



AquaSpark
IMPACT
REPORT
2020

7

INDEX

Blueprint of Sustainable Aquaculture

8

Pathways to impact

10

Harnessing the opportunity

Production	10
Feed Ingredients	10
Health and Disease	11
Farm Management Technologies	11
Genetics	11

12

Our Portfolio

Portfolio Map	14
Shiok Meats	16
Swedish Algae Factory	16

19

2020: Leadership in Crisis

28

Our Impact in Numbers

Efishery	20
Matorka	22
Xpertsea	24

30

Looking Forward

2020: A Year of Firsts

4 6 18 26 31 32



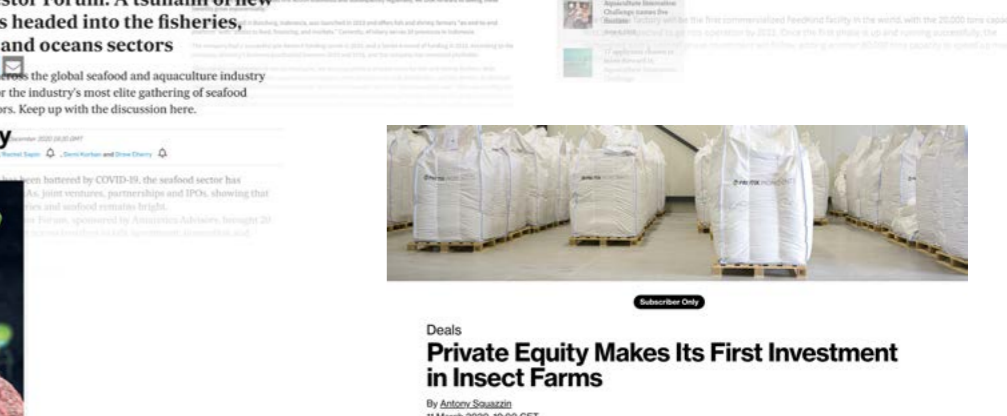
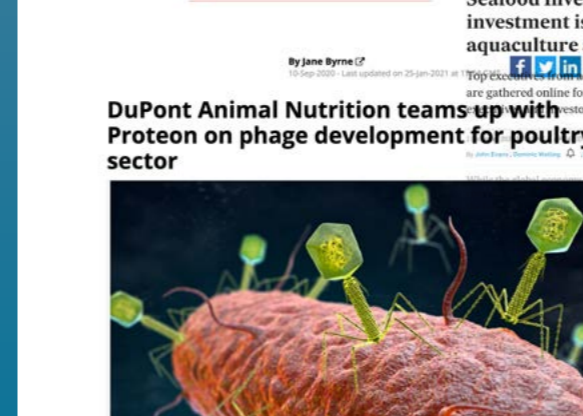
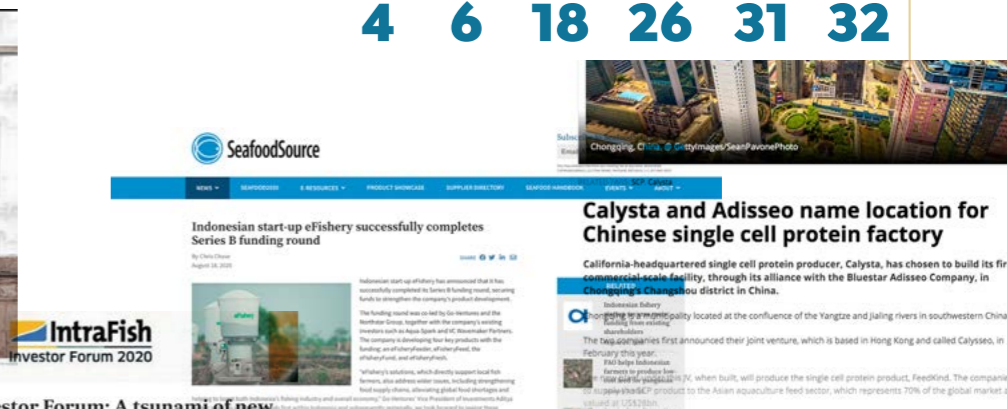
AquaSpark
Investing in the Future of Aquaculture

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SAVE THE OCEAN please don't print



How This Impact Investor Is Generating Double-Digit Returns Cleaning Up The Seafood Business



DAILY COVER | Sep 9, 2020, 06:49am EDT

JAMEL TOPPIN FOR FC



Chloe Sorvino Forbes Staff
Food & Drink
I lead Forbes coverage of food, drink and agriculture.



“There has been a large increase in the number of countries requesting the World Bank for investments in aquaculture. Aqua-Spark has been a major influencer in this space, bringing in essential business investing acumen along with a commitment to innovation for sustainability.”

Randall Brummett
Senior Fisheries and Aquaculture
Specialist /World Bank

RELATED TAGS: SCP, Calysta

Calysta and Adisseo name location for Chinese single cell protein factory

California-headquartered single cell protein producer, Calysta, has chosen to build its first commercial-scale facility, through its alliance with the Bluestar Adisseo Company, in Chongqing's Changshou district in China.

Chongqing is a municipality located at the confluence of the Yangtze and Jialing rivers in southwestern China.

The two companies first announced their joint venture, which is based in Hong Kong and called Calysseo, in February this year.

The new plant under this JV, when built, will produce the single cell protein product, FeedKind. The companies plan to supply the SCP product to the Asian aquaculture feed sector, which represents 70% of the global market and is valued at US\$28bn.

The Chinese factory will be the first commercialized FeedKind facility in the world, with the 20,000 tons capacity first phase expected to go into operation by 2022. Once the first phase is up and running successfully, the companies said a second phase investment will follow, adding another 80,000 tons capacity to speed up market penetration.

Blueprint of Sustainable Aquaculture

With our growing world population we are placing Earth's natural resources under severe pressure. One of our most pressing challenges will be to feed everyone a balanced and nutritious diet while keeping our effects on the environment to a minimum.

Today, fish supplies 17 percent of all the protein consumed in the world. This share is growing because of rising income among consumers accompanied by increased demand for high-quality fish. By 2030, the world is expected to eat 20 percent more fish than in 2016 – this increase can only come from aquaculture because we are already exploiting wild fish stocks.

Aquaculture is growing faster than other major food production sectors.

But achieving further growth means making demands on our increasingly stressed environment. Although aquaculture is, in many ways, more resource efficient than other animal production systems it still has a long way to go. We need to do much better.

We believe that reliably meeting the world's growing demand for fish, while simultaneously sustaining our environment, will require a radical transformation of global aquaculture.

This is why Aqua-Spark exists.

Aqua-Spark is a global investment fund based in Utrecht, the Netherlands, that is developing this optimal aquaculture food system by investing in companies all along the aquaculture value chain working to solve industry challenges, with a shared vision of a sustainable future. We are building a portfolio ecosystem of companies working toward healthy, transparent, resource efficient, resilient aquaculture production that will act as a blueprint from which to scale this industry to meet growing demand. Our ultimate goal is moving the commercial aquaculture industry to one that is truly sustainable.

Pathways to Impact

When we started exploring aquaculture, we saw great solutions to some of the industry's challenges around feed, waste, pollution and disease, but they were in the very early stages. Three striking factors stood out as holding the industry back from true sustainability - 1. the lack of coordination 2. the seemingly impenetrable opacity and 3. likely because of the first two, the absence of outside financing.

These findings led to the shape of Aqua-Spark and greatly influenced our Theory of Change and the belief that through investing in companies solving pertinent challenges in aquaculture, all along the value chain, that share a vision and are open to cooperation, we could

enable aquaculture to reach its potential as the healthiest, most resource efficient, lowest footprint animal protein to produce and create the blueprint from which to scale this industry.

We invest in...

- Production**
Pioneering farms, feed mills, hatcheries and cell-based seafood producers
- Feed Ingredients**
Alternative feed ingredients that reduce environmental demands and dependency on wild caught fish
- Health and Disease**
Health technologies that reduce the impact of disease without resorting to antibiotics
- Farm Management Technologies**
Production technologies that improve management practices, resource use and product traceability
- Genetics**
Breeding technologies that enhance seed quality
- Consumer Products and Distribution**
Marketing channels and products to meet demand for sustainably sourced aquaculture

...in order to have...

- Exemplars of best practice approaches to aquaculture production
- More sustainably produced feeds adopted by farmers
- Improved fish health and welfare technologies adopted by farmers. Reduced antibiotic use
- Improve farm management technologies adopted by farmers
- Improved seed adopted by farmers
- Improved supply chain, traceability, marketing infrastructure and market access for sustainability produced aquaculture products

This is an ambition that requires holistic thinking - reducing resource use, greening the feed stream, better monitoring for and treatment of disease, a more transparent, traceable system, are all interconnected but also require their own major focus. And we can't produce truly sustainable fish at an affordable scale until we solve all of these challenges and others.

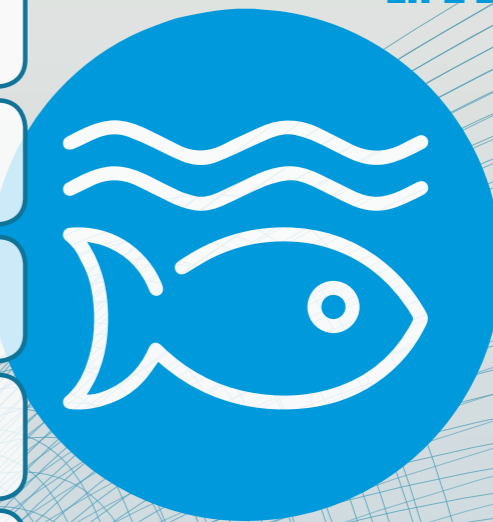
The diagram below summarizes our Theory of Change. This is our pathway to impact and we use it to help guide our investment choices and the approaches we take to support our portfolio companies.

This diagram has evolved since our launch in 2015, with learnings and changes from the industry. We are committed to these outcomes, how we get there might continue to adapt along the way.

...with the aim to

- Decrease antibiotic use across the industry
- Reduce industry usage of wild resources
- Increase production & consumption of healthy food
- Reduce Pollution
- Increase valorization of underutilized resources
- Improving efficiencies
- Improve animal welfare
- Increase access to financial services for farmers
- Reduce resource footprint
- Embracing diversity in aquaculture
- Increase transparency and traceability

SDG 14
LIFE BELOW WATER



SDG 2
ZERO HUNGER



SDG 13
CLIMATE ACTION



SDG 12
RESPONSIBLE CONSUMPTION AND PRODUCTION



Harnessing the Opportunity

Production

Fish farms, feed mills and hatcheries are the foundation of the aquaculture system and must be a key focus for attention if we are to deliver impact at scale. We believe that by investing in pioneering enterprises that are in the vanguard of best practices we can help accelerate the transformation of the sector.

GLOBAL AQUACULTURE PRODUCTION GREW **300%** IN THE LAST 20 YEARS

In 2020 we added cell-based production to our portfolio, bypassing the challenges of farming by converting nutrients directly into seafood. We see the future of seafood as diverse, with both cell based and plant based playing a major role. According to some analysts, in 2040, 60% of the meat and seafood people will eat is expected to come not from live animals but from plant-based and cell-based products,

with cell-based taking 35% of the market. These may be optimistic estimates, and they are likely lower for seafood, but they highlight the potential of this segment.

Tracking progress towards impact for this segment of our portfolio includes the volume of fish harvested and the number of meals produced, to provide a more direct indicator of end user benefit.

LESS THAN **7%**

OF THE SEAFOOD PRODUCED GLOBALLY IS CERTIFIED AS RESPONSIBLY PRODUCED

Feed Ingredients

Our overarching goal is to feed fish with nutritious ingredients that minimize demands on natural resources. To this end, reducing demand for wild caught fish as a feed ingredient is a key objective that is relatively straightforward to track.

Currently between 1/3 and 1/4 of fish caught globally goes into animal feed. Because these fisheries are fully exploited, it is clearly not sustainable to increase catches of fish from the wild to feed farmed fish. Tripling the production of aquaculture, without working on more sustainable practices, would drive the need for 8 times more feed than we are currently producing. We believe that a combination of different alternative feed ingredients and technologies that improve feeding efficiencies are the solution to decreasing the footprint of animal feed significantly.

We track our progress towards impact using the total volume of alternative feed ingredients produced. However we do not report on this to avoid disclosing confidential information from specific companies in the portfolio. We do convert the amount of alternative ingredients into volume of wild fish that would be required to produce those ingredients. At this early stage in the growth of our portfolio companies, the volumes are understandably low, but these will grow substantially in the coming years.

70% OF FISH MEAL AND **75%** OF FISH OIL ARE USED FOR AQUACULTURE

THE GLOBAL ALTERNATIVE PROTEIN MARKET FOR ANIMAL FEED IS SET TO SURPASS USD

4

BILLION BY 2026

Health and Disease

Like other farming sectors, the likelihood of major disease problems occurring increases as aquaculture activities intensify and expand. Thus, the aquaculture industry has been overwhelmed with its share of diseases and problems caused by viruses, bacteria, fungi, parasites and other undiagnosed and emerging pathogens. Disease is now a primary constraint to the culture of many aquatic species, impeding both economic and social development in many countries. Finding new and more effective ways to enhance fish health and battle disease is a key imperative for the sector.

Meeting this challenge is especially important when considering bacterial disease. Not only are these diseases highly prevalent, but our current approach relies largely on antibiotics, to which pathogens are becoming increasingly resistant. The World Health Organisation sees antibiotic resistance as one of the biggest threats to global health and food security today and says that greater innovation and investment are required

to research and develop new antimicrobial medicines, vaccines, and diagnostic tools. Aqua-Spark is committed to supporting that effort.

As measures of progress towards impact in improving health and combating disease, we have chosen to track the number of animals treated with alternatives to antibiotics.

AQUACULTURE USES

79%

MORE ANTIBIOTICS PER KG THAN HUMANS

AQUACULTURE CONSUMES MORE THAN

10,000

TONS OF ANTIMICROBIALS PER YEAR

Farm Management Technologies

We believe that investing in innovative new technologies and making them accessible and affordable for small and large enterprises alike can be transformational in regards to feeding practices, animal health and welfare, resource use and harvesting practices, to name a few.

In many respects, the aquaculture industry remains very fragmented and inefficient. Dominated by small holder farmers and small and medium enterprises, at a global scale, few operations currently adopt the rigorous farm management practices that a truly sustainable farming sector needs.

Measuring progress to impact for this segment includes the number of farms served. Where other benefits, resulting from efficiency improvements, are delivered through the use of a technology, these are also tracked.

Genetics

Our main goal here is to embrace and enable the diversity of aquaculture. We are currently farming 100s of species of aquaculture and do not want aquaculture to move to an industry of fish, fish and fish, as the other animal proteins have. Diversity is vital for risk mitigation and also in honoring different environments, different cultures and keeping diets healthy and interesting.

Also, unlike the other animal proteins, selective breeding commercially is nascent and offers a big opportunity to improve growth, immunity, and production efficiencies.

ONLY **15%**

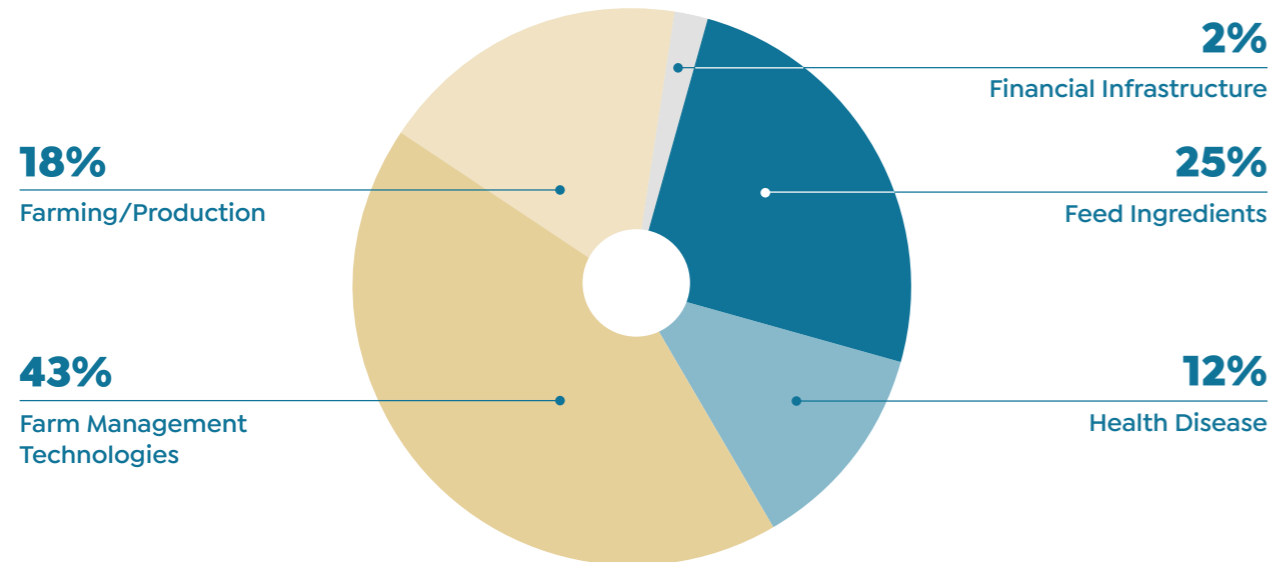
OF THE AQUACULTURE ANIMALS HAVE BEEN THE RESULT OF SOME FORM OF SELECTIVE BREEDING

Our Portfolio

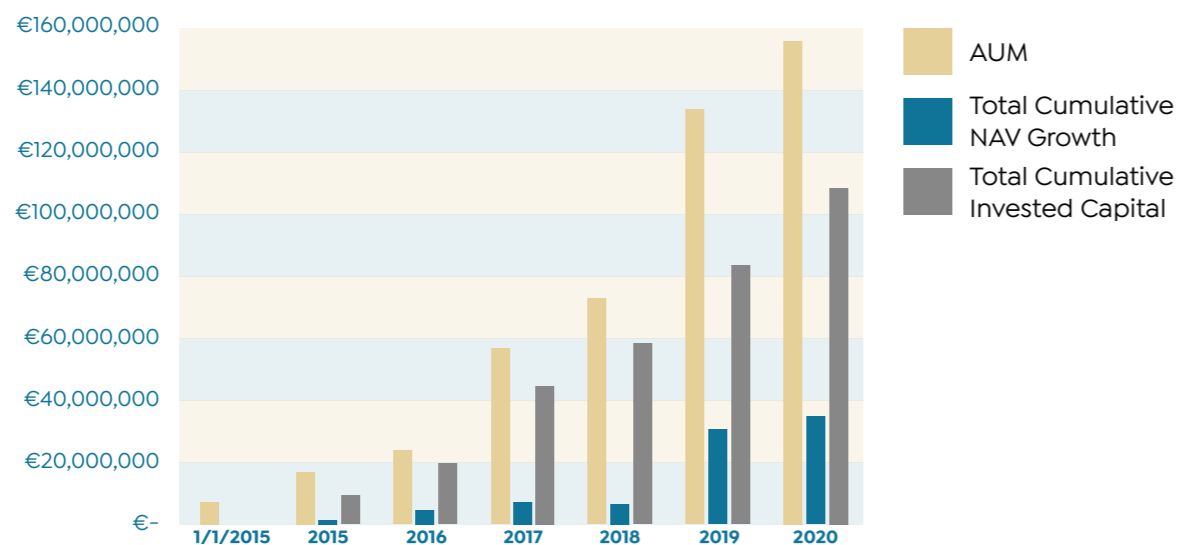
The portfolio works as an ecosystem, with the companies agreeing to collaborate on optimal solutions, share knowledge and networks, and work together toward a shared vision of a healthy, sustainable, accessible global aquaculture industry. This systemic approach recognizes that industry-wide change requires organized solutions that bring together disparate components of the aquaculture value chain in a coordinated and synergistic way.

SINCE 2015
WE INVESTED IN
21
COMPLEMENTARY AQUA-
CULTURE COMPANIES

Investments by Value Chain



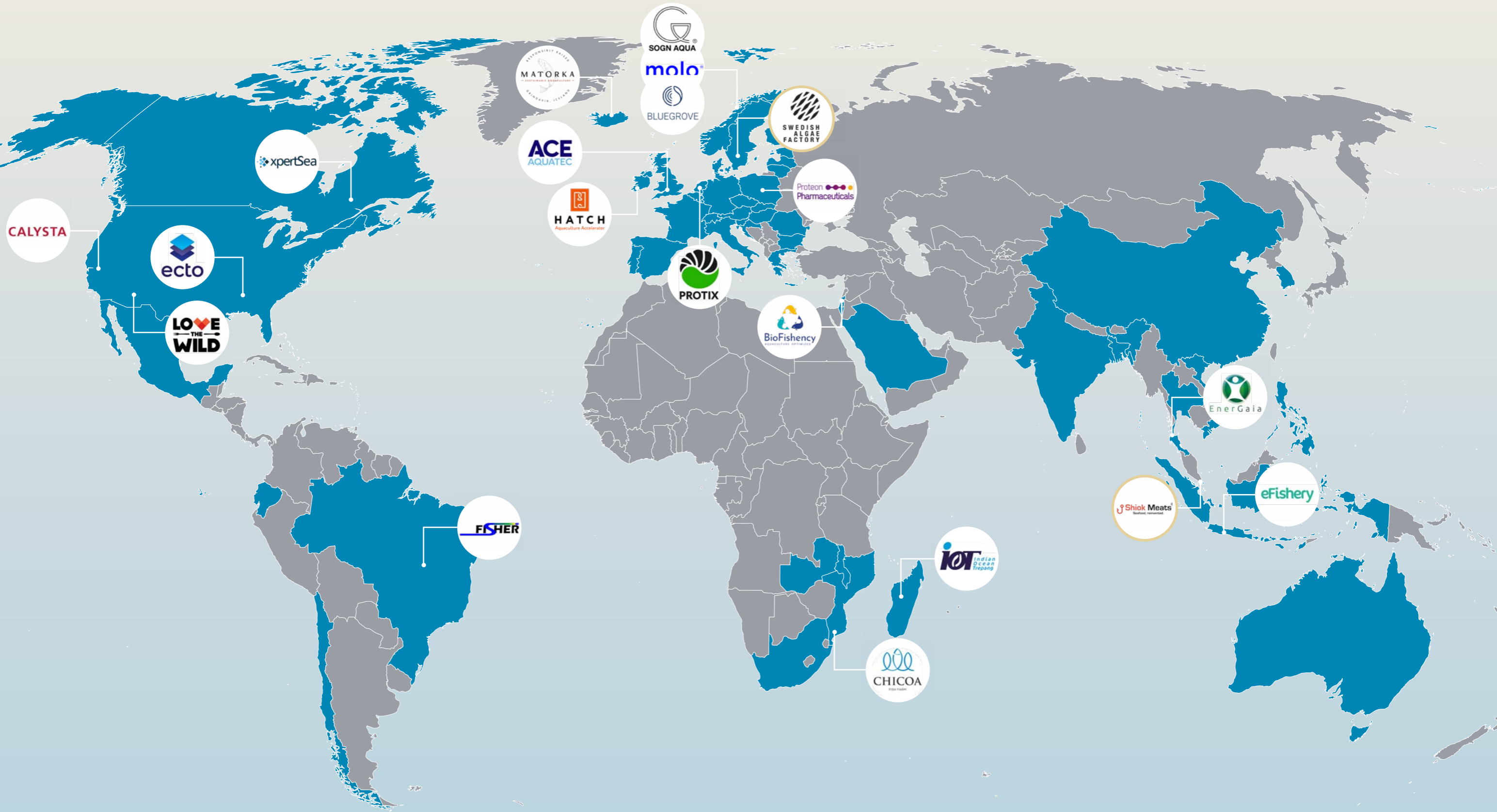
Aqua-Spark fund performance





“2020 saw two mega-trends for aquaculture related to Covid-19 and lockdowns; the huge swing to more value added seafood for in-home consumption from groceries and delivery; and further disruptions in wild fish-meal and fish oil, with alternative ingredients filling the void. Aqua-Spark was particularly prescient to have explored these fields previously and invested in companies placed to take advantage of the situation and be placed in prime position for the “new normal”, coming out of the pandemic.”

Kevin Fitzsimmons
Professor and Director of International Initiatives, University of Arizona

Portfolio Map



-  New 2020 portfolio companies
-  Countries served by our portfolio

2020 Investments

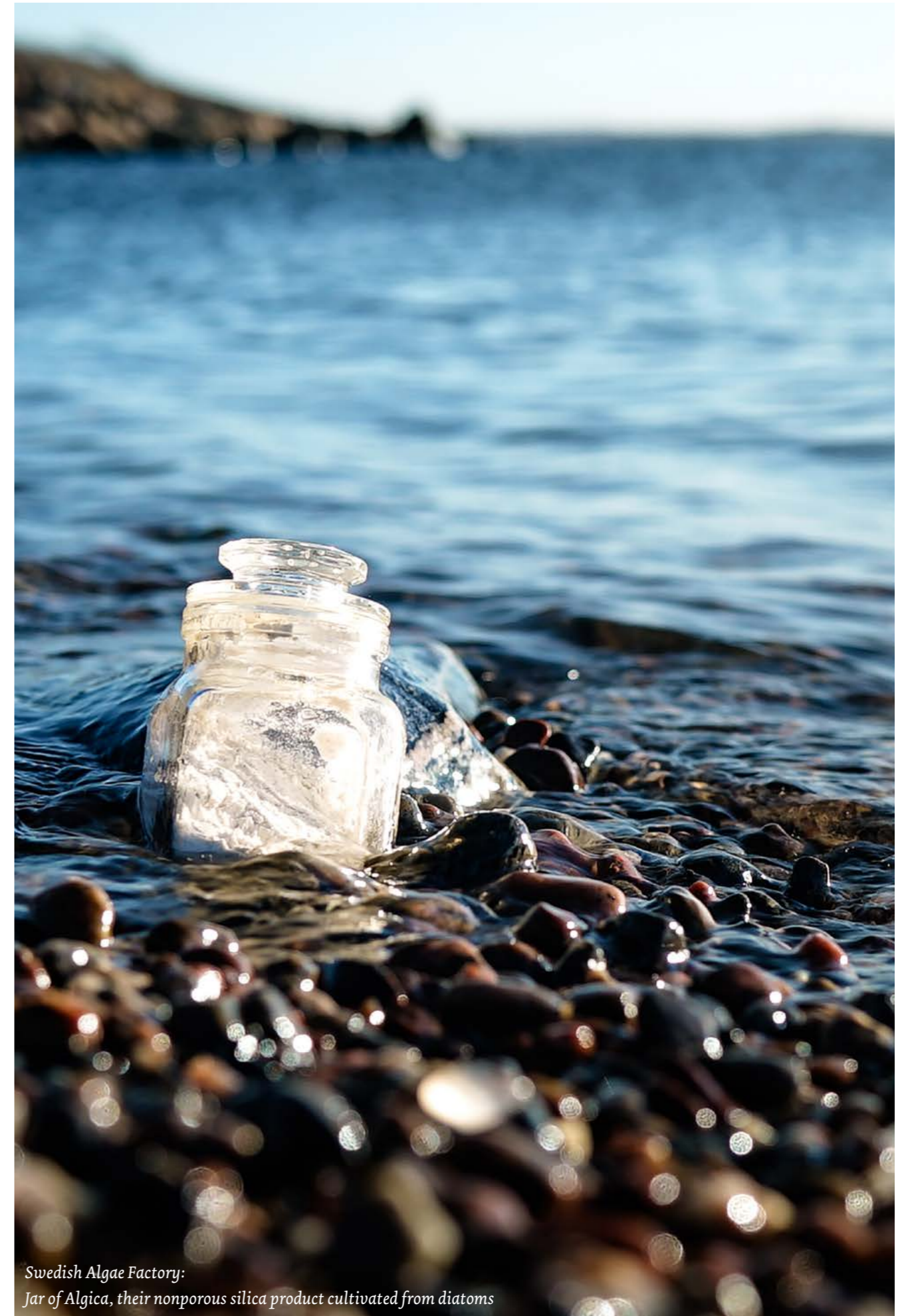
In 2020 we focussed most of our investment activity on supporting the growth of the companies in our portfolio. Additionally, we closed two new deals – a Swedish company that is solving a big challenge of effluent waste by creating value from the waste water of RAS systems (Swedish Algae Factory) and our first investment into cellular aquaculture in a company producing crustaceans from stem cells (Shiok).



Shiok Meats is a Singapore-based company developing cell-based crustacean meats (shrimp, crab, lobster) as a substitute for natural or farmed crustaceans. It brings delicious, clean and healthy seafood by harvesting from cells instead of animals. The cell-based animal protein industry has been on our radar for some time as once it is at scale it will have an enormous influence on food production efficiency, food safety, and the environment. As our first investment in cell-based seafood, Shiok Meats immediately stood out with their strong, female-led team and impressive milestones to-date. While we've invested in a number of technologies working to make shrimp farming more efficient, healthier, and less polluting, Shiok Meats is the first company in our portfolio to focus on shrimp production.



Swedish Algae Factory is a Gothenburg-based company using algae to convert effluent water produced by Recirculating Aquaculture Systems (RAS) into valuable products. Swedish Algae Factory offers an affordable, sustainable solution to the challenge of wastewater for farmers. Through its circular model, the algae cleans wastewater, absorbs carbon dioxide, and also creates nutrient-rich organic biomass that can be used for fish feed or fertilizer. Swedish Algae Factory extracts a unique nanoporous silica material from diatoms (Algica). The extract has exceptional light-altering properties as well as the ability to absorb or release particles depending on its surrounding environment. Algica is in demand across a range of industries because it can replace harmful and/or less efficient chemical substances. For example, Algica improves the efficiency of solar panels and can be used for moisturization, cleansing, and ultraviolet light protection in personal care products.



Swedish Algae Factory:
Jar of Algica, their nanoporous silica product cultivated from diatoms



Indonesian start-up eFishery successfully completes Series B funding round

By Chris Chase
August 18, 2020

SHARE



Indonesian start-up eFishery has announced that it has successfully completed its Series B funding round, securing funds to strengthen the company's product development.

The funding round was co-led by Go-Ventures and the Northstar Group, together with the company's existing investors such as Aqua-Spark and VC Wavemaker Partners. The company is developing four key products with the funding: an eFisheryFeeder, eFisheryFeed, the eFisheryFund, and eFisheryFresh.

"eFishery's solutions, which directly support local fish farmers, also address wider issues, including strengthening food supply chains, alleviating global food shortages and helping to boost both Indonesia's fishing industry and overall economy," Go-Ventures' Vice President of Investments Aditya Kumar said. "As eFishery expands first within Indonesia and subsequently regionally, we look forward to seeing these benefits grow exponentially."

The company, based in Bandung, Indonesia, was launched in 2013 and offers fish and shrimp farmers "an end-to-end platform" with "access to feed, financing, and markets." Currently, eFishery serves 24 provinces in Indonesia.

The company had a successful pre-Series A funding round in 2015, and a Series A round of funding in 2018. According to the company, eFishery's business quadrupled between 2015 and 2018, and the company has remained profitable.

"Through the introduction of new technologies, we increase yields and lower costs for fish and shrimp farmers. With products that support the entire aquaculture ecosystem, from ponds to last-mile distribution, we help farmers build more profitable and sustainable farming businesses," eFishery Co-Founder and CEO Gibran Huzairah said. "This new funding will allow us to grow the company, roll out across Indonesia, and achieve our vision of being a leading aquaculture intelligence company. We are excited to partner with Go-Ventures and the Northstar Group, who we believe can add significant value to our platform."

RELATED



Indonesian fishery startup secures more funding from existing shareholders
August 14, 2020



FAO helps Indonesian farmers to produce low-cost feed for pangasius
January 3, 2020



Aquaculture Innovation Challenge names five finalists
June 4, 2019



17 applicants chosen to move forward in Aquaculture Innovation Challenge

2020: Leadership in Crisis

Like many sectors, the global aquaculture industry has been hard hit by the Covid-19 pandemic. "The pandemic has caused widespread upheaval in fisheries and aquaculture as production has been disrupted, supply chains have been interrupted and consumer spending restricted by various lockdowns," said FAO Deputy Director-General, Maria Helena Semedo.

With food service effectively in lockdown for extended periods around the globe, cutting off access to market for our farms and the companies that serve farms, our full portfolio had to rethink strategy and work through a high degree of uncertainty. We saw an exceptional amount of creativity, perseverance and dedication throughout our portfolio, and would like to highlight a few cases of exceptional leadership during this difficult year.

eFishery is an IoT, data and marketplace platform that helps farmers generate better practices and more income by using smart feeding technology. Their cloud connected feeding machine automatically senses and disperses feed according to the fishes' behavioral appetite. It can reduce up to 24% of feed use, reduce pollution and waste, increase fish health and increase profits. The data the feeder generates enables financing from eFishery Fund and market access from eFishery Fresh.

eFishery had been on a continuous growth trajectory - 2019 brought more than twenty times the results of the prior year and closed 2019 with almost 40 thousand units in the field with expectations that 2020 would bring even more growth.

About half of eFishery's feeders are used by shrimp farmers, the other half by fish farmers. Shrimp is for the export market while fish for domestic. Until now, the eFishery Fresh, the marketplace, focussed on domestic fish sales.

The Covid-19 lockdown meant the closure of restaurants, food services and even some of the supermarkets and traditional markets across Indonesia. The eFishery marketplace went down and at the same time middlemen stopped buying fish which left farmers with fish stuck in their ponds. They couldn't harvest them because there was nobody buying, so they had to watch them grow bigger while prices for fish were decreasing, nearly by 50%. Not only could the farmers not afford the feed to continue to keep fish in their ponds, but it often meant they didn't have cash to feed their families.

"Things were really, really bad. If this keeps happening, farmers will lose their business. And if farmers go bankrupt, this will impact the Indonesian aquaculture sector for good," says eFishery Founder and CEO Gibran Huzaifah. The eFishery business would also be gravely impacted as farmers could not afford to pay the Feeder fees, used less feed through the platform and sold less fish through the marketplace.

eFishery reacted promptly.

They offered discounts and delayed payments for feeders so that farmers could remain active on the platform.

Due to their close relationship with the government, eFishery reached out and was granted use of the government's cold storage facilities and refrigerated trucks facilities at no cost. This enabled the company to buy the fish from their farmers and process them as frozen products which provided liquidity for the farmers and bought eFishery some time to find buyers in the market.

Since some companies and local governments started supporting their employees by purchasing fish for them, eFishery agreed with such organizations to be the supplier of those fish.

In two months, eFishery revenue got back to pre-Covid, they grew their margins, and, perhaps most importantly, most of their farmers are still in business with a rate of non-performing loans lower than 1%!

Frozen fish was a limited market in Indonesia, pre-Covid. eFishery launched a campaign toward consumers about the benefits of buying frozen Tilapia. Forced changes in eating habits due to lockdown also led consumers to buy frozen fish and cook them at home, opened up even more market access channels for eFishery.



The middlemen who had been trading fish were losing out from these new distribution channels, eFishery offered them roles in the logistics and distribution of eFishery products.

In two months, eFishery revenue got back to pre-Covid, they grew their margins and, perhaps most importantly, most of their farmers are still in business with a rate of non-performing loans lower than 1%! eFishery conserved its 100% retention rate amid Covid-19 and strengthened farmers' loyalty and respect. eFishery stood true to their farmer-first mandate, and provides a solid example of the resilience of a human-centered approach.

Gibran realized what it meant for the farmers when he was able to visit them for the first time post lockdown. "The first time I visited farmers in the area after lockdown, some of the farmers approached me and kissed the back of my hand saying "thank you so much, we're so grateful for eFishery, you're my savior, If it weren't for you, my family and I will go out of business". This was such a heartfelt occasion, also felt funny where 50 years old farmers bowed while kissing my hand."



Matorka is an innovative Arctic char farming operation based in Iceland. It has the potential to be the most cost efficient land based Salmonid farming operation in the world whilst being completely sustainable.

The Matorka farm uses no antibiotics or chemicals, is powered by renewable energy, and makes a deliberate effort to protect the surrounding environment – all while producing a delicious fish.

Pre-Covid, Matorka was doing very well with sales. The demand for their product outstripped the supply and they were able to keep sales at this level with very little marketing effort. They sold to some of the most reputable restaurants in the world, like Nobu, the high end Japanese restaurant. Matorka served the US and European markets, with 80 to 90 percent of their fish going into food service and the hotel industry. With the Covid-19 lockdown shutting down hotels and restaurants and countries such as the US imposing travel bans, most of Matorka's market was shut down, almost overnight.

The company responded quickly. Not knowing how long the lockdown would last, they prepared for the longterm.

Their first step was focused on the immediate reduction of fish feeding by 30% in order to keep the fish in the water for a longer period while alternative market linkages were established. This allowed the farm to delay sales while keeping the value of fish in the tanks, with very little additional cost. This approach worked from a financial and logistics perspective, but was not necessarily the best choice for keeping fish strong and healthy, so might have delayed cost effects.

The team put a lot of effort into strengthening relationships. First, they focussed on Iceland so they knew they could continue to sell fish there. Iceland did a remarkable job of containing Covid-19 through an extensive tracking and tracing program. Though tourism had stopped, local restaurants never closed down. The lack of tourist-driven consumption was compensated by redirecting the sales to Icelandic consumers, keeping sales in Iceland unchanged.

Additionally, they put big effort into staying close to their network of seafood brokers in Europe relationships they had developed over the years. Through these brokers Matorka could shift promptly their products towards the European retail markets. With the number of flights being reduced dramatically, Matorka had also to modify its logistics and move from using predominantly air freight to shipping 50% of their products by sea freight, which incidentally also reduced the carbon footprint linked to their sales.

The shift to retail was also possible because, pre-Covid, Matorka had already initiated the process of obtaining the sustainability and quality certifications required to enter the retail market. They had obtained ASC certification and they were close to obtaining GlobalGAP certification, both of which further improved Matorka's sustainability by requiring stricter disposal of organic waste. To satisfy retailers' requirements Matorka had also to change their labeling and internal traceability system, for example by introducing a barcode inventory control system. These changes will allow Matorka to continue selling to retail markets, even as the food services sector opens up again.

Matorka's location, which is close to an airport, with their fast response time and agile system, allowed them to satisfy smaller and last-minute orders that the "less nimble" operations could not fill.

During their efforts to diversify their market, Matorka also established and strengthened connections with Chinese and Japanese customers. Although those connections did not bring sales during Covid-19, they opened up potential sales opportunities that the company aims to materialise in 2021.

Set amongst vibrant hot springs and dramatic lava fields, the fish raising and processing facility (Grindavick, Iceland).



The care for their staff, awareness programs and prompt introduction of WHO measures resulted in Matorka having zero Covid-19 cases and not losing a single production date, at a time when the seafood news was full with factory closures because of the occurrence of Covid-19 cases. More than that, in 2020 Matorka managed to experience a 20% growth compared with 2019! This growth was due to increased stocking at the beginning of the year and their ability to continue producing in spite of the Covid-related challenges.

Covid-19 has been, and to a certain extent still is a challenge for Matorka. At the same time the business emerged stronger than before. The company has a larger and more diverse network of customers. Their new traceability and logistics systems will allow them to continue to bring on retailers while continuing to work with food service companies as they reopen across the US and Europe. They've also sped up and increased their efforts around building a brand and starting marketing efforts. This was not the story for everyone. Three of Matorka's competitors were forced to stop farming Arctic char because of Covid-related challenges.



xpertSea is a Canadian Aquaculture Technology Company that is using data to transform aquaculture into a modern, efficient and sustainable source of food for our

planet. xpertSea provides technology that helps shrimp and fish farms increase their operational efficiency through reliable data. The xpertSea Platform replaces traditional hand-counting with precision hardware and software tools for rapidly counting and analyzing aquatic species, with 95% accuracy or better. Combining artificial intelligence, computer vision, machine learning and the Internet of Things, the xpertSea Platform is increasing the availability of quality food, reducing the environmental impact of food production, and improving profitability across the aquaculture food chain.

Through working both directly with farms and through enterprise partners, xpertSea realized the lack of fair financial services for farmers was a major bottleneck for the sustainable development of the industry. They saw an opportunity to leverage their farm management technology to facilitate accurate, fairer and more efficient transactions between producers and buyers and so launched Xpertrade, their data driven marketplace in early 2020. Though they had been working in most SE Asian Shrimp markets, due to timezones, currency and tech acceptance they chose Ecuador to begin in.

The marketplace was launched in Ecuador in January 2020, just one month before the first Covid-19 case was confirmed in the country. The number of cases and mortality rapidly grew, xpertSea faced whether to continue or to postpone the marketplace activities, but decided that times of crisis confirm the need for more transparent and efficient supply chains that benefit farmers and went forward with their plans. Even with horrific photos of Covid-19 in the streets of Guayaquil on many front pages they were able to raise \$3.5 Million in a debt facility from Aqua-Spark investors to get started.

They had a local team in Ecuador, who were very involved in strategic decisions and they leveraged the fact that Ecuador, even in the worst moments of the crisis, prioritized aquaculture as a major revenue driver. But Covid-19 made even

The \$3,5 million debt facility allowed the company to trade more than 2,000 metric tons of shrimp in 2020, achieving a 50 percent month-over-month increase in new ponds registered on the platform and a 10x revenue growth from Q1 to Q4 2020!

the simple task of visiting a farm extremely difficult. xpertsea took a systematic and scrupulous approach. They strictly respected the sanitary measures put in place by the country, they obtained the required authorizations for travel to the farms, put in place measures to allow xpertsea staff to conduct activities remotely when possible and provided their teams with early access to vaccination. Perhaps most importantly xpertsea was transparent toward the farmers, demonstrating to them that very strict security measures had been put in place as to not endanger their customers.

Transparency and the ability to demonstrate results were key factors for gaining the trust of investors in the debt facility. xpertSea prioritized what needed to be achieved, distributed the workload within the team and got to work, rallying to make the business grow.

The financing mechanism provided by xpertSea proved an essential service for struggling farmers who were not only faced with the health challenge of Covid-19, but also with a sharp drop in shrimp prices driven by the closing of hotels and restaurants globally. Farmers were caught in the middle, between having to sell their shrimp at low prices and having to repay increasingly assertive suppliers eager to get paid in the moment of crises. Farmers' cashflow quickly became an issue, making the xpertSea offering a boon which allowed farmers to keep their business afloat and pay their staff.

The support given to farmers resulted in strengthened trust. "Now we are seeing farmers wanting to work with us on more and more things, as they have seen that we are trustworthy and have their interests in mind," says Valerie Robitaille, CEO and co-founder of xpertSea.

The Covid-related events not only strengthened the proposition of xpertSea, but also created a culture of remote working that strengthened the relationship within the global team and enabled the hiring of

talent outside Quebec city, where xpertSea is headquartered

Covid-19 has meant a lot of suffering for a lot of people in Ecuador and globally. One of xpertSea account managers lost his 40-years old brother because he could not find a hospital. But also represented an opportunity for xpertSea to accelerate their ambition of developing a platform for a completely traceable seafood market.



Deals

Private Equity Makes Its First Investment in Insect Farms

By [Antony Squazzin](#)

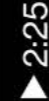
11 March 2020, 10:00 CET

- ▶ Protix breeds black soldier fly maggots for use in animal feed
- ▶ Fly larvae feed on waste and are used in protein meal and oils



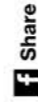
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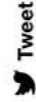


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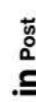
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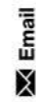
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Rabo Corporate Investments, the private equity arm of Dutch lender Rabobank Group, has made its first venture into the insect protein industry by buying a stake in the Netherlands' Protix BV.

The investment, the size and value of which weren't disclosed, comes months after the company opened what it describes as the world's largest insect factory in Bergen Op Zoom, at a cost of more than 40 million euros (\$45 million). The company breeds larvae of the black soldier fly and converts them into meal and oils for animal and fish feed as well as producing fertilizer from their waste.

“2020 saw Protix becoming the first insect company to reach commercial scale. They are true pioneers in the global insect farming industry. Aqua-Spark played a very relevant role in the success of Protix.”

Gorjan Nikolik

Senior Analyst - aquaculture, fisheries and seafood / Rabobank International

Our Impact in Numbers

Decrease Antibiotic use across the Industry

Number of animals treated with antibiotic replacements¹

60+
Million

Reduce Industry Usage of Wild Resources

Fish saved with alternative feed ingredients (kg)

38.6
Million

Increase Production & Consumption of Healthy Food

Volume of food harvested/produced (kg)

2,727,176

11,127,474

7,884,220

Meals produced

Meals produced in developing countries

5,256,000

Reduce Pollution

Volume of water saved (m³)

5,256,000

Increase Avalorization of Underutilized Resources
Volume of "waste" upcycled (kg)

Improving Efficiencies
Feed saved (kg)

Number of farms served with technology to improve efficiency

44

Improved Animal Welfare
Number farms served with animal welfare technology

Increase Access to Financial Services for Farmers
Funds received by farmers (USD)

16

Embracing Diversity in Aquaculture
Number of species groups served by our portfolio

Increase Transparency and Traceability
Volume of food traded with improved transparency/traceability (kg)

124
Million

11,520

16
Million

13
Million

¹ Companies in our portfolio treat more broadly than fish

Looking forward

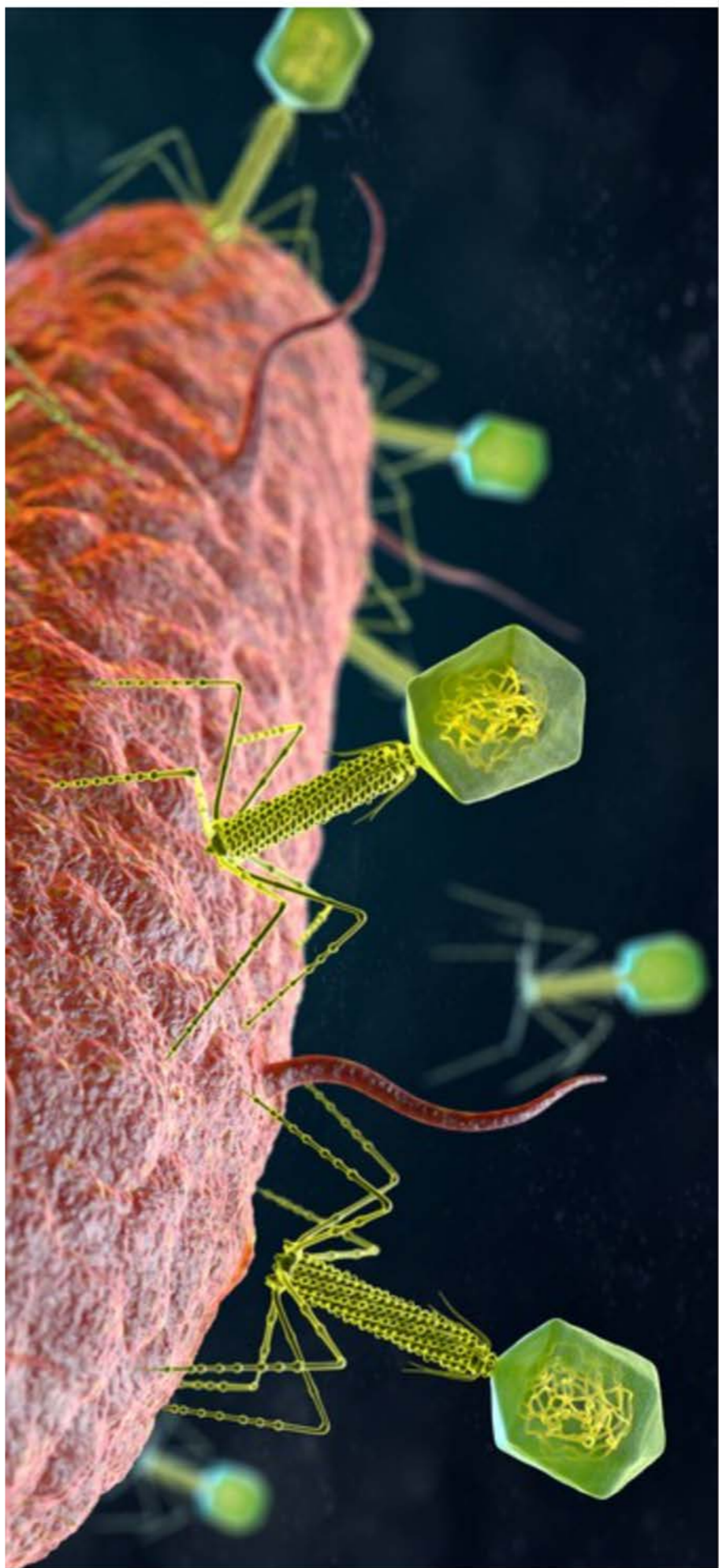
It's hard not to start with looking back. This is our fourth impact report since launching in 2015, and you'll notice our metrics and way of capturing impact has evolved with this fast changing industry, but our theory of change and priorities have remained consistent. It is our hope that our portfolio ecosystem of companies solving challenges across the value chain of aquaculture become commercial successes which showcase the right way of doing things, shifting standards, setting the new normal and ultimately become the foundation from which this industry grows.

You'll notice until now our impact reports have focussed on environmental impact. Through our Shared Values Manifesto we set social agreements with our companies. We track social indicators, such as employees, gender, employee turnover, SME's catalyzed, etc. This will become increasingly relevant when we close Aqua-Spark Africa in 2021. Aqua-Spark Africa is dedicated to developing a framework for sustainable aquaculture in Africa.

Connected to Aqua-Spark Africa and to our greater goal of driving investment into sustainable aquaculture globally, this fall we will launch Aqua Insights, our biannual reporting series on global aquaculture markets. The first report is focussed on the investment and impact opportunity of tilapia in Africa.

Finally, fostering synergies amongst our portfolio remains a priority focus. As the companies grow we are seeing more and more opportunity for cooperation and plan to report some tangible evidence of what that results in next year.

We look forward to continuing the work with you.



FEEDNAVIGATOR

Jane Byrne

10 SEPTEMBER 2020

- Last updated on 25-Jan-2021 at 17:04 GMT



DuPont Animal Nutrition teams up with Proteon on phage development for poultry Sector

Seafood Investor Forum: A tsunami of new investment is headed into the fisheries, aquaculture and oceans sectors

Top executives from across the global seafood and aquaculture industry are gathered online for the industry's most elite gathering of seafood executives and investors. Keep up with the discussion here.

1 December 2020 13:52 GMT UPDATED 4 December 2020 19:20 GMT

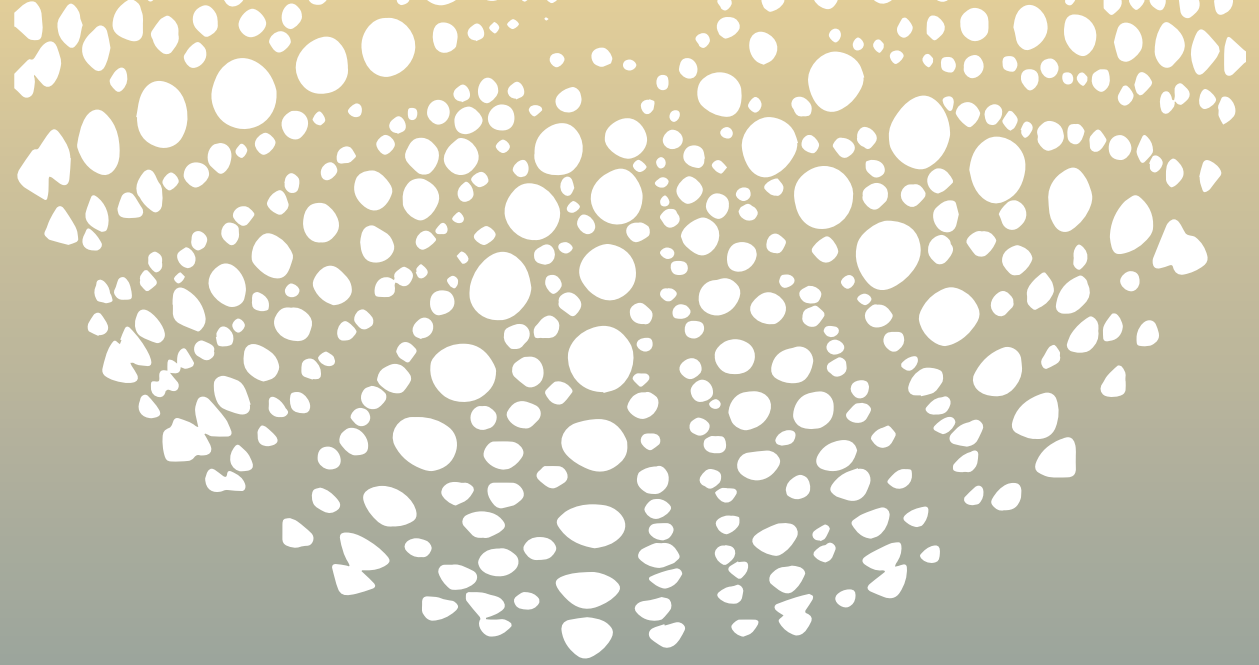
By [John Evans](#), [Dominic Welling](#), [Rachel Sapin](#), [Demi Korban](#) and [Drew Cherry](#)

While the global economy has been battered by COVID-19, the seafood sector has continued its strength, with M&As, joint ventures, partnerships and IPOs, showing that the future for aquaculture, fisheries and seafood remains bright.

Our 15th IntraFish Seafood Investor Forum, sponsored by Antarctica Advisors, brought 20 industry-leading experts together across two days to talk investment, innovation and growth.

“We’ve never seen anything like 2020 and the shared disruptions to our lives. What’s most remarkable, though, is that despite that disruption, there has been continued innovation in the aquaculture sector. In fact, I’d say development has accelerated. It’s as if the industry advanced 10 years in the span of 12 months. Clearly, the sector is rising to the challenge of the new demands for sustainable businesses, from established companies to start-ups. There’s a window here for aquaculture to establish itself as a leader in the blue economy -- I hope the sector takes advantage.”

Drew Cherry
Editor-in-Chief, IntraFish



Big thanks to our entire ecosystem of portfolio companies and partners, including our **206 investors from 27 countries** who were with us in 2020. We are thrilled to be part of a global movement working together to shape the future of aquaculture and change the planet's relationship with food.