2</sub>. If food waste were a country, it would be the third-largest contributor to climate change, behind the USA and China (FAO, 2013).

A major food waste contributor is confusing and over-cautious expiry dates, which are set at worst case scenarios to help protect consumers but leads to perfectly good food being thrown away. Despite more people becoming aware of the issues of food waste, there is still mass confusion with the current printed date system. We need a new standard of food freshness information that empowers consumers through scientifically accurate indicators.

## How are you contributing to the transformation of the food system?

We've created a simple tag, called **Mimica Touch**, that feels bumpy when a food should no longer be consumed - determined by the actual temperature scenarios experienced in the 'journey' of the product from the supermarket, into the fridge at home and until it is eaten. Mimica Touch also provides reassurance that the food you're about to eat has been stored correctly and is safe to eat. As the tag is temperature sensitive, you will be rewarded for better storage as the label will show that the food is fresher for longer. The tag contains a gel that mimics the condition of the food and drink spoilage profiles, and we calibrate the gel to match the temperature sensitivity of various foods, such as juice, beef and milk.

**In the vast majority of cases, we should be able to increase the shelf life of perishable foods such as meat and dairy by a minimum of 2 days, reducing waste in the home of the most perishable items by 63%.**

**Mimica** will work with food manufacturers to decide new, longer expiry dates, which better reflect expected shelf life with the added safety net of Mimica Touch turning bumpy in case of worst-case scenarios of food being too warm for too long.

## What company or solution would you highlight for its potential in solving our greatest challenges?

I love to use the **Olio** app which allows me to share any surplus food I have with my neighbours, and also collect their delicious leftovers, vegetables, cakes. It's such a simple idea that creates a sharing economy of food. Mimica also shares an office in London with their wonderful team!

## The food of the future will be...

Conscious.





# Santi Mier

Founder of Ocean52, former CMO of Danone

**Areas of expertise:** healthy food, sustainability, circularity and impact.

**Favourite food:** discover native/local food with people I enjoy being with.



## What do you consider to be the main challenge currently facing our food system?

The main challenges that the food system is currently facing are, in my opinion, related to three key factors: **1) The first one is clearly driven by scale and homogenisation.** The constant growth of the population, following consumption patterns that are increasingly occidentalised, international and moving away from traditional and local diets is causing great tensions in both the supply chains and the primary sector. A large part of the population will add new food to its diet in a short period of time, generating an excess demand that the supply chain may not be able to handle, and could even become counterproductive. Are we prepared to double our avocado consumption per household in the next 5 years? Surely yes, but are we prepared for such an increase to occur in 1 year, not only in my household but in all Europe and the United States simultaneously? And what if what increases is the consumption of bluefin tuna which is in continuous overexploitation? We cannot believe that a model based on uniformity is the best way to respond to our food needs.

**2) The second factor encompasses the price-health relationship.** The industrialisation of the food chain has enabled the so-called democratisation of food. Although eating is not usually expensive in most countries, eating healthy and nutritious food is. However, affordable, industrialised food often uses ingredients that are neither the best quality nor nutritionally balanced. It is precisely what we are not paying today with our money that we will pay tomorrow with our health and, at worst, what we cannot pay today with our money is already translating into increasing obesity and diabetes rates.

**3) The third factor is all about “nutritional-environmental efficiency”.** This is clearly linked to the use of natural resources. We are increasingly aware of the relationship between our consumption habits and the limited resources of the planet.

**The way people consume is killing the planet! Waste reduction, regenerative agriculture, hydroponic crops, protein and energy transition, water management and food autonomy are just some of the ways in which we are trying to respond to this challenge.**



## How are you contributing to the transformation of the food system?

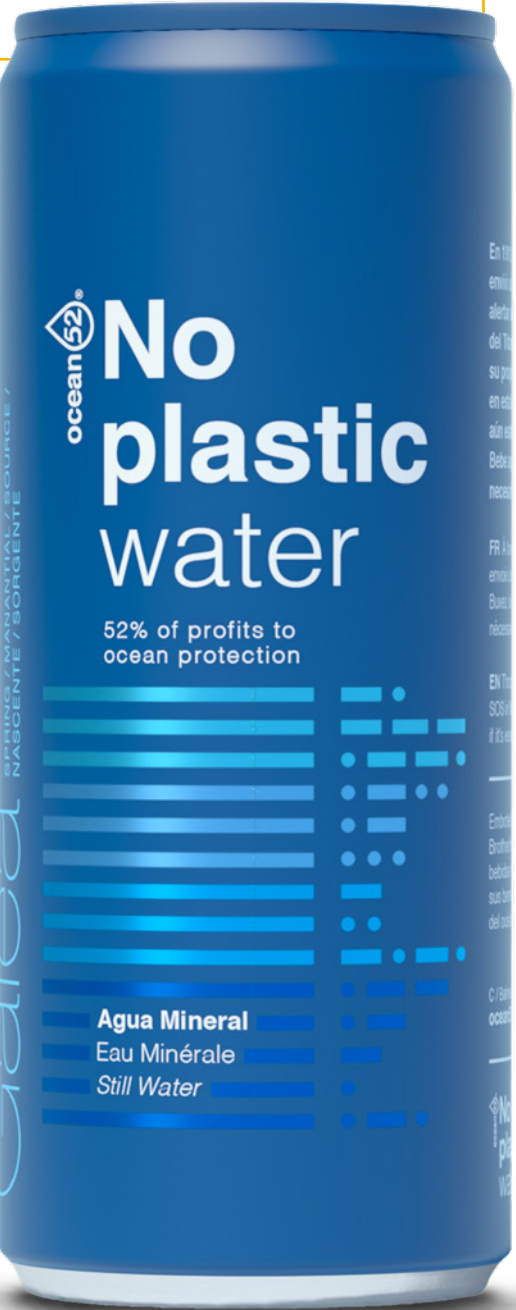
We created **Ocean52**, the first beverage company to devote 52% of its profits to protecting the ocean 52 weeks a year. Our first range of beverages consists of **NoPlasticWater**, a natural mineral water packaged in infinitely recyclable aluminium, and **OceanRecovery**, an isotonic drink with ocean minerals and magnesium that helps reduce fatigue.

## What company or solution would you highlight for its potential in solving our greatest challenges?

I would highlight the methodology developed under the supervision of the UNESCO Chair in life cycle and climate change by which the **“real recyclability”** of packaging is measured, considering not only the materials but also the design, the interaction of the former in the recycling process and the facilities that allow proper recycling. It is the fairest and most transparent measurement available and the one that shows the path we must follow in order to promote true circularity of packaging.

## The food of the future will be...

Nutritionally and environmentally efficient or it won't exist.





# Daphna Nissenbaum

CEO of TIPA®

**Areas of expertise:** compostable packaging.

**Favourite food:** salad.



## What do you consider to be the main challenge currently facing our food system?

The demand for packaging for food items has never been higher, however, conventional plastic packaging is becoming less and less legitimate as a solution because of its harmful end-of-life. One of the major challenges that the food industry faces is that it relies on packaging to keep food fresh, include important product information, and to transport food globally, but it cannot continue to package the way it has. Since TIPA® started out, there has only been an increase in demand for sustainable flexible packaging solutions that can meet the standards of the dry and fresh food segments. TIPA's compostable solutions are printable, machinable, transparent, and certified as compostable. This technology has enabled dozens of brands to shift to truly sustainable—but also fully functional—packaging that runs on their machinery, keeps their food fresh, is printed with product information, and returns to the soil as a resource.

## How are you contributing to the transformation of the food system?

TIPA® continues to develop compostable solutions that can meet more and more technical specifications for the food industry. Our R&D team leads the field in new compostable packaging solutions and works together with every player in the packaging supply chain to bring our clients compostable solutions that can meet the most sophisticated requirements on the market.

## What company or solution would you highlight for its potential in solving our greatest challenges?

**Compostable packaging provides more than a solution for food packaging. It also supports healthy waste practices and encourages consumers to separate their food waste.**

With compostable packaging, you can dispose of the packaging with the food, and together they will decompose with other organic waste, creating nourishing compost that supports healthy soil and agriculture.



## The food of the future will be...

The food industry, as well as its packaging, will adapt more and more biomimicking technologies to meet the needs of our growing population. Foodtech is shifting towards innovation that can provide holistic solutions inspired by processes we find in nature. Compostable packaging will integrate with the food industry and our natural ecology because it was inspired by nature.





# David Kat

Business Development at Wasteless

**Areas of expertise:**  
innovation, scaling, impact.

**Favourite food:** Ottolenghi's cauliflower and tahini, on my roof terrace with friends.



What do you consider to be the main challenge currently facing our food system?

**Let's go straight to the point. We need to half food waste by 2030. This means we'll have to show reductions of 10% and more, year-on-year, very soon. This requires impact that can scale. And it must turn a healthy profit. We can only do that by preventing the waste from happening in the first place – and not push the problem around in the food chain, creating waterbed-problems.**

Supermarkets are well positioned to achieve this at scale, but they require time. Once they're going full speed, they will be the driving force behind behavioural change at home.

Which is why supermarkets must start acting on preventing food waste, trying different approaches and being clear about what works to prevent waste. So that we can all waste less.

How are you contributing to the transformation of the food system?

Repairing the broken food system, that wastes 40% of its production, depends heavily on food waste prevention. **Wasteless** creates a business case for inserting data into the supply chain. Optimising discounts achieves the sale of perfectly fresh food, with shorter shelf lives, at their best price point and at the best time. The insights that Wasteless enables, powers a more demand driven production. For the first time, supermarkets engage consumers with a narrative on conscious consumption. Actionable awareness, to also prevent waste at home.



What company or solution would you highlight for its potential in solving our greatest challenges?

**Drawdown**, the meta study that prioritises solutions that reduce our carbon footprint. The combination of preventing food waste and eating more green proteins, has the potential of saving 150GT over the next 30 years. That would even out the emissions of the US. Clearly, the solution is in changing the way we consume food, three daily meals at the time.

The food of the future will be...

Smart.

Full of data, to make sure that we consume what we produce. And that what we produce is healthy for both people and the planet, as well as in everyone's financial interests.





# Michael Haase

CEO of Plant Jammer

**Areas of expertise:**  
fighting food waste at home.

**Favourite food:**  
Baba Ghanoush.



## What do you consider to be the main challenge currently facing our food system?

In the fight against food waste, we tend to be missing the point: 44% of food waste happens in the home, and when we push food close to expiry away from retailers or restaurants into people’s homes, we’re not necessarily solving the problem.

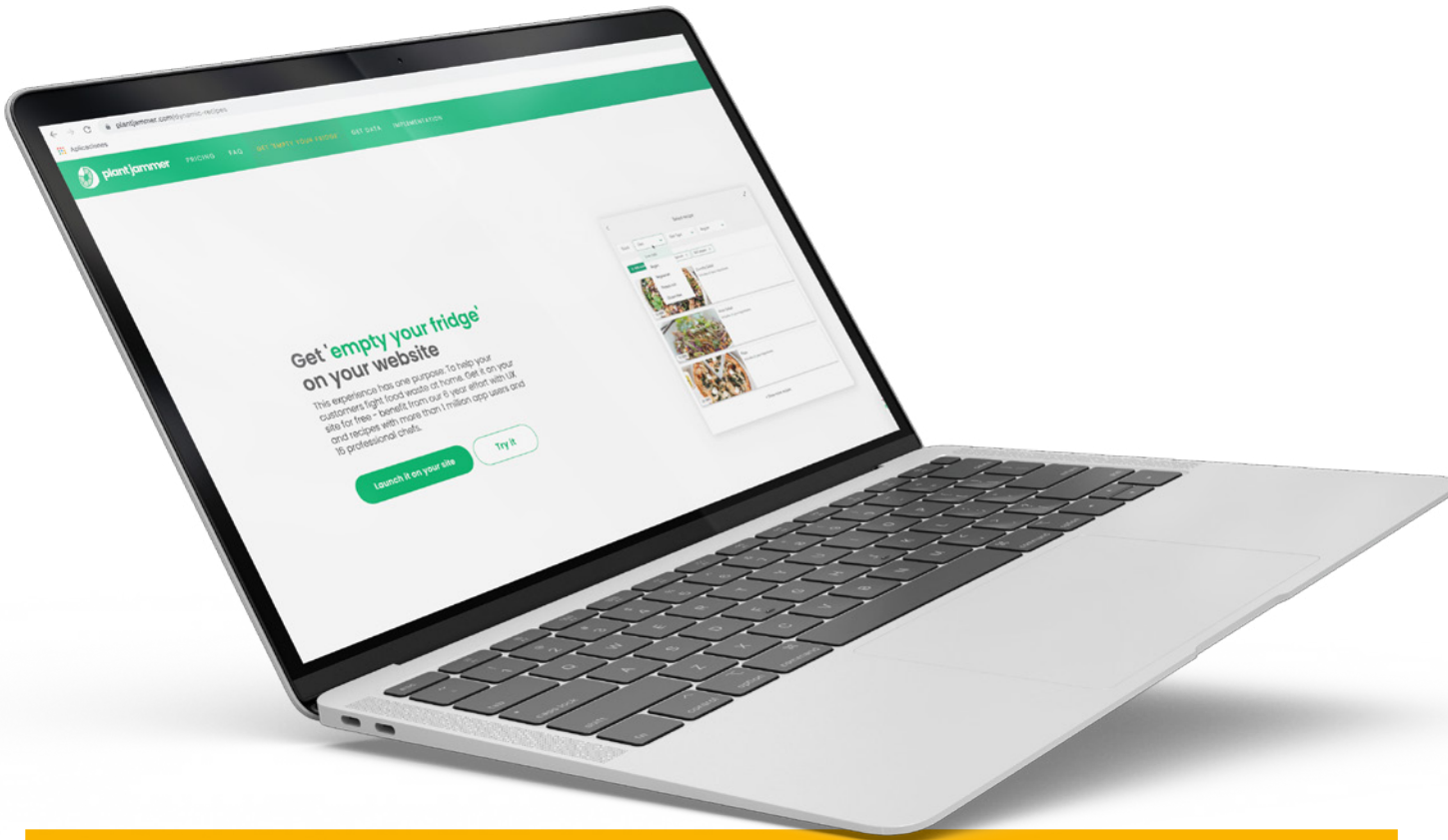
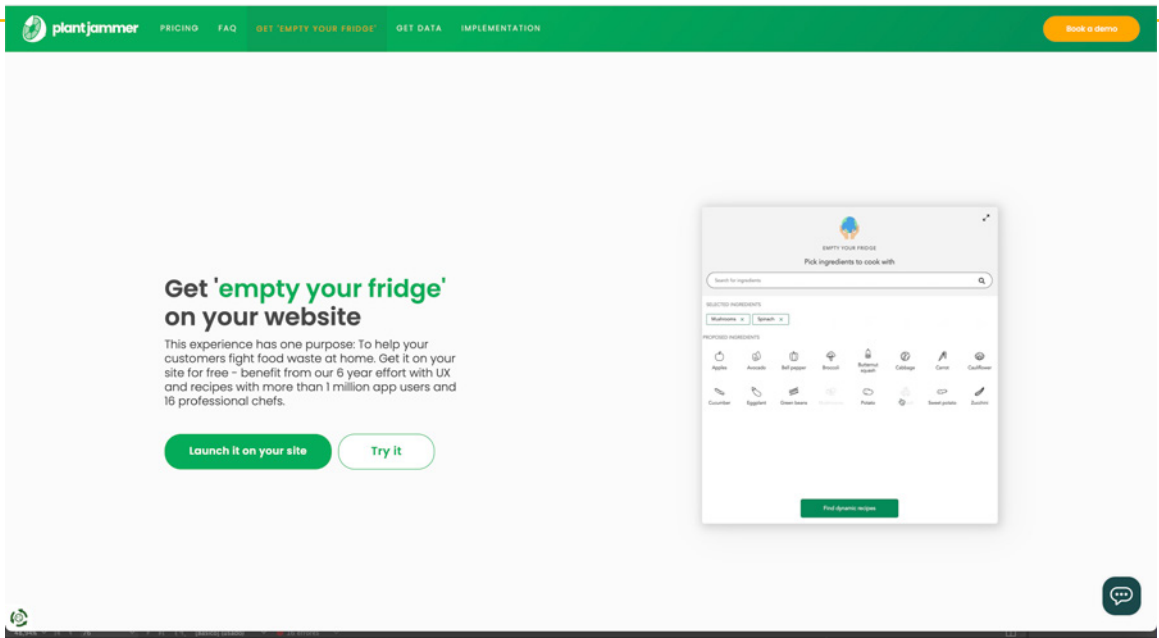
## How are you contributing to the transformation of the food system?

At **Plant Jammer**, our vision is to fight climate change, stopping food waste and enable people to cook more vegetable-based foods. How? Through artificial intelligence and machine learning, giving free rein to people’s creativity in the kitchen. With Plant Jammer technology, people learn to love cooking and discover combinations of foods that they never imagined existed.

We are a team of data and food scientists, and we strive to be world leaders in the combination of data and food science. The existing food chain is inefficient, unsustainable and too focused on “convenience at any price”.

**The construction of a new sustainable food chain focused on the reduction of food waste, the increase in plant-based cooking and self-empowerment are the driving forces behind our work.**

At Plant Jammer we empower home kitchens to become more flexible, with solutions such as our dynamic recipes. We publish this on hundreds of websites to distribute the technology for free to as many as possible.



## What company or solution would you highlight for its potential in solving our greatest challenges?

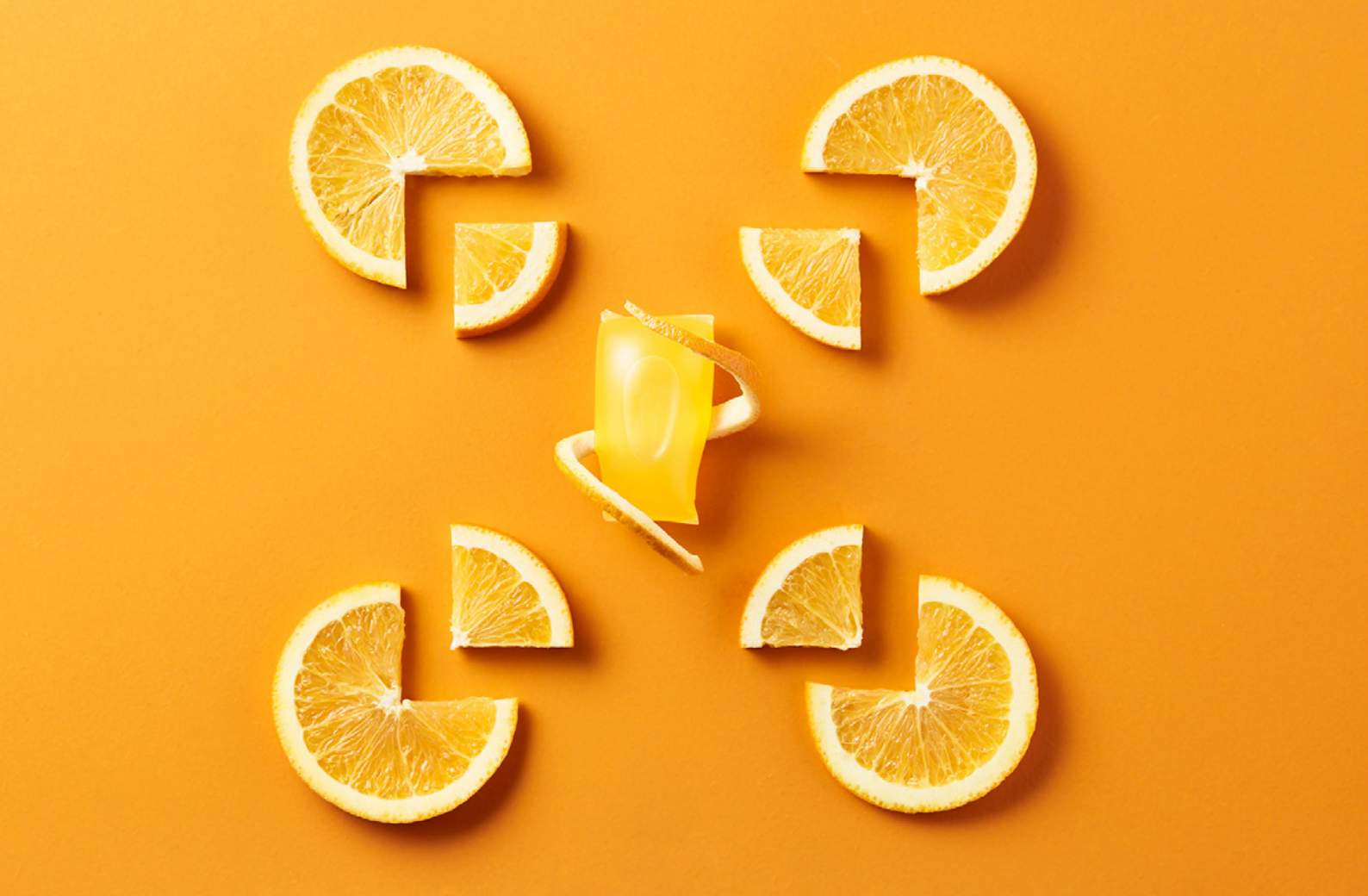
Concepts like **Oddbox** and **Eatgrim** that engage and empower citizens to act, creating awareness via actions.

## The food of the future will be...

A personalized food that empowers the home kitchens. I don’t believe convenience will take over, and that people will only be eating ready-to-eat snacks and powders. The future puts flavour and ‘real food’ at the centre, and makes that easy.







## Rodrigo García

Co-CEO of Notpla

Areas of expertise:  
design.

Favourite food:  
fried eggs.



### What do you consider to be the main challenge currently facing our food system?

There are several challenges, and the one we focus on is looking for regenerative packaging alternatives. Currently as a society, we use linear systems of consumption, and we rely on plastic packaging to deliver food to citizens. Despite it providing certain benefits, it nevertheless entails very high costs regarding the use of natural resources, energy, global warming, micro-plastics...

### How are you contributing to the transformation of the food system?

We design and produce sustainable packaging ready to disappear in a natural way, using **algae as the main raw material**. We focus on providing solutions where the shelf life of the product and the shelf life of the packaging do not match. An example of this is the difference between how fast a bottle of water is consumed vs. the centuries that the plastic bottle will last. We like to think that we design membranes for products in the same way that nature creates skins for fruits.

### What company or solution would you highlight for its potential in solving our greatest challenges?

I would highlight those solutions that as a society we used in the past, **based on local and natural systems and materials**. For example, filling the earthenware jug or wineskin, a system that worked well in the past and that we can revisit and give la role again in society.

### The food of the future will be...

Natural!





The biggest challenge facing food waste lies in the lack of urgency and knowledge about the current situation on the planet. Innovation within this sector can be seen in actions such as new packaging, waste revaluation or different methods to extend shelf life.

The power of data and artificial intelligence in this field helps to control the effectiveness and efficiency of the entire process, from the field to the user. The focus is on understanding in real time how food is produced, distributed and consumed, and at what stages of the chain avoidable waste is generated.

The Valencian company Dacsa has been committed to sustainability and zero waste for years. To this end, it is integrating innovations into its production systems to ensure that they are environmentally friendly at all levels. This directly affects the packaging and preservation of our products. They point out that the industry's main challenge with zero waste and sustainability is to create practical and applicable solutions. Solutions based on innovation that are environmentally friendly, but also economically sustainable.

**Educating, developing and sharing good practices are the keys to fighting food waste. To achieve this goal, one of the methods could be to create a process that mimics how nature works and apply it to humans' production and consumption processes; centralise the entire food chain through data to unite all agents so that they can feed each other through the results they generate.**

In recent years, sustainability has become an important factor in the habits and purchasing decisions of consumers. At Incarlopsa we understand sustainability as a global concept that groups together both the company's environmental commitment to reduce the impact that its activity can cause on the environment, as well as other aspects linked to our sector such as animal welfare or the reduction of food waste.

Incarlopsa's R&D, Quality and Environment department develops and applies the most innovative solutions to reinforce our commitment to sustainability, which translate into concrete results. For example, in terms of animal welfare, months ago we installed a video surveillance system in our slaughterhouse to have total control of the animal while it is alive, anticipating future regulations to be applied in Spain. And in terms of food waste, the initiatives implemented have allowed us to reduce the total accumulated by 240 tons during the first eight months of 2021. The challenge is ambitious but achievable: zero waste.

**INCARLOPSA**



Law 7/2021 on Climate Change and Energy Transition provides that in the bid specifications for public contracts for services that require the purchase of food, special bid conditions may be established that prioritise fresh or seasonal food with a short distribution cycle. This is a voluntary inclusion, and it will be up to each contracting body to decide whether or not to include these provisions in the specifications.

Its inclusion in a regulatory text is the first step towards promoting a generalised and homogeneous application of parameters that guarantee food safety in Spain in the face of the risks arising from climate change, and therefore the promotion of the procurement and distribution of healthier food.

**BROSETA**







# 07

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## **TECHNOLOGY AT THE SERVICE OF THE INDUSTRY: AI, DATA AND ROBOTICS**

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**Cristian Ull / Mario Ubiali / Alon Chen /  
Lynette Kucsma / Guillermo Blázquez /  
Henrik Stamm / Sebastián Pillado**



## Cristian Ull

Head of Innovation at Logifruit

**Areas of expertise:** open innovation, corporate venturing, technology, innovation methodology.

**Favourite food:** La Viña cheesecake.

LOGIFRUIT



### What do you consider to be the main challenge currently facing our food system?

The food system is undergoing a global redefinition, as major challenges are stretching the model even at what may appear to be opposing points at first glance.

### Is it possible to produce competitively, efficiently and in an industrialised fashion while using traditional, ecological and organic approaches?

Can the end consumer have his or her purchases and/or products home in 20 minutes in a sustainable way?

Is it possible for convenience, sustainability and competitiveness to form part of the same product?

These reflections are generating niches in which to innovate, gaps where companies are transferring their approaches in order to give an answer to the challenges of the food system.

Organisations, startups, technological institutes and universities are working together on topics such as sustainable production, digitisation of the primary sector, traceability from the source, circular economy of packaging, connected supply networks, sustainable last mile... many topics that will undoubtedly define the food system in the coming years.

### How are you contributing to the transformation of the food system?

At a personal level, I am defined by the restlessness to be guided by my curiosity. This curiosity makes me hungry to promote initiatives and projects that transform or define society.

My contribution to this transformation is based on:

- Generating knowledge about the future of the food system by connecting trends shared by different players,
- Translating these trends into specific initiatives and projects that can be promoted through pilots or investments to catalyse their growth,
- Sharing and spreading my experience and learning in this area in order to add to the cause others who support with their action a positive transformation of the food system.

### What company or solution would you highlight for its potential in solving our greatest challenges?

One of these projects is undoubtedly my company, **Logifruit**, which for 25 years has been exploiting the circular economy, even before the term or methodology became popular. Redesigning the processes that make it possible for us to have food in our daily lives in a sustainable and safe way is a lever for transforming and boosting other initiatives.

### The food of the future will be...

Food in the future will be daring and respectful, it will be experience and it will be preventive medicine, it will be health and it will be sustainable, it will be convenience and it will be a way of expressing our personality. Throughout history, food has been a reflection of societies, so I am sure that in the coming years food will mirror the general transformation of our way of understanding the world, towards a more sustainable, respectful and humane model.





# Mario Ubiali

Founder & CEO of Thimus

**Areas of expertise:** neuroscience-based solutions for the future of food.

**Favourite food:** my wife's homemade pasta with smoked tomato sauce and burrata.

THIMUS



## What do you consider to be the main challenge currently facing our food system?

Integrating neuroscience-based solutions into actual food design practices for real companies is a challenge. The dominant cultural and organisational traits in the food space are quite resistive to structural changes, but one could argue this is true for every human endeavour. However, I think the underlying big challenge is that the way we create, distribute and consume food has become completely unsustainable and is absolutely NOT human centric. That is where neuroscience can help a lot: challenging the whole notion of food as disconnected from humanity. Sustainability is not just environmental: it is also human. This is my area of expertise: **food humanism**.

## How are you contributing to the transformation of the food system?

I wish I could say we are doing as much as we would want to. However, we do feel that what we are doing all we can to influence decision makers in the domain of present and future food.

**By allowing companies and individuals to look deeper into what food experiences mean for humans (emotionally, cognitively and culturally), we strive to heighten their sense of responsibility towards their role in food systems. If real influencers considered how deeply food can shape who we are, I believe they would for sure start changing things.**

This is where we are contributing: we use neuroscience and other tools to show people this dynamic and deep picture of how food transforms emotions and cognitive processes.

As an entrepreneur, I take this mission very personally. It's a huge challenge in today's startup scene to navigate the temptations and misleading messaging and keep your hand steady on the helm. It is my learning curve, into which I put a lot of my own energy.

## What company or solution would you highlight for its potential in solving our greatest challenges?

Of course, I would feel compelled to answer: **applied neuroscience!**

I do respect the fact that people might want to hear a different angle on this. So, I will say that besides neuroscience, the other very interesting solution that I feel is underdeveloped is education.

In an age of technological domination, we should put more effort and thinking into stimulating debate, forming cultures, facilitating ideation and activism. So, I am also starting to do my little bit on supporting educational efforts: I teach part-time in some academic institutions, and I'm involved in promoting hackathons and other initiatives in high schools. It's very refreshing and it makes me feel like I really care about the future. I'm almost 50, so I'm most certainly NOT the future of Earth! I want to lend a hand to new generations.

## The food of the future will be...

Intimate.

I think there must be a revival of the deeper, inner, almost spiritual meaning of sourcing, cooking and consuming food. Indeed, it is a social practice. But it can only be such if we start again from our own, very personal relationship with food. So ultimately, I think the future of food must be that of taking a personal, deeply transformative approach to food.





Top Motivations



Healthy Oatmeal Bowl

★★★★★

75 reviews / 5 average



150,658 saves

# Alon Chen

CEO of Tastewise

**Areas of expertise:**  
AI, data, marketing, marketplaces.

**Favourite food:**  
Israeli salad with tahini.



**What do you consider to be the main challenge currently facing our food system?**

The main challenge the food industry faces is that consumers have evolved and demand more from every purchase.

**Consumers no longer exist in one space, and so the way we measure the market and make decisions that are better for the consumer, the planet, and the business must change.**

**How are you contributing to the transformation of the food system?**

By building **Tastewise**, the food intelligence platform that takes a consumer-centric approach to decision making in the food and beverage industry. Companies like Pepsi, Campbell's, Kraft Heinz and many more use Tastewise to make data-driven decisions on the sustainable, healthy, and delicious products they take to market.

**What company or solution would you highlight for its potential in solving our greatest challenges?**

The entire "New Food" movement that is creating a better future for all of us. Companies like **Redefine meat, Aleph Farms, Just Egg**, Tastewise and many more are paving the way to a sustainable, healthy, and delicious future.

**The food of the future will be...**

Sustainable, healthy and delicious. And the way to get there is to infuse data into every part of the supply chain. This is a rare moment in the food and beverage industry where the right thing to do for the planet, the consumer, and business are all the same thing, which is to use data to feed the world.

1 Suite Food Lounge

Vegan Asian

2 Spicy Dragon

Asian

3 Luscious Blue Caffino

French



**Food intelligence for outstanding brands**





## Lynette Kucsma

Co-Founder & CMO at Natural Machines

**Areas of expertise:** innovative kitchen and personal care solutions, using 3D printing.

**Favourite food:**  
any whole-food, plant-based dish.



### What do you consider to be the main challenge currently facing our food system?

Applying 3D printing solutions for food and personal care may seem crazy. But it's not really! For example, if you eat any food from a food manufacturer, you're practically already eating 3D printed food – they just don't call it that. 3D printing applied to food and personal care is responsible and sustainable and has a low negative environmental impact. The current challenge is to educate people on this type of solution that is relatively new.

### How are you contributing to the transformation of the food system?

We at **Natural Machines** create innovative kitchen and personal care solutions. Our solutions make products at or near the point of consumption, customised for each individual. A factory is large, makes products in a centralised location, and makes mass market products. Our solutions fit on a countertop, produces products locally, and products can be customised for each person. We further the advancement of the United Nations Sustainable Development Goals, specifically #12: Responsible Consumption and Production.

### What company or solution would you highlight for its potential in solving our greatest challenges?

**In general, all of us have the power in helping to solve our greatest food challenges by the choices we make in the food we eat and the products we buy.**

That said, there are many companies that are contributing to making better choices easier. Such as companies providing apps that enable people to buy food that is considered "ugly" and/or close to expiry (yet still perfectly fine and nutritious to eat!) at a big discount resulting in lowering food waste, to the number of alt-proteins for better planet sustainability, to companies that are making it easier for people to prepare their own fresh food (like with our 3D food printer, **Foodini**).

### The food of the future will be...

Normal food that is fresh, nutritious, customised for the individual, and has a much lower negative impact on the planet. We do NOT believe that most food will be in a powder or a pill, or unrecognisable compared to the freshly prepared foods of today. As people become increasingly demanding in wanting to know what exactly is in their food, where it comes from, and the environmental that its production has, more people will get back to eating freshly prepared foods with an abundance of products and kitchen appliances that make it easier to do so.





## Guillermo Blázquez

General Manager of Bühler in Spain and Portugal

### Areas of expertise:

value chain, processes, innovation, sustainability, digitalisation.

**Favourite food:** the fascinating variety of the Mediterranean diet.



### What do you consider to be the main challenge currently facing our food system?

The food system brings together many of the major global trends and challenges that will define the future of our planet and humanity, making it a privileged and exciting area in which to play a leading role in building a better world.

**These major global trends and challenges are sustainability, digitalisation, nutrition, personalisation and convenience... all these changes will have to be made compatible, of course, with a premium taste and experience.**

To achieve this transformation we will use new crops and ingredients, develop new products, valorise by-products, avoid food losses and waste throughout the value chain and optimise it (crops / industry / logistics / storage / distribution / catering / households), etc., but all this will be redesigned based on the product demanded by the customer, and not the other way around as in the past (not “from farm to fork”, but “from fork to farm”).

### How are you contributing to the transformation of the food system?

At **Bühler** we are global leaders in process technologies and solutions for the food industry, assembling complete turnkey factories for countless food products.

This is possible thanks to also being leaders in innovation during the more than 160 years of life of the company and having integrated in this innovation in recent years numerous customers, collaborators, ecosystems, startups, technology centres, etc.

Because our solutions cover the entire food chain (from the collection of raw materials, including all intermediate transformations, to the final product processed in the factory), our ambition is to continue to lead its optimisation until we reach the target of a 50% reduction in losses and waste, water and energy consumption.

To make this a reality, we want to integrate all the players involved in this chain, applying our innovation and our solutions regarding the digitisation of the entire value chain.

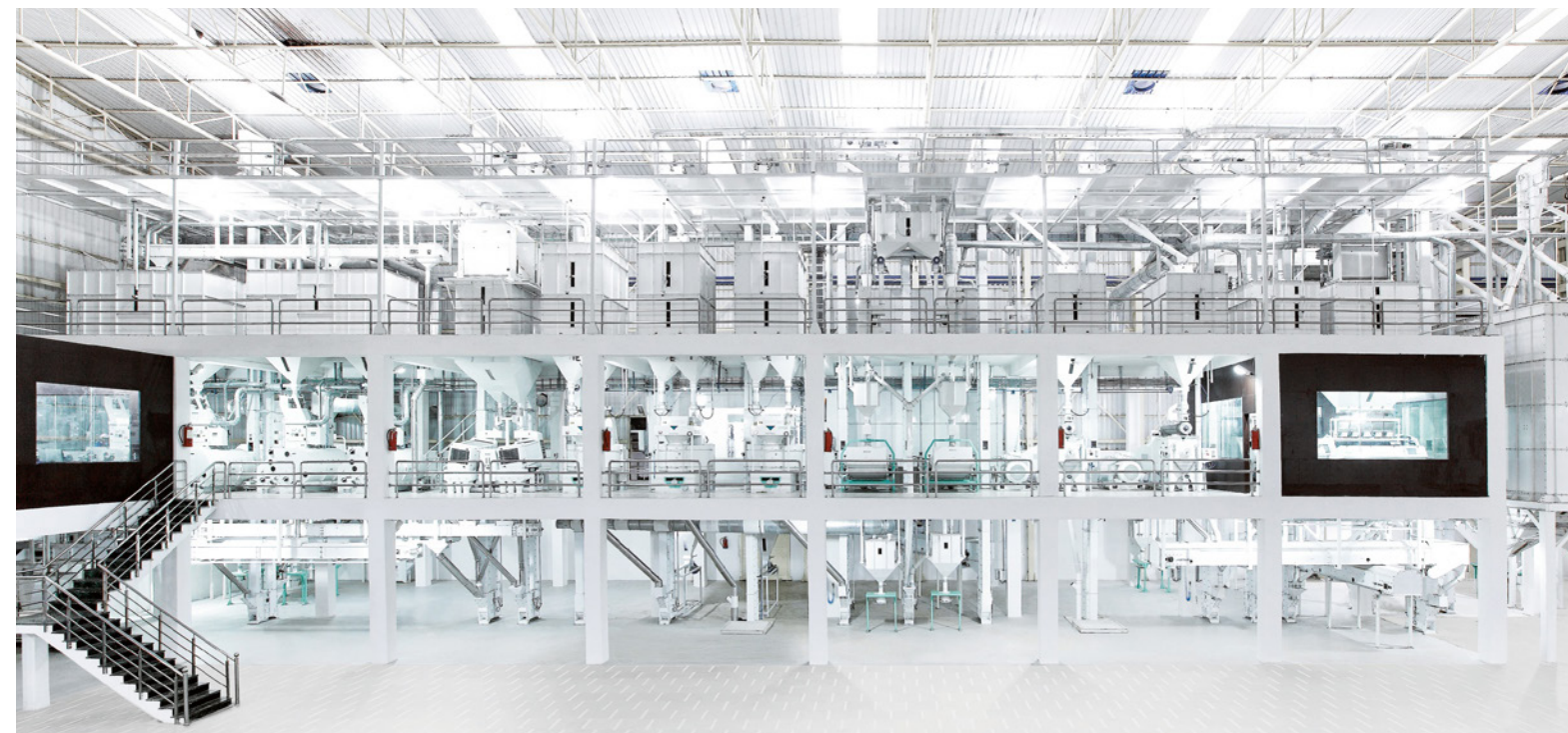
### What company or solution would you highlight for its potential in solving our greatest challenges?

In addition to all our projects and solutions for traditional foods, we are constantly innovating in other disruptive ones.

By way of example, we are transforming the world of **proteins**, which is key to the future of humanity and the planet, innovating both in traditional proteins (cereals, soy, animal feed, legumes, etc.), as well as in super novel ones (extrusion of texturized proteins as an alternative to meat, vegetable drinks, insects, algae, cultured meat, etc.).

### The food of the future will be...

TASTY! Even more, it will be increasingly varied, nutritious, customised, sustainable and transparent.





## Henrik Stamm

Founder & CEO of Blendhub, PPB and Chemometric Brain

**Areas of expertise:** food industry, technology, digitisation, foodtech, platforms.

**Favourite food:**  
spicy Asian vegetable stir-fry.



### What do you consider to be the main challenge currently facing our food system?

Centralised production is inefficient: static factories require large investments and are not flexible enough to meet consumer demand. In addition, ingredients that could be sourced locally often have to travel long distances to reach manufacturing centres and then end consumers. All this translates into higher costs and, consequently, more expensive products, higher gas emissions and a greater impact on the environment.

On the other hand, although large conglomerates dominate the industry, they account for less than 20% of global food production. In contrast, SMEs produce and distribute 80% of available food and receive little or no support in R&D and technology.

**The challenge, therefore, is twofold: to decentralise food production, bringing it closer to raw materials and end consumers; and to digitise processes to make them more efficient, facilitating access to technology for small and medium-sized enterprises.**

### How are you contributing to the transformation of the food system?

At **Blendhub**, we were ground breakers when shifting traditional food production from static factories to a multi-location network of portable factories. By decentralising production and bringing it closer to raw materials and the end consumer, we get to optimise supply chains: production costs decrease, and transportation is reduced, translating into less environmental impact. Moreover, we are creating local value in the countries where we deploy our production hubs.

Moreover, we are working to promote the digitisation of quality and supply chains to ensure food safety and fraud prevention through **Chemometric Brain**, our cloud-based software that democratises the application of NIR technology for faster, simpler and cheaper quality control.



### What company or solution would you highlight for its potential in solving our greatest challenges?

In India, we have launched an instant beverage project based on a local product, Ragi, in collaboration with local producers and brands. Together with a local organisation that promotes innovation in agriculture, we are contributing to the valorisation of the entire supply chain of the product, and in parallel, we have launched a project to distribute these highly nutritious drinks to schools in disadvantaged parts of India. It's a project that sums up what **Blendhub** is all about: localisation of production, local value creation and collaboration between different partners to launch nutritious, inexpensive products that are accessible to more people. And all this using a model that ensures total transparency in global supply chains.

### The food of the future will be...

Individualised and fundamentally plant-based, with many new products developed that will be based on novel sciences. On the one hand, plant-based alternatives to meat and animal-based foods will enable more sustainable food production, as they have a much lower impact on the environment. On the other hand, as for the individualisation of the diet, technology will allow us to better understand consumers every day and to recognise their needs whilst developing the most suitable recipes for each one.





# Sebastián Pillado

Director ProChile España

## Areas of expertise:

internationalisation consulting for companies exporting goods and services.

## Favourite food:

fish and shellfish.



## What do you consider to be the main challenge currently facing our food system?

Take a leading role in reducing the footprint that the industry generates, transforming it to make it more sustainable every day, thus contributing to the elimination of waste pollution, the proper use of resources such as water and energy, and probably most important of all, reducing our current high rate of food waste. We must ensure an agri-food sector that knows how to adapt to international quality, traceability and safety policies while acknowledging both innovation and R&D as allies in the search for solutions and answers.

## How are you contributing to the transformation of the food system?

Chile's government prioritises sustainability and quality as institutional commitments; we support entrepreneurs and exporters with different tools in order to be more sustainable while responding to the trends and requirements of our target markets.

## The Chilean agri-food sector is one of the most dynamic sectors of the national economy, depicting a strong export vocation

– as an example, today Chile is the leading exporter of fresh fruits in the southern hemisphere, the fourth largest exporter of wines by volume and the second largest exporter of salmon in the world - therefore, at **ProChile** we support the qualities of sustainability, quality and innovation to continue creating food for the world. We are experiencing a huge display of solutions with high added value, innovation and sustainability in every sector, forecasting an enormous potential for global application. From ProChile we actively collaborate with these companies to gain visibility and detect opportunities in the different global ecosystems to offer their healthy, functional, free-from, vegan products and technological solutions.



## What company or solution would you highlight for its potential in solving our greatest challenges?

It is difficult to choose only one project or product, given that today in Chile there are a number of remarkable products, technological solutions and companies that, thanks to the innovative character of their food, technological and sustainability solutions, have managed to achieve large global investments that support their international growth; so it is impossible not to mention **NotCo**, **Protera** or **The Live Green Co**, who have innovated using, for example, Artificial Intelligence to create the food of the future. Other examples are **Polynatural**, which contributes to eliminating food waste by increasing the shelf life of fruit, or **Algramo**, with a disruptive collaborative business model hand in hand with the food industry, in order to drastically reduce single-use plastic. Not to mention many others.

## The food of the future will be...

Healthier, traceable, clean, diverse, safe, sustainable and from alternative sources.





Covid-19 has accelerated the digital transformation of the agri-food sector, radically transforming the forms of production, distribution and consumption, causing, for example, according to ASEDAS data, 27% of consumers to start buying online.

Innovation in the field of the application of technologies such as artificial intelligence, robotics, and predictive data, have a very significant potential to address many of the persistent challenges in the food sector.

Customisation, data optimisation, traceability, and connectivity can be the key to help create safe food in industry, logistics centres, retail and restaurants. This technology, with its various applications, can help address weaknesses in parts of the food process such as food safety, waste management, labour, product knowledge and transparency of ingredients and properties.

All this indicates that it is of utmost importance to inform the players involved of the benefits of a good application of the technologies, and to make them aware of the value that these new changes can bring to their daily work, facilitating their work, improving their productive effectiveness, synchronising processes and obtaining a final analysis of results throughout production.

The application of technology is essential when innovating to achieve maximum efficiency in cleaning and disinfection strategies and protocols in the food industry. At Solulim we work with the awareness that the non-negotiable step prior to food safety is food hygiene, the invisible link in the food chain. In our case we help companies to be more competitive and flexible in their production with sustainability as a flag, maintaining product quality and ensuring food safety. One of the main challenges of the food industry is to achieve sustainable hygiene and at Solulim we are at the forefront. As a specialised company in the sector, we adapt to the needs of each food industry, and we do not remain oblivious to the needs of today's society, which must fight against climate change. We offer a sustainability audit of the hygiene process, which has made us a national role model.

**SOLULIM**

We are living in a time of great acceleration of changes in the food sector. The pressures generated by paradigm shifts in issues such as environmental sustainability and climate change, the transition to a healthier diet, logistical tensions that have become more acute with the pandemic, among others, have a major impact on current trends in research and innovation in all links of the agri-food chain. Faced with this situation, the importance of applied technologies to face these challenges has become evident. During ftalks'21 we have talked about precision agriculture, the search for alternative proteins either through the incorporation of new plant varieties or fermentation processes, the application of Artificial Intelligence and robotics, the unstoppable growth of digital logistics platforms, nanotechnologies and new and more efficient systems to ensure food safety. As the slogan chosen by FAO for this World Food Day says, "Our actions are our future". The outcome will depend on us.

**BIOINICIA**





Digitalisation is no longer the future of the food industry, but the unconditional present. In a globalised value chain, technology plays a decisive role at every stage of the process. Thus, it is no longer just a means to increase sales, quality or efficiency targets, but an exclusive criterion in which its absence at any stage of the process increasingly means the breakdown of the entire value chain of the product.

VICKY FOODS



A lack of knowledge, fear of change and the myths surrounding the application of new technologies, not only in the food industry sector, but in general, produce a certain scepticism among businesspeople when they hear about this topic. The result is that many organisations continue with obsolete and unprofitable work processes. Therefore, at a time when the first contacts of government and business are taking place regarding digital transformation and the insertion of new technologies, the first great challenge from the institutions, rather than promising lines of aid and subsidies, although they are necessary with proper planning, is to provide information, advice and training in technology to companies. What is the use of investing in technology if you do not know how to use it?

CONSELLERIA DE INNOVACIÓN, UNIVERSIDADES, CIENCIA Y SOCIEDAD DIGITAL







# 08

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## **THE OMNICHANNEL TRANSFORMATION OF RETAIL & FOOD SERVICE**

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**Irina Jaramillo / Víctor Martín / Paul  
Newnham / Beatriz Romanos / Carolina  
Pérez / Alejandro Arranz**



## Irina Jaramillo

Co-founder of ASTRA, Ex CEO of Carulla Supermarkets (Colombia)

**Areas of expertise:** retail, supply chain, fashion, nutrition, leadership, strategy.

**Favourite food:** Food from the soil. Without animal abuse and using clean ingredients which our grandmothers can pronounce.



### What do you consider to be the main challenge currently facing our food system?

We inhabit a planet abundant in resources, yet of a limited nature and in which our food industry is intensive. This implies a radical transformation, and the greatest challenge is for institutions and individuals to accelerate it collectively towards a healthier and more regenerative one, responding to challenges that I would put into 3 categories:

**-Over population:** In 2050 there will be 9.6 million people (according to the UN) and food production will have to grow by 70%. This implies changes beyond exploiting other limited sources such as the sea.

**-Environment:** The food system generates 50% of CO2 emissions, uses 33% of global energy and occupies 40% of the surface. In 2030 the temperature could be 1.5 °C higher than in the pre-industrial era, generating unprecedented natural disasters (according to a recent IPCC report). It is also a plastic-intensive industry in which waste that is equivalent to 1200 times the weight of the Eiffel Tower (according to the European Commission) reaches the sea every year.

**-Hunger, overeating and waste:** 10% of people go to bed hungry every day. In contrast, 33% are overweight and 1/3 of food is thrown away using resources pointlessly and increasing global warming. If waste was a country, it would be the third largest emitter of CO2 (according to FAO).

### How are you contributing to the transformation of the food system?

**Sustaining is necessary, yet not sufficient. It refers to creating the present without destroying the future, but the current “code red” makes it necessary for us to rebuild the future by leaving a positive footprint, as Daniel Wahl states in his book “Designing Regenerative Cultures”.**

I believe in the responsibility we have as individuals to take charge of the transformation and use our jobs to catalyse it. I have worked for over 12 years in the retail industry in Colombia and in positions such as National Manager of Carulla, one of the leading supermarket chains, where I used my voice to move from words to actions. In 2020 we launched the first carbon neutral supermarket in the country, with practices such as solar panels that supply about 18% of the energy, replacement of refrigerant gases by natural ones, reducing CO2 emissions by 30%, direct purchase from farmers of more than 80% of fruits and vegetables and planting trees, among others. In 2021 I founded ASTRA, a company whose purpose is to accelerate the democratisation of wellness through food by connecting suppliers with go-to-market in retail. We are consulting and designing strategies, products and environments that make it easier for the consumer to adopt better habits.

### What company or solution would you highlight for its potential in solving our greatest challenges?

The industry is full of innovations, and I am optimistic that today more than ever we are willing to put aside privileges and comforts to prioritise solutions, but this requires educating the entire population, which is a costly and titanic task, so I want to highlight the role of apps like **Yuka** that by acting independently provide objective tools to assess whether a product is healthy or not. This in turn requires the industry not only to be increasingly transparent but also to aim to facilitate the path towards changing habits with practices based on the premise “So easy, that it’s almost accidental for consumers” by means of behavioural economic actions, for example, highlighting the exhibition of fruits and vegetables or local products, avoiding promotions on products with high levels of sugar, among others.

### The food of the future will be...

A fascinating contrast between the cuisine of our grandmothers: traditional, from the earth, with real ingredients that we can all pronounce and the cuisine of astronauts: personalised, produced in a laboratory with technological innovations that allow us to simulate taste and functionality without the intensive use of natural resources. I would highlight:

**Plant-based food:** For reasons such as the environment, health and respect for animals and with emphasis on substitutes of current protein by microalgae crops, from insects to lab-grown meat and with the use of neuro aromas and nano encapsulation systems.

**3D food printing:** Allows customisation by elaborating food adapted to specific genes, diseases or needs and developing balanced dishes with acceptable textures and flavours in countries whose demographics tend to limit food to a few products such as nutrient-deficient rice.

**Artificial intelligence:** Streamlines the development of tests and costs to arrive to the desired product.

**Transparency:** Technologies such as blockchain that provide the customer with 100% traceability in the supply chain.





## Victor Martín

CEO of Macco Robotics

### Areas of expertise:

robotics, big data, machine learning.

### Favourite food:

mushroom risotto.



### What do you consider to be the main challenge currently facing our food system?

The scarcity of natural resources, the increase in demand due to population growth, as well as reducing the negative climate impact derived from production techniques that can have an impact on soil, water, biodiversity and greenhouse gases.

We are facing the possibility of depleting natural resources due to the growth of the population and therefore of demand, so it is necessary, now more than ever, to look for food alternatives, such as meat alternatives, so that producing in laboratories is a real alternative.

**To take advantage of this inertia by searching for healthy food by completely modifying the way in which we currently consume, opting for “Ultra-Personalisation”, so that each person can consume exactly the nutrients they need, thus avoiding so-called “over-production”.**



### How are you contributing to the transformation of the food system?

Developing technology to promote responsible consumption, or in other words, technology that allows us to consume exactly the nutrients we need at all times, thus not only taking care of our health but also proceeding to a responsible preparation that ensures lower production needs and completely reduces food waste. In this manner, robotising the processes of preparation and elaboration of the dishes allows greater control of consumption and food needs. The future of the point of sale is “ultra-personalisation”, radically changing the food industry.

Why should two people ordering a hamburger in the same place at the same time consume the same calories, carbohydrates or proteins if the needs of each are totally different? This is Ultra Personalisation.

### What company or solution would you highlight for its potential in solving our greatest challenges?

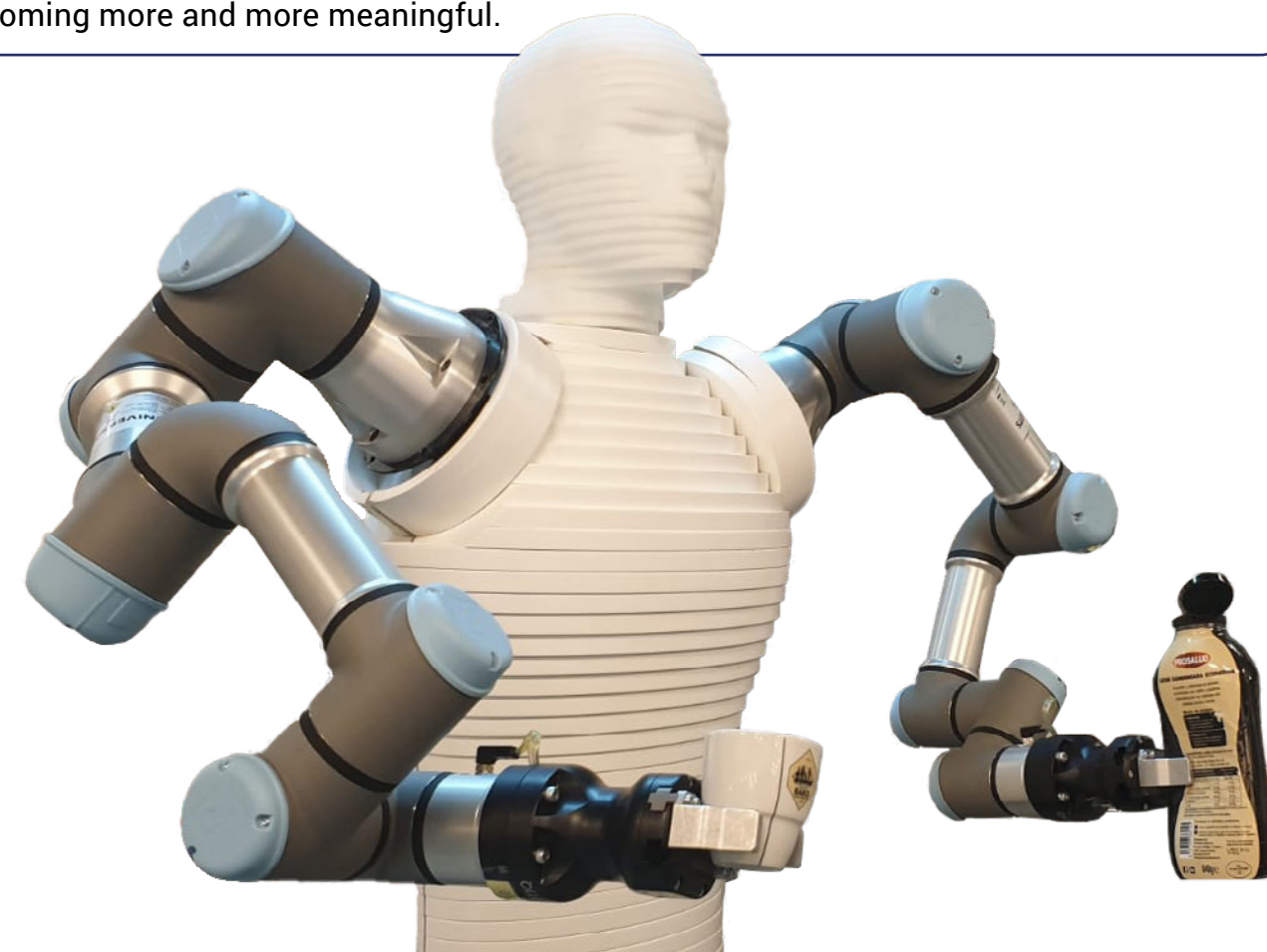
Undoubtedly, the greatest revolution we are currently experiencing is **artificial or cultured meat**.

On the one hand, it will allow us to eliminate the negative effect of livestock farming on the environment: reduction of water consumption, gas emissions, animal suffering, etc., while at the same time allowing us to feed a larger population at lower cost. At the same time, it will enable easier nutritional control.

### The food of the future will be...

The food of the future will be prepared on the spot, totally personalised according to the person's nutritional needs and tastes.

Laboratory foods will allow the development of these types of techniques, which are becoming more and more meaningful.





## Paul Newnham

Director at SDG2 Advocacy Hub

**Areas of expertise:** food security, disruptive voices, food systems, mobilisation, education, convening, catalysing and connecting, international sustainable development.

**Favourite food:** mushrooms.



### What do you consider to be the main challenge currently facing our food system?

I see the main challenge for Sustainable Development Goal 2, is how to accelerate the transformation of food systems to feed 10 billion people healthy and sustainable diets by 2050. It is also a challenge to learn to develop our food systems in ways that are nuanced and acknowledge inequalities and differences globally. A one size response is not going to work. The areas I work closely in include food security, nutrition, smallholder farmers, sustainable agriculture, biodiversity and more. These areas, despite being closely linked, and all constituting important parts of our food systems, are often siloed and treated in competition with each other, rather than in conjunction and in support of each other.

**For food systems to become more resilient, equitable and good for people and planet, and to get all players in the systems to work together instead of being in competition, we need to embrace these complexities and connect the dots between what and how farmers grow in their fields and the food that ends up on our plates.**

### How are you contributing to the transformation of the food system?

By convening players across the private sector, UN agencies and civil society to improve coordination, connection, and communication around efforts to accelerate transformation, we help increase our overall impact and reduce siloes across food security, ag and nutrition. I work to align the actions of chefs with **Sustainable Development Goals** through learning and advocacy, to accelerate the transformation of food systems. I also develop and coach food system champions to assist in their effectiveness and engagement, through the SDG2 advocacy Hub and **Chefs' Manifesto**.

### What company or solution would you highlight for its potential in solving our greatest challenges?

There is no one solution but a selection of connected solutions. One example with multiple benefits would be greater diversification of diets benefiting both people and planet. One way we support this is by working very closely with chefs through the **Chefs' Manifesto**. The Chefs' Manifesto is a chef-led network bringing together 1000+ chefs from 90 countries to help deliver a sustainable food system. Chefs sit between farm and fork, in a unique position and with a unique connection to many other food system players, including smallholder farmers and consumers. The Chefs' Manifesto helps them explore how they can help deliver a sustainable food system through using their voice and driving action in their restaurants, kitchens, communities, and other platforms.

### The food of the future will be...

Good for people and planet – good food for all!

### THE CHEFS' MANIFESTO ACTION PLAN





# Beatriz Romanos

Food tech innovation coach. TechFood Magazine founder

**Areas of expertise:** foodtech, food innovation, innovation methodologies (ExO & Launchpad, among others), startup mentoring, branding and positioning.

**Favourite food:** cannelloni.



## What do you consider to be the main challenge currently facing our food system?

The main challenges are directly related to the health of both people and the planet itself, and the accessibility and affordability of nutritious, healthy and appetising food for all people, today and in the next 50 years. If we apply this idea in the different segments of the food industry value chain, we find several challenges. In terms of the countryside, for example, the Green Revolution of the last century made it possible to increase crop productivity. Now, however, we must face the challenge of finding ways of obtaining sufficient food while protecting the source from which it emanates, the soil itself, which is under enormous pressure and which we cannot continue to increase at the expense of our forests. Relying on regenerative practices and modern technologies are some of the interesting lines of work proposed in this field.

Understanding the role of the microbiome in the way we process food and, therefore, in our health, is the DNA of the 21st century. And, as happened with genetic sequencing, it will open the door to all kinds of innovations and opportunities in the development of personalised foods.

**Ringing new forms of food production, whether plant protein-based or cell-cultured, up to parity so that they can deliver on their promises of sustainability and food security.**



## How are you contributing to the transformation of the food system?

My aim is to nourish a happier world, and my mission is to help both people and organisations that want to make an impact by developing innovative and solvent initiatives. I personally like to collaborate with such startups or companies to either identify challenges and threats and turn them into innovation opportunities that contribute to the success of their current business, or generate new business models adapted to the future. To do this, I rely on very innovative methodologies and frameworks such as ExO Sprint or Purpose Launchpad, which are inspired by the trajectory of some of the most disruptive and successful companies in the world. In addition to facilitating a very useful structured way of innovating, they have a strong purpose orientation, which helps companies to incorporate initiatives in line with the SDGs and measurable ESG criteria into their innovation plans. A vision that I find especially useful in my work as a mentor for accelerators such as Culinary Action! of the Basque Culinary Centre or Porcinnova.

In my opinion, another very important area of activity is the informative work that I carry out through the specialised publication **TechFood Magazine**, through which I have been highlighting the growing entrepreneurial and innovative activity of our country since 2014, while bringing stories from other markets that can serve as examples and inspiration. Moreover, I am a regular speaker on topics such as innovation, trends, and exponentiality and impact in the food sector. I also coach on strategic issues such as Branding, Positioning, Value Proposition, etc. especially focused on food startups.

## What company or solution would you highlight for its potential in solving our greatest challenges?

**Smileat** is an organic baby food startup that I have been following for years. I like it not only because of the quality of its products, but because of the effectiveness of its strategy and how they have been implementing it over time. They genuinely have a team with great professional and human qualities.

**Biome Makers** is another startup that I have been following for years, and that has always interested me for proposing a very different product, for its way of bringing biomedical knowledge to the field of agriculture, and its vision of transforming a solution into a scalable platform with a real potential impact on improving the health and productivity of our soils.

In general, I am very interested in companies that are using big data and Artificial Intelligence to optimise processes in the development of proteins or fermentation (such as **Protera**, **Notco** or **Moa**), or to understand the consumer and anticipate trends (such as **Delectatech** or **Tastewise**).

## The food of the future will be...

I like to visualise the future as a more collaborative system that ensures that food is accessible, affordable, nutritious... and delicious, for everyone. And that the people who contribute to it can turn it into a dignified and enriching way of life in every way.

In a "funkier" vision, the food of the future will probably also be "**augmented**". We will be able to enrich it with complementary experiences from augmented reality techniques. Or we may even be able to enjoy it in multisensory virtual universes. For example, let's imagine a dark kitchen in our city, capable of cooking and delivering at home some of the most emblematic dishes from well-known restaurants around the world. Together with the delivery, we will receive a virtual kit that will allow us to reproduce in our home the decoration, the ambience, and even the aromas of these gastronomic temples. No harm in betting on it.







## Carolina Pérez

Director of PR Iberia at Getir

**Areas of expertise:**  
delivery, retail, consumer.

**Favourite food:**  
natural artichoke, prepared any way.



### What do you consider to be the main challenge currently facing our food system?

Food delivery, including fresh products and restaurants, has had an unexpected breakthrough due to its necessity (or convenience) because of the pandemic. The product, speed or price have taken priority in generating differentiation among operators. However, once the times of need have passed, one of the main challenges regarding delivery will be the management of the remote experience for customer loyalty, especially when talking about fresh products and restaurant food. Achieving a differentiated food delivery experience that equals or surpasses a visit to a trusted store or eating in a restaurant will be one of the challenges for this sector in the coming years.

### How are you contributing to the transformation of the food system?

I work to make delivery both sustainable and efficient, to listen to the consumer, suppliers and deliverers and to ensure the transparency and understanding of such an innovative service. We could say that I try to bring the typical corner store experience to your doorstep. It is essential that people understand how this remote service works for it to be reliable and valuable.

### What company or solution would you highlight for its potential in solving our greatest challenges?

Every initiative or innovative solution that aims to break down existing barriers between physical and digital shopping will have a considerable impact. In the same way that medical appointments can be set virtually, online shopping must embrace more than just a mere gathering of pictures.

**The consumer wants to see, touch, compare and read what they are going to purchase, especially when it comes to fresh products and restaurant food. It is therefore crucial to develop from today's multiple selling channels to a single integrated one containing all the options.**

### The food of the future will be...

Cooked in record time (in most cases). In the same way that a few decades ago, people used to sew their own clothes whereas now this is practically considered a mere hobby, food may follow a similar path. We will buy pre-cooked or nearly finished food, at more affordable prices, to eat on a daily basis. Making your own meal will become less and less usual and will be relegated to special occasions.





## Alejandro Arranz

Corporate Venture & New Technologies Manager at Mahou San Miguel

### Areas of expertise:

technology, entrepreneurship, digital marketing and beverage industry.

### Favourite food:

paella.



### What do you consider to be the main challenge currently facing our food system?

I think the main challenges of the food system are to be found in the area of sustainable packaging. New materials are needed to create more sustainable alternatives to current solutions. I also believe further challenges can be found regarding alternative proteins and the ongoing problem of sugar reduction.

**Finally, a revolution will be seen in current sales channels as well as in the digital model, which will change consumer interaction with food at the level of both acquisition and consumption.**

### How are you contributing to the transformation of the food system?

In my opinion, the most remarkable contribution that we have made is to help the hotel and catering industry in Spain to recover after the pandemic, supplying it with a product that meant an estimated turnover of more than 75 million euros for hotel and restaurant owners. With this initiative, **Mahou San Miguel** wanted to ease the economic impact that the pandemic measures meant for bars and restaurants, thus providing them with products to make sure they could start off their activity while bearing lower costs.

We are also developing several open innovation programs to help develop the beverage and hospitality market, where we play a relevant role. There, we continue to promote Barlab, our open innovation platform that we are now developing together with the **Basque Culinary Centre**, where we both commit to share the knowledge we have regarding the industry. We have also created a "brewhub" where we share our knowledge and technology available with companies in the craft beverage sector to help them scale their businesses by facilitating their production.

### What company or solution would you highlight for its potential in solving our greatest challenges?

At **Barlab**, our collaborative innovation brand, we have been working with several startups since 2016. At first, proceeding as an Accelerator and later following a Challenge format. We work with a clear focus on the foodservice industry but simultaneously contributing throughout the value chain.

### The food of the future will be...

Delicious, personalised and non-fattening.





Retail is the industry that connects all the efforts of producers and suppliers with the consumer's decisions; the omnichannel platform where the consumer chooses what to buy and how to improve their lifestyle.

There is no doubt that 2020 has transformed this industry, changing the way we shop and eat. Innovation in the field of retail, food service and food delivery has undergone unprecedented acceleration. One of the challenges facing Food Service is the rapid digitisation of traditional hospitality and the lack of resources, investment and knowledge to adapt quickly to these sudden changes.

New consumer habits linked to increased demand for delivery and online shopping are pushing the traditional industry to understand how to navigate omnichannel. In foodservice, digitisation becomes a great ally to control stock and reduce shrinkage. Likewise, robotisation could emerge as a great opportunity to “free” the human from certain mechanical and non-value-added tasks.

The winners will be the solutions that manage to give the consumer the sensation of personalisation without losing profitability at the business level.

On the other hand, as Irina Jaramillo, CEO of Astra and former CEO of Carulla (Grupo Éxito) pointed out at ftalks'21: “global warming is not waiting, the oceans are accumulating more and more plastic, and we live in a contrast between obesity and waste and extreme malnutrition. This implies a great need to accelerate the transformation of food towards healthier food and food which is not only sustainable but also regenerative.” This is why a regenerative transformation of retail is necessary.

Reducing the use and impact of plastic on ecosystems in our new COVID context requires radical and collective efforts and this is why we have even seen public policies such as the elimination of plastic in fruits and vegetables by 2023.

Irina also points out that, for improvements in the supply of products to be effective, it requires consumer demand and a sustainable change in their consumption habits, and in this an important role is assigned to supermarkets that even under behavioural economics actions can ease the path to those healthier habits, something like “So easy, that its almost accidental for consumers”. For example: placing fruit and vegetables at the entrances, food registration apps, highlighting local product display, reducing fat, salt and sugar of their own brands, increasing the vegetarian portfolio, among others.

In Spain, more than 7.7 million tons of food are thrown away, making us the seventh country in the European Union that wastes the most food. This waste impacts the health of the planet and intensifies and aggravates climate change. FAO reminds us that in the production of these millions of tons of food that go to waste, enormous amounts of resources are used in vain, which, in addition, produce unnecessary greenhouse gas emissions.

**Sustainable Development Goal No. 2** is to end hunger by 2030 by ensuring access for all people to healthy, nutritious and sufficient food all year round. In turn, the United Nations 2030 agenda has set the goal of reducing food waste by 50% by 2030. Tackling both sides of the problem is one of the great challenges of regenerative development.

There are many challenges that have been pointed out such as digitalisation, high competition, delivery and omnichannel. From our **KM ZERO Squad**, the importance of training and professionalisation of the sector has also been highlighted, and these could be boosted through, for example, a crowdsourcing platform including executives who have transversal knowledge, and where the sector is collaborating.







# 09

## **FEEDING FUTURE GENERATIONS**

**Begoña Rodríguez / Sophie Egan / Juan Llorca  
/ Elsa Yranzo / Begoña Pérez-Villareal / Abby  
Fammartino / Vicente Domingo**



# Begoña Rodríguez

Director at BCC Innovation

**Areas of expertise:** management, entrepreneurship, food-value-chain, strategy, business development.

**Favourite food:**  
spanish omelette, paella, Iberian ham



## What do you consider to be the main challenge currently facing our food system?

Feeding a fast-growing population in a sustainable and healthy manner. I would also argue that we need to incorporate technology not only faster but more intensively in order to achieve this goal.

This involves breaking down the barriers between different knowledge disciplines. For example, to achieve a healthier diet, chefs are working closely with both nutritionists and experts in data analytics. This enables the possibility of incorporating artificial intelligence in the transition to healthier food.

**In general terms, we could say that those disciplines that barely had an impact before are now emerging to provide innovative answers to the challenges the sector faces.**

It is worth mentioning the work that remains to be done to help companies along the entire value chain (from producers to restaurateurs) to absorb these new technologies, breaking down the barriers that currently exist.

## How are you contributing to the transformation of the food system?

- 1- Actively promoting the digitalisation of the sector.
- 2- Generating new knowledge around what we call a) “**customised gastronomy**”, since we expect that food in the medium/long term will be designed for clusters of people who share certain biological characteristics and b) “**healthy gastronomy**”.
- 3- Promoting strategies for the valorisation of co-products in the industry and the Horeca sector while aspiring to achieve “zero food waste”.
- 4- Deepening the research on consumer tastes and preferences with the aim of designing food that delights them whilst meeting their expectations.
- 5- Researching new sources of protein/ingredients.
- 6- Promoting the creation of new companies that generate value-added employment and strengthen our value chain.



## What company or solution would you highlight for its potential in solving our greatest challenges?

We have created a living lab focused exclusively on the food sector, called **LABe**. It tests new technologies in a real context (developed by companies or startups) during early stages of development to obtain feedback from either end consumers or chefs to incorporate these inputs into the final design of those technologies, thus minimising the inherent risks of innovation. It also promotes the co-creation of new solutions for the sector by following the so called “open innovation philosophy”.

## The food of the future will be...

It will continue to be enjoyment around the table, always.





## Sophie Egan

Founder of Full Table Solutions, and author of "How to Be a Conscious Eater"

**Areas of expertise:** sustainable food systems and behaviour change related to conscious eating: making food choices that are good for you, others, and the planet.

**Favourite food:** pizza margherita. I spent time living in Tuscany as a child, so it remains my most craved, most comforting dish.



### What do you consider to be the main challenge currently facing our food system?

To me, one of the greatest challenges is individualism. This is particularly pronounced in the United States, where individual rights are sacred above all else. Focusing on our independence stands in the way of living life in the spirit of interdependence. It stands in the way of true collectivism that could be directed to tackling the climate emergency: taking actions today that represent solidarity with nature, with every living creature, with our neighbours, with our children, and with future generations.

Instead, topics of healthy, climate-smart food choices are highly politicised and polarising—even before the conversation begins. Efforts to engage eaters to shift diets are so often fraught with perceived threats to this sacred right of choice. See for example the false scandal that President Joe Biden was trying to take everyone's meat away. It's the same root issue as refusing to wear a mask. This is why narrative is so important in the movement to shift diets, and yet it's an area where we have far too little success under our collective belts.

### How are you contributing to the transformation of the food system?

I work to transform the food system in two main ways: bottom-up and top-down. Bottom-up by speaking directly to eaters through my writing—answering reader questions, debunking myths, incorporating a sustainability lens into nutrition conundrums, etc., through my writing for **The New York Times** and through my books and speaking—and ultimately helping generate demand and better empower eaters to vote with their forks, feet, dollars, and votes toward the food system they want in the future. I work top-down through **Full Table Solutions**, my consulting practice, by engaging companies, policymakers, foodservice leaders, and other decision-makers to change the options that are available in the first place (changing the food environment, shifting supply chains, shifting institutional purchasing patterns, etc.).

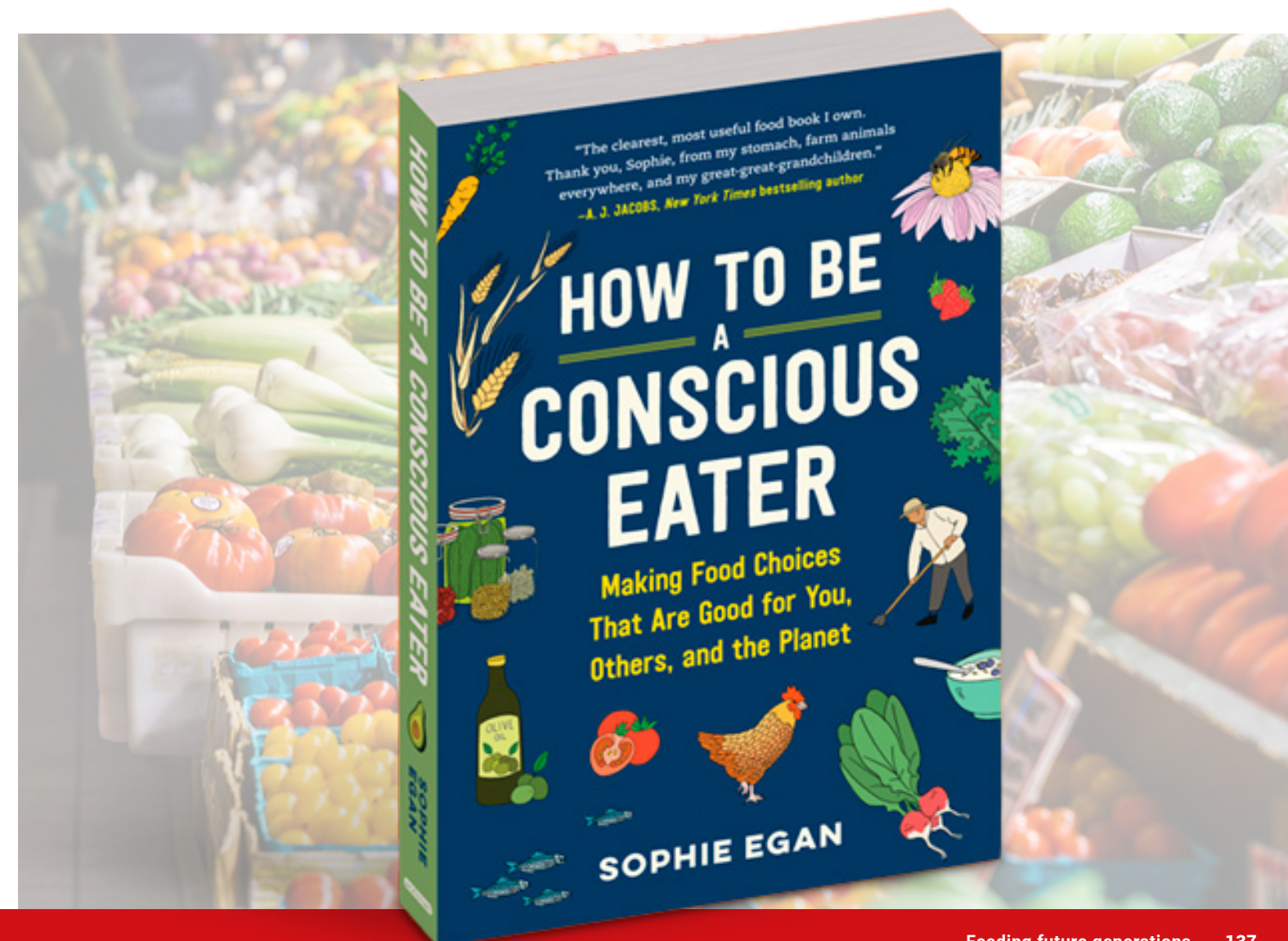
### What company or solution would you highlight for its potential in solving our greatest challenges?

It's fairly new, but I am really inspired by Dr. Eva Monterrosa and the Demand Generation Alliance. She, EAT, GAIN, and WBCSD are truly filling a gap and responding to a need that so few players have yet to resolve.

**We need a tidal wave of campaigns, influencers, and pop culture efforts to leverage social norms for the better and truly make healthy, sustainable, responsible eating the norm.**

### The food of the future will be...

Far more diverse than it is today. We'll eat a great many more species than we currently do, especially those from the sea. **The Blue Food Assessment** has really underscored the importance of growing the food supply from freshwater and marine environments rather than from land. Years ago, I had a life-changing taste of sea asparagus, for instance, yet I hardly see options like that, algae, or sea vegetables on menus or shelves in the U.S. Now that I've had the opportunity to be involved with the Seaweed Revolution and **Seaweed Manifesto**, I am certain we'll all be eating far more "blue foods" in the future—and I can't wait!





# Juan Llorca

Executive chef at Valencia Montessori School

## Areas of expertise:

gastronomy, food education, communication and sharing knowledge.

## Favourite food:

paella and curry.



## What do you consider to be the main challenge currently facing our food system?

Undoubtedly, the main challenge I see and the reason for which I work every day, is food education in schools, the implementation of an educational model that involves this field and the value of and need to improve school dining rooms in our country, aiming to offer both higher quality and better diets.

If we, as adults, do not start to educate the younger generations differently, making them familiar with products and their origin, we will continue to lose the opportunity to live a healthier life.

**We must show children the food chain works, from the farmer or fisherman, and what their job is, how we interact and supply and what happens afterwards.**

## How are you contributing to the transformation of the food system?

It is important to make both new and existing generations to see new trends, research and knowledge which are flourishing in the face of so much change. Together, we have to highlight the opportunity which is coming and work on it. Above all, we must start this work at home, which is where habits are formed, and then see how to extrapolate into different spheres. For example, I work with schools so that they achieve “Slow Food” certification, thus educating children’s palates and working on all areas involving food, such as composting, growing vegetables, sustainability, etc.



## What company or solution would you highlight for its potential in solving our greatest challenges?

A project in which several areas of the same centre work together to make sure children can see the evolution and relationship between what they eat, its cultivation, the methods used to manage the product and the impact it has on both their **daily health and the environment**. We must work with the same values and message. First, we have to be conscious and consistent in relation to what we consume so that health takes priority.

## The food of the future will be...

What the children of today and their eating habits want it to be.





## Elsa Yranzo

CEO of Creative Designer Food Studio BCN

**Areas of expertise:** food design, gastronomic design, projects manager, consulting and teaching.

**Favourite food:** Sunday paella at my parents'.

**Elsa  
Yranzo**



### What do you consider to be the main challenge currently facing our food system?

In my opinion, the challenge is to feed an ever-growing world population by trying to avoid the inequalities of today and to ensure access to food for everyone on the planet, in a **fair, sustainable and beautiful way**.

### How are you contributing to the transformation of the food system?

**From my food design & food art studio, my goal has always been to connect and generate new links and connections between food and people through design and art.**

We create these new links through the design of artistic experiences, managing artistic projects with either food, mentoring sessions or teaching. Always using food design as a tool for change.

I think it is also very enriching to investigate and disseminate content such as new scientific experiments, ingredients, recipes, tools... that pushes the limits of cooking to show how the rituals of preparing and eating food can connect us culturally, socially and politically.

### What company or solution would you highlight for its potential in solving our greatest challenges?

Perhaps one of the roles in which I feel more of a “transforming agent” is teaching. I teach in different gastronomy and design universities, and I feel very comfortable with talking about the relationship between design and food or **food design**. I also think it is very enriching to give inspiring and thought-provoking talks to companies from very diverse sectors explaining the new food ecosystem that can be built from the vision of a food designer.

I am convinced that food design is and will be a fundamental tool for disruptive innovation in the food industry.

### The food of the future will be...

The food of the future will be more accessible, healthy, fair, sustainable and ethical.

We will favour more personalised diets, made of more functional and intelligent food that can satisfy our holistic wellbeing (body and mind). It will be food that depends on new proteins, alternative fats... replacing animal protein one way or another. It will therefore be a way of eating which is far more digitalised and robotised... that will help us implement new circular and regenerative systems to allow the design of new materials, ingredients, and habits to generate less food waste.

Be that as it may, I hope that the future of food will be **totally respectful** with the world, nature, the sea, animals and people.







## Begoña Pérez-Villarreal

Director of EIT Food in Southern Europe



**Areas of expertise:** innovation and entrepreneurship in the agri-food sector.

**Favourite food:** any salad.



### What do you consider to be the main challenge currently facing our food system?

I can think of several, which are interrelated. On the one hand, we have the demographic challenge: The United Nations estimates that the current population of 7.8 billion will grow to more than 9.7 billion by 2050, and we must be able to feed everyone, yet to accomplish it we will have to change our consumption habits. On the other hand, we have the climate challenge: in the next 30 years, a tenth of agricultural land will be lost to erosion, salinity and climate change. And more urgently, we need to leave behind the current pandemic, which has shaken the entire agri-food sector.

**Food is changing completely, and it will change even more in the coming decades.**

### How are you contributing to the transformation of the food system?

At EIT Food, we work to increase citizens' confidence in the food system. In this way, they have healthier food options while the agri-food system is more connected to the consumer and responds to real needs. We do this by promoting innovation and entrepreneurship, with numerous programmes that cover different fields at a European level: finding solutions to water scarcity, empowering women, promoting regenerative agriculture, improving education, promoting startups with solutions that reach the market and are scalable...

### What company or solution would you highlight for its potential in solving our greatest challenges?

EIT Food receives hundreds of innovative projects, which we select and promote every year. From our headquarters in southern Europe, we support over 150 entrepreneurial teams on a yearly basis. They are very varied and provide real solutions to the sector. Some startups have won awards at a European level, ranging from a company (**Odd.bot**) that has developed a robot whose purpose is to eliminate weeds, hence avoiding the use of herbicides, to a platform (**Trigger Systems**) that allows remote control irrigation pumps, among other essential systems for smart agriculture.

### The food of the future will be...

Healthier and more sustainable. That's what it seems, despite the difficulty of making such a prediction, given its unpredictable and quick evolution (the Covid-19 pandemic serves as an example). But these trends have been confirmed in the last year, together with the reinforcement of traceability, to provide each type of consumer with the information they consider most relevant and to make the purchasing decision easier. The continuous search for alternative sources of protein will also change our eating habits in the future.



## Abby Fammartino

Senior Researcher, Future Food Institute; Research Project Manager, Food for Climate League

**Areas of expertise:** sustainable food service, research and education.

**Favourite food:** spicy greens and radish salad, and crispy beet fritters.



### What do you consider to be the main challenge currently facing our food system?

It's a challenge to convince companies of the immense value of investing in knowledge building and knowledge sharing. An investment in widespread education about sustainable food practices can have a big impact at all levels of the food system.

**The issue is that education as a solution may not be seen as innovative.**

**However, experiential food education offers tremendous learning opportunities which can lead to behaviour change, which in turn has the potential to positively impact our global food system from planting to procurement to plate.**

### How are you contributing to the transformation of the food system?

Currently I am conducting human-centred research for the purpose of helping foodservice organisations train and empower their staff to develop and serve more sustainable, plant-forward food options. Large-scale food service, such as in schools, universities, and corporate cafes, comprises a huge part of the foodservice industry. As such, it is responsible for much of the carbon footprint of prepared food people eat outside the home. By changing the practices and menus of large-scale food service providers, and by educating their team members, positive transformation of the food system is possible.

### What company or solution would you highlight for its potential in solving our greatest challenges?

**Food for Climate League** is a non-profit research collaborative creating new food and climate narratives that reframe climate-smart eating as easier and alluring to partake in, so that sustainable habits become relevant to all people. More inclusive and appealing food and climate narratives help drive demand for climate-friendly products and menu items, thereby making sustainable food and agriculture initiatives good for the bottom line as well as the planet. The way we talk about and present climate-smart food is the precursor to widespread change.

### The food of the future will be...

Diverse. It will celebrate cultural heritage and tell stories that connect people to the world and to each other. It will celebrate the rich potential of our soil through increased biodiversity, and the creative potential of farmers and chefs who will become more resilient and innovative in the phase of change. It will hopefully require far less packaging and be enjoyed and savoured slowly.





## Vicente Domingo

Director of the World Sustainable Urban Food Centre of València (CEMAS)

**Areas of expertise:** public policy, sustainable urban food systems, city networks.

**Favourite food:** food prepared with love. That is the best and most noticeable ingredient of them all.



CEMAS



### What do you consider to be the main challenge currently facing our food system?

There is an issue, in my opinion, just as important as the climate problem, namely the challenge of protecting small producers, family producers. Not only granting protection, but also the promotion of policies to create a fair, coherent and healthy productive system that respects the natural environment. It is in the hands of hundreds of thousands of mayors around the world to consider or perhaps reconsider the identity of their town, their city, their environment. Protecting small producers generates social economy, rebalances the interaction between urban and rural areas, dignifies the valuable work of producing food and creates collective identity, pride of belonging to a place. Obviously, there are urgent issues, such as the fact that we ought to act immediately to alleviate the catastrophic effects that global warming is already spurring. Still, the medium and long-term approach is defined by the beauty of food from the expression of nature. We live in a time of “fakes” characterising a world immersed in a concept that I would qualify as “co-reality”.

**The main challenge is to ruralise the life of the cities, to be coherent with not only the cycles of the year, but with the cycles of life. To value proximity and those who produce it, prepare it and value the energy that brings us quality food.**

### How are you contributing to the transformation of the food system?

My position as Director of the World Sustainable Urban Food Centre of València (CEMAS) allows me to receive a multitude of initiatives in many different areas of work: local and national public policies, civil society initiatives, research centres, the private sector, etc. It is exciting to connect from our Centre ideas, projects and good practices with players involved in this huge global process. We collect and assimilate as much information and knowledge as possible and try to disseminate, inspire and promote sustainable urban food systems in cities and regions. To achieve it, we rely on the permanent technical support of the FAO. Also, from my daily actions in my personal life to the influence of CEMAS in city networks, we have been working for years in advice and guidance to create, maintain and expand models of healthy and sustainable food.

### What company or solution would you highlight for its potential in solving our greatest challenges?

In addition to defending and suggesting any proposal in line with the protection of small producers, we especially value initiatives that encourage young people to value conscious, healthy, coherent and participatory food. There are school food projects, especially in rural areas, which directly involve local producers, the women of the area in the preparation of recipes, and municipalities that provide land for both fields and livestock farms. The community is involved by making compost out of organic waste while creating pride of belonging. Such initiatives highlight the broad scope of a sustainable food system and directly appeals to children and parents. The roadmap to a healthy, sustainable and just future is in the DNA of millions of people. It is a matter of common sense.

### The food of the future will be...

One that celebrates life, that expands dignity and respect in each of the processes. One that is valued as an element far above a marketing product, thus essential, diverse and full of culture and history. The food of the future must be global and extremely local. It must capitalise the quality of the products, the nutritional benefits and the fair payment of all those involved in the chain. It must be free from speculation and must recognise that there are areas of biodiversity that are unique. It must promote knowledge, rapprochement and the greatness of sharing, something essential for human beings if they want to continue to be part of this planet in the coming centuries.

**The planet does not need us, but we need the planet.**





The acceptance of healthier, more planet- and people-conscious products, diets, or lifestyles is entirely subject to individual consumer choice. This will mean that the heavy burden of innovation driven by the industry will have to go hand in hand with education at all levels: raising awareness from an early age among children and families; among chefs; among companies and entrepreneurs in the sector; among institutions.... We need a movement that permeates all segments of society if we really want to improve the current situation.

A situation in which the rates of obesity and diet-related diseases at international level continue to escalate; in which awareness of the reduction of emissions, packaging, etc. only reaches certain privileged points of the planet; and in which the inequality gap and access to nutritious food continues to widen.



To put an end to this situation, research, development and implementation of concrete programmes aimed at the different players involved in turning the coin around, promoting public awareness and providing the different agents of change with the necessary tools and knowledge are necessary.

**It is a challenge to transfer new trends, studies and knowledge and bring them to the table on a daily basis. As adults, we must begin to educate the younger generations in a different way, bringing them closer to the products and their origin to improve both their health and wellbeing.**

We need to be more aware of the society we live in, what is happening in our day to day lives and see how we can improve all those areas it affects. It is important to make the new generations understand the value chain from the farmer or fisherman, its impact and how they relate and supply.

As recommended by our **KM ZERO Squad**, creating good habits must start in the home.

We need to be conscious and consistent with what we are consuming. And give our health and the health of the planet priority, if we want a different world, at least for our children.







# 10

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## **FTALKS FOOD SUMMIT 2021:** A CLOSER LOOK AT WHAT WE EAT

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Impact Investing / Resilience & Biodiversity / Health,  
Taste & Wellbeing / Protein 4.0 / Zero Waste / Data, AI  
& Robotics / Retail & Food Service / Food Education





**In the third edition of ftalks Food Summit we have once more turned Valencia into the epicentre of food innovation for two days, through a hybrid format in the central Palau Alameda and a totally experiential one, the second day, in El Telar de Miguel Martí, an old textile factory full of history, in which participants have been able to co-create solutions to the challenges facing the sector and establish new synergies.**

At ftalks'21, we brought together world leaders in the transformation of the food system to reflect upon the latest disruptions in the market and the challenges facing the sector: **sustainability, the circular economy, the new generation of complementary proteins, personalised nutrition and regenerative agriculture.** A first day full of reflections and inspiration leading on to a more participative day, where assistants were able to highlight the importance of all the knowledge acquired at the Food Conference through working groups.

Artificial intelligence, robotics, vertical urban farms, edible packaging and utensils, vegetable protein made from agricultural by-products, laboratory cultivated meat or fat, plant-based cheese and shellfish, are some of the main global tendencies in food presented at ftalks Food Summit, which this third edition has helped to firmly establish as a leading international event in agri-food innovation.

At the opening session of ftalks'21, **Raúl Martín**, CEO of KM ZERO, highlighted the resilience of the sector: ***"Foodtech startups raised €20 billion globally in the first six months of 2021, almost equalling the amount generated the previous year. The change in consumer preferences was drastic in 2020. Since then, growing trends such as digitalisation, robotics, e-commerce, the integration of workflows to reduce food waste and the adoption of 4.0 industry technologies throughout the whole of the value chain have become even stronger. Ftalks Food Summit is a showroom for all of them through the most disruptive local and international projects."***

**ftalks Food Summit 2021, created by KM ZERO, enjoyed the support of more than 40 partners from the sector and from public and private entities, presenting more than 50 innovative products through the Future Box, the Future Market and the Future Lunch. 60,000 people joined the ambitious programme of contents which had over 50 international speakers, generating over 11 million impacts on social media and over 120 national press mentions.**

For two days, we brought together more than 50 recognised international speakers, who discussed trends, disruption and the current challenges facing the food sector. We also enjoyed the active and prominent participation of the food industry and the most innovative and disruptive foodtech startups in the current food ecosystem.



## Food Conference: a meeting point for industry, startups, investors and opinion leaders.

**Beatriz Jacoste**, director of KM ZERO opened the inspiration session with the official presentation of the **KM ZERO Squad**, our continually growing network of ambassadors including leaders from all over the world who fight for the transformation towards a healthier, more sustainable, more resilient and fairer food system and whose thoughts are contained in the **Fooduristic'22** report.

*"The food sector is key and strategic for the Valencia region. This is why, for the second year running we are one of the main partners of ftalks, where people come together to discuss the food of the future and how it will affect our society."*

*Jordi Juan, Regional Secretary for Innovation and Digital Transformation of the Valencian Regional Government.*

Thanks to **Karl de Smedt**, we were able to take an imaginary trip through the first sourdough library in the world promoted by the company Puratos and we learned that "the future of bread is in its past".

One of the subjects of the first day of ftalks'21 was the reinvention of packaging, addressed by **Rodrigo García**, Co-founder and Co-CEO of NotPla, a company dedicated to creating sustainable packaging from natural materials found in seaweed, who highlighted the following: "The fact that the material is edible certifies that nature can help us in the transformation"; and by **Daphna Nissenbaum**, Co-founder and CEO of TIPA Corp, a project which has conceived a biodegradable material which behaves in a similar manner to organic matter. **Santi Mier**, CEO and founder of Ocean52 (the official water of ftalks'21) and **Natalia Suazo**, director of marketing at PepsiCo drinks also shared information about their projects in this field.

The conversation with **Juan Llorca**, CEO of KIDS Inspired Food, highlighted the importance of feeding the future starting with education in schools and homes, including knowledge about products, their origin, their transformation and their impact on the environment and health.

**This year there have been new collaborators in ftalks, including Fundación LAB Mediterráneo, a project driven by the Valencian Business Association (Asociación Valenciana de Empresarios AVE) with the aim of converting the region of Valencia into a national and European benchmark for enterprise, innovation, technology and research.**

Fundación LAB led a round table, moderated by **Javier Jiménez**, director general of Lanzadera, at which business people **Pedro Ballester**, CEO and founder of Logifruit, **María José Félix**, director general of Helados Estiu, and **Toño Pons**, president of Importaco, explained how three leading companies have backed RD&I and highlighted the importance of research and innovation for the future of the agri-food sector.

The farming of the future was also one of the most prominent subjects of ftalks'21. **Alina Zolotareva**, RDN director of marketing at Aerofarms, explained how the company has developed aeroponic systems to grow different varieties of plants simultaneously in vertical urban farms; and **Adrián Ferrero**, Co-founder and CEO of Biome Makers, a Spanish biotech startup based in California, explained how to analyse the microbiome of the soil in order to provide information to agricultural companies and improve the quality of crops. For his part, **Ricard Borrell**, Head of Bayer's Field View Spain, showed us the benefits of this digital tool which helps farmers make decisions and encourages the most efficient use of resources such as water, land, energy, fertilizers and phytosanitary products.

At the round table with **Iñaki Mielgo**, VP New Business Development Plant Proteins at Kerry and **Iago Quintana**, Ph.D., Business Deve-

lopment Director for Probiotics F&B Global, Health & Wellness at ADM Nutrition, there was a discussion about how personalised nutrition can help us to easily improve our food habits, although there is now more talk about "clustered", rather than personalised, food.

The morning of the first day of ftalks'21 closed with an inspiring conversation between Beatriz Jacoste and the Director of Innovation and Entrepreneurship at CAPSA FOOD, **Rubén Hidalgo**. One of the clearest messages was the importance of the primary sector for the industry and the preservation of biodiversity. "Without livestock there is not regenerative agriculture," he affirmed, and he also highlighted the need to involve all of those who form part of the value chain in this unstoppable transformation of the sector.

From Israel, **Alon Chen**, CEO and co-founder of Tastewise showed how, thanks to artificial intelligence, it is possible to anticipate trends and have first-hand knowledge of consumer needs. And, in order to be aware of the technological tools which are at the service of the food sector to digitalise it, make it more efficient and grow exponentially, **Jordi Juan**, Regional Secretary for Innovation and Digital Transformation of the Valencian Regional Government moderated a panel which included **Henrik Stamm**, founder of Blendhub & ChemoMetric Brain; **Mariel Diaz**, CEO of Trititive; **Joaquín del Río**, Director of Quality, R&D and Environment at Vicky Foods and **Alejandro Arranz**, Director of Corporate Venturing and New Technologies at Mahou San Miguel.

At ftalks'21, **José María Lagarón**, founder of Bioinicia SL and Group Leader at IATA-CSIC introduced his Capsultek project, a new disruptive technology for encapsulating and drying bioactive molecules at room temperature.

The creation and development of new proteins to feed the growing population was another prominent theme of the day. **Mark Post**, Co-founder of Mosa Meat, a Dutch company pioneering the introduction to the public of a portion of "in vitro" mincemeat made with cow stem cells, stressed that: "The develop-





ment of alternative proteins is inevitable given that the traditional system is not ready to satisfy growing demand at an acceptable cost to the environment. Many products have already entered the market and the variety and scale will expand exponentially over the next 3 years." Also taking part in the round table about the go-to-market of new proteins were **Miguel Calatayud**, CEO of iWi, a company specialising in growing seaweed to produce supplements in sustainable farms in Texas and New Mexico; **Priyanka Srinivas**, founder of The Livegreen Co; and Ido Savir, CEO and co-founder of Supermeat.

For the first time in the history of the ftalks Food Summit were able to welcome notable investment funds such as Unovis Asset Management & New Crop Capital with **Dan Altschuler**, Big Idea Ventures with **Henrietta Heart**, PeakBridge with **Nadav Berger** and Quadia with **Josep Segarra**. The latter confirmed the great movement among startups and more mature companies in agtech and foodtech with a very important component of private financing: "Our objective is for these startups to grow, for them to act as a catalyst for their sector and to mover the sector from the bottom up. We see very important trends at the start of the value chain, the regeneration of land, or in agriculture that combines technology, artificial intelligence or robotics," he affirmed.

At ftalks'21 we have seen that the future of complementary proteins in our country is taking hold with initiatives such as those of **MOA Foodtech** and **Biotech Foods** and by the sector with **DACSA Group**, leaders in developments such as wet textured vegetable protein. Nevertheless, the conclusion of this round table is that much remains to be done and that this is the time to invest, research and work on complementary proteins in order to satisfy growing global demand for food.

The importance of a healthy, tasty and varied diet was also discussed at ftalks where companies such as **Biogran**, **Danone** and **Idai Nature** expressed their view that consumers need to improve their food habits and that education is necessary to create awareness of issues such as nutrition and the origin of the food we eat.

Led by **David Kat**, at ftalks'21 we were able to understand how retailers can win the fight against food waste thanks to the Wasteless dynamic price tool. And still about retail, we brought together representatives of the leading supermarket chains in Spain, such as **Mercadona**, **Lidl** and **Carrefour**, who discussed measures to reduce plastic, taking advantage of clean energy sources and the circular economy, at a round table moderated by Irina Jaramillo, ex corporate manager of Carulla (Grupo Éxito) and one of the 30 most influential women in retail in Colombia. By the end, it was clear that the transformation of retail should look towards regeneration.

The closing session of the first day of ftalks'21 had a Chilean flavour thanks to the ProChile presentation by **Sebastián Pillado**, who highlighted Chile's strength in foodtech innovation with success stories such as Protera, The Live Green Co and NotCo, whose founder and CEO, **Matias Muchnik**, offered all participants an account of the growth of the project from startup to unicorn and his aim to transform the food sector and "move the needle" with plant-based products created using artificial intelligence.

And so ended the first day of ftalks'21 during which we were able to fuel ourselves with the knowledge of all participants and reach a joint conclusion on all subjects. After all, this is the time to back disruptive innovation and new technology. As **Beatriz Romanos** states, "this is the decade of things that have yet to be discovered."



## Co-creation session: solutions to the main challenges facing the food sector.

*"In this edition, we have achieved the consolidation of our efforts over the past three years to position ftalks as a leading international event in food innovation in Spain. We have also managed to put Valencia on the map as the capital of this sector and, following COVID, we have resumed face-to-face encounters, which has meant the creation of more synergies among participants".*

*Beatriz Jacoste, Director of KM ZERO Food Innovation Hub.*

The second day of ftalks'21 was totally experiential, involving participants through different working groups led by the most authoritative voices in food, many of them members of the **KM ZERO Squad**. Together they discussed and worked on the main challenges to the sector such as the new generation of proteins, the reduction of food waste, technology applied to food, biodiversity, retail and food service, wellbeing and personalised nutrition.

The members of each group, representing startups, entities, investors, industry representatives and research centres, enjoyed the opportunity to co-create among themselves and delve into trends and challenges in the sector and reach agreement upon solutions and new synergies. **The main conclusions of these working groups are reflected in the Fooduristic'22 report.**

Regarding food waste, another subject dealt with during ftalks, the Director General of the Food Sector of the Spanish Ministry of Agriculture, Fishing and Food, **José Miguel Herrero**, signalled the importance of making the public aware that products that come from the countryside cannot end up in the rubbish and highlighted that, according to MAPA data, "in 2020, Spanish households threw out more than 1.3 billion tonnes of

unconsumed food, 31 kg/l per person", and underlined the commitment of the Government to comply with the **Sustainable Development Goals (SDGs) of the United Nations 2030 Agenda**, "which include the aim of reducing food waste by half by 2030."

In this session, priority was given to startups, who were allowed space to deliver a pitch and were also able to introduce us to their novelties and offer innovative products on the **Future Market**.

The councillor for Economic Innovation and Enterprise of the Valencia Town Hall, **Pilar Bernabé**, was responsible for closing the second edition of ftalks'21. In her speech she highlighted that: *"The agri-food sector has always been of key importance in our production model and events such as this, where the most innovative processes and startups are analysed and evaluated, positions us as leaders in the agri-food sector. The Town Hall will always support any initiative that contributes to positioning Valencia as an international hub for food and innovation".*







## The best food startups awarded at ftalks'21

Like the previous year, in September we launched a competition to select a group of startups to give a pitch at the event and have the opportunity of being chosen the best startups in this edition of ftalks Food Summit, as well as of presenting their project before the whole innovation ecosystem: investors, entities, media, industry and opinion leaders.

Following the success of participation in the competition, 12 startups were selected to present at ftalks'21, from among whom the jury chose the best one in the category of **Sustainability**, for offering a solution which generates a positive impact on people and the planet, and the best one in the category of **Innovation**, for offering a solution which stands out for its technological development and its business model.

**Nadie Sin Su Ración Diaria (NSSRD)**, a project which digitalises the food donation process from beginning to end, received the prize for Sustainability. **Anina**, an Israeli startup which creates pioneering Ready to Cook food capsules which are 100% natural, rich in vegetables and nutrients, easy to use and prepared using fresh products which have an unattractive appearance using a unique form of technology, received the prize for Innovation. For its part, startup **Baia Food**, creator of Miraculina, a **novel food** which transforms acidic or sour tastes into sweet ones, and which in the future may become a clear alternative to sugar and artificial sweeteners, received the runner-up prize for Innovation.

The startups were chosen by a jury composed of **Beatriz Romanos**, Innovation Coach specialising in Foodtech and Founder Tech Food Magazine; **Tony Paños**, Director of Projects at Lanzadera, **Carlos Lora**, Co-founder and President of Espacio Res, and **Josep Segarra**, Investment Manager at Quadia; and received a trophy designed by **Raúl Laurí**, founder and CEO of **Decafé**, which produces works of art from Decafé, a patented material made from used coffee grounds, natural thickeners and mineral fillers.

Thanks to these awards, Nadie Sin Su Ración Diaria, Anina and Baia Food will have access to the 4 month long **Next Level** support programme promoted by **KM ZERO**, which consists of personalised mentoring and tracking of all areas of their business. They will also have the chance to participate in the first exclusive **foodtech startup Bootcamp** created with members of the **KM ZERO SQUAD**. In addition, they may be introduced to the **KM ZERO Investment Opportunities Club**, they will have visibility in Fooduristic, the original content online platform, through interviews, participation in future events and presence in the Fooduristic'22 Report. And, in parallel, thanks to a collaboration between KM ZERO and Lanzadera, the winners will have direct access to the latter's acceleration programme which starts in January 2022.

The nine remaining startups which took part in the competition (**Harbest Market**, **Nucaps Nanotechnology**, **Voltstone**, **Voilà Bio**, **Roots Mindfoodness**, **Mimic Sea Food**, **Bold Drinks**, **Automato Robotics** and **ODS PROTEIN**) now form part of the KM ZERO community and will have access to future networking opportunities.





## Ftals Food Summit 2021, a hybrid and experiential event

In this edition we continued to back an event with a hybrid (physical and virtual) format, with one completely experienced-based day on the second day aimed at generating new connections and opportunities among participants. Participants were able to familiarise themselves with the food of the future through their senses on three occasions: Future Box (and Future Bag), Future Market and Future Lunch.

### Future Box & Future Bag

At **KM ZERO** we prepared a careful selection of innovative products created by leaders in the transformation of the sector, businesses and startups. A sample of new products conceived to satisfy the needs of consumers which are consistent with the values of sustainability and health. This box was previously sent to the houses of the virtual participants so that they could also take part in the ftalks'21 experience and was delivered in tote bag format to all participants who were physically present at the event.

**Newyou by Personal Food:** The combination of excellent quality chocolate with natural ingredients such as cacao and agave syrup which provide natural probiotics. Varieties: SLIM with moringa, POWER with maca and hemp and pea protein, or INMUNE with reishi.

**Singles doses of powdered protein by Trillions:** Insect protein which, together with pea protein, becomes the best extra protein push you need. It will provide you with over 73% of high-quality proteins for a sustainable, healthy and digestible recovery.

**Canned white wine by Zeena:** An elegant white wine which you'll want more of when you taste it! Long and fresh in the mouth, it traps all your senses. What's more, it's organic, sustainable and comes in a handy canned format.

**Raw bars by Natruly:** A healthy unprocessed snack that uses 100% natural products; free of sugar, gluten, lactose, palm oil, preservatives and colourings. Prepared 100% from fruit and nuts and available in seven flavours.

**Kale by Natruly:** Crunchy kale leaves seasoned with natural tomato and oregano. A new snack option with is 100% healthy, crunchy, covered in seeds and spices which transport you to beautiful Italy.

**Aquafaba BIO by Vegadenia:** Aquafaba Bio is the functional alternative to egg white. A natural product which is organically obtained by cooking legumes to the right concentration and reduction: healthy, sustainable, ethical and easy to use.

**ECOCESTA organic crackers by Biogran:** A large range of healthy snacks made up of 15 different varieties. Ecocesta crackers are made using 100% natural ingredients grown organically, with no artificial flavourings, preservatives or colourings.

**ECOCESTA ground organic brown linseeds by Biogran:** Organically grown ground brown linseeds, ideal for adding as a topping to any meal of the day. Contains all the nutrients and minerals needed to complement our daily food, in an easy, tasty and satisfying manner. They are vegan, paleo and free of added sugar and gluten.

**Organic bar by ASANA BIO:** Seeds, nuts, oats and honey, with no other added sugars. A short list of real and nutritious ingredients. Bars which are gluten free, rich in vegetable protein and high in fibre.





**Organic snack by ASANA BIO:** Mix of soya and seeds, very crunchy, not fried. 100% vegetable and natural snack with no additives. High in fibre and vegetable protein (38%). Gluten free. Using ingredients grown in Europe, certified organic and non-GMO.

**Vegan pâté by Conca Organics:** 100% vegan pâté with organically grown ingredients, containing no preservatives or colourings, no soya, and no potato starch. This pâté is carbon neutral and with, its own TerraMater technology, a tool for analysing life cycle, has been eco-designed to reduce its CO2e emissions as much as possible.

**Tiggy Chufa & Carob by Tiggy:** A spreadable cream for snacks and breakfasts. Ideal for using in baking on biscuits, brownies or cake coverings.

**Tiggy Chufa & Ginger by Tiggy:** A spreadable cream for breakfasts, snacks or baking. With hints of marzipan and caramel, its sweetness is soft and subtly reminds the palate of ginger.

**Powdered dietary supplement by BioFit:** BioFit Active LIMA is a dietary supplement based on magnesium, Vitamin C and Vitamin B12. Ideal for combatting tiredness and fatigue in your daily routine!

**Masa Mater Premium by Darwin:** Masa Mater is a kit for making sourdough bread at home a lot quicker than the traditional method. The premium pack contains a combination of three types of flour: Masa Mater Tritordeum, Masa Mater Khorasan and Masa Mater Secale.

## Future Market

**El Telar de Miguel Martí** became the market of the future the second day of ftalks'21. More than 25 disruptive projects presented their innovative products or technologies and let us try a sample of what we will find very soon on supermarket shelves. Some of the projects which were also in the Future Box were Zeena, Masa Mater (Darwin), NewYou (Personal Food), Conca Organics, Nadie Sin Su Ración Diaria, Anina, Baña Food and Trillions. At the market we were able to get to know:

**Chemometric Brain:** unique quality control cloud software based on NIR technology which permits the analysis of powder, liquid, solid or gel food products in just a few seconds for the purpose of ensuring food safety and avoiding fraud.

**Mediterranean Algae:** startup from Alicante dedicated to growing Mediterranean algae on land. Its innovative technology allows high added value biomass and bioactive compounds to be obtained for different applications such as human food, bio-fertilizers and cosmetics.

**Mimic Sea Food:** tasty and healthy plant-based seafood.

**TIPA:** 100% compostable flexible packaging which decomposes into organic material.

**Voilà Bio:** the first Spanish startup to manufacture and launch into the market edible utensils with a biscuit base.

**Väcka:** designs and prepares tasty vegetable alternatives to cheese.

**Cubiq Foods:** develop and produce a new generation of ingredients (Go!Drop, Go!Mega3 and cultivated proteins, fats and Omega-3) which improve the nutritional profile of products, while respecting their original taste and texture.

**Moa Foodtech:** its mission is to transform waste in the agri-food sector into a new type of protein ingredient. It achieves this process through fermentation.

**Aldous Bio:** startup dedicated to creating honest, coherent and top-quality organic food and superfood, so that any person can achieve a healthy diet.

**Roots Mindfoodness:** created to enable parents to provide their baby with quality, organic and personalised nutrition in its first 1,000 days of life, the key period in human development.

**Verdeo:** produces and sells technical fat for industry made using olive oil, which is the healthiest and least expensive alternative.

**ProChile:** Chilean Government Agency for the Promotion of Export. Its mission is to contribute to the internationalisation of Chilean companies and the promotion of goods, services, technology and innovation. In Spain it works with a wide range of innovative foods, as well as AgTech, Biotechnology, IA and Smart Packaging solutions, among others, oriented towards providing the world with more sustainable and quality solutions and responding to the trends and needs of its target markets. Companies attending ftalks'21 were:

ANDES WISDOM CHILE - Synergic Food

COMERCIAL EPULLEN LTDA. - Terrium

GRANOLIN SPA. Granolin Keto

THE LIVE GREEN COMPANY SPA., AZTLAN Y GIBIT. Barritas proteicas

WANIA FOODS SPA. – Wania











## Future Lunch

A menu inspired by the challenges of the sector such as zero waste, complementary proteins, biodiversity and digitalisation provided the finishing touch to the third edition of ftalks Food Summit. Designed by chef **Miguel Martí and KM ZERO**, the Future Lunch was an immersive gastronomic experience with dishes that are the edible expression of the future of food.

The entrées and main dishes on the menu of the Future Lunch made it clear that tomorrow's food does not have to be all that different to the food with which we are already familiar in order to be respectful of the environment and the seasons, healthy, nutritious and, above all, tasty.

Thanks to **Dacsa Group, Anina, Voilà Bio, Mahou San Miguel, Puratos, Franuí, Zumex Group, Mediterranean Algae, Ocean52, Sweet Palermo, Vicky Foods, Bold Drinks, Pops n' Bops and br5** for your efforts to provide the whole gastronomic experience of ftalks'21.







**Now, more than ever, we need to cooperate together, to accelerate the much-needed transformation of the food sector towards a more resilient, healthy, fair and efficient one, with innovation and technology as our greatest allies, involving all players forming part of the system without leaving anyone behind.**

**We may not be living in ideal times, but our motivation is hope, not fear. We have never had so many tools to create a real change. There are bold people among us who are already working on solutions that have the potential to have an impact on some of the challenges which most concern us. There have never been so many of us sharing the same conviction. Together we can create a future which not only sustains itself but regenerates and includes all the players in the chain.**







KM ZERO Food Innovation Hub is the think tank that was born in 2018 in Valencia with a clear objective: **to lead the transformation towards a healthier, sustainable, resilient and fairer food system**, connecting people and projects that are working to achieve a positive impact on the entire value chain.

Its main mission is to support entrepreneurs and companies in order to boost their consolidation and to generate products and solutions that have a positive impact on the sector, responding to the main challenges it faces, focusing on the consumer and future unmet needs.

**Today, the industry faces a global challenge: to provide healthy diets from sustainable food systems to a growing world population.** This means transforming the way food is produced, distributed, consumed and reused. To do this, we must respond to different demanding challenges that mainly focus on improving product traceability, reducing food waste, reducing the use of plastic, food safety, personalised nutrition or the creation and production of new complementary proteins that generate a positive impact on the environment.

To understand the whole context and glimpse the areas of opportunity for all the players involved along the agri-food chain, KM ZERO relies on the figures that are leading the change worldwide and brings them together in the initiative called **KM ZERO SQUAD**. From the Valencian capital, it contributes to accelerate the transformation of the food system. It promotes synergies between industries, entrepreneurs, investors, the scientific community and institutions, and promotes platforms for the exchange of opportunities.

The requirements to enter the KM ZERO ecosystem are clear. It focuses on projects strictly related to the food sector and that have a projection of exponential growth and impact. It invests in committed people who bring a disruptive and differential proposal.





# The Team



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CEO



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Director



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Creative designer



**iris Ruescas**  
Graphic Designer



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Innovation Coordinator



**Claudia Da Cunha**  
Trends & Innovation Consultant



**Catalina Valencia**  
Community Lead



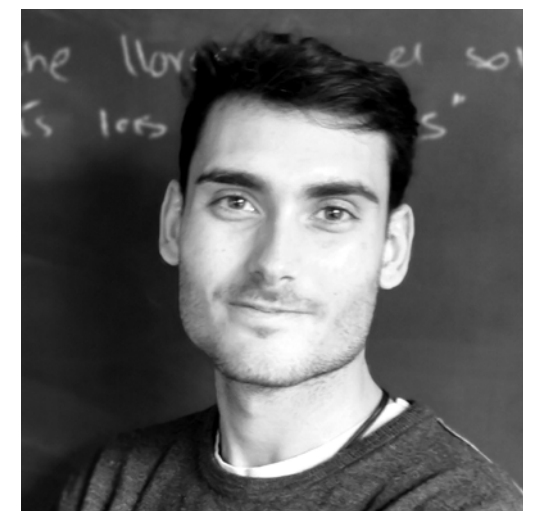
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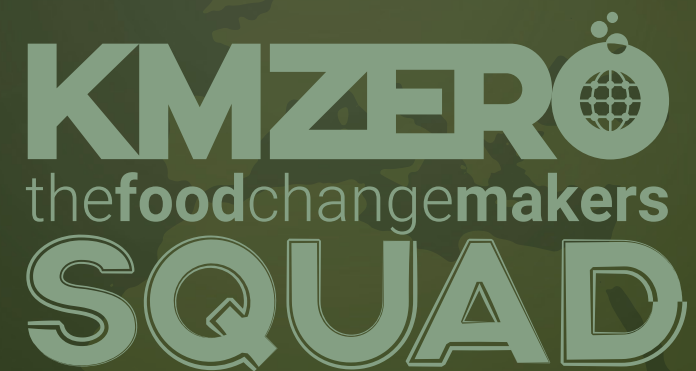
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