ULTRASHEAR

UltraShear

NUS National University of Singapore | Institute for Engineering Leadership / College of Design and Engineering

An AI-based ultrasound lesion locator accessory software to improve the efficacy of the current ultrasound
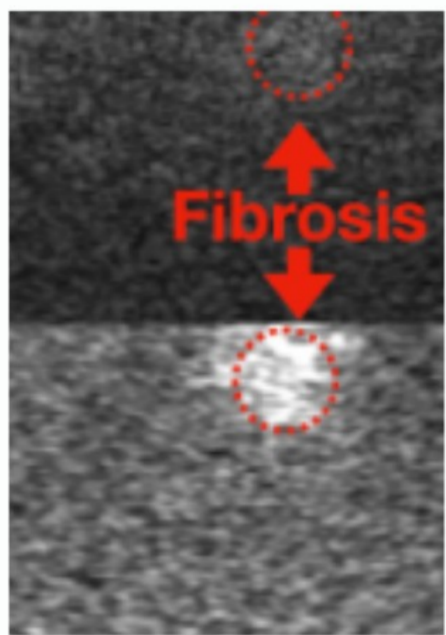
Problem

Repeated scans required
- conflicting images at different pressure and angle

Largely skill dependent
- risk of missed diagnoses

Solution

Unique AI algorithm improves lesion localisation, reducing time taken to detect stiff tissue anomalies with Shear Wave Elastography.

Fibrosis

Regular Ultrasound
CNR: 0.3

SWE Ultrasound
CNR: 25.1

*CNR = Signal Contrast : Noise
higher number = easier to identify

High Contrast Volume Scan
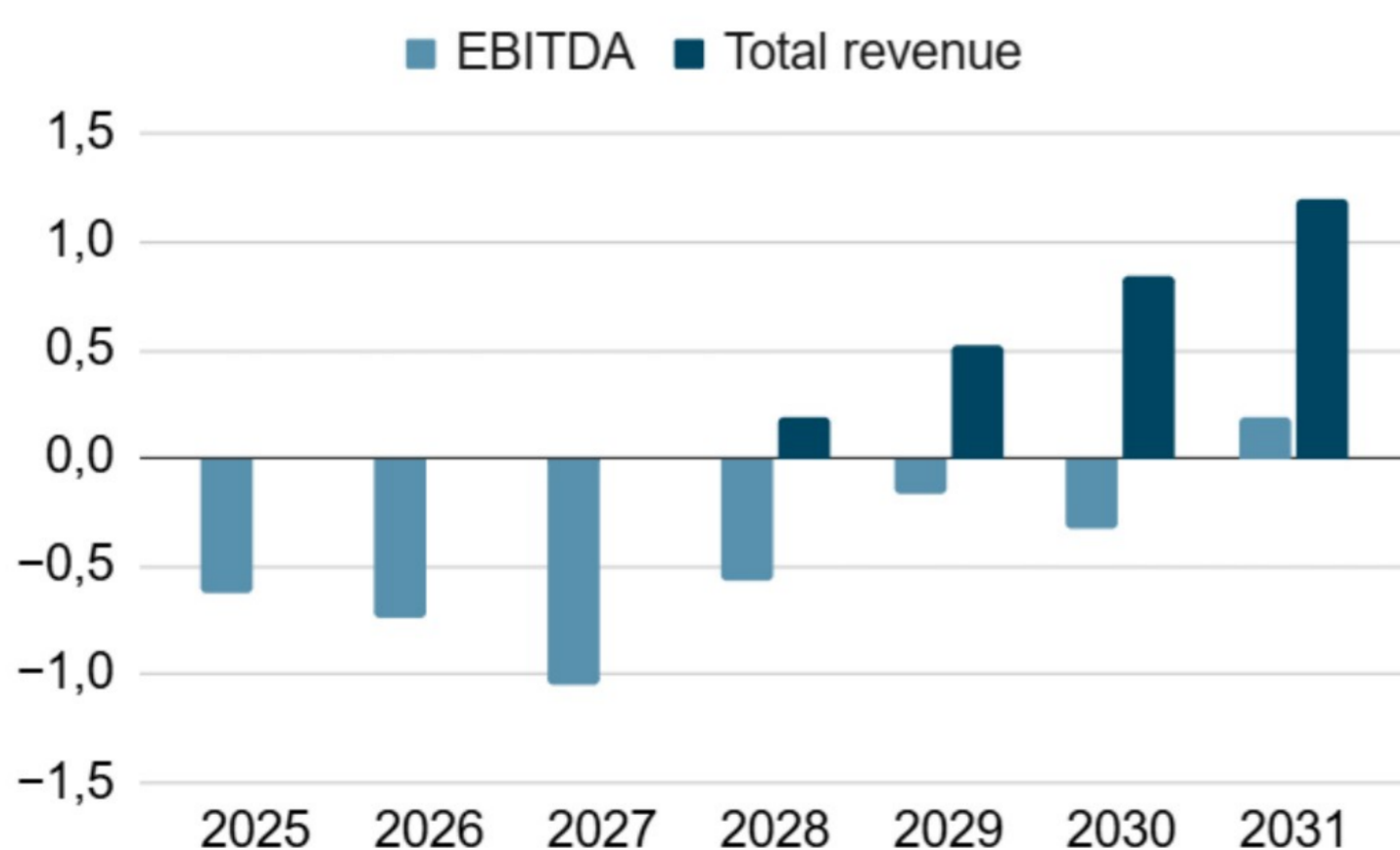- Improve lesion localization by 75%

Enhanced Inter-operator Reliability
- Less sensitive to contact pressure and angle
- Sub-optimal positioning notification

Improved Efficiency
- Reduces scan time from 1h to 15–20 minutes
- 80% throughput improvement

Business Model

B2B Licensing Per Device
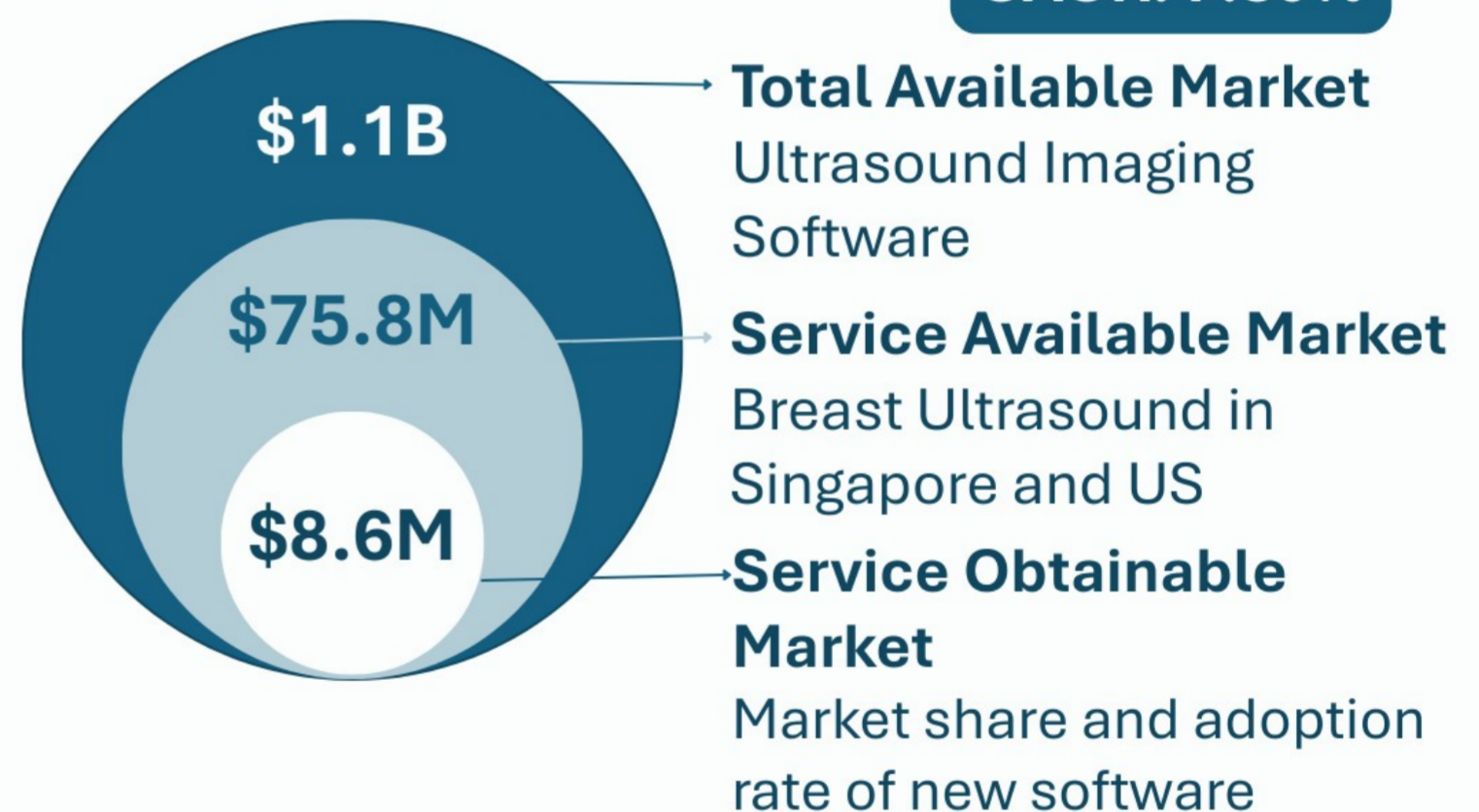
Upfront Fee
Embed, Integrate & Configure
$2.5K

Annual Subscription
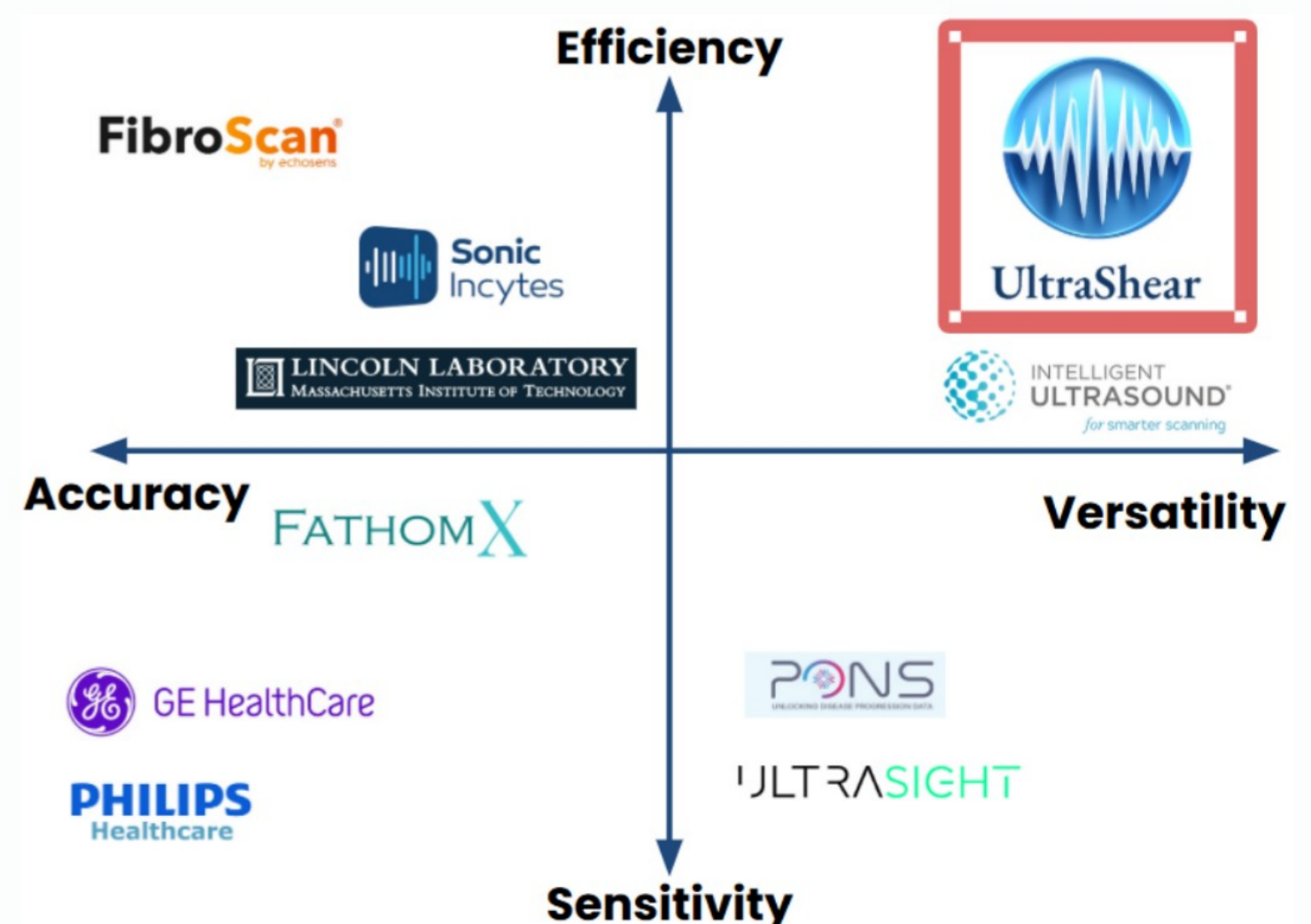Manage Maintenance, Upgrade & Support
$1K

Market Size

CAGR: 7.30%

$1.1B — **Total Available Market** Ultrasound Imaging Software

$75.8M — **Service Available Market** Breast Ultrasound in Singapore and US

$8.6M — **Service Obtainable Market** Market share and adoption rate of new software

Financial Analysis

Legend: ■ EBITDA ■ Total revenue

Years: 2025, 2026, 2027, 2028, 2029, 2030, 2031

Y-axis: -1,5 to 1,5

Competition Landscape

Axes: Efficiency (up), Sensitivity (down), Accuracy (left), Versatility (right)

FibroScan, Sonic Incytes, LINCOLN LABORATORY MASSACHUSETTS INSTITUTE OF TECHNOLOGY, FATHOMX, GE HealthCare, PHILIPS Healthcare, PONS, ULTRASIGHT, INTELLIGENT ULTRASOUND for smarter scanning, UltraShear

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