

# AgriFoodTech Venture Report 2023



# AgriFoodTech

## Venture Report 2023



# Contents

## AgriFoodTech Venture Report

- Foreword** 6
- Challenges and opportunities** 8
- Market and industry insights** 11
- BayWa Venture** 16
  
- Portfolio companies**
- YoFix 18
- Kern Tec 20
- Greenforce 22
- Evologic 24
- Equinom 26
- Amai Proteins 28
- Neggst 30
- AgroSustain 32
- Spherag 34
- Amfora 36
- InnovoPro 38
  
- Portfolio highlights** 40
- Outlook** 42
- Final thoughts** 44
- References** 46



# A quiet revolution is under way.

Ordering a veggie burger at a fast food restaurant has become just as normal as buying oat milk at a supermarket. This trend is primarily being driven by millennials, as well as generations Y and Z, who want to eat a healthy diet and, above all, be ethically responsible.

For some time now, vegans and vegetarians have not been the only target market for meat, milk and dairy analogues. The main group of consumers are now flexitarians, who have made a conscious decision to eat less meat and are open to alternative protein sources. More than half of the German population has already adopted this practice. Sustainability goals are driving forward initiatives throughout the entire food industry. Alternative proteins are in demand among the market and customers. Their development is also being driven just as strongly by technology and innovation. Technological progress in the processing of plant-based proteins and in exploiting new sources of protein is advancing rapidly.

The resulting opportunities and shifts are part of a wider evolution of the food system that will help us fight against climate change. But there are other reasons why we need alternatives.

Russia's invasion of Ukraine has shown how vulnerable the global food supply is, with the war affecting economies all over the world. Russia and Ukraine are major grain producers. Together, they export 25% of the planet's wheat and more than 70% of the global volume of sunflower oil. Both countries also export large quantities of corn and barley. Higher food prices are impacting hundreds of millions of



people around the world. To meet demand for animal-free protein sources and respond to shifting consumer preferences, we need plant-based protein production that is sustainable, healthy and secure.

At the BayWa Group, we are rising to this challenge by investing in scalable, innovative technologies and developing reliable and growable partnerships. Investing in solutions dedicated to developing high-protein, plant-based foods represents a strategic milestone both for us at BayWa and for the food chain as a whole. That is why we support the most innovative start-ups around the world, which are shaping the future with creativity and passion. Moreover, this investment underscores our commitment to sustainability. We are also aiming to strengthen our role in the field of product trading and develop business relationships in the manufacturing sector. At the same time, we are tapping into promising and profitable new sales channels for our key customers in agriculture.



**Marcus Pöllinger**  
Member of the Board of Management  
of BayWa AG

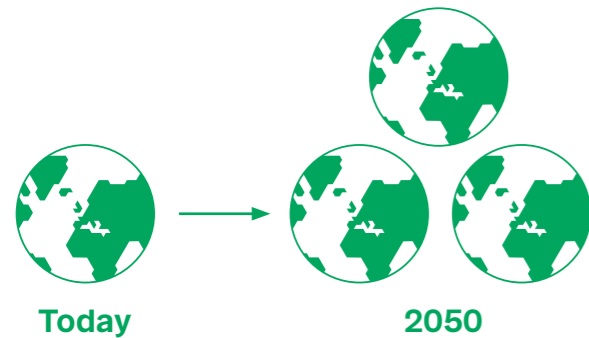
# Challenges and opportunities

## Challenges the world is facing - opportunities BayWa is embracing

A sustainable approach to handling the world's resources is one of the greatest challenges facing global economic systems. The food industry too is on the cusp of a cultural transformation. Plant-based protein alternatives are more than just a trend or fad. Healthy and sustainable dietary protein will play an essential role in meeting the nutrition needs of a growing circle of consumers in the future. Development of the market has gained momentum in western countries and among eco-conscious consumers. Consumer interest in sustainable foods is increasing, with more and more people demanding products that do not contribute to global warming and are as animal-friendly as possible.

What we put on our plate, our daily nutrition, is therefore also a question of sustainability and available alternatives rather than just taste, quality and habit. A shift towards increasingly plant-based nutrition is necessary in the interest of protecting resources. This is where smart FoodTech companies come in, with production innovations and technological expertise that can help build a more sustainable food system.

### Meat consumption is set to exceed the capacity of our planet



We will have 9.6 billion people to feed by 2050. That will require the equivalent of almost three earths if we are to maintain our current way of life.

BayWa recognises the necessity and potential of a fundamental shift in the way we grow, produce and consume food and intends to do its part to secure the protein of the future. We urgently need these alternatives to feed the world's population.

A hundred years ago, the earth had 2 billion inhabitants. Now, there are more than 8 billion of us – and counting. The population grows by an average of 88 million every year. According to the latest UN forecast, it could reach 10.4 billion by 2080. The main reason for this exponential growth over the past century is the increase in life expectancy, especially in Africa and other developing regions. One of the challenges of the future will therefore be how to feed billions of people using the resources available to us. The annual Earth Overshoot Day marks the date when humanity has used all the biological resources that the planet regenerates for the entire year. It was introduced to heighten awareness of the problems caused by our modern lifestyle. In 2022, Earth Overshoot Day fell on 28 July. A little more than five months before the year ended, humans had already used up everything the earth was able to provide for that year.

As a company with a long tradition in the agricultural sector, we bear a particular responsibility. The way in which food is produced today has a direct effect on climate change and the food supply. Agriculture is the basis for everything. It feeds us. Nothing else would matter if humankind no longer had anything to eat. However, traditional agriculture is changing – and BayWa is heavily involved in this process. As a partner to the agriculture sector, we make and deliver the latest technologies. We believe that one of the biggest opportunities lies in sustainable farming. Intriguingly, experts calculate that storing just 0.4% more carbon in the world's soils each year could offset all human CO<sub>2</sub> emissions. The possibilities are endless: smart agricultural techniques will enable us to consume fewer natural resources. In this way, we can help farmers improve the quality of their soil and simultaneously reduce costs, water consumption, the use of crop protection products and CO<sub>2</sub> emissions. When looking for new start-ups to support, we also focus on entrepreneurs who take an innovative approach to sustainable agriculture.

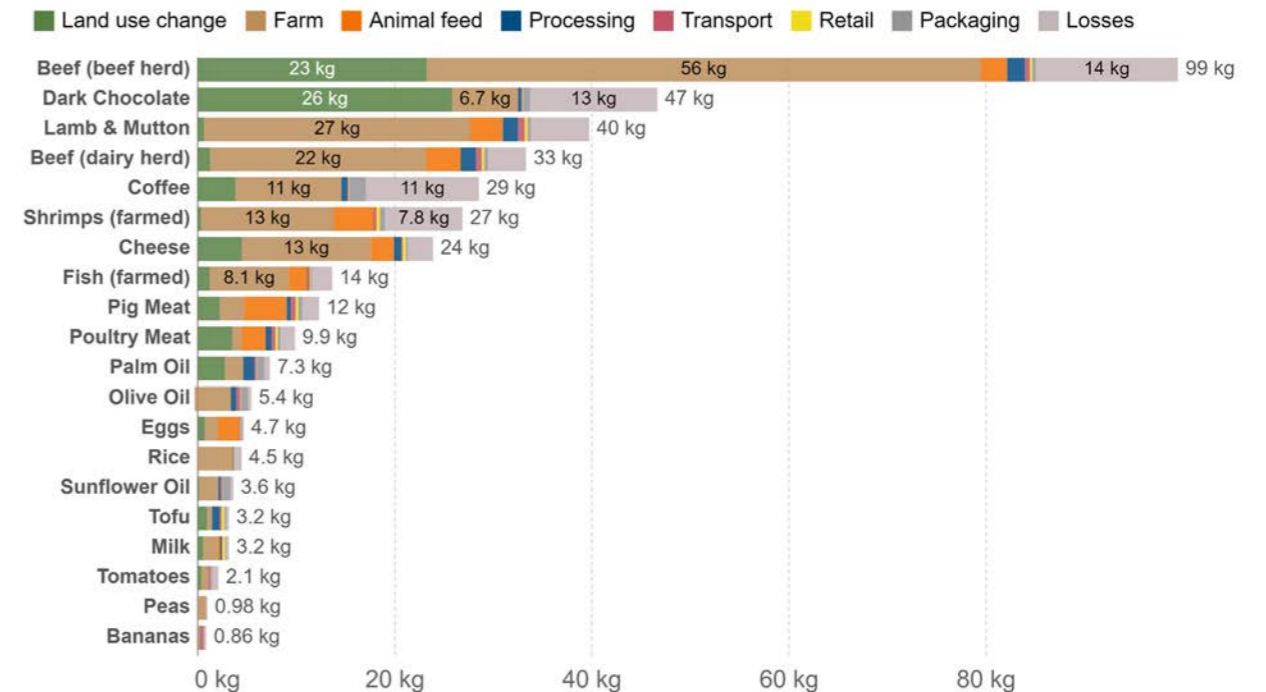
Another challenge is food waste, which is an issue that concerns us all. A third of all food produced for human consumption is lost on the journey from farm to fork or gets thrown away. This amount alone would be enough to feed 2 billion people today. Improving the efficiency of our food supply chains is crucial in order to provide secure and nutritious food for a growing global population. In addition, many types of food waste offer opportunities for recovery, reuse or recycling that have barely been exploited up to now. For example, innovative technologies enable high-quality proteins to be made using the pome fruit stones that the fruit industry discards by the tonne. The task ahead of us is not only to produce food in a more efficient and environmentally friendly manner, but also to manage with what we already have. Estimates suggest that the unnecessary loss and waste of food is responsible for around 10% of CO<sub>2</sub> emissions worldwide. It is time

for us to use our planet's resources sustainably and efficiently. We have an opportunity to cut our CO<sub>2</sub> emissions significantly through upcycling (reusing seemingly useless waste products) or through increasing awareness of food waste.

Global meat consumption has more than doubled in the past 20 years. A total of 361 million tonnes were eaten in 2022, and our appetite for meat is forecast to keep growing in the future. But our resources are finite. By 2050, the planet is expected to have 9.6 billion inhabitants, who all need to be fed. Maintaining our current way of life would require three earths! Meat consumption is responsible for 60% of all greenhouse gas emissions in food production and 36% of deforestation.

### Greenhouse gas emissions throughout the food supply chain

Greenhouse gas emissions<sup>1</sup> are measured in carbon dioxide-equivalents (CO<sub>2</sub>eq)<sup>2</sup> per kilogram of food.



Source: Poore, J., & Nemecek, T. (2018). Reducing food's environmental impacts through producers and consumers. Science. OurWorldInData.org/environmental-impacts-of-food • CC BY



The facts are sobering: avoiding animal-based foods would save 25% of global greenhouse gas emissions and prevent the destruction of a significant number of forests worldwide. Simply reducing the consumption of red meat and dairy production by 50% would allow us to achieve the IPCC's target of limiting the global temperature increase to a maximum of 1.5°C above pre-industrial levels. The point here is not to demonise meat. Consuming it in moderation is good for our health and helps our intake of essential vitamins and minerals. But do we have to eat so much?

Solutions to feed the planet more sustainably are urgently needed.

At BayWa Venture, we see this as our biggest challenge – and also as an opportunity to make a difference. Plant-based food is more than just an exciting market with tremendous growth potential. By developing high-quality sources of non-animal protein, we can also open up a new area of choice.

Promoting innovations and harnessing new technologies are the key to a sustainable, resilient and nutritious food supply. In doing so, we aim to help shape a better future for us all and for future generations who have the right to live on this planet.

The past year was a good one for innovative agricultural technologies, with a positive trend towards major financing rounds becoming apparent. The main beneficiaries were start-ups that represent a lower investment risk because their business is already at an advanced stage and they have often already demonstrated product-market fit. A different approach was still being taken many years ago, when large amounts were injected into very young start-ups.

The development of growth, of sales and acquisitions of successful start-ups is another positive sign. For example, VCs invested 6% more in Late-stage AgTech start-ups compared to 2021. Such activity indicates that up-and-coming AgTech companies have performed well and expanded. Any further Exits are likely to take several years, since the vast majority of recent start-ups are only just beginning to grow. Factors such as cultivation cycles and grain production levels are crucial for the development of new technologies in the agricultural sector, which can sometimes slow the pace of innovation.

The consequences of the Russia-Ukraine war, including the hike in commodity prices, have also affected the financial sector. Markets around the world have recorded

a drop in the level of investment. Although the flow of venture capital into the AgTech sector has slowed slightly, agriculture has fared much better as a recipient of investment than most other industries.

Data from Pitchbook indicates that USD10.66 billion was invested in 988 AgTech start-ups in 2022. Compared with 2021, this represents a 13% decline in funding, and a 10% decrease in the number of deals. Another striking trend in the corporate strategy of major companies is that investment in AgTech start-ups is seen as an opportunity to achieve certain sustainability targets. Acquisition activity was particularly brisk among listed food and agricultural companies in 2022. The list of established companies that have invested in start-ups is long and includes BASF, Bayer, Bioceres, Corteva, FMC, Mahindra, McCain Foods, Merck, Nutreco, SDF Group, Mosaic, Trimble, ICL and UPL. For many of them, it was their first foray into this area. It is noteworthy that the share prices of listed agricultural companies have held up well in a time of higher commodity prices and concerns about global food supplies. The stakes acquired in promising businesses reflect a stronger focus on growth. Meanwhile, analysts agree that 2023 could be the best year so far for AgTech and FoodTech investment.

### Capital invested in AgTech from 2020 to 2022



Source: Q4 2022 AgTech Report by Pitchbook

## Market and industry insights: FoodTech

Change is driven by consumers,  
not only new technologies!



Although the hype around alternative proteins is huge, actual production lags behind consumer interest. It has taken years for start-ups to invent technologies and develop combination methods that can now be used in plant-, fermentation- and cell-based products. After laying the foundations through research and development work, FoodTech start-ups are now turning their attention to profitable growth and scaling up their operations. Food products based on alternative proteins ranging from oat milk to veggie burgers are widely available in shops and restaurants, with new production facilities being built in many locations to meet the growing demand. We believe that fermented and hybrid products (part plant-based, part cell- or fermentation-based) will trigger the next boom in demand on the market for alternative proteins, which will drive investment as well as start-up and market share growth.

For many years now, Israel has led the way in the development of alternative proteins. Government bodies and businesses there have systematically promoted a new protein agenda that is focused on alternative sources. In 2021, USD623 million was channelled into Israeli alternative protein start-ups. This represents 12% of global start-up investments and exceeds the equivalent figure for the EU as a whole. In the first half of 2022, 38% of all investment worldwide went into fermentation research alone. Officials injected USD13 million into early-stage start-ups and the corresponding infrastructure. Established companies are also adapting to the new market

momentum and driving forward innovative solutions. Strauss, one of the largest food manufacturers in Israel, has entered into partnerships with alternative dairy start-ups such as Alpro with the aim of producing and launching new products for the Israeli market. Tnuva, another major food producer, has joined forces with Migros, Switzerland's largest retailer, to make alternatives to milk for the European market.

Investment by large food corporations in FoodTech is a trend that can be seen not just in Israel, but all over the world.

Despite global sales of around USD865 billion in 2022, the traditional meat industry is undergoing a change in mindset. Most traditional meat producers are now investing in research and development into plant-based products, with some taking stakes in FoodTech start-ups or acquiring them outright. The market share of meat analogues is forecast to see double-digit growth rates.

Alternative protein sources will emerge as a wide variety of solutions, such as plant-based meat and dairy products or cell-cultured (lab-grown) products that mimic animal protein sources. Going forward, the main driver of this change will be a mix of different factors. ESG criteria and sustainability goals will play a role, as will greater consumer awareness of the environment, healthy eating and animal welfare. Other vital aspects will be taste and an attractive price compared to meat.

The effects of this rapidly changing market are being felt both by businesses and in agriculture itself. The introduction of strict targets for reducing greenhouse gas emissions by 2050 or earlier will drive up not only the cost of carbon-intensive farming, but also expenditure on energy, taxes, agricultural inputs and labour. Inevitably, sustainable farms employing new technologies should gain competitive advantages.

The latest study on the future of alternative proteins, "The Untapped Climate Opportunity in Alternative Proteins" by Boston Consulting Group (BCG) and the impact investor Blue Horizon, concludes that the switch to alternative proteins may be the most cost-efficient and effective solution to the climate crisis. A total of 25% of global greenhouse gas emissions caused by the food industry value chain could be saved. The study forecasts a baseline scenario of at least 11% market penetration for alternative proteins in the coming years. Sales could reach USD290 billion by 2035, assuming demand of 97 million kilogrammes of alternative proteins and

average revenue of USD3 per kilogramme. In addition, investments in plant-based proteins display the highest CO<sub>2</sub> savings per unit of capital employed of all sectors.

Compared to the next best tool, the decarbonisation of cement, three times as many emissions can be saved per dollar invested.

According to an analysis by the nonprofit Good Food Institute (GFI) based on data from data provider Pitchbook, global investments in alternative proteins fell 44 percent to €2.7 billion in 2022, but European start-ups actually raised more money in this area than in the previous year. In Europe, investments increased by 24 percent to 579 million euros. With regard to the entire supply chain, a growing number of producers, wholesalers and retailers are endeavouring to make their business more sustainable, since food trends (such as dairy-free, meat analogues and flexitarian diets) that began with niche products have now become mainstream.



# Market and industry insights: AgriFoodTech

## A sustainable and promising area of ClimateTech

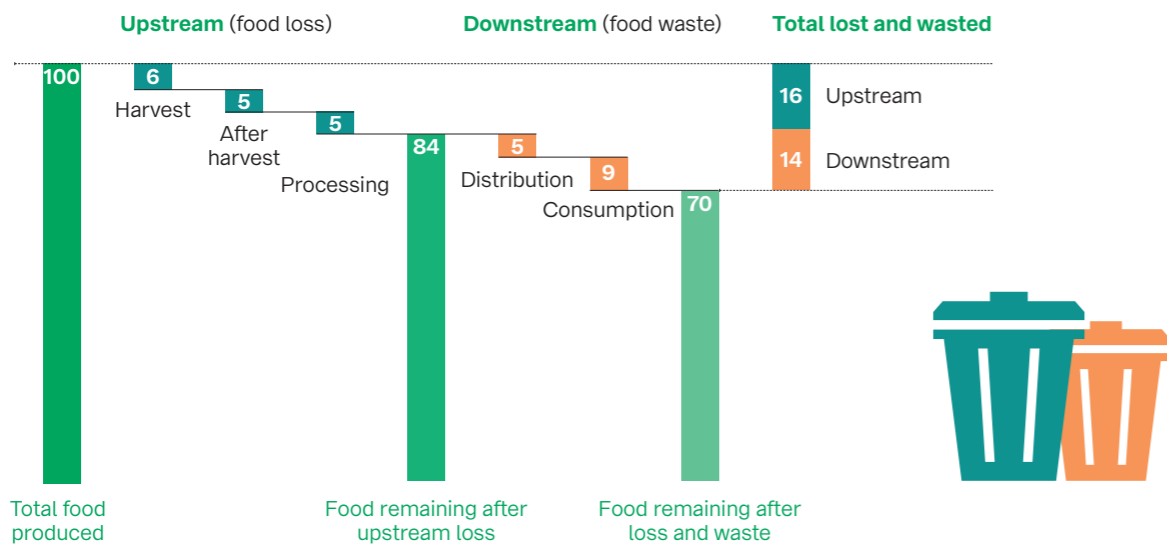
From an investor perspective, 2022 was a good year to get involved in AgriFoodTech, despite several negative external factors such as the Russia-Ukraine war and the COVID-19 pandemic. By Q3 2022, Pitchbook determined that VC investments in FoodTech only totaled USD18 billion and 1100 deals, representing a 24 percent and 10 percent year-over-year decline in investment value and deal count of investments, respectively. AgriFoodTech company financing in 2022, like all technology sectors, was impacted by volatile global markets and rising central bank interest rates. However, the downturn is more minor than in many other sectors. Market players are not motivated purely by potential profits. AgriFood-Tech investors are acting out of their belief that we need to change the way we produce and handle our food. Sustainable agriculture has the potential to reduce fertilizer use, greenhouse gas emissions and food waste. The environmental footprint of alternative proteins is many times better than that of conventional animal-based products. Alternative proteins can make a significant contribution to conserving the resources available to us worldwide.

We could cut a further 10% of greenhouse gas emissions currently caused by food loss and waste. Roughly a third of all food produced globally for human consumption, almost 1.3 billion tonnes a year, is lost or wasted. Reducing food waste and losses by developing upcycling technologies, for example, will have a positive effect on CO<sub>2</sub> emissions and help combat hunger around the world. Food losses occur at the early stages of harvest and during processing and transport, whereas food waste happens after products reach retailers, restaurants and consumers.

The coronavirus crisis significantly exacerbated the problem of hunger around the world. According to the charity Welthungerhilfe, the impact of COVID-19 has put an additional 80 to 130 million people at risk of starvation. As already mentioned in this report, USD1 trillion worth of food is wasted every year – enough to feed 2 billion people. Fighting food waste is also about combating hunger and climate change, and improving our food system.

### Global food loss/waste by value chain stage

in % of total production



Source: <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/reducing-food-loss-what-grocery-retailers-and-manufacturers-can-do>



A circular economy is the best way to both reduce food waste and enhance the sustainability and efficiency of the entire food supply chain.

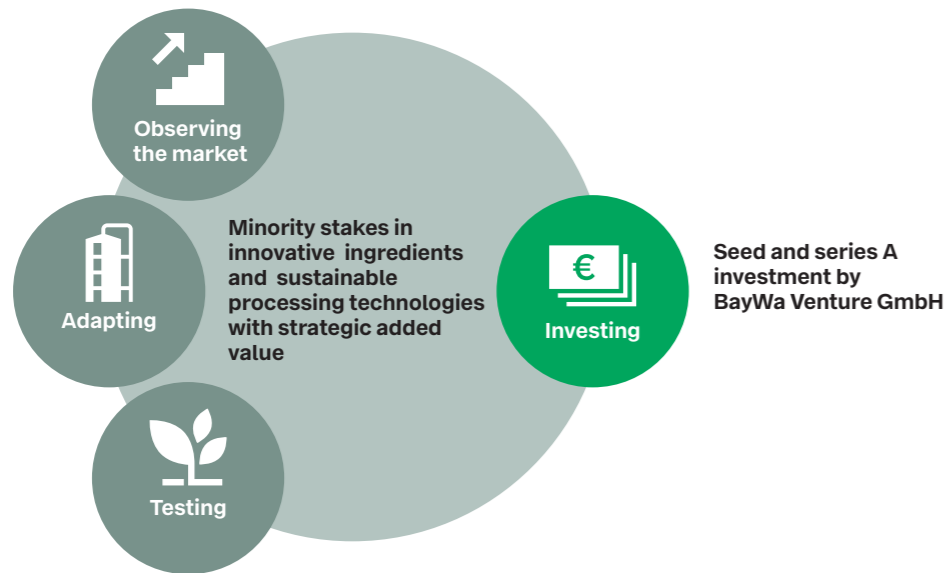
**Bottom line:** In a difficult market environment, the AgriFoodTech industry has shown more resilient results

than any other sector. Compared to ten years ago, companies in the agricultural and food industry have become financially stronger and gained greater relevance in both the market and society. Medium- to long-term investor interest remains strong and will continue to increase.



# BayWa Venture

## Looking back on a two-year journey



BayWa Venture was established with the goal of effectively and quickly spotting trends and then leveraging them for the benefit of BayWa, the start-ups concerned and, most importantly, our planet!

Before making our first investments in 2020, we carefully monitored market and innovation trends in the global agricultural and food system. Now we are able to assess trends even faster and act with impact in mind. We have assembled an interdisciplinary team of highly experienced and exceptionally passionate people to help us do this. To make the best possible use of BayWa's financial and strategic resources, the company has streamlined internal processes and honed its strategy.

BayWa Venture looks for companies and technologies that really make a difference when it comes to building a more sustainable value chain in the food industry. We concentrate on alternative proteins, sustainable agriculture and the recovery, reuse or recycling of food waste to produce valuable materials. In our view, alternative proteins are attracting the highest demand on the market and offer the broadest range of innovation.

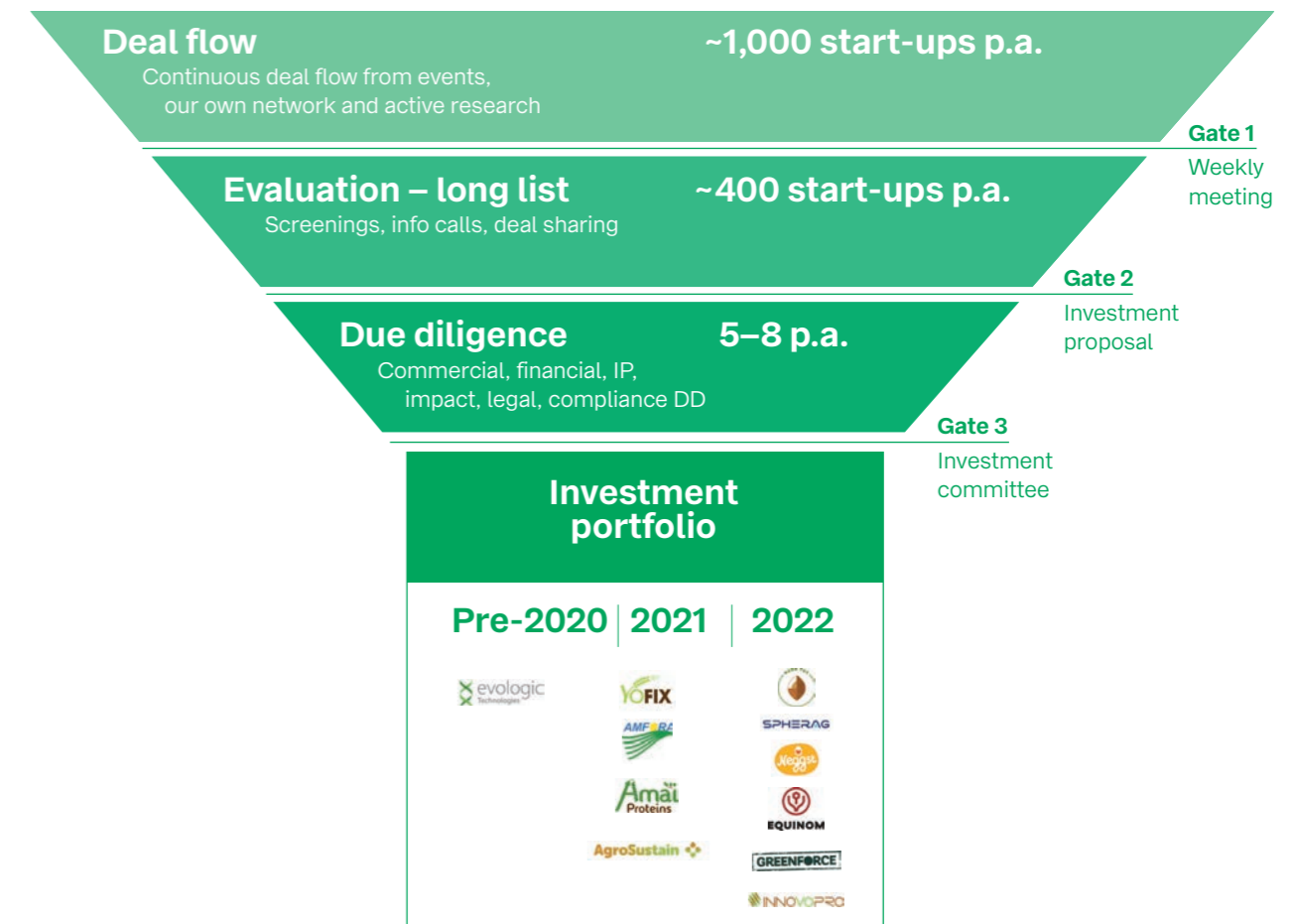
Examples of these innovations include modern breeding methods, biological seed coatings, new processing technologies for established raw materials or brand new concepts that use innovative technologies on previously untapped value streams. Real innovations are needed along the entire value chain – from farm to fork – to promote and enhance the future-readiness and sustainability of the food supply. The good news is that these technologies already exist and that BayWa can harness them in a targeted manner right now using its expertise.

So what is the secret behind BayWa's success? As a company with 100 years of experience in agriculture that is also a global player in the commodity supply chain, we have a broad international network of experts and partners. We make farm-to-fork strategies possible thanks to our long-standing relationships with regional farmers and our outstanding cooperation with leading companies in the food industry. New technologies and innovations are field-tested by us. Our strategic and operational knowledge of the AgTech and FoodTech sectors makes us a valued sounding board for investors in major venture funds, as well as for promising start-ups, of course.

*"Innovation is needed along the entire value chain from field to consumer to expand the future viability and sustainability of the food supply. The good news is that there is a lot of potential - from innovative ideas and technologies to bold and passionate entrepreneurs who want to change the market with new approaches and products while contributing to a climate-friendly supply. And this is what we want to actively support and help shape with BayWa Venture."*

**Marion Meyer, Chief Strategy & Innovation Officer, BayWa AG**

<b>Internal deep dives</b>	Protein Challenge Future Food Report Venture Report(s)	NY Board of Management	Israel Board of Management
<b>Network and event partners</b>	 		
<b>Corporate partners</b>	 		
<b>VC and CVC partners</b>	 		 





**YoFix Probiotics Ltd.**

Development of tasty alternatives to dairy products

**Founder and management**

Ronen Lavee, currently CTO of the company

**Year founded** 2016

**Number of employees** 6

**Capital raised** €8 m

The most recent financing round was a series A round in 2021



**YoFix was formed in 2016 by the entrepreneurs Ronen Lavee and Oded Ilan. The Israeli start-up develops and produces pre- and probiotic foods, such as cheese and yoghurt alternatives, without any artificial additives or preservatives. Products bring excellent taste and texture, clean label – no artificial or preservatives added, made of cereals, lentils, grains and seeds containing high nutritional values at competitive costs, produced sustainably with a waste-free patent-pending technology.**

Along with BayWa, YoFix has attracted prominent players from the FoodTech scene to participate in its investment rounds.



**A glimpse inside the company with YoFix CEO Moran Avni**

**Achievements in 2022**

The development of a second clean label natural yogurt base based on beans, rice and coconut, which also tastes delicious. This product is made with a novel, completely waste-free process that we have applied for a patent. The new recipe is not only more sustainable, but also healthier, as it contains more fiber and protein, while still being lower in saturated fat. Another milestone is the new development of soft white cheese varieties such as cream cheese and feta. There is continuously high market demand for these cheese varieties. Last year, we grew strongly: from a local B2C brand, we developed into a global B2B supplier (white label). We initiated production partnerships worldwide to enable sustainable growth in 2023 and 2024.

**Goals for 2023**

We want to market our yoghurts and soft cheese products. In addition, we aim to realise and further expand the production partnerships we have started with several firms in Europe and the US, and perhaps even move into Australia. Internally, our research and development work will continue apace with the goal of developing additional cheese varieties, such as sliceable cheese.

**Vision and outlook**

In 2024 and 2025, we plan to begin production at multiple locations in order to support our sales activities on several continents. We will continue to invest in manufacturing facilities and push ahead with research and development so that we can add new products to our range while optimising flavours to suit each geographical region.

YoFix will be a global market leader for plant-based products by 2030. Having established itself as a successful provider of dairy-free products, YoFix may, at this point, be integrated into a large multinational company as its plant-based brand.

**Purpose and targets**

We believe that customers have the right to choose products that are as close as possible to their natural origin and their natural form. The market is full of products with a huge carbon footprint due to their production processes. We want to change that and see it as our duty to offer products that focus on people's health and the well-being of the planet.

**Experiences with BayWa Venture**

It is a pleasure to work with people who are absolute experts in their fields and are thus able to do the right thing and separate the proverbial "wheat from the chaff". Since BayWa has been supporting us as an investor and mentor, this has already had a positive impact in the areas of strategy and corporate direction. Through its enormously large network throughout Europe, BayWa offers us enormous added value.

**Moran, what is your favourite product?**

Our white yoghurt – the taste reminds me of my childhood. It is made using a special culture that is exactly like that of the sour milk cream I used to love when I was a young boy.

**+ What BayWa adds**

There were compelling reasons for BayWa to invest in YoFix. Firstly, we believe that YoFix uses ground-breaking technology to make a relatively natural and tasty product. Secondly, we can offer real added value to the start-up, especially when it comes to its goal of conquering the European market. We are currently forging links between YoFix, food manufacturers and retailers to help accelerate the company's entry onto the European market. Our New Protein Solutions team supports the CEO and the development team at YoFix with a variety of tasks, including looking for potential partners, strategic business development and help with all its financing rounds.

Our people are passionate about making a real difference for YoFix. Together, we are working towards launching the company's products on the European market this year. As one of the largest grain trading companies in Europe, BayWa also offers easy access to commodities and processing businesses such as mills. We can provide most of the ingredients that YoFix needs.

# Portfolio companies

## Kern Tec



### Kern Tec GmbH

Innovative upcycling turns waste into valuable ingredients

#### Founders and management

Sebastian Jeschko, Luca Fichtinger, Fabian Wagesreither, Michael Beitzl

**Year founded** 2019

**Number of employees** 25

**Capital raised** Not published



**Kern Tec was established in Vienna in 2018 and uses an innovative technology to recycle pome fruit stones. A gentle process removes toxic substances from the nutrient-rich stones, which are then turned into new food products such as oils, milk and spreads, as well as sustainable cosmetic ingredients. The potential is huge, with around 500,000 tonnes of pome fruit stones being thrown away unused in Europe every year. The revolution taking place in the upcycling industry and the development of valuable new resources are sufficient motivation for this fast-growing start-up to keep evolving.**

Along with BayWa, Kern Tec has attracted prominent investors from the FoodTech scene to get on board.



PLUGANDPLAY



## A glimpse inside the company with Kern Tec co-founder Sebastian Jeschko

### Achievements in 2022

- Launch of first dairy alternatives – milk produced from apricot stones
- Launch of a B2C brand and further promotion of B2B activities
- More than 1,000 tonnes of fruit stones cracked and processed
- Relocation to a new office building
- Development phase for cyanate extraction method completed

### Goals for 2023

- Continued development of dairy alternatives
- Commercial launch in various countries
- Expansion of our portfolio of fruit stone suppliers
- Start of development phase for cheese, ice cream and confectionery

### Vision and outlook

Kern Tec products will establish themselves as an integral part of a healthy diet and be stocked by every supermarket as a matter of course. Instead of wasting new resources, existing ones should be used first. That is why we are developing additional innovative methods to upcycle waste streams sustainably.

### Purpose and targets

We want to pioneer a change in the way we produce food today. Where do the ingredients come from? How are they processed? We aim to use natural resources as sparingly and sustainably as possible in order to build a sustainable supply chain.

### Experiences with BayWa Venture

The BayWa team is very hands-on in its approach. We receive outstanding support and are provided with valuable new ideas. BayWa's network helps us find new customers and producers so that we can tap into the German market. A number of doors to the food industry have already been opened.

### Sebastian, what is your favourite product from your portfolio?

My favourite product is our milk made from apricot stones, which is now on the market throughout Austria. We are currently in negotiations with well-known companies in order to move into other European countries in the near future. We expect other major brands to put our milk on sale under their name before the end of this year. Our cherry oil, plum oil and apricot oil will soon be available in Germany under a new label.

## + What BayWa adds

BayWa adds value for Kern Tec due to its extensive presence on the agricultural market. For example, the young start-up has already gained new raw material suppliers by being integrated into our strategic network. As a company that trades grain, fruit and legumes by the tonne every year, BayWa too places great importance on supporting the upcycling of raw materials and waste streams from the agricultural and food industry.



**Greenforce Future Food AG**

Sustainable, animal-free alternatives to meat, fish, eggs and dairy

**Founders and management**

Thomas Isermann, Hannes-Benjamin Schmitz

**Year founded** 2020

**Number of employees** 95

**Capital raised** +€40 m



Greenforce was established in 2020 and has shown strong growth potential in the past two years. The company produces and sells sustainable meat, fish, egg and dairy alternatives. Greenforce's wide range of products is offered to customers through all relevant retailers and through its online store via greenforce.com. Greenforce also has B2B relationships with well-known restaurants. High-profile German investors such as Thomas Müller, Joko Winterscheidt and Feinkost Käfer have all taken a stake in the company.

Along with BayWa, Greenforce has attracted prominent investors from the FoodTech scene to get on board.



Joko Winterscheidt



Thomas Müller

**A glimpse inside the company with Greenforce founder Thomas Isermann**

**Achievements in 2022**

Thomas Isermann: We are one of the fastest-growing B2C FoodTech companies in Europe. In the past two years, we have launched more than 50 vegan products on the market.

**Goals for 2023**

One of our key goals is to grow our existing portfolio even faster – both online and offline. We want even more customers to try our products. Our aim is to further increase awareness of the brand by entering into more partnerships with restaurants.

**Vision and outlook**

Greenforce is the first omni-channel and multi-category brand for products that are 100% vegan. We make it a given that you can enjoy plant-based food anywhere, any time. Our goal is to ensure that one in four meals is plant-based by 2025.

**Purpose and targets**

We have the opportunity to save the planet by consuming less meat and opting for plant-based alternatives instead. Plant-based products are much more sustainable. The carbon footprint of our foods is 113 times smaller than that of comparable beef-based products. The benefits for the climate are clear: each and every one of us can save a large amount of carbon emissions by taking a conscious approach to what we consume. Greenforce has grown rapidly, and our workforce is increasing all the time. I am

delighted to see how quickly new employees are integrated and how each one becomes a Greenforce fan. They are all thrilled to be here, and they understand that we will have a major influence on the future because we are driving forward the biggest food revolution in the industrialised era. That is hugely motivating.

**Experiences with BayWa Venture**

Greenforce aims to build a vertically integrated business model that stretches from seed to end product. We want pure, low-residue raw materials that are produced in local cultivation areas. BayWa is the ideal partner because it gives us access to innovative seeds and regional farms, while also providing expert advice on innovative protein technologies. Intensive knowledge sharing during product development allows us to leverage synergies. The partnership with BayWa is turbo-charging the development of our business. BayWa gives us momentum, and there is a warm relationship between the people involved at Greenforce and BayWa.

**Thomas, what is your favourite product?**

My favourite product right now is a real Greenforce classic: in Germany, our vegan meatballs are available in convenient pre-made varieties in the chiller section in well-run supermarkets or as an easy-to-mix dry product for flexible mixing at home in retail, as well as at retail outlets, selected drugstores and our online shop at greenforce.com.

**+ What BayWa adds**

Apart from the tremendous growth shown by the start-up in the past two years thanks to a broad product range and impressive sales, we at BayWa saw the opportunity to forge a real partnership by introducing Greenforce to white label firms. We even saw the potential within our own investment portfolio with the aim of enhancing our business development and our reach. In addition, we put

the start-up in contact with farmers who can supply it with local raw materials, and carried out tests with BayWa partners to grind and develop new ingredients that cater to their needs.



**Evologic Technologies GmbH**

Optimising and scaling fermentation technologies

**Founders and management**

Markus Brillmann, Oliver Schinnerl, Wieland Reichelt, Conrad Reichelt.

**Year founded** 2016

**Number of employees** 25

**Capital raised** Not published



Evologic was formed in Vienna in 2016. After being spun off from Vienna University of Technology (TU Wien), the business originally developed a technique for maximising productivity in drug manufacturing, before turning its attention to the agricultural sector. The university's accelerators, such as Vienna's High-Tech Incubator INiTS and the i2c centre of competence, made it much easier for the team to take the first steps, from research to starting up the business.

Evologic has set itself the task of mastering the challenges associated with organic products and translating the underlying science into economically viable products in order to change the world for the better.

Along with BayWa, Evologic has attracted prominent investors from the FoodTech scene to get on board.



**A glimpse inside the company with Evologic founder and CEO Wieland Reichelt**

**Achievements in 2022**

- We have succeeded in further optimising the core process of fermentation technology by scaling it up to over 1 cubic metre.
- A patent has been filed for our innovative manufacturing process.
- Our expansion so far and our big growth ambitions for the future have prompted us to plan, develop and move to a new production site.

**Goals for 2023**

The relocation to a new building allows us to pursue our goal of a six-fold increase in production capacity.

**Vision and outlook**

We aim to become a leading provider of fermentation solutions and plan to build additional production facilities in the course of the next decade.

**Purpose and targets**

We firmly believe that living microorganisms are the key to meeting humanity's needs today without putting the future at risk.

**Experiences with BayWa Venture**

BayWa is the ideal sounding board thanks to its wide-ranging expertise. I appreciate how quickly and easily we can communicate with the team and how open they are.

**Wieland, what excites you about the possibilities of Evologic's technology?**

One of our achievements is developing an innovative process for producing a natural fungus. Acting in symbiosis with plants, this fungus increases yields by up to 20% and boosts general stress resistance. We use advanced research techniques to tap the potential of microorganisms for sustainable applications.



**+ What BayWa adds**

Transferring biotechnology from the laboratory to a commercial scale requires know-how and the capacity to produce microorganisms. You need highly skilled and trustworthy production and development partners, especially when it comes to fermentation, and that takes more than just a few stainless steel tanks. In-depth expert knowledge is necessary to turn fermentation into a scalable and reliable process.

Although our influence in the field of this cutting-edge biotechnology is limited, we can offer a whole range of ways to help bring products to market. We carry out field tests to obtain feedback on Evologic's microbial products, while also sharing our expertise on questions relating to operating and financing strategy.

# Portfolio companies

## Equinom



### Equinom Ltd.

Revolutionary seed breeding technology for more sustainable yields

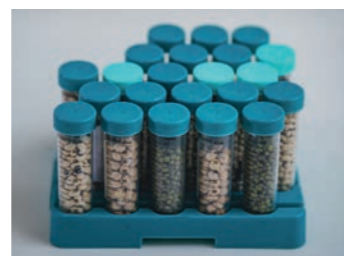
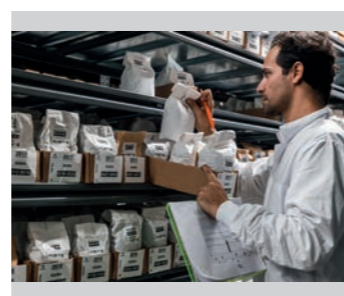
#### Founder and management

Gil Shalev, CEO and founder

Year founded 2012

Number of employees 50

Capital raised USD71 m



Since its founding in Israel in 2012, Gil Shalev, founder and CEO of Equinom, has led the company from a vision of a brighter food future to harvesting thousands of acres of new grain varieties. Equinom is a company on a mission to cultivate better food from the ground up. They use their Manna™ technology platform and vast seed vault to restore natural biodiversity to our existing food supply – by breeding higher quality, non-GMO source crops optimised for food that requires minimal processing. With superior crops at their core, Equinom ingredients create shared value throughout the supply chain and enable food companies to make plant-based food more delicious, nutritious, sustainable and accessible for everyone.

Along with BayWa, Equinom has attracted prominent investors from the FoodTech scene to get on board.



## A glimpse inside the company with Equinom founder and CEO Gil Shalev

### Achievements in 2022

- Secured important partnerships and completed key steps towards commercializations of Equinom Pea Protein in North America.

### Goals for 2023

- We aim to expand our network and enter into long-term sales relationships for our pea proteins.
- The company also plans to complete additional proof-of-concept feasibility studies for our Manna platform to design plant-based ingredients.

### Vision and outlook

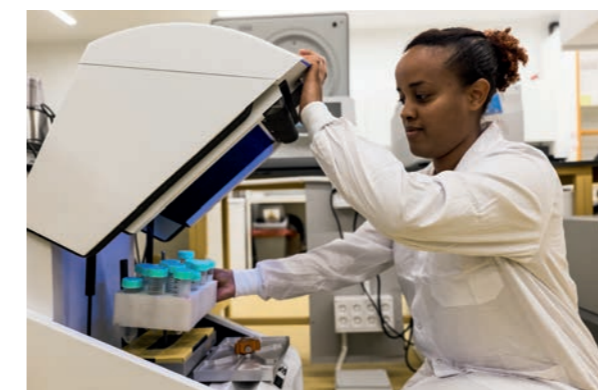
By 2030 we aim to be the food industry's end-to-end ingredient innovation partner – supplying value added ingredients, optimised for food and beverage applications, made from our proprietary advanced crop varieties.

### Purpose and targets

Our purpose is to cultivate better food from the ground up. We believe we can solve the world's food crisis by evolving the way we eat. We are a fully integrated FoodTech company, combining agricultural know-how, culinary expertise and deep technology.

### Experiences with BayWa Venture

BayWa and Equinom partner in Europe on trials along with large-scale farming of Equinom proprietary seeds. The team is fully dedicated and integrated into all steps of the process, and we are excited to start working together in 2023 to grow ultra-high protein peas.



### Gil, can you describe how it feels to see years of research culminate in a blooming pea field?

It's difficult to describe how emotional it is for me. When I see these fields, I see almost a decade of research, science, hard work, failures, successes and so much more. It makes me incredibly proud of what we have achieved so far and optimistic about the future of our partnership, food system and planet.

## + What BayWa adds

This investment could not have any greater synergies with our investment strategy at BayWa Venture. It is clear how Equinom's revolutionary seed breeding technologies could give BayWa a market edge, because it allows us to provide farmers with the right legumes and to increase the sustainability of our fields. Equinom's GMO-free ingredients are revolutionising agriculture, and BayWa aims to be at the forefront of AgriFoodTech innovations. In addition, Equinom is dedicated to safeguarding the supply of alternative proteins for a better future –

a future in which BayWa has been positioning itself for two years with investments in new protein solutions. The transition to more plant-based proteins needs to happen throughout the supply chain, from farm to fork. That is why Equinom's technology deserves BayWa's full attention and support.

# Portfolio companies

## Amai Proteins



### Amai Proteins Ltd.

Making food sweeter and healthier at the same time

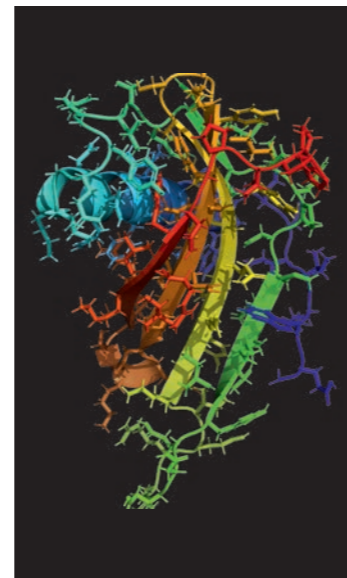
#### Founder and management

Dr Ilan Samish

Year founded 2016

Number of employees 36

Capital raised USD17.5 m



Founded in Israel by Dr. Ilan Samish in 2016, Amai Proteins aims to revolutionise the food industry by manufacturing designer proteins that serve as a healthier alternative to sugar. Amai is the Japanese word for “sweet”. The company’s sugar reduction ingredient is a hyper-sweet designer protein that is 3,000 times sweeter than sugar while also being tasty, healthy, sustainable and well-suited to food production. In developing its sweetener, Amai is using computer-assisted protein design, cloud-based software and precision fermentation.

Along with BayWa, Amai has attracted prominent investors from the FoodTech scene to get on board.



## A glimpse inside the company with Amai founder and CEO Ilan Samish

### Achievements in 2022

- Development of the sweetener sweelin™, made of 100% protein
- Industrial yeast production
- Completion of numerous experiments concerning the approval of the manufacturing process in Q2/23
- Patents filed for multiple technologies (five filings at various stages of review)
- Development of a sales and marketing strategy
- Reduction of up to 70% of added sugar using Amai sweelin without compromising taste or price

### Goals for 2023

- Wrap up the fundraising round
- Expand the team
- Growth and many partnerships
- Our self-GRAS is expected Q3 2023

### Vision and outlook

Establish Amai as a key player that manufactures designer proteins for the mass market.

### Purpose and targets

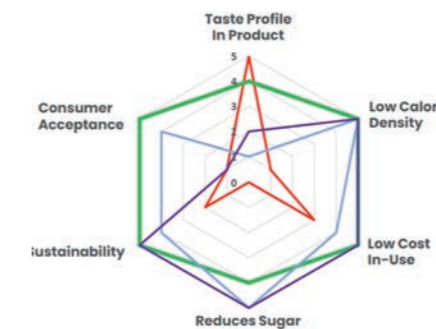
We want to create added value and replace conventional ingredients with healthy and sustainable designer proteins. Excessive sugar consumption is the cause of metabolic syndrome (obesity, diabetes and more) and is a global health issue. We want to change that. Sugar production is a significant burden on arable land and water resources and contributes to airborne, ground and ocean pollution.

### Experiences with BayWa Venture

Fantastic team and fantastic investors.

### Ilan, sugar is unhealthy and full of calories. How can we remove it from our diets?

Our sweet designer protein can replace between 40% and 70% of the sugar used in many foods and drinks without altering the taste. No-one need pass on sweet treats any more. From beverages, granola bars, ice cream and peanut butter to dried fruit and chewing gum, our sweet protein is the perfect match for any foodstuff.



## sweelin™

- ✓ 100% Protein and highly stable
- ✓ 3'000x sweeter than sugar
- ✓ 40-70% reductions of sugar in F&B
- ✓ Better tasting than sugar alternatives
- ✓ Cost competitive - at industrial scale
- ✓ Significantly raising the sustainability bar
- ✓ Consumers love it

— Sugar — Natural High-Intensity Sweetener (Stevia)  
 — Amal's Sweet Protein — Artificial High-Intensity Sweetener (Aspartame)

## + What BayWa adds

BayWa can help to create added value for Amai solely by investing in the business. By reducing sugar content through fermentation, Amai is taking on one of the greatest challenges facing society. BayWa is committed to helping them solve the problem and is proud to support a solution that is addressing one of the key issues in our everyday nutrition. The results achieved by Amai are driving forward the development of food tech,

which we believe is pivotal in transitioning to a better-quality food supply and has the potential to contribute to stopping climate change and improving the nutritional value of our foods.

# Portfolio companies

## Neggst



### Neggst Foods GmbH

Cracking the vegan egg

#### Founders and management

Dietmar Otte, Norbert Weichele, Karl-Heinz Johnen, Peter Eisner,  
Veronica Garcia Arteaga

**Year founded** 2021

**Number of employees** 10

**Capital raised** €5 m



This Berlin-based start-up, co-founded by Veronica Garcia Arteaga in 2021, produces plant-based eggs as a vegan and healthy alternative to chicken-laid eggs. Neggst products even have a shell, look like real eggs and can be used in exactly the same way – for frying, cooking or baking. The only difference? The vegan egg is sustainable and animal-friendly, guaranteed.

Along with BayWa, Neggst has attracted prominent investors from the FoodTech scene to get on board.



## A glimpse inside the company with Neggst co-founder and CEO Veronica Garcia Arteaga

### Achievements in 2022

- Aligning the recipe of one of our products with industrial manufacturing requirements
- Successful production and storage testing
- Winning multiple awards, including the Vegan Women Summit Award
- Attracting initial customers from the restaurant industry

### Goals for 2023

- Launch the best liquid egg on the market – Neggst eggs will soon be on supermarket shelves
- Finalise research into automatic egg yolk membrane formation
- Market launch with two products
- Recipe optimisation
- Expand our outstanding development team

### Vision and outlook

- Develop a strong portfolio of egg alternatives
- Establish a fully automated capsuling process
- Become the world's leading provider of egg alternatives and the go-to experts in alternative proteins

### Purpose and targets

I come from Mexico, the country with the highest per capita egg consumption in the world. When I began reducing my meat consumption, I ate more eggs. At some point, I came to realise that this wasn't sustainable, so I decided to develop a healthy and environmentally friendly alternative to chicken-laid eggs. My vision was clear: I needed to build a company that produces more sustainable and more nutritious foods that are available to all. Working with our great team and seeing how we are all moving towards our goals is a great source of motivation for me.

### Experiences with BayWa Venture

BayWa is such a supportive investor, particularly when it comes to finance or addressing raw materials issues. BayWa New Protein Solutions in particular is very helpful when seeking out new protein sources and helps us link up with major players in the industry.

### Veronica, what is your favourite recipe to make with vegan eggs?

My favourite egg-based recipe is Mexican, of course. It's called chilaquiles verdes and is made mainly of fried tortillas with a green sauce and a fried egg on top. It's very tasty.

## + What BayWa adds

BayWa has the ambition to turn Neggst eggs into a regional and sustainable alternative rather than simply a vegan option. With meat- and dairy-free alternatives having established a solid presence alongside regular meat and dairy products, we believe that egg substitute

products have significant potential and a rightful place on the market. With Neggst, we are actively supporting this development and ensuring that regional agriculture is able to benefit.





### AgroSustain SA

Combating food waste with natural solutions

#### Founders and management

Olga and Sylvain Dubey

**Year founded** 2018

**Number of employees** 12

**Capital raised** +CHF10 m



AgroSustain, a Swiss-based start-up and a spin-off from the University of Lausanne launched in May 2018, aims to reduce food waste and promote sustainable agriculture by developing biological and natural pre- and post-harvest solutions. In this context, AgroSustain produces and sells highly effective natural coating to extend the shelf life of fruits and vegetables after harvesting. In addition, the company is building a pipeline of biostimulants and biofungicides. Its novel products make it possible to maintain high food quality throughout the logistics chain while reducing the negative environmental impact of food waste, effectively minimising CO<sub>2</sub> emissions and reducing the usage of synthetic fungicides that are harmful to the environment.

Along with BayWa, AgroSustain has attracted prominent investors from the FoodTech scene to get on board.



## A glimpse inside the company with AgroSustain CEO Olga Dubey

### Achievements in 2022

- Extending the IP protection of its products by filing for additional patents
- Setting up its own production facilities
- Launch of AgroSFruits, a natural coating to keep fruits fresh for longer after harvesting

### Goals for 2023

Commercial roll out of AgroSFruits and certification of natural coating for vegetables for the European market.

### Vision and outlook

AgroSustain plans to become a one-stop-shop solution for food manufacturers and traders by offering natural and biological products for use before and after harvests, including coatings and biofungicides.

### Purpose and targets

Given the environmental issues that we face, it is absolutely vital to find sustainable and practical solutions to address them. AgroSustain is partnering with other highly innovative companies that are working on ways to solve the problem of food waste.

### Experiences with BayWa Venture

BayWa Venture is a strong strategic partner that offers insight into the latest agricultural developments and issues surrounding sustainability.

### Olga, which fruits can be kept fresh for longer with a natural coating?

AgroSustain's natural coating works on over 20 types of fruits. Our coating protects the quality of crops such as bananas or pears during long transportation or storage and at the retailer by reducing the waste in the store by up to 55%

## + What BayWa adds

Agriculture is still BayWa's core business, and we remain committed to ensuring a sustainable future for our environment. Sustainable alternatives in plant protection are an important element of this. Our experience will help AgroSustain to achieve its goals. We have tested the product in real-world conditions in our international fresh

products business. We also act as a strategic sounding board and provide international insights into the agricultural industry and the investment landscape.



**Spherag Teck IoT SL**

Making irrigation more efficient with digitalisation

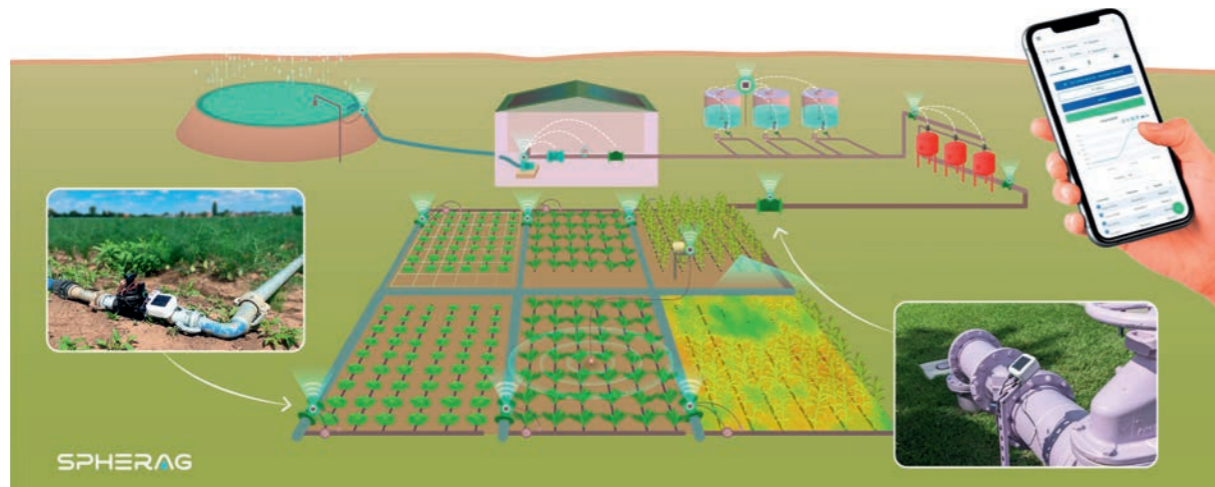
**Founders and management**

Jesús Ibáñez and Ramón Santos

**Year founded** 2020

**Number of employees** 20

**Capital raised** €3.5 m



Spherag was founded in 2020 by Spanish engineers Ramon Santos and Jesús Ibáñez. Their idea was to utilise available technical expertise for agricultural purposes in order to help farmers digitalise their activities and processes.

One concern among many farmers at the moment is irrigation and the complex, time-consuming management of their irrigation systems. Spherag has developed an IoT device to help solve this issue and digitalise existing irrigation systems in a just a matter of minutes.

Demand among farmers is high: in just two years, Spherag has successfully sold its technology to customers in 18 countries, from the United States to Australia.

Along with BayWa, Spherag has attracted prominent investors from the FoodTech scene to get on board.



**Interview with Spherag CEO Jesús Ibáñez**

**Achievements in 2022**

- We sold our systems and technologies in 18 different countries.
- We have a solid sales network in key markets (France, Italy, Turkey, Germany, Spain, Netherlands, Australia, California and Florida).
- We began partnerships with tech giants Telefónica and AWS.
- The world's largest lettuce producer commissioned us with the development of a smart nutrition management solution.

**Goals for 2023**

- Achieve 5,000 agricultural operations with Spherag irrigation systems installed
- Consolidation of key markets in the EU
- Development and expansion of our sales channels

**Vision and outlook**

We see Spherag as an end-to-end solution for the management of agricultural sites with a “boots on the field” approach. Spherag is adding more and more functions to make it simpler to monitor and manage farms.

**Purpose and targets**

Our primary goal is to give every farmer access to advanced technology with a simple interface. Technology and digitalisation shouldn't be a headache for farmers any more. Instead, it should be a pleasant experience that combines the latest standards with

plug-and-play equipment to ultimately improve quality and optimise water and energy consumption. That's what drives us forward.

**Experiences with BayWa Venture**

BayWa has been a huge help right from day one – from business model and pricing, to market entry opportunities and building up contacts. BayWa manages to create a challenging but supportive atmosphere in which we can work independently and push ourselves to achieve our goals.

**Jesús, what are your next milestones?**

The best milestone is winning over new customers and irrigating even more agricultural land. On-site visits to farmers who already use our technology reinforce my view that we are doing the right thing. There is no better feeling than seeing our customers with a smile on their face when we tell them what benefits Spherag can offer to their everyday operations.



**+ What BayWa adds**

BayWa's first point of contact with Spherag wasn't as an investor. Before investing in the business, BayWa already had the product in its portfolio with great success. We are delighted to be able to offer our customers this software solution and meet their current requirements. With our experience in sales, technology and operating collaboration with the Spherag team, we are a trustworthy sound-

ing board that brings expertise and ideas on how to develop the technology and business model to the table. We also contribute with strategic consulting for global agriculture and suitable business models. We can deliver a range of market insights, from in the field all the way through to global innovation trends.

# Portfolio companies

## Amfora



### Amfora Ltd.

Unlocking the tremendous potential of biotechnology for new and improved proteins

#### Founders and management

Ganesh Kishore, Roger Wyse, Jonathan Burbaum  
Lloyd Kunimoto, Michael Lassner,  
Anthony DeLio, Steve Schnebly

**Year founded** 2016

**Number of employees** 6

**Capital raised** USD12.0 m



Amfora is a biotechnology company that is harnessing biology to sustainably nourish the world's population and enhancing wellness. Founded in 2016 by a group of ag-bio visionaries, Amfora's mission is to meet the growing global demand for foods that are high in protein by enhancing the nutritional density of food and feed crops, while reducing the cost of food and the environmental toll on the planet.

Along with BayWa, Amfora has attracted prominent investors from the FoodTech scene to get on board.



## A glimpse inside the company with Amfora Chief Science Officer Michael Lassner

### Achievements in 2022

- Harvesting soya beans that we had cultivated ourselves. The first harvest has already been processed into high-quality food ingredients.
- We developed and tested promising applications for our ultra-high-protein soya flour and derived ingredients.

### Goals for 2023

- Continue to produce and develop soya beans and soya flour with ultra-high protein content and other ingredients.
- Trial products with multiple potential customers and obtain first-hand feedback.

### Vision and outlook

- Further development and expansion of our biotech programme, and particularly our soya bean cultivation activities.
- Use of ingredients with a high protein content to level up plant-based alternatives.

### Purpose and targets

We have discovered the enormous potential of biotechnology and its abilities to enhance the nutritional density of feed crops such as soya beans. Our aim is to use this state-of-the-art technology to create food ingredients that are healthier for people and better for the environment, without compromising on taste and consistency. That's what guides us.

### Experiences with BayWa Venture

BayWa is a very supportive investor and consulted with our management team to provide many useful recommendations for rising to the challenges 2022 presented us with.

### Michael, why is biotechnology a key to more sustainability in your view?

Biotechnology will increase protein yield per hectare from soya beans and other Amfora cultures. This will inject momentum into the plant-based protein revolution and increase sustainability in feedstuff production.

## + What BayWa adds

We take a deep interest in emerging technologies to understand their potential to reshape the future of agriculture and how they might address the serious global food, health, and environmental challenges the world faces. With our understanding of global agricultural markets and insights into the needs of the various players who make up the food industry supply chain from farm to table, we advise the management team to help ensure its success.

# Portfolio companies

## InnovoPro



### InnovoPro Ltd.

Seizing the potential of chickpeas

#### Founders and management

Dr Ascher Shmulewitz

Co-founder: Taly Nechushtan

**Year founded** 2013

**Number of employees** 32

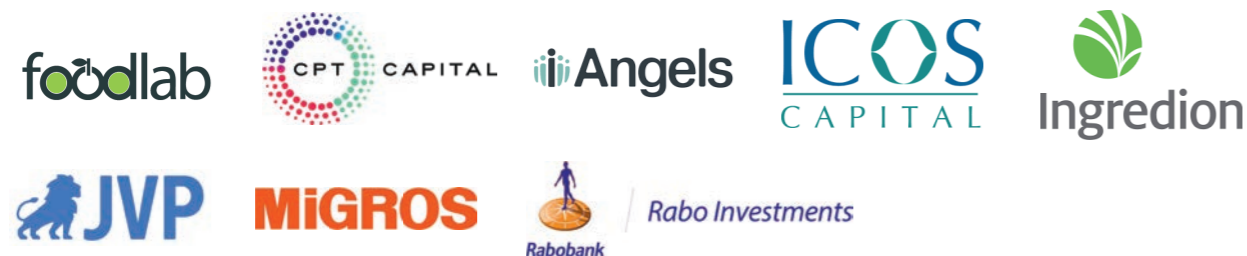
**Capital raised** USD26 m



InnovoPro was founded in Israel in 2013 by Dr. Ascher Shmulewitz with the aim of marketing a unique plant-based chickpea protein offering high nutritional value and a safe, healthy and sustainable source of protein.

InnovoPro's versatile chickpea protein platform offers solutions for multiple food and beverage applications, from baking to plant-based dairy and meat alternatives, desserts and more.

Along with BayWa, InnovoPro has attracted prominent investors from the FoodTech scene to get on board.



## A glimpse inside the company with InnovoPro CEO Taly Nechushtan

### Achievements in 2022

- We increased our global footprint and successfully established ourselves in North America and Europe.
- We established a European supply chain infrastructure, which should help our customers in these markets and fit in with the companies' sustainability goals by promoting environmentally friendly processing and reducing greenhouse gas emissions.
- The next generation of chickpea proteins for North America is currently under development as part of an investment and sales partnership with Ingredion.
- We have transformed ourselves from a single-product company into a chickpea protein platform by bringing to market two new products: a textured chickpea-based protein for meat alternatives and a protein substitute without any aftertaste.

### Goals for 2023

- We will concentrate on chickpea products and offering solutions with high-quality premixtures to establish a robust and interesting portfolio.
- We prioritize the expansion of our market share in the US.

### Vision and outlook

- We strive to achieve a zero-waste process by utilising all side streams as part of our contribution to climate protection.
- We will establish the chickpea as a relevant and functional ingredient in alternative foods.

### Purpose and targets

After working in a variety of industries over my career, I have developed a better understanding of why it is so important to take a sustainable approach to the production and processing of foods. At InnovoPro, I am part of an experienced and highly professional team with a real passion for creating better nutritional solutions. I have the chance to contribute my experience, my values and my leadership qualities to building a supportive, innovative and productive working environment in which we face up to the challenges of the global food industry.

### Experiences with BayWa Venture

Our journey with BayWa has just begun, and we're confident that we will benefit from BayWa's extensive knowledge in building a sustainable supply chain and discovering innovative business fields.

### Taly, what is your favourite product made from chickpea protein?

My favourite product is the chocolate dessert. My daughter is a vegetarian and she loves our chickpea protein burger – perfect with a little dab of our egg-free mayonnaise!

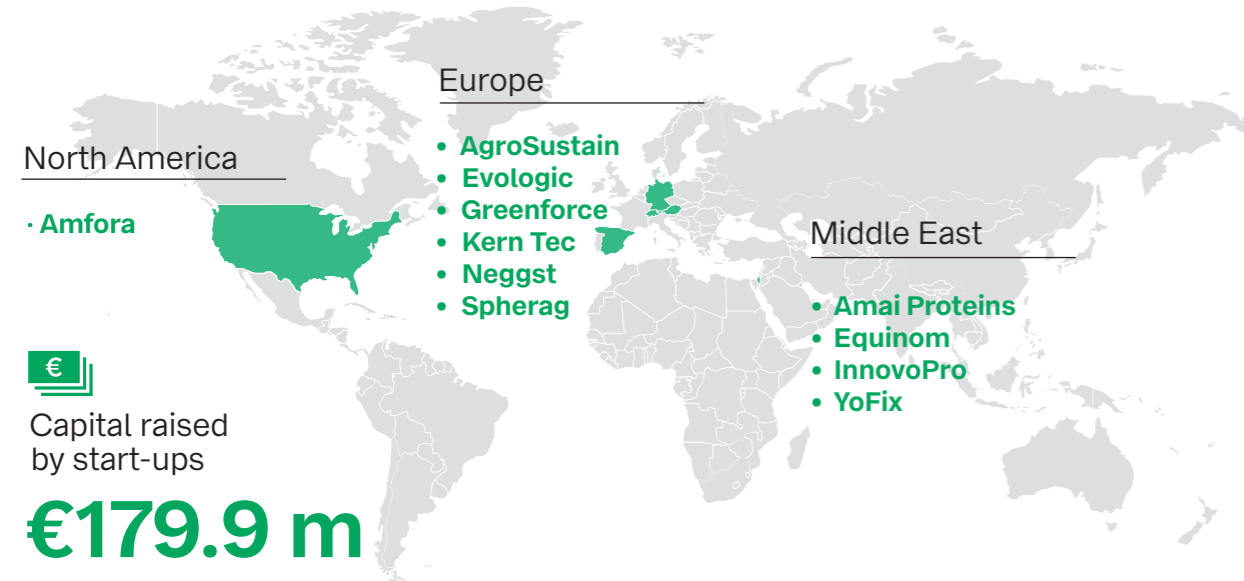
## + What BayWa adds

There are many synergies between BayWa and InnovoPro that led us to invest in InnovoPro in late 2022. As a strategic investor, we intend to facilitate InnovoPro's expansion on the European market and pave the way for partnerships and trade agreements. We will also continue to work closely with our core agricultural business to

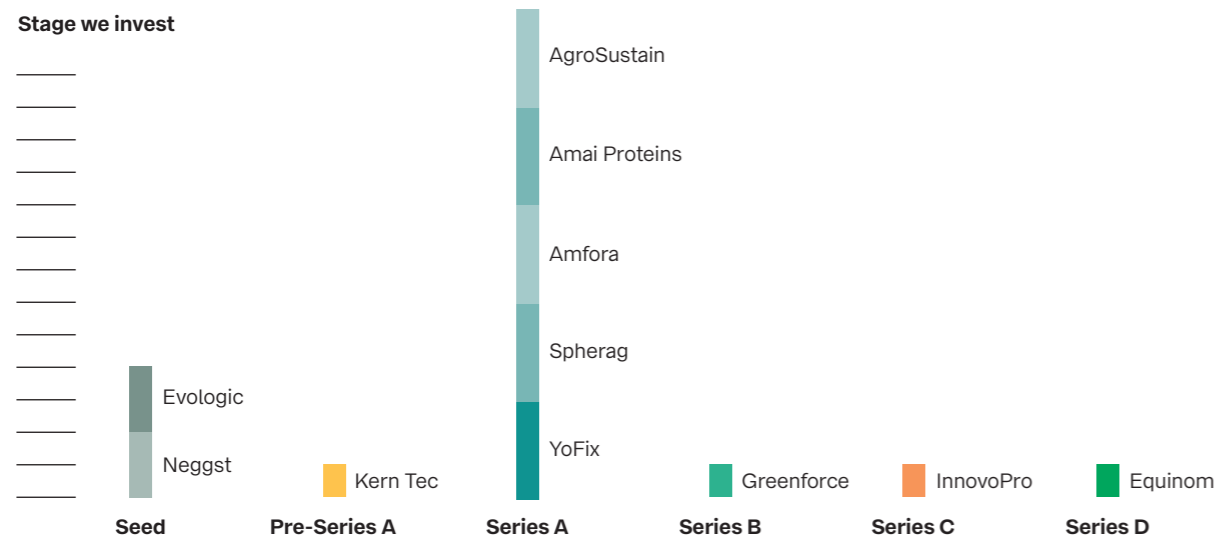
supply InnovoPro with the local raw materials it requires for its products. This is the start of a wonderful partnership, and BayWa is very excited to contribute to InnovoPro's success.

# Portfolio highlights

We invest in AgriFoodTech start-ups created by outstanding entrepreneurs and have already made a substantial contribution to generating added value:



We invest from seed to series A, thereby reducing investment risk and increasing our learning effects across the entire venture life cycle



We evaluate our portfolio according to our three Ps of sustainability, which are based on the UN Sustainable Development Goals

## Product

Healthy food for all



For every 1% decrease in sugar consumption, Amai Protein can save:

<b>1.72 million</b> tonnes of sugar	<b>2.5 trillion</b> litres of water	<b>10 billion</b> healthcare dollars	<b>6.5 million</b> acres of arable land
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**-60% CO<sub>2</sub> emissions** compared to the production of similar products

**500,000** tonnes of fruit pits are wasted yearly in Europe

**1,000** tonnes of fruit pits are served and repurposed

## Planet

Responsible and sustainable production



Already saved:

**63,995,727 kg CO<sub>2</sub>** equal to 16,596 return flights from Munich to New York

**33,885 ha of land** equal to 195,740 football fields

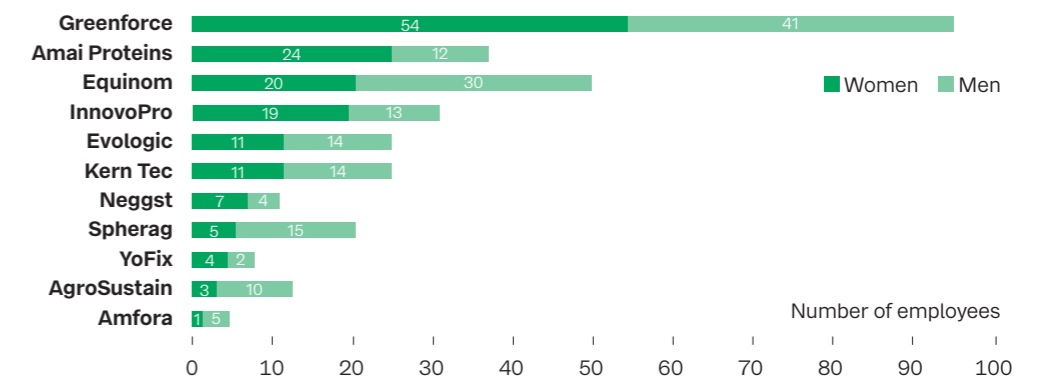
**188,616,152 hl of water** equal to 104,786,751 full bathtubs



**-35%** less water when using Spherag technology

## Public

Gender equality in society



# Outlook

## ClimateTech venture capital – one of the most exciting investment opportunities today



Despite the global market downturn, climate venture capital funds set a new record in the first three quarters of 2022 by taking up the largest capital volume ever (USD151 billion) in a single year! This increase gave venture capital funds access to nearly USD300 billion – an impressive amount of capital that is available for shaping the future.

A report by the global investment firm AgFunder says that the ten top AgriFoodTech start-ups raised USD3 billion in venture capital funding in 2022, proving that they are an important part of the ClimateTech ecosystem. Meanwhile, venture capitalists invested just under USD30 billion in AgTech and FoodTech in 2022, according to a preliminary analysis by the database provider PitchBook. These two sectors, which have been booming since 2021 in response to the COVID-19 pandemic, remained popular investment categories and saw a slew of new deals at the same time. ClimateTech is more than just the leading trend in the venture capital world. The willingness of investors to provide funding is also a lagging indicator of a

strong market promise. That is because the funds specialising in AgriFoodTech take exacting steps in advance to ascertain where their capital could be used most effectively. Financial returns and the measurability of an investment's climate performance are the greatest incentives for them. Other investors are set to follow this trend and ride the wave.

Analysts from ClimateTech VC – a community of 40,000 ClimateTech investors, founders and market leaders – have investigated 135 new climate investment funds in the past two years, including leading corporate venture capital, growth, infrastructure and private equity funds. Their findings also paint a clear picture: between the financial year 2021 and the financial year 2022, assets under management (AUM) more than doubled, from USD30 billion to USD64 billion. Much of the assets are invested in a handful of mega funds. Over 20% of the new funds have a volume of more than USD500 million, but control 80% of AUM.

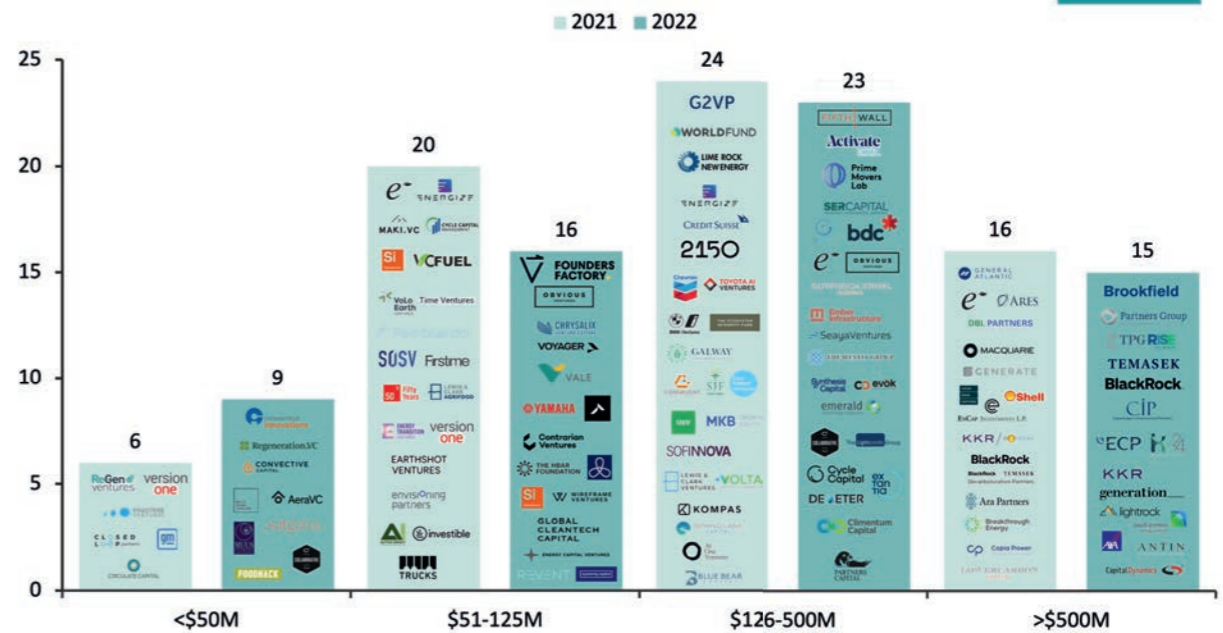
Q2/22 alone saw USD34 billion in growth capital (36% of the total volume over the past two years) being raised through the launch of five mega funds (over USD1 billion): Brookfield Global Transition Fund (USD15 billion), TPG Rise Climate's (USD7 billion), Temasek GenZero (USD3.6 billion), Energy Capital Partners (USD3 billion) and Generation Investment Management (USD1.7 billion). Based on standard assumptions concerning how investments are earmarked, USD6 billion of the capital raised by venture capitalists and growth funds are likely to have already found their way to ClimateTech businesses. As a result, the lion's share of the fund volume, USD37 billion

in investable capital, is still available for use. For investors and innovative start-ups, the future looks bright. Impact investing in AgriFoodTech will continue to grow and emerge as an asset class in the years ahead.

With BayWa Venture, BayWa AG has forged new paths for AgriFoodTech start-ups over the past two years through its venture capital activities and will continue to grow, develop investments and professionalise both its own portfolio and the market.

### Climate Tech new investors (AUM)

Count of new announced climate investment funds by AUM (FY'21-22 YTD)



### Yes, we're 100 years old – but as innovative as a start-up!

BayWa's journey of supporting and fostering the growth of amazing up-and-coming businesses with the potential to change the world, as outlined in this report, is my personal mission as well. As a dedicated entrepreneur and innovator myself, I can hardly imagine a more exciting time to work in the food and agriculture industry. In the AgriFood sector, we are seeing more new companies and investments than ever before. The result is an explosion of innovation.

Does a company like BayWa have what it takes to keep up in a time of lean start-ups and rapid innovation?

We were once a start-up too – precisely 100 years ago. We started as a warehouse for goods and grain that offered farmers agricultural inputs and liquidity while bringing growers and buyers together. Today, we have evolved into an international provider of solutions with a one-of-a-kind role at the very core of the agricultural supply chain.

So don't be fooled by our age and size. We know how to think and act like a start-up. My team is able to draw on the experience of a company that has been in business for 100 years while leveraging the latest skills and knowledge, as well as BayWa's global network.

### From lab to fork – all in one place

We call our new operating business entity New Protein Solutions. Look at it as a start-up within BayWa that develops new products and solutions for alternative proteins. At the same time, we see ourselves as an enabler and accelerator for the advancement of strategically selected businesses with high growth potential.

BayWa Venture spent last year investing in promising alternative protein start-ups. We look forward to making these companies a success in our role as an active hands-on investor.

How can you make a burger without meat? Yoghurt without milk? An egg without the chicken – or soft drinks with less sugar?

With demand for alternative proteins on the rise, food producers – our new customers – find themselves facing questions just like these. Thanks to New Protein Solutions, we are optimally equipped to build bridges between the food industry and the agricultural sector while answering questions for our partners in farming and seizing new business opportunities.

### The best time for the agricultural and food industry is now

The billion-dollar market for alternative proteins is waiting for new players. BayWa is at a clear advantage. A century of experience in farming and beyond speaks for itself. As a global player in grain trading, BayWa markets alternative proteins and has further honed its focus in recent years on specialities. Over the past two years, we have also made technology-focused and high-growth venture investments in plant-based alternatives to meat, dairy and egg products, as well as in precision fermentation, seed and variety development, and ingredients. Powered by excellent agricultural expertise, strong partners and customers throughout the supply chain, we are capable of handling every aspect of the development and marketing process, from cultivation and raw materials to the ingredients themselves.

In the long run, alternative proteins will thoroughly transform our eating habits. While animal-based proteins will continue to play a certain role, I believe that plant-based proteins will add variety to the way we eat. Alternative proteins have the potential to be part of a sustainable food chain because producing them requires fewer resources. Developing new protein solutions allows us to bring more CO<sub>2</sub>-saving, regional and nutritious options to the table – all while tapping into new markets and business opportunities for BayWa and our farmers.

I would like to thank everyone who works at BayWa and its subsidiaries for an incredible journey so far that has made a wide range of projects, products, investments and new business contacts possible in the first place. Thank you for the tremendous courage and even greater trust of the Board of Management in alternative proteins and my team.

Let us work together to feed the people on this planet sustainably for the next 100 years.

Yours faithfully,

Kristal Golan

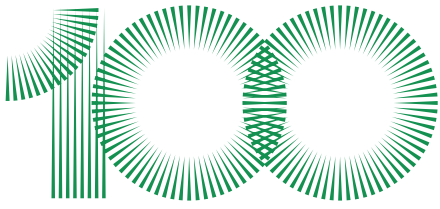


**Kristal Golan**  
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