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Now Hatching: Millennial duo's aquaculture analytics software

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By James Wright

Animal health-focused startup Manolin is part of business accelerator Hatch's first cohort

Tony Chen (left) and John Cosantino, founders of Manolin. Photo by
Adrian Nyhammer Olsen/Sysla.

Tony Chen and John Costantino, co-founders of Manolin, met online. Of course they did.

While it was a Craigslist ad that originally brought the two millennial software developers together as roommates in the Washington, D.C., area, the duo ultimately decided to accelerate their startup in Bergen, Norway, through the power of personal connections at Hatch.

"We're getting so much good information in terms of how we're representing our business," Costantino told the *Advocate* during an early May visit to the Seafood Innovation Cluster in Bergen where Hatch – the world's only business accelerator for aquaculture – is operating. "And we're transforming on this information, this feedback we're getting every week. We wanted to be a logistics company coming into it, so we've changed drastically."

Manolin – named after the young fisherman's apprentice in Ernest Hemingway's novel "The Old Man and the Sea" – is one of eight startups enrolled in the first Hatch cohort, which began in April. Hatch enrolls promising, innovative businesses in a three-month mentorship program that helps them form solid business plans and learn the language of investors for scaling up their operations.

The cohort "graduates" in June but it's already working: Costantino and Chen are rapidly rolling out the Manolin platform to the salmon industry, and in just a few months since making the decision to relocate – and switch gears from oyster farms in Chesapeake Bay to salmon farms in Norway – they've gotten 5 percent of Norway's 1,300-plus salmon farms to use their platform.

What is the Manolin platform? It's an online tool to give farmers a fuller picture of what's happening nearby, explained Chen, adding that he and Costantino initially set out to help oyster farmers in Chesapeake Bay advance their businesses into the 21st century.

"Visiting those farms, we noticed that they really lacked technology. These are some complex business organizations operating hatcheries, doing inventory and shipping. They're vertically integrated business without any technology, just pen and paper," said Chen. "We figured technology could be a big play here."

When they weren't working at their software-development jobs, Chen and Costantino built websites and mobile apps to help oyster farmers track activities, manage inventories and integrate weather and water-quality data, such as the presence of algae blooms. Most oyster farmers they encountered had no clear picture on how many shellfish they actually had in inventory, making it difficult for them to assess the health of their crops.
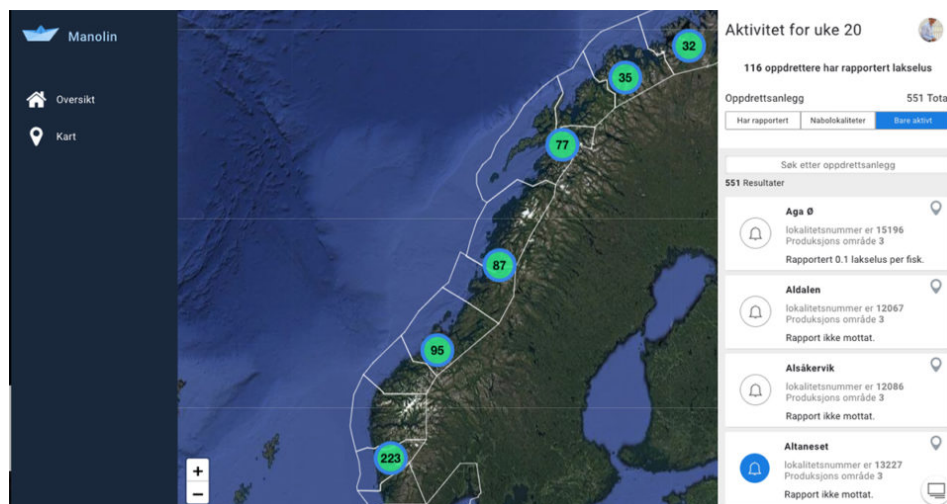
A screenshot of the Manolin platform, which displays all current salmon farm sites registered in Norway and places them within the production zone they operate in. The map allows Manolin customers to filter through a collection of farms, visually keep track of where health issues are occurring, and utilize the panel to subscribe to updates from those locations.

But scaling that business in the United States, where aquaculture is dominated by small shellfish businesses operating in virtual isolation, proved to be limiting. So they took their idea to Norway, the world's largest producer of farmed salmon, where government oversight is active and the appetite for innovation insatiable.

"We believe there is going to be space for a health-focused analytics company," Chen said. "Health is a big issue across all the major aquaculture industries. You see it here: Sea lice is the decision-making factor across the entire industry. Government, service companies, farms – everyone's looking at the health of the animal first, regarding decisions about whether to harvest, whether to treat. We think we can combine all that into a software package."

Manolin aggregates public and private data sources and makes the information accessible and easy to navigate at the farm level. Because Norway mandates that salmon farmers report weekly about sea lice counts, for example, farmers on the Manolin platform can receive notifications if a neighboring farm's lice count increases to an actionable level.

"We noticed that in order for a health system to thrive and for aquaculture to grow sustainably, you need the government to be involved and collect this information quite frequently," said Chen. "Here, it's every week. They have to count three different life stages of the lice and report it along with temperature and treatment."

Farmers and well-boat operators – vessels that conduct at-sea bath treatments to remove lice, if necessary – are already interested in using Manolin. The product is currently free to farmers to demonstrate the value of the technology.

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"Once we get more advanced with our insights, predictions and analytics, we'll start charging on top of that," said Chen.

"We can't solve the sea lice problem," added Costantino. "I don't think anyone can solve the problem entirely. But we can help understand it."

Carsten Krome, executive director of Hatch, said the Manolin team has gained significant traction in a short amount of time, due to Costantino's and Chen's entrepreneurial instincts.

"Manolin will set a new standard for disease response in farmed salmon in the future," said Krome. "We chose them because of the good work they had done previously with implementing a farm management system in the American oyster industry that is now used by dozens of farmers in the United States. It was only the logical next step to come up with a product that would cater to the much larger salmon market in Norway."

Chen and Costantino said the Hatch experience is helping them become more adept at the financial side of the business. "We're a couple of software guys," said Chen.

Software guys getting a crash course in global aquaculture, at the heart of innovation in Bergen.

"We've learned a ton. The reliability of the culture in aquaculture is really cool," said Chen. "You don't see that as much in tech. You lose that connection to people. We've enjoyed that, going to visit farmers, telling stories, growing trust. It's something we miss in tech."

Once proven in Norway, Chen and Costantino see their platform performing well in other regions, such as British Columbia, Canada, where there are many salmon farms operating and regularly sharing data with the government. They're also keen on growing along with Argentina's aquaculture industry, as the government there recently signed a collaboration agreement with leaders in Norway.

"It's a process that will take time, and it may come from a new generation," Chen said of the aquaculture industry's adoption of new technologies. "We're hoping we can accelerate it by building easy-to-use and enjoyable experiences."

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