

EXEC EXPLORES NEW MARKETS, EXPANDS SCOPE OF FAMILY BUSINESS

By Sarah De Crescenzo | March 9, 2017



Kristin Elliott, who took over the family business, has adapted a technology developed by her father for use by aquaculture farmers. Photo by Jaime Scott Lytle.

San Diego — Growing up in Encinitas, Kristin Elliott would help her parents box shipments for customers of Precision Measurement Engineering Inc., the environmental sensor company they started in their garage in 1982. Elliott says she never really considered joining

the University of California, Berkeley and the University of California, Santa Barbara to the University of Western Australia's Centre for Water Research, Head's first customer back in the 1980s. PME manufactures the devices at its office in Vista.

CREATING EFFICIENCIES

After she graduated from UC San Diego with a communications degree in 2005, Elliott helped out at the company in-between internships with local public relations firms and decided PME needed a manager who would allow her parents to focus on their areas of interest.

the family business full time — until she spent a post-college stint developing marketing materials for the company and establishing its online presence.

"After talking to customers, I realized how their products are really benefitting and enhancing science and the environment," she said. "I realized the potential PME had."

"My dad's an engineer and my mom does operations," she said. "I had the opportunity to work in all the various components of the company, from manufacturing to finances to inventory, which allowed me to understand how I could introduce new processes to better create efficiencies within the company."

The company's devices are used by academic institutions and government agencies worldwide to measure and log changes in the temperature and amount of oxygen in bodies of water.

She set up PME's international distribution network — the company has resellers in five countries now — and partnered with a San Jose company called Turner Designs to launch a new product using Turner's optical instruments. PME hired an external marketing team and its first sales consultant.

Elliott became CEO in 2014 and recently launched a second company, Aquasend, which uses the same technology to bring real-time measurement data to aquaculture farmers who grow and harvest marine creatures for consumption.

She returned to school, earning an MBA at Cal State University, San Marcos in 2011, and in 2014 she was named her father's successor. Since then, the company's annual gross income has risen from \$200,000 yearly to \$1.3 million.

Elliott's father, Michael Head, invented and built the sensor that powered PME's first products as part of his doctoral work at Scripps Institution of Oceanography at the University of California, San Diego.

The company's growth during her tenure has spurred the 11-person team to expand its office, where most of the final assembly of its devices takes place, 50 percent. (One of those employees is Elliott's husband, Erik, PME's chief financial officer.) Soon, however, Elliott hopes it isn't just PME's equipment bobbing in bodies of water.

Today, PME sells hundreds of its flagship data-logging product each year at roughly \$1,000 a pop. Customers who have bought the cylindrical, submersible, water-bottle-sized device called the miniDOT logger have ranged from California institutions, including

NEW COMPANY

Her new company, Aquasend, recently launched its first product, the aquaDOT measurement device, a sensor encased in a solar-powered buoy that logs and wirelessly transmits real-time data about water quality.

As populations rise and natural resources are depleted, Elliott is betting that demand for high-quality farmed fish and other ocean edibles will continue to increase — along with the need for better information about the environments in which they are grown.

According to the National Marine Fisheries Service, or NOAA Fisheries, an office of the National Oceanic and Atmospheric Administration, aquaculture production has grown annually by 8.3 percent since 1970, making it the fastest-growing form of food production in the world. The percentage of the world's seafood that comes from aquaculture — about half — is projected to increase, according to NOAA Fisheries.

Palm Springs-based tilapia farmer Gwan Thio with Global Organic Farm Inc. plans to test the aquaDOT at his plots. At the moment, he uses a portable device to measure the quality of water in which the fish grow, which can determine the creatures' health and quality.

"If the water is too cold, the fish will not eat," he said. Keeping the water in which the fish swim between 75 and 95 degrees is essential, he said.

He recently installed a new water recirculation system that uses duckweed to purify the recycled water, which could reduce the amount of water and energy he uses, and plans to use the aquaDOT to test how it affects the quality of the water.

The data gathered by the device will be accessible via computer and a mobile application, Elliott said. It will also be tested at the Center for Aquaculture Technologies' San Diego research center.

NAVIGATING DUAL ROLES

"It's pretty risky to do what she's doing, in that starting a new business is always a risky endeavor, but I'm fairly confident she'll do well," said Jim Hamerly, the dean of CSUSM's College of Business Administration. Hamerly, a serial entrepreneur himself, has been advising Elliott as she navigates her dual roles as the head of a family-run business and a fledgling entrepreneur.

"She's moving into a market with a product that has enormous appeal, so the prospective for growth is very good, especially in San Diego," he said.

If Aquasend takes off as hoped, Elliott said she will eventually have to shift the balance of her time from PME to the new endeavor.

"We're really looking to jump on the market," Elliott said. "I know the demand is high. This is where the industry is going when it comes to monitoring."

PRECISION MEASUREMENT ENGINEERING INC.

FOUNDED: 1982

HEADQUARTERS: VISTA

CEO: KRISTIN ELLIOTT

NO. OF LOCAL EMPLOYEES: 11

REVENUE: \$1.3 MILLION

DESCRIPTION: MANUFACTURER OF ENVIRONMENTAL MONITORING INSTRUMENTS