bluenote

Matt Gargiulo | Josh Graybiel | Alex McCutcheon
Faculty Advisors: Emily Cotter | Dr. Jeff Dozier

BRENSCHOOL
UC SANTA BARBARA

I Research Question

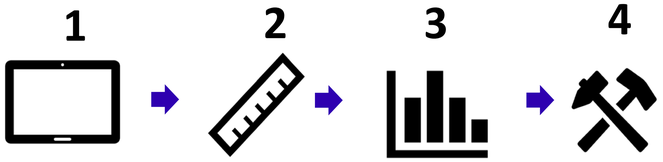
Does water quality management need innovation?

To answer this question, we interviewed 133 people and found the industries with the greatest water quality pains were:

Aquaculture n= 50 | Hydroponics n= 16 | Watershed Managers n= 6

II Customer Pains

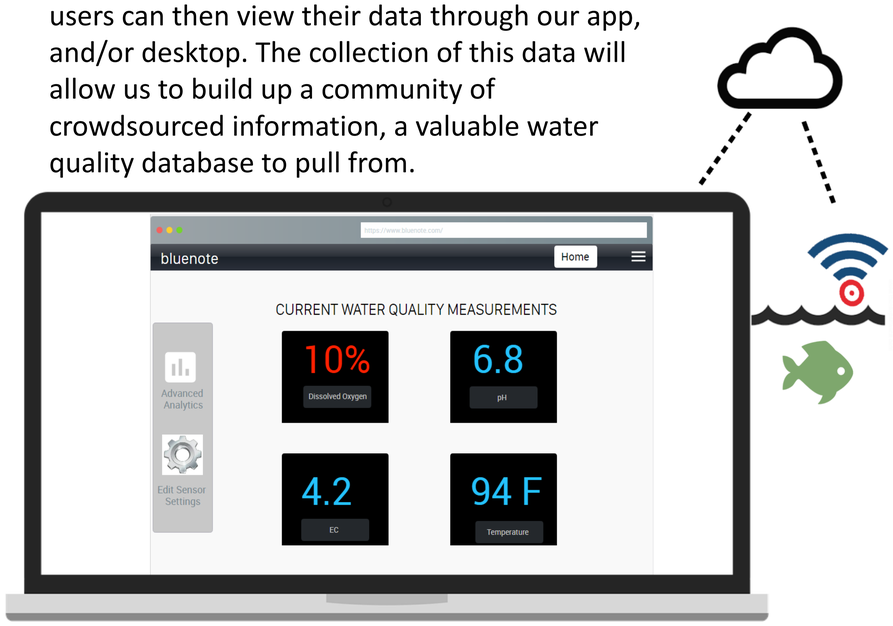
Water quality monitoring & management is a fragmented and confusing process. The following is a list of common pains we found throughout our research.



1. What water quality parameters should I measure?
2. How do I monitor my system and how can I monitor it remotely?
3. What is this data telling me?
4. How can I use this data to improve my water quality?

III Value Proposition

bluenote is turning data into insight by creating smart, connected water quality sensors and wirelessly pushing this data to the cloud where users can then view their data through our app, and/or desktop. The collection of this data will allow us to build up a community of crowdsourced information, a valuable water quality database to pull from.



Example of bluenote's desktop, where a customer can view their water quality from anywhere and inform their management decisions.

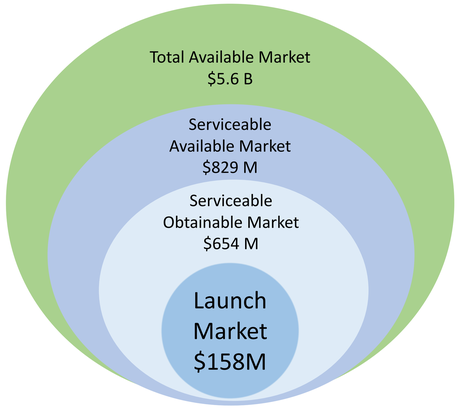
bluenote Product Features

How we're addressing customer pains.

Complete sensor package that monitors crucial water parameters verified through our literature review.	
bluenote's sensor package will continuously monitor and push this data to a mobile app or desktop to be viewed from anywhere.	
bluenote's software will educate users about their water quality readings and how the different parameters interact with one another.	
Ideal water quality parameters are compared to user readings in order to help users reach their stated goals. When parameters are out of range, notifications are sent.	

IV bluenote Launch Strategy

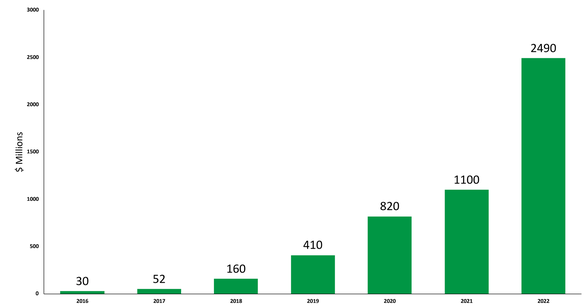
Our initial launch market consists of aquaculture and hydroponic hobbyists. Once our technology is proven, we will expand to other water quality industries.



V Market Trends

Demand, and use of smart, connected sensors (IoT) and software for precision agriculture will grow over the next 4 years. bluenote will position itself as the industry leader for smart connected sensors, and software for the water quality industry.

IoT in Agriculture



Global Aggregate Revenue for IoT Agriculture 2017- 2022
(Source: Mind Commerce)

VI Environmental Benefit

bluenote can helps users become more precise. When applied to the agricultural industry bluenote can help reduce the following:

- Pollution (181,000 tons Phosphorus Saved)
- Energy (1.3E6 Joules saved/year).
- Nutrient Loadings (11.9M tons fish food saved/year).

Acknowledgements

We would like to thank the following people for their continual support for the continuity of this project: Dr. Jeff Dozier and Emily Cotter who provided us with direction and encouragement as our Advisors. Stephen Dunne who acted as our external advisor and mentor who supplied a wealth of information about business strategy and. Gordon Kruberg who answered countless technical questions. A PDF of this poster is located at bren.ucsb.edu.

UCSB