## TECHNOLOGICAL INNOVATIONS IN AQUACULTURE

### **Revolutionizing the Seafood Industry**

Offshore aquaculture has been recognized as one of the most resource-efficient methods for producing animal protein, and science and technology have helped make the production of sustainable seafood possible, fueling the growth of the aquaculture industry worldwide.

#### TECHNOLOGY MAKING AQUACULTURE SUSTAINABLE

Technological developments have modernized and improved best practice use in the aquaculture industry. Use of advanced technology combined with careful management and science-based techniques, continue to build the case for aquaculture as a safe and environmentally responsible way to produce seafood.

Applications of emerging technology in aquaculture, such as AI and machine learning, computer vision, sensors, and biotechnology, help fish farmers produce healthy fish efficiently and sustainably.

#### **CARE AND FEEDING**

U.S. companies continue to develop new technology to ensure fish farming is done sustainably.

Blue Ocean Mariculture utilizes **water pumps** that efficiently move water throughout aquaculture systems to supply a proper flow of water and keep fish healthy.



Aquabyte in Silicon Valley developed software that applies **machine learning and computer vision** to aquaculture to help fish farmers grow healthier fish in an ecologically friendly environment.

Gaskiya Diagnostics, owned by Baltimore-based Early Charm Ventures, which converts scientificdiscoveries at universities into technology, develops **rapid**, **low-cost**, **and user-friendly diagnostic tests** for fish farmers to test for, treat and prevent aquatic diseases.



Innovasea produces a fully integrated **underwater feeding system** featuring sophisticated sensors and highresolution cameras to improve the feeding process and help farmers feed their fish in an efficient and costeffective manner.

Innovations in fish feed by Silicon Valley biotech company Calysta, create alternative feeds that use **sustainable and traceable products.** 



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Technology supports the growth of aquaculture by being able to grow fish in regions where it wasn't previously possible for people to go miles offshore to care for the fish. It also allows us to produce seafood more efficiently, which expands production.

> **Bryton Shang** Founder & CEO, Aquabyte

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Growing both supply and demand is a key challenge for the American aquaculture sector, but with the technology already available to respond to those questions - there is nothing to stop it becoming the country's next industry success story.

> Allan LeBlanc Vice President of Market Development, Calysta

