Exclusive: Unovis expands with initial close of second fund

The alternative protein investor has secured €50 million for the New Crop Alternative Protein Fund II

By Murielle Gonzalez

Unovis Asset Management, a global boutique investment firm focused on the alternative protein space, is launching a second fund with an initial close of €50 million, *NutritionInvestor* can reveal. Unovis' second fund, New Crop Alternative Protein II (NCAP II), will be based in the Netherlands and Unovis seeks to raise €100 million in total.

The venture capital firm manages New Crop Capital (NCP), a fund launched in 2015 that has grown to $123 million assets under management (AUM).

The NCP fund currently has 42 portfolio companies, including plant-based seafood brand Good Catch, novel protein producer The Protein Brewery, plant-based egg company Zero Egg, mycelium-based protein Atlast Food Co., and cell-based protein producers BlueNalu, Mosa Meat, and Aleph Farms, to name just a few.

The new fund enters the market with a similar approach to its predecessor, initially making early-stage 'hands-on' investments in animal-free protein alternatives opportunities.

NutritionInvestor understands that Unovis will continue to look at the entire value chain with an emphasis on upstream manufacturing and ingredient innovations, as well as downstream branded products aimed at further broadening the current category focus.

As well as investing in new alternative protein businesses, the new fund seeks to accelerate the growth of the existing portfolio companies. The investment thesis will allow Unovis to select a few of the more promising companies in its portfolio and go deeper, investing successive growth rounds and further leveraging its extensive strategic network to achieve advantageous outcomes.

Unovis operates from offices in San Francisco, New York, and Amsterdam. Its team views conventional animal agriculture as an antiquated and inefficient food production system with serious ESG vulnerabilities that make it ripe for large-scale disruption and innovation.

The firm's investment thesis stems from a mission to transform the global food system by investing in solutions that facilitate sustained behavioural change and reduce dependence on animal protein products.

The launch of NCAP II is likely to see Unovis expand its role of early-stage investor. While the average cheque size of NCP was around $250,000, Unovis foresees the new fund will participate in rounds with a €2 million cheque on average.

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Lauren Abda l Branchfood

The chief executive of business accelerator Branchfood discusses the pathway for start-ups to grow as a CPG food brand, valuation multiples in the sector, addressing the funding gap, and investment opportunities on the horizon

By Murielle Gonzalez

Brown Brothers Harriman, the oldest and one of the largest private banks in the US, named Lauren Abda as one of the 20 women to watch — and when I met her, I immediately knew why. Abda has built a career championing food innovation and steering investors into backing CPG food and drink brands through three distinct but synergistic organisations — Branchfood, Food Edge, and Branch Venture Group.

Branchfood provides best-in-class-resources, connections, education and workspace for the food community to convene and collaborate. Branch Venture Group is an angel investment network for food-related start-ups seeking early-stage funding from leaders in the industry. And Food Edge is New England's food summit that brings together the industry's largest brands, disruptive start-ups, and top researchers to discuss the future of food. Food Edge is held online on 4 and 6 May.

"I launched each of these companies at a point in time when the need was evident and in collaboration with the right people to ensure success," she tells me. But there's a deeper motivation for all that Abda has done to date. Abda was 16 when her grandmother was diagnosed with leukaemia, which led her family to change their lifestyle radically. She experienced and discovered food's potential in supporting health, combating disease, and addressing nutrition shortcomings.

Her interest in these topics steered her formal education, and Abda completed a master of science in food policy, nutrition, and entrepreneurship at Tufts University.

With this background, it's unsurprising to see Abda's trio of organisations helping to advance food innovation, leveraging connections with entrepreneurs and investors. The ultimate goal, she tells me, is to help transform the food system into a more sustainable and resilient one.

Roadmap to CPG food business

Abda argues that contrary to what many people think, making a great tasting product doesn't guarantee business success, but is rather table stakes for investments.

For example, Branch Venture Group's team screens for specific criteria when considering food-related investments, including competitive advantage and the characteristics of the founders in terms of passion, vision, and whether they can manage capital efficiently.

Abda tells me the firm also screens founders to determine whether they understand the economics of their business and the deal, and the path to exit.

"There are many entrepreneurs who want to start food businesses, but fewer aspire to build a business that creates shareholder value — even fewer that have the qualities mentioned above," says Abda. She notes that ultimately, Branch Venture Group selects the opportunities that can go the distance.

Abda recognises that trends in the market attract investors to this space but argues much of the success specific to trend spotting is time-related.

"Food is a $3 trillion market, and if you can find a trend and believe in it, those are tempting areas for investors to get involved," she says.

To the point

What are the top-three particularly strong consumer trends that you see in the US?

Plant-based, direct-to-consumer, and in-tune with immune.

Are these trends being picked up by start-ups, or do you see a misalignment?

Start-ups are absolutely capitalising on these trends. Over 50% of the start-ups we see have plant-based alternatives in their categories.

Direct-to-consumer is the primary path to new consumers for emerging brands, and entrepreneurs are becoming highly educated on this strategy.

Also, due to the Covid-19 pandemic, consumers are increasingly aware of their own immunity and health, wanting to purchase products that support those ideals.

What dynamics have you seen among strategic and corporate investors looking at CPG food brands?

Over the past five years, we've seen many large CPG companies launch venture investing initiatives funded by internal resources. What most discovered was that start-ups were too early on in their business development for corporations to get involved.

To develop a company from an idea to a commercially viable business is a five-to-seven-year time horizon, which is typically longer than senior leadership overseeing this activity spends at any given company. So, there wasn't alignment here to see opportunities through.

As food businesses grow and scale — reaching $50 million-plus in revenue, becoming profitable, and having $10 million in EBITDA — they are identified as leaders in an emerging market, then more M&A becomes possible.

What's your take on today's valuation multiples, and what is the investors' sentiment on this front?

For CPG start-up companies, valuations are conservative because the risk of failure is so high. We see many companies with valuations that are 2x to 3x revenue.

As a company grows, achieves key milestones and shows a persistent, valuable business model, its revenues will expand, and its valuation starts to increase.

The two major contributors to establishing valuation are how fast a company is growing and how profitable it is. Corporates want to buy highly profitable businesses, and high-growth consumer brand businesses typically sell for 5x their revenue.

The discussion about the 'funding gap' in the Series B and C stages started to emerge last year — what are your thoughts on this issue?

Funding gaps usually open up due to unrealistic valuation expectations. CPG start-ups can generate profits relatively quickly, unlike more traditional biotech companies that may go through four or five rounds of funding and may not even have completed their regulatory approvals.

As CPG businesses continue to grow — gaining traction in a particular region, expanding nationally, launching different product lines, and so on — you will be more likely to find an investor willing to invest at an appropriate valuation or a buyer for the business.

Furthermore, there have always been plenty of private equity firms interested in CPG companies that are profitable and fit the buyout model.

Only in the past five years have we seen dedicated funds focused on early-stage investments in this industry emerge.

What white space opportunities do you see for start-ups to tap into and for funds to invest in?

Precision nutrition is a familiar concept, but the research is still under way, proving its validity. I think we will eventually get there, and when we do, there will be a whole new wave of products launching to meet consumer demand for individual nutritional needs.

It will be a challenge for companies on the health claims and regulatory front because of restrictions on packaging language. Still, I think the consumer interest in understanding their health profile better and choosing highly nutritious foods for optimal health will prevail.

What have brands been doing to cope with Covid-19 restrictions and still get listings or boost sales rotation in stores?

It's been an incredibly challenging year for emerging brands in retail stores. New brands and field marketing teams haven't been able to connect with customers to get product trials and shift consumer purchasing as they used to.

Nearly all brands had to shift to an omnichannel approach, connecting with customers on many platforms for product discovery and sale. Some brands have implemented discovery and subscription boxes, influencer marketing, and sampling boxes to get user-generated content. This approach helps them refine their offering, brand collaborations and partnerships.

In the long run, it will be to their benefit to have this omnichannel approach. Some of our entrepreneurs had breakout revenues in 2020 because they adapted quickly.

What are the marketing strategies you encourage brands to adopt?

Talking to target customers and spending time understanding their wants and needs is the first step to building a successful marketing strategy.

For many entrepreneurs we work with, they may not even have a product in the market yet, but we still encourage them to have customer conversations — get curious, build that email list, and start shaping a strategy. This mindset is crucial because when they do launch, they have a whole community of people, their target customers, to begin selling to.

Abda recognises that alternative protein is a category with a buzz and everyone's eyes upon it — but she believes there is endless opportunity for innovation in any food category. "High-protein ketchup, caffeinated cereal, vitamin-fortified chewing gum — I could go on," she says, noting ideas are a dime a dozen. Abda argues the execution of the idea makes all the difference.

"Finding the right team, making a category-disrupting product with unique attributes that fit consumer interests, and bringing it to market at the right price and time is where the magic happens," says Abda.

The food industry is continuously changing, and Abda tells me that every new lesson learnt by every day at work has been a major contributor to her passion for the industry, supporting change-makers who believe in a better food system for all. "I feel humbled by the opportunity to work with them and support their efforts on their path to success," she concludes.

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What's cooking in The Kitchen's portfolio?

The showcase event for The Kitchen's portfolio companies held online in February put the spotlight on food innovation to whet investor appetite — and revealed the Israeli start-ups fundraising plans for H1

By Murielle Gonzalez

From left: The Kitchen CEO Jonathan Berger and Amir Zaidman, VP business development

Organisers of the showcase event for portfolio companies of Israel's The Kitchen FoodTech Hub couldn't have come up with a better name – What's cooking?

Held online on 18 February, the 'Demo Day' featured 12 early-stage start-ups with innovative technologies, the ambition to enter multimillion-dollar markets and expand in the categories they are tapping into – alternative protein, plant-based dairy, sugar reduction, novel ingredients, and snacks.

The Kitchen has become one of Israel's leading foodtech hub, and it's not surprising to see the calibre of companies under its wing.

Israeli food giant Strauss Group established the organisation as a seed investment and technology incubator with a focus on foodtech in 2015, backed by government funding through the Israeli Innovation Incubator programme.

It has made 14 investments to date, including three in the past 12 months — egg substitute producer Zero Egg; snacks manufacturing innovator Torr Foodtech; and sugar reduction company Amai Proteins.

What's cooking? put the spotlight on founders and chief executives who delivered their elevator pitch in under five minutes. Three of them revealed they are gearing up for raising capital in the coming months — sugar reduction company Better Juice, natural flavour maker Vanilla Vida, and precision fermentation company Imagindairy.

Others, like plant-based dairy company Yofix and cell-based meat producer Aleph Farms, are seeking industry partners to further the development of the business.

Plant-based meat producer Rilbite and Torr are setting up manufacturing facilities to begin sales at home and in the US this year. And there was Anina, a ready-meal company with a wow factor. The company offers 'culinary art' thought its microwave capsules, which are visually appealing, nutrient-dense, and cooked in minutes.

NutritionInvestor takes a closer look at the companies in fundraising mode.

Imagindairy: Series A round imminent

Eyal Afergan teamed up with Professor Tamir Tuller of Tel Aviv University and founded Imagindairy in November last year. The company uses precision fermentation to produce milk proteins — and has developed a unique Aplatform to optimise the process to bring production costs down.

The platform combines biology with AI-driven technology and computer modelling to increase the expression of milk proteins in microflora.

"We are creating real dairy product without the cows," said Afergan, noting products offer the same familiar experience of traditional dairy product but with superior health and environmental benefits.

Afergan explained that all the start-ups utilising precision fermentation in the alternative milk space face the same challenge – scale-up, process formulation, and consumer acceptance – and argued that the biggest challenge is to get products at the right price. He said all these bottlenecks can be solved with Imagindairy's patented technology.

"Our technology, protected by three patent families, has proved to increase protein production yield by up to 200 times compared with existing technologies," he said.

Speaking with *NutritionInvestor*, Afergan explained that Imagindairy's technology uses a specific kind of microflora that is optimised to produce maximal protein expression. Once the target protein is obtained, Imaginadairy is able to produce protein powder, whey and casein powder or offer the market a finished packed product, such as milk and cheese.

Imagindairy closed a seed funding round in November with the backing of The Kitchen, Israel's Innovation Authority and three venture capital firms, one of which is Entrée Capital. Afergan revealed Imagindairy is in talks with investors for its Series A funding round.

Vanilla Vida: Funding round scheduled for Q2

Oren Zilberman founded Vanilla Vida in November 2019, leaving behind a career in venture capital. He started the company to produce natural vanilla efficiently and sustainably.

"Vanilla is the most popular taste and aroma," he said, noting that while demand for natural products is on the rise, 94% of vanilla used in food and drink products is a synthetic substitute, mostly made from chemicals derived from oil. And the taste is 'flatter' compared with the natural product.

"We need to understand that growing vanilla is very difficult," said Zilberman. "It's grown in tropical environments, it's very labour intensive and requires a long drying process [of between four-to-six months]. There are poor quality control standards, and the sector is affected by climate change – hurricanes can destroy the entire industry," he noted.

Vanilla Vida enters the market to solve these challenges. The company uses advanced technologies to transform the traditional way vanilla is grown and cured, turning it into a smart and fully controlled commercial production operation.

Zilberman explained: "We grow our own vanilla in smart farming greenhouses. We develop our own [protocols] and metabolic manipulation to increase aroma and still keep the product 100% natural."

Vanilla Vida uses a smart drying room, which allows the company to produce the best product in the market, Zilberman claimed. He noted the company's technology and novel production approach is combined with a data-driven solution.

"We produce 10 times more vanilla per square foot and 100% more aroma and flavour compared to our competitors," said Zilberman. "Our growth cycle is shorter by 20%, and the curing process is 85% shorter than the traditional method. And on top of everything that I mentioned, our production costs are still not more than $25 to $50 per kilo."

Speaking with *NutritionInvestor*, Zilberman explained that the cost of growing vanilla in traditional countries like Uganda, Tanzania and India is between $60 to $80 per kg.

The company uses non-GMO methods to alter the metabolism of vanilla beans in ways that it says dramatically increases flavour levels. Vanilla Vida also applies image processing technology for disease detection, quality control and plant behaviour pattern identification. "The more we grow, the more data we collect for optimisation," the company claims.

Zilberman argued that global demand for vanilla is a $3 billion market, but production capacity only delivers $1.6 billion. "Vanilla Vida is focusing on this gap in the first stage and on allowing the world to consume more natural ingredients."

2020 was a fertile period for Vanilla Vida. The company raised $1.2 million in funding, finished a prototype and filed the metabolic manipulation patent.

The plan for this year is to build a production facility and begin a pilot programme with a customer in the US and Europe.

Better Juice: Series A in the works

Chief executive Eran Blachinsky founded Better Juice in 2018 to tackle obesity and diabetes by reducing the sugar content in natural sources — juice, honey, maple syrup, and even milk.

Three years earlier, the World Health Organization had issued guidelines to reduce sugar intake from adults and children, noting juice was one of the sugary products to cut down — orange juice typically contains 8 grams of sugar in 100 ml, for example.

The company has developed a unique bioconversion process. The system converts sucrose to dietary fibres FOS, short for fructose oligosaccharide. The technology also converts glucose to gluconic acid and fructose to sorbitol. Better Juice claims that its patented technology can reach up to 80% sugar reduction.

Gali Yarom, Better Juice co-founder, chief operating officer and vice-president of business development, argued the company is playing in a huge market, noting the fructose juice alone is worth $100 billion while the ingredients market is $500 billion.

“Our business model is like a printer and ink,” said Yarom. She explained that the company produces the immobilised enzyme with a shelf life of two months. The company fills the bioreactor with the immobilised enzyme — and the bioreactor is integrated into the factory line.

Better Juice has teamed up with equipment manufacturer GEA for the supply of the bioreactor. “Now we are raising funds, looking for $4 million, which will enable us to start real sales,” she added.

Blachinsky pointed out that the technology is patented and that Better Juice already has customers, including juice cooperatives and strategic partners like GEA.

Better Juice has validated its technology in semi-industrial pilots for half a year, reducing orange and apple juice sugars.

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Spain: Agrifoodtech market overview

***NutritionInvestor* takes a closer look at the Spanish market to identify consumer trends, key features of its food supply chain, and the agtech and foodtech companies to watch**

By Murielle Gonzalez

Spain is home to 400 start-ups operating in the agtech and foodtech arenas, and this agrifoodtech landscape is growing quickly. Companies are producing next-generation food and drink products that deliver flavour and texture sensations without damaging the planet, and there's also cutting-edge technology and innovative services up and down the supply chain set to change conventional practices in the industry — from seed to fork.

Some companies, such as Foods for Tomorrow, are already a commercial success. Hailing from Barcelona, it brought to the Spanish market a range of plant-based chicken and beef products through the Heura Foods brand. Founded by Marc Coloma and Bernat Añaños in 2017, the company reported a turnover of $9.69 million last year, up from $3 million in 2019.

Foods for Tomorrow revealed in January that its Series A funding round could close in April. The company was seeking fresh capital to support further R&D work and boost international expansion — the UK, France, Italy, and Mexico are Heura's best-selling markets after Spain.

While the vast majority of Spanish start-ups remain off the radar for most investors, a handful of brands have been in the spotlight due to their game-changing technology, building up the expectation for when products hit the market. Novameat is a good example. The company is developing 3D-printed beef steaks made with a mix of cultured mammalian adipose cells and plant-based biocompatible scaffold.

Founded in 2018 by Giuseppe Scionti, Novameat received a €250,000 investment in January from the Spanish government in a funding round that coincided with the showcase of its prototype. Until then, New Crop Capital, the alternative protein fund managed by Unovis, has been Novameat's only investor.

Measuring 22.5 cubic centimetres, Novameat's 3D-printed steak is the world's biggest whole cut of beef ever made.

Scionti is bullish about its path to scale-up production and is gearing up for an investment round in the coming months. Proceeds will be used to expand its technology beyond 3D printing to reach a production speed of 100kg per hour.

While remarkable, these two examples in the alternative protein space don't tell the whole story of the new agrifoodtech space in Spain.

NutritionInvestor takes a closer look at this market to identify consumer trends, the companies upstream, closer to the farm, and the new ingredients and solutions to help companies offer more sustainable food and drink products powered by cutting-edge technology.

Consumer profile

Beatriz Jacoste, director at KM ZERO Food Innovation Hub, tells me the Spanish consumer is used to having access to high-quality products at a low price. "Private label consumer goods represent an important part of total sales in the market, and with the current crisis, the habit of purchasing inexpensive products is increasing," she says.

Jacoste also notes that corner shops are highly appreciated by the Spanish consumer. "Many shoppers prefer the human touch these type of establishments provide, as opposed to big supermarkets."

José Luis Cabañero, founder and chief executive of business accelerator Eatable Adventures, concurs, noting Spain is a tough market for CPG brands because most of the market share is taken up by private labels and the brands of large food corporations.

"Nevertheless, local start-ups are differentiating by embracing functionality, offering products that are more sustainable," he says. "Spanish start-ups are also tapping into niche areas where big food companies are not really there," he adds.

Cabañero says local start-ups grow in the segments they are by expanding to other countries — and he notes Heura Foods is an extraordinary example. "Heura Foods has reached a very interesting penetration in the Spanish market. It secured strategic agreements with corporations and incorporated its products into others — in pizzas, for example."

The increase of health-focused food and drink products is another feature of the Spanish market. "We see an increase of consumer goods with health benefits, as well as snacking," says Jacoste, noting the latter is new consumer behaviour in the Spanish market.

Jacoste also notes the plant-based trend is widening its presence in Spain as well as demand for ready meals — both from retail and food delivery channels. "Moreover, the number of dark kitchens is growing these days significantly," she reveals.

A dark kitchen, also known as a cloud or ghost kitchen, is a professional kitchen designed to cook products for delivery — and this segment is already booming in cities like Barcelona, Madrid, Valencia and Zaragoza.

NutritionInvestor can reveal that at least nine dark kitchens are operating in Barcelona, notably under the umbrella of two holding groups — Food Haven and Cook Room, the dark kitchen offering of food delivery giant Glovo. Another feature of this emerging segment is the gastronomy on offer. Most businesses offer Italian, Mexican or Korean cuisine.

Cabañero concurs with Jacoste's view of a booming era for ready meals. "I believe that we will see a lot of activity in this category in the coming year," he says. "This is a very well-established category in other markets, and it has been so for many years. In Spain, the ready meal category existed, but was dormant — it woke up in the past couple of years."

Data from the Spanish government shows that in 2019, the food home delivery service grew by 16.8%, driven by increasing consumer demand.

Jacoste observes a knock-on effect on e-commerce platforms, which are gaining traction among consumers of all ages. She notes the shift to online is remarkable in a country where brick-and-mortar shops have been the norm.

Challenges and opportunities

The 400 Spanish start-ups in the agrifoodtech sector are far from the numbers of Israel and the US, the world's most prolific countries in terms of entrepreneurship, but similar to that found in France and the UK.

The Spanish government estimates that more than 60% of the country's start-ups in the agrifoodtech space are under three years old — and 13% of them have been created during the Covid-19 pandemic.

"The number of start-ups is continuously growing, and we think this is the perfect moment for investing in them," says Jacoste.

Founded in 2018 and headquartered in Aldaia, Valencia, KM ZERO Food Innovation Hub focuses on promoting talent, products, and solutions for the food ecosystem. As a foodtech innovation hub, it co-develops projects providing start-ups with experience, seed funding and knowledge of the industrial and corporate sector.

"A major challenge for many start-ups is to industrialise production to reach the market, and that is precisely why we exist — to help start-ups with our industry know-how," says Jacoste.

She notes there's a great deal of innovation in the country, but the weak link in the agrifoodtech space is that R&D outcomes do not always reach the shelves.

"There is a lot of innovation in universities, but many of these spin-offs do not become sustainable projects," says Jacoste. "On the other hand, we think there's still space for more collaboration between start-ups and the food industry."

Cabañero concurs, and notes that despite start-ups emerging close to universities and technology centres, the challenge lies in transferring the technology to industry. "For that to happen, you need to have the right policies to allow research to be exported, either by having a shared IP or by issuing licenses," he says, noting this is a practice fairly common in countries like the UK.

Cabañero notes the Spanish government is playing its part and has committed to promoting Spain as an agrifoodtech nation. Several initiatives are under way, including a promotion programme at Wines and Foods from Spain, which is run by ICEX Spain Trade and Investment.

He also tells me about FoodStart.CAT, a project by the Catalonia government and developed in partnership with Eatable Adventures and four other food and drink-related clusters in the region. It seeks to promote innovation among companies by identifying possible business opportunities with start-ups from around the world.

Based in Madrid, Cabañero founded Eatable Adventures in 2015. The organisation has become the go-to partner for large food corporations wanting to work with start-ups in the country and further afield. "We understand the corporations' pain points and how innovation can apply to them," he explains.

Eatable Adventures connects an average of 20 to 60 start-ups with corporations every year.

Agrifoodtech landscape

Spanish start-ups are run by experienced entrepreneurs with the average age being 39 years.

Start-ups are distributed across the country, and mirroring the landscape of the food industry, Catalonia has become the most fertile territory — it's the home to 22.4% of the Spanish agrifoodtech scene. Madrid accounts for 20.2%, and Andalusia 14.2%.

Data from the Spanish government shows that 17% of the start-ups are operating upstream, closer to the farm. Crop automation solutions account for 33% of the start-ups in agtech, closely followed by new cultivation systems with 28%.

Early-stage business in the food production and transformation sector represent 39% and CPG companies marketing products developed with novel ingredients account for 42% of this sector. Here, plant-based technologies, fermentation processes, and cellular agriculture are leading areas of innovation.

Companies in logistics, distribution and retail take up 29%. Glovo is the leader in the distribution category, becoming a unicorn last year.

Founded by Oscar Pierre and Sacha Michaud in Barcelona six years ago, Glovo is an on-demand courier service that purchases, picks up and delivers products ordered through its mobile app. Food delivery is Glovo's most popular offering. The company operates in Spain, Italy, Portugal, France, Argentina, Chile, Bolivia, and Peru.

Glovo has raised $1.2 billion from 31 investors over 12 funding rounds to date. Last month, the company closed a Series F round totalling €450 million at a pre-money valuation of €1.6 billion.

In all, businesses with a direct-to-consumer model represent 85% of the Spanish agrifoodtech ecosystem.

Start-ups in the foodservice technology sector represent 15% of the market. The biggest vertical in this sector is back-office management and digitalisation platforms. Other leading categories are robotics for optimising kitchen operations and the booming dark kitchen business model.

Investment landscape

The Spanish Federation of Food and Beverages has reported the industry is growing steadily, having reached production of €119.2 million in 2019. The agrifood value chain contributes more than 9% to the country's GDP and represents 19% of the Spanish manufacturing industry. The sector employs about half a million people.

Despite the role it plays in the economy, investment in the sector remains low.

Most founders in this space bootstrap their businesses or seek public funding through fixed-term loans with public companies like ENISA and the Centre for the Development of Industrial Technology (CDTI).

Start-ups that take the venture capital route tend to be at the seed stage, with funding rounds typically below €500,000.

Private investment in the Spanish agrifoodtech space is led by angel investors and a handful of venture capital funds, including Caixa Capital Risc, Faraday Venture Partners, BStartup, and Inveready. Accelerators like KM Zero and Eatable Adventures also provide seed funding.

"The local investment community has started to recognise the potential of agrifoodtech as an investment asset class," says Cabañero. "Investors are coming to this market little by little — and this is growing," he adds.

Cabañero notes the vast majority of venture capital investment in Spanish agrifoodtech companies comes from global funds. "We're seeing quite a good number of international investors coming to see what's in Spain to add to their portfolios, and that's very promising because it will trigger interest in local venture capital to continue to invest in this market."

Brinc, Artesian Ventures, Blue Horizon Ventures and New Crop Capital are among the international venture capital funds with stronghold investments in Spain.

Food corporations in Spain are keen to collaborate with start-ups too, and Pascual Innoventures is a testament to this trend. The organisation is the open innovation vehicle of Spanish dairy giant Pascual, a €700 million turnover business operating in 60 countries.

In February, Pascual Innoventures launched Bisplash, a CPG brand offering plastic-free fruit juice. The product is wrapped in an edible wrapper made from seaweed and developed by Spanish start-up Notpla.

Start-ups to watch — agtech

Soil treatment, analysis, and regeneration are leading segments in the agtech space. In Spain, this sector is represented by companies like Plant Response, Agrasys and Agroptima.

For *NutritionInvestor*, Xtrem Biotech is one of the start-ups to watch in the soil treatment category. Founded by Borja Torres in 2013, the start-up develops, produces and markets biostimulants and pesticides based on microorganisms. The company has built a proprietary library of extremophile microbes and operates a small fermentation plant in Andalusia.

CDTI and EASME, the EU executive agency for SMEs, are Xtrem Biotech's most recent investors.

Biome Makers is another Spanish agtech start-up to watch in the soil health space. Alberto Acedo and Adrian Ferrero founded the company in 2015.

Biome Makers commercialises BeCrop, a solution that uses DNA sequencing technologies and proprietary intelligent computing systems to deliver crop-specific insights. BeCrop detects what the soil needs to be healthy for any crop and any soil. In November, laboratory giant Eurofins acquired the first worldwide license of BeCrop.

The company has also developed Gheom, a technology platform that measures the effect of fertilisers, treatments or farming practices to build a more accurate and comprehensive understanding of the soil microbiome interactions.

Biome Makers operates from offices in West Sacramento, California, and Valladolid, Spain. The company has raised $8.4 million in disclosed funding rounds and Spanish venture capital funds Seaya and JME Ventures have invested in the company.

Start-up to watch — ingredients

Based in Salamanca, Tebrio operates a mealworm farm and produces insect-based products, offering nutrient-dense proteins for pet food, animal feed and agriculture.

"We are obtaining high-quality protein meal and oil rich in oleic and linoleic fatty acids for nutrition purposes," says chief executive Adriana Casillas, who co-founded the company in 2013.

Tebrio's core market is the feed and agriculture sectors, but Casillas notes its ingredients can be used in food applications such as pastry, pasta or energy bars.

"Mealworm protein is also a soluble protein and can even be applied directly in salads or cookies, as a crunchy protein ingredient," she says. Casillas also sees opportunities for Tebrio ingredients in functional food for elder people or athletes. "Our oil could be used like olive or sunflower oil due to its characteristics," she adds.

Tebrio started working with a 2 kg lot of mealworms, and now the company manages several tonnes of insect products per day. Casillas says the short-term target is to produce 100,000 tonnes a year.

"Our farming and production output is only limited by building capacity because we have designed our technology to be fully scalable," explains Casillas, noting that's a key advantage for the business.

Tebrio is a revenue-generating company and raised $54.6 million in a Series A funding round in June last year. Caixa Capital Risc is among the investors.

Agrosingularity tackles food waste. It produces raw materials and powdered ingredients for the food and nutrition industry using by-products from agriculture. It entered the market in 2019 and is currently supported by the Spanish government and EIT's Climate-Kic, an EU funded programme.

The company utilises a decentralised business model that reduces the carbon footprint of logistics while empowering local producers. It also operates a foodservice channel, Powder4, where it commercialises ready-made mixes for flavour, colour and texture applications.

Start-up to watch — foodtech

Upcycled food company Moa entered the market last year, founded by an entrepreneurial trio — Bosco Emparanza, Susana Sanchez, and Jose Maria Elorza.

The company uses waste and by-products from the food industry to create new sources of food and proteins with a high nutritional value. Products are plant-based and developed through fermentation and artificial intelligence.

Moa has received seed funding from Eatable Adventures.

Zyrcular Foods also entered the market last year with a comprehensive supply chain platform for producing plant- and cell-based protein — it offers support from R&D to commercialisation.

In March, Zyrcular's manufacturing plant began operations. It's a 1,500 square-metre facility powered by solar energy. Located in the town of Seva, the factory will produce plant-based protein in an initial phase. Operating a single shift, the plant can produce up to one million kilograms of product a year.

Zyrcular has already secured commercial deals with Beyond Meat, Gardein and Green Vie. It supplies retail companies, including Spanish chains La Sirena, Sánchez-Romero, and Aldi. The company also taps into the foodservice sector and has partnered with Pad Thai Wok and Fosters Hollywood.

Equipment manufacturer Cocuus develops 2D and 3D laser and inkjet bioprinters. Chief executive José Alfonso García says the company offers scalable solutions addressing 3D printing of alternative protein that suits plant- and cell-based applications.

“Our bio-inks underline our core technology, offering precision printing at nanolitre scale as well as blazing speed. This allows the use of these solutions at an industrial scale,” explains Garcia. He notes Cocuus bio-inks work with various ingredients, from cell cultures and food compounds to hyaluronic acid and collagen. “Our bio-inks are engineered to the specific needs required by our clients.

García doesn't disclose financial data but claims Cocuus, which is based in Navarra, is a profitable business with a global reach. “Our forecast shows a triple-digit growth in the coming fiscal year,” he says. “The market is still at an early stage, but it's growing fast. Our solutions will be part of the growth in the 3D-printed food market.”

García also reveals that Cocuus is working on shorter-term applications of its technology for personalised nutrition to the elderly. “These solutions are being tested for scalability and reliability. We expect to hit the market with this new offering later in the year,” he warns.

Cocuus received seed funding from SODENA, Navarra's development organisation, as well as R&D grants from the Spanish government. The company is gearing up for a funding round, seeking €2 million.

“We're looking for funding to accelerate R&D work and help companies transition to plant-based protein and cultured foods,” says García.

Aldous Bio sits on the premium end of the CPG space. Founded by Antonio Pellón in 2018, the company develops products for health-conscious consumers who also value the provenance of the food they buy — products are made with only organic ingredients.

In March, the company launched Organic & Ready to Eat, a new range of gourmet vegetable creams made by Michelin star chef Jesús Segura. Available in Spain at organic and gourmet shops, the new range comprises five SKUs. The range will also be available on Amazon.

Pellón is bullish about the business. “In two years, we have multiplied our turnover by 10 times,” he says, noting the company has plans to build new facilities to double its production capacity.

Aldous Bio is currently looking for a strategic partner to expand the business further.

Notpla is the brainchild of Skipping Rocks Lab, a design engineering company founded by Rodrigo Garcia Gonzalez and Pierre Paslier in 2013. Based in London, the company produces Ooho, an edible sachet for sauces and beverages.

The sustainable packaging solution is made of seaweed, and if not eaten, the material biodegrades within four-to-six weeks.

The company also produces seaweed-based bottles, cups, and liners. The latter is water- and grease-resistant.

Notpla has raised £5.4 million in disclosed funding over three rounds. Astanor Ventures and Lupa Systems participated in a seed round which the company announced in January last year.

This month, the company engaged online food ordering and delivery company Just Eat with a trial of its compostable seaweed food boxes.

The Spanish agrifoodtech scene is prime for seed and early-stage investment, and all the signs in the market indicate that the country has great potential for becoming an agrifoodtech nation.

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Costa Yiannoulis I CPT Capital

The investment director of CPT Capital believes alternative protein investors with robust ESG metrics will generate significantly better returns

By Murielle Gonzalez

Alternative protein investor Costa Yiannoulis says he is in for the long haul. The investment director of CPT Capital explains that backing new technologies to remove animals from the supply chain is fundamental to tackling climate change and a broken food system while providing health benefits and food security to billions of people in the future. "We're banking on the technology," he says. "We look seriously at ESG and sustainability metrics for our investments. We have strong return metrics, and we believe that companies with solid ESG fundamentals will outperform."

CPT Capital was formed five years ago, and building on the assets of Jeremy Coller's family office, the firm made its first investment in Beyond Meat and Impossible Foods. Today, the company is an international player backing food entrepreneurs in the US, Israel, and New Zealand.

The company invests in pre-seed up to Series B funding rounds for brands with the potential to produce an advanced plant-based replacement, a recombinant protein, and cell-cultured meat. Redefine Meat, Geltor, Perfect Day, Clara Foods and BlueNalu are some of its portfolio companies and are a fair representation of the gamut of technologies on CPT's radar.

"I'm very excited about Redefine Meat. The company is trying to make plant-based steaks," says Yiannoulis. "Think Beyond Meat and Impossible Foods, their extrusion technology is perfect for sausages and burgers [where you need ground beef], but it can't make the perfectly marbled steak — the 3D printing technology can."

Perfect Day, Clara Foods and Geltor are under the umbrella of recombinant protein. They produce casein, whey, and gelatine through a fermentation or brewing process.

"Now that we can read and write DNA very cheaply, companies are using CRISPR-Cas9 to modify yeast and bacteria to produce animal protein using existing fermentation equipment," says Yiannoulis.

Memphis Meats, Aleph Farms, and BlueNalu are in the cell culture space. Yiannoulis says investments in cell-based protein also go to non-animal cell-based products, for example, algae, mycoprotein, and food 'from thin air' – Susewi, 3F Bio, and Solar Foods are companies tapping into these areas, respectively.

CPT Capital: Deal flow in Covid-19 lockdown

"We led the Series B round for Geltor, which in July closed in $91.3 million — that tells you that Covid-19 hasn't stopped us," says Yiannoulis, noting the round started in February, and that interest picked up a couple of months afterwards.

"In the middle of the Covid-19 crisis, people realised that [alternative protein companies] are building a resilient supply chain for the future — there was no meat on the shelves in the US!" says Yiannoulis.

He explains the shift in mindset with one of Warren Buffet's quotes. "'Only when the tide goes out, do you know who's been swimming naked' — that's what happened when the animal supply chain broke down," he says.

Yiannoulis knows that people may see Geltor's Series B as a one-off, but explains that fundraising in the Covid-19 world is changing. "A lot of our portfolio companies that had planned to do equity raises in this period didn't go for it as they wouldn't get the valuations they want. Instead, they raised convertible notes or other bridge instruments to shore up the balance sheet, and give them some extra cash and runway."

Yiannoulis says that most companies are planning their funding rounds by the year-end or early next, hoping to get a better valuation. "For good companies like Geltor, there's no problem getting funding," he says.

Backing innovators

80% of CPT Capital's portfolio is in the US, mainly on the West Coast. Yiannoulis says that's where he sees 'trendsetters' cropping up, and that seeing Europe falling behind food technology innovation "is disappointing".

"The regulatory regime in Europe hampers a lot of innovation," he says, noting that Israel came onto the scene with a fast-track approach. "From our perspective, Israel is the world's second-best country to leading innovation — Redefine Meat, InnovaPro, and Yofix are good examples."

Singapore ranks third in Yiannoulis' world's innovators. "Singapore wants to produce 30% of its nutritional needs by 2030, and is fast-tracking regulation, and sovereign funds are making food investments. This policy is dictating the pace for other places in Asia to pick up," he says.

Call to regulators in Europe

Yiannoulis knows that the venture capital landscape in Europe is slightly different from the US, where securing funds for an idea is straightforward — it's always been an entrepreneurial environment. That aside, he argues the regulatory regime in Europe is hampering innovators.

He explains: "Look at Perfect Day, for example. The company is genetically modifying bacterial flora to produce animal protein. What comes out is an ingredient – whey and casein. In the US, the regulatory agencies, the FDA for example, look at the end-product: yoghurt, cream, etc. For them, it's non-GMO because the ingredient is a string of amino acids identical to the animal counterpart.

"European regulation looks at the production process, and if you modify a yeast or bacteria at the beginning of your process, it takes you through the GMO track. As you know, GMO in Europe is like a 'death word'."

Yiannoulis believes that regulators know the paperwork and the stigma surrounding GMO products are a disadvantage. He recognises that new organisations, such as EIT Food, are good initiatives supporting food entrepreneurs in Europe, but it's not enough. "I think European regulators need to think about how they can fast-track the innovation process," he says.

Impossible Foods is on track to becoming a case study for foodtech companies in the future. Last November, the plant-based giant applied for a novel ingredient approval for its soy leghemoglobin — the world is eager to see what comes out of it.

“All stakeholders should take on the mission to educate consumers about what these new technologies are, what they do, and why they are beneficial,” says Yiannoulis.

To the point

Costa Yiannoulis
What industry players can do to overcome the GMO burden?

The first step needed is transparency from everyone involved. From a company perspective, whether it’s cultured meat or fermentation protein, the consumer should be able literally to walk into the factory and see how products are made in a sterile environment. Be transparent about how it’s done, what the output is, the health benefits, and so on.

The regulators need to get it right because the worst that could happen is having a weak regulatory framework and a cowboy company raising a bit of money do something stupid that tarnishes the sector for everybody.

The media can do a great job by explaining both sides. Studies say consumers’ top concerns are health, the environment, and animal welfare — in that order. So, give all the facts and let people make up their minds over time. You see millennials and the Gen Z population with disposable income making these choices anyway.

Governments and regulators have a role to play. If we want to have a habitable planet in 50 years, we need to start looking at these new technologies now.

The overarching theme is to change the food system, but are investors mindset also changing?

Good investors understand that you don’t have to sacrifice return for nutritional and sustainability performance. If you do it right, you should get a high return.

I think investors are demanding this, whether it’s because the pension fund manager has a daughter that became vegan or a family member that died because antibiotics don’t work anymore. People backing these funds are demanding ESG and sustainability goals.

What does it mean to do it right?

Five years ago, investing in this space was about backing companies getting the message [of replacing animal protein] out. Now, it’s no longer OK for a food company to simply say it’s producing alternative protein for animal welfare or sustainability — companies need to ensure they are setting proper ESG goals. Investors should have ESG metrics and make sure they are hitting those goals.

Do you think the reallocation of capital to alternative protein and the future of food is good for the sector?

I think that makes perfect sense because this is where the return is going to be. There’s a lot of heavy lifting to do to shift this whole broken food system. What worries me is to see people coming just because they are desperate to get a deal, giving ridiculous valuations to companies. In the next two rounds, those companies are going to struggle to follow up.

With so much more available capital, is it getting more competitive for investors?

Investors that don’t have a defined investment thesis will get lost in a sea of brands in agtech, foodtech, and so on. It’s better that you decide what are you going to go for.

The new capital coming into this space is chasing the next ‘Beyond Meat’, but the way we see it is that start-ups control the whole supply chain. As they become big, you’ll see companies with a focus on specific areas of the supply chain.

When Memphis Meats and Aleph Farms started, they were doing everything from cell line to media formulation and scaffolding, but it’s such an inefficient way to do it! That had to happen because they were creating something new.

Now we are very encouraged to see companies providing the picks and shovels along the way. There are super interesting companies on the bioreactor side, on media formulation, on scaffolding. So it’s about identifying the need within the value chain and finding the company that is most likely to be able to solve that in the cheapest and most efficient way.

Yiannoulis speaks with passion about the challenges and opportunities in the alternative protein space. He sits on the board of plant-based food start-ups Good Catch, 3F Bio, Redefine Meat, and Geltor, playing his part in the collective effort to create the food of the future.

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