ALBERTA INNOVATES
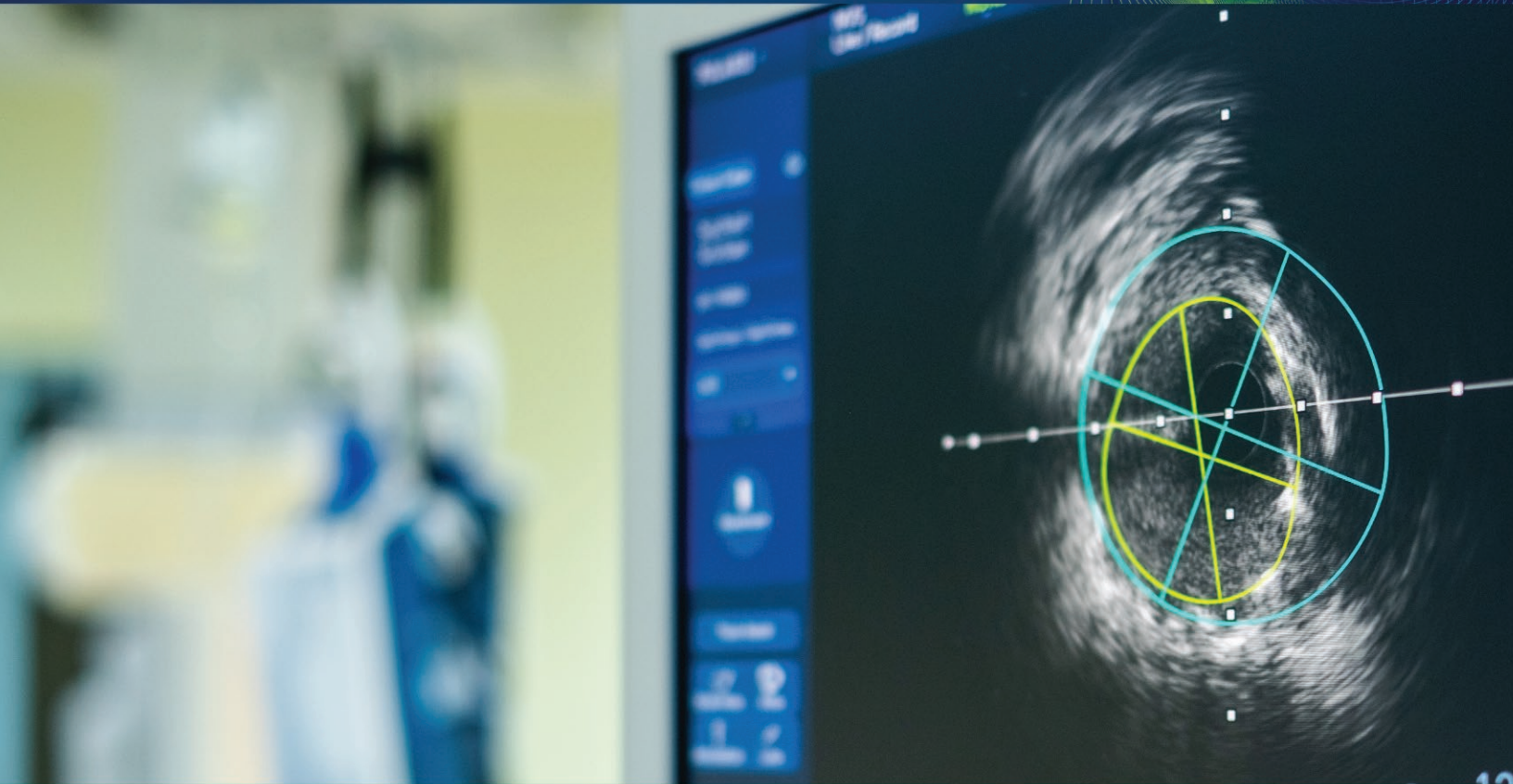
Accelerating Innovations into CarE – Validate Program (AICE-Validate)

Artificial Intelligence in Ultrasound - Research and Deployment Platform

PROJECT FAST FACTS

RECIPIENT: Sonance AI Inc.

AWARD: $300,000

AWARD DATE: November 1, 2023

PROJECT DURATION: 18 months

THE PROBLEM

Clinicians, researchers or software developers who wish to develop an artificial intelligence (AI) algorithm to evaluate ultrasound images face many barriers. First, costs and logistical problems hinder the gathering and labeling of ultrasound data via software designed for clinical use. Next, there is a frustrating lack of integration between image acquisition software, data archiving and sharing tools, and AI programming platforms. Finally, developers face a tightly constrained regulatory environment due to the highly personal nature of imaging data. In this setting, a clinician with an idea for an ultrasound use-case cannot simply link with a computer scientist with skills in AI to test it; they need a complex implementation pipeline prepared by an app developer. In practice, this stifles innovation in ultrasound AI.

THE SOLUTION

Sonance AI looks to address these challenges by creating the world's first ultrasound AI research and deployment platform. This turnkey solution allows AI developers to collect the images required for AI training using a handheld ultrasound probe, storing them automatically in private cloud storage. This cloud storage component allows further organization and annotation capabilities, as well as a hub to store AI specialized information required for model training. Sonance also deploys the algorithm back onto the tablet used to collect the data, enabling real time algorithm testing in a clinical setting.

The platform consists of several complementary components enabling researchers to build algorithms without worrying about infrastructure or submitting their finalized algorithm for testing and validation. This end-to-end rapid tool will accelerate development of AI algorithms to extend the capabilities of ultrasound, ultimately enabling improved and more equitable clinical care.

PROJECT OBJECTIVES

1. *Complete regulatory requirements for product adoption in academic settings.*
2. *Obtain feedback on usability and value in a variety of research settings.*
3. *Achieve a market-ready software package with low defects and high usability.*
4. *Develop a pricing and revenue model with validation through a meaningful number of potential buyers.*

ABOUT THE AICE-VALIDATE PROGRAM

AICE-Validate is an opportunity for Alberta's health-tech innovators to accelerate commercialization of digital and data-enabled health technologies through the early validation phase. If you'd like to learn more, please check out AICE Validate on the Alberta Innovates website.

Learn how

albertainnovates.ca