March 12, 2024

Oppenheimer 34th ANNUAL HEALTHCARE MEDTECH & SERVICES CONFERENCE

PRESENTED BY:

Anthony Fernando, President & CEO

Shameze Rampertab, EVP & CFO

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Asensus Surgical

Forward Looking Statements

This presentation includes statements relating to the LUNA™ Surgical System next-generation program under development, an update on Asensus' strategic plan and preliminary 2023 year-end results. These statements and other statements regarding our future plans and goals constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and are intended to qualify for the safe harbor from liability established by the Private Securities Litigation Reform Act of 1995. Such statements are subject to risks and uncertainties that are often difficult to predict, are beyond our control, and which may cause results to differ materially from expectations. Factors that could cause our results to differ materially from those described include, but are not limited to, whether we can successfully advance our Performance-Guided Surgery™ initiative, the risks and uncertainties related to our ability to successfully advance our LUNA System program through development, testing and regulatory approval on the timeline provided, or at all, the risk that we will not be able to successfully enter into definitive agreements with our collaborators, that the pace of adoption of our products by surgeons will increase, the success and market opportunity of our products, including the ISU™ and LUNA System, the effect on our business of existing and new regulatory requirements, whether final 2023 year-end results will meet expectations and other economic and competitive factors. For a discussion of the risks and uncertainties associated with the Company's business, please review our filings with the Securities and Exchange Commission (SEC). You are cautioned not to place undue reliance on these forward-looking statements, which are based on our expectations as of the date of this presentation and speak only as of the origination date of this presentation. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise.

Key Investment Highlights

NYSE American: ASXC

- Pioneering the Future of Surgery with Augmented Intelligence (AI) and Machine Learning (ML)
- Tapping into $23B Market, Underpenetrated by Robotics
- Ability to Address General, Gynecology, Colorectal, Urology, and Pediatric procedures with a single system
- Highly talented R&D, Digital Technology and Regulatory teams
- Leveraging Gen-1 Predicate to secure FDA approval for LUNA (Gen-2)

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*LUNA is currently under development and have NOT been submitted to or cleared by the US FDA or other global regulators, not available for sale in any market.

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A new way to operate

Asensus is digitizing the interface between the surgeon and patient to pioneer a new era of Performance-Guided Surgery by unlocking the Clinical Intelligence to enable consistently superior outcomes and a new standard of surgery.

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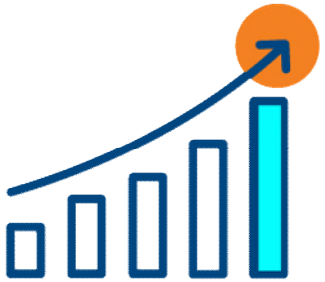
Challenges in Surgeries

After 20+ years, global robotic penetration remains below 5%[2,6]

Robotics Not Improving Outcomes

1.9M

Surgical Complications Annually [1,2,4,6]



High Cost of Traditional Robotics

2x

Up to 2X Greater Procedural Cost [3]

Impending Surgeon Shortage

>40%

Physician Burnout [5,7]

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The Cost of Variability

Surgical variability impacts patients significantly, posing long-term costs and risks to surgical centers

1 in 20 surgical procedures result in a major complication that impacts the patient.[1,2,4,6]

The volume of surgeries performed can have a direct correlation to patient outcomes.[8,9]

Complication rates vary by procedure and surgeon, leading to unpredictable financial burdens for hospitals.[10,11]

A Revolution in the Evolution of Surgery

Improving Patient Outcomes that Robotics was not able to accomplish

Digital tools increase:

- Safety
- Predictability
- Consistency

Patient Outcomes

Improved outcomes by reducing invasiveness

Outcomes largely unchanged

Improving outcomes by reducing variability

Open Surgery

Laparoscopic Surgery

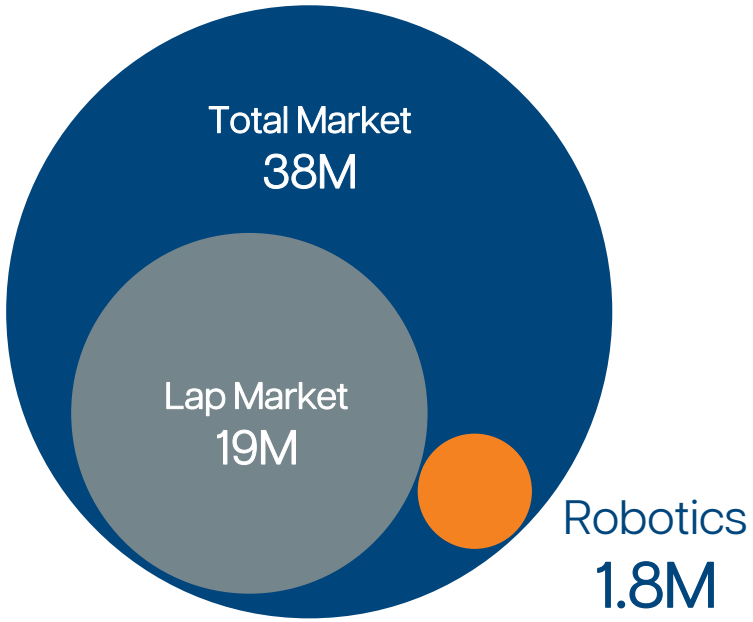
Robotic Surgery

Performance-Guided Surgery

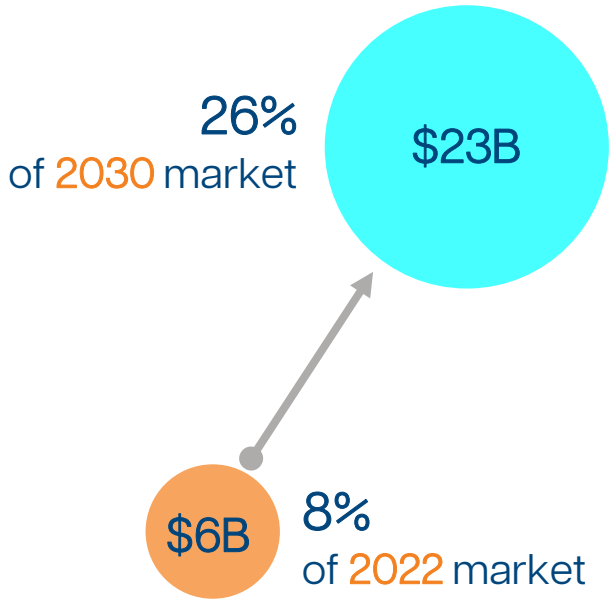
Evolution of Surgery

Surgical Robotics Market Overview

Soft Tissue Surgery
(WW Procedure[2,4,6])



Robotic Surgery Growth
(WW Revenue[4,6,12])



Market Opportunity: A New Setting

Surgery is moving toward outpatient clinics and surgical centers, where cost is the primary driver.

From hospitals...

...to outpatient and surgical centers

Market trends:

- Surgical volume growth in US Hospital Outpatient (HOPDs) and Ambulatory Surgery Centers (ASCs) will continue to outpace growth in inpatient setting.
- Service lines such as general surgery seeing continued shift to these outpatient alternatives.
- High volume general surgeries expected to shift further from HOPDs to ASCs.

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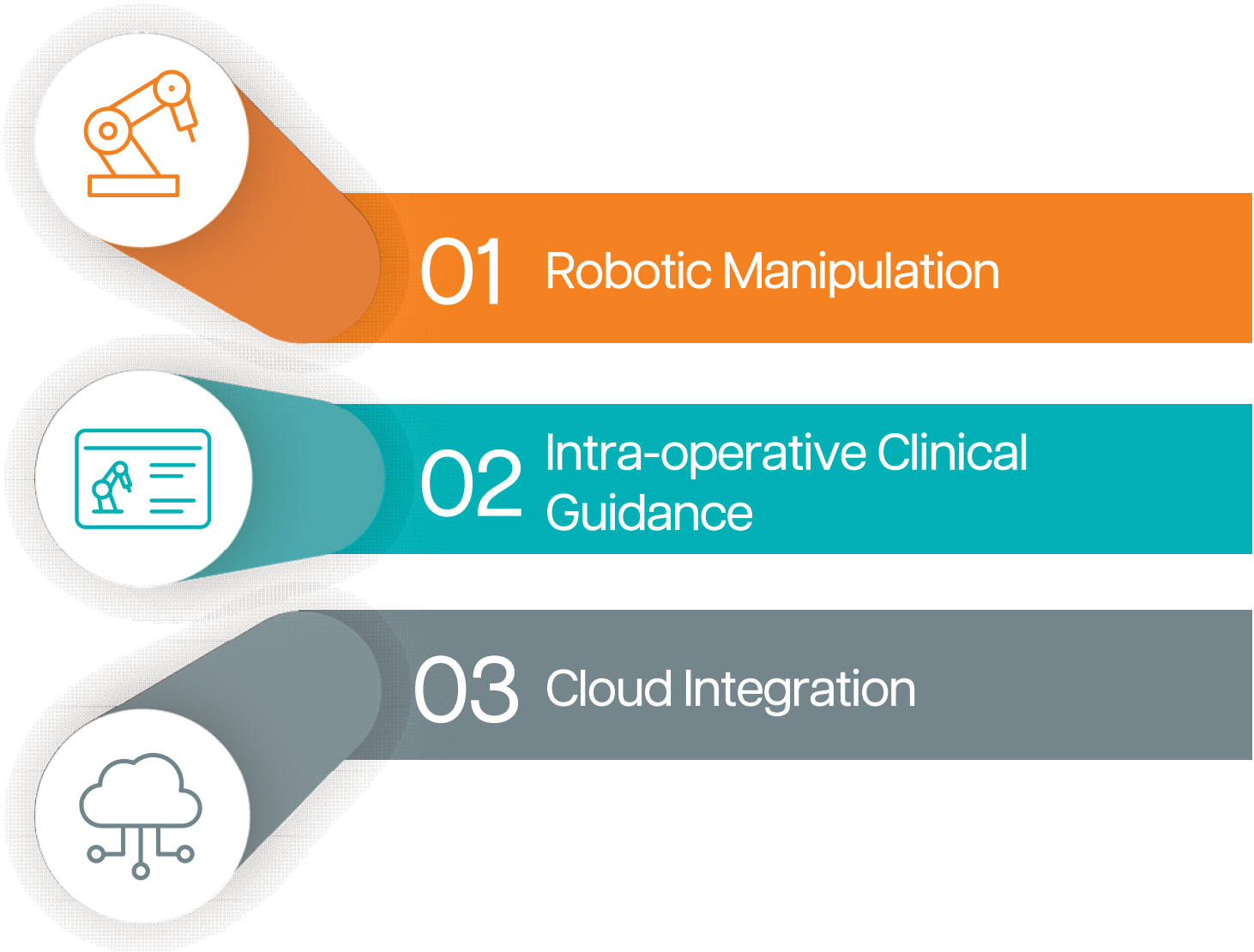
Our Solution:

Performance-Guided Surgery

Real-Time Decision Support Tools and Robotic Precision That Drive Consistently Superior Outcomes



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Performance-Guided Surgery

Competitive offerings have not impacted some basic obstacles in the market, leaving openings in the market

Challenges in Surgery

Robotics Is Not Improving Outcomes

Levels of surgical complications are unacceptable, despite using robotics. Nearly 2 million patients experience some sort of material complication each year.

Costs of robotics remain a barrier to adoption

High ownership and high per-procedure costs relative to other options makes robotic surgery a tough sell, especially without improved outcomes.

We're facing a shortage of surgeons

There is not yet a solution to make surgeons more efficient, more effective, and less prone to fatigue and burnout.

LUNA + ISU

- Patient & Surgeon Centric Gen-2
- Digitally safer surgical maneuvers
- Less invasive instruments

- Low-cost architecture
- OR standardization
- AI based procedure guidance

- Ergonomic workstation
- Lower training burden
- Surgical decision support

Performance–Guided Surgery

Reduce Complications and Improve Outcomes

Deliver Hospital Economics & Efficiency

Reduce Surgeon Fatigue and Hospital Burden

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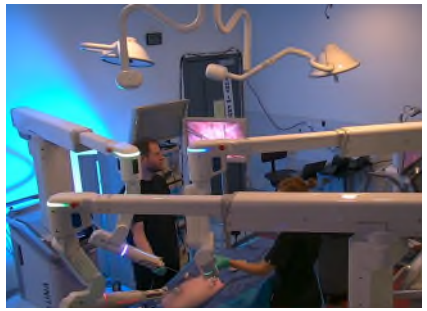
Performance-Guided Surgery

Leverages robotic precision and digital tools to drive better outcomes

REACHING A LEVEL OF STANDARDIZATION



Robotics

Addresses physical fatigue

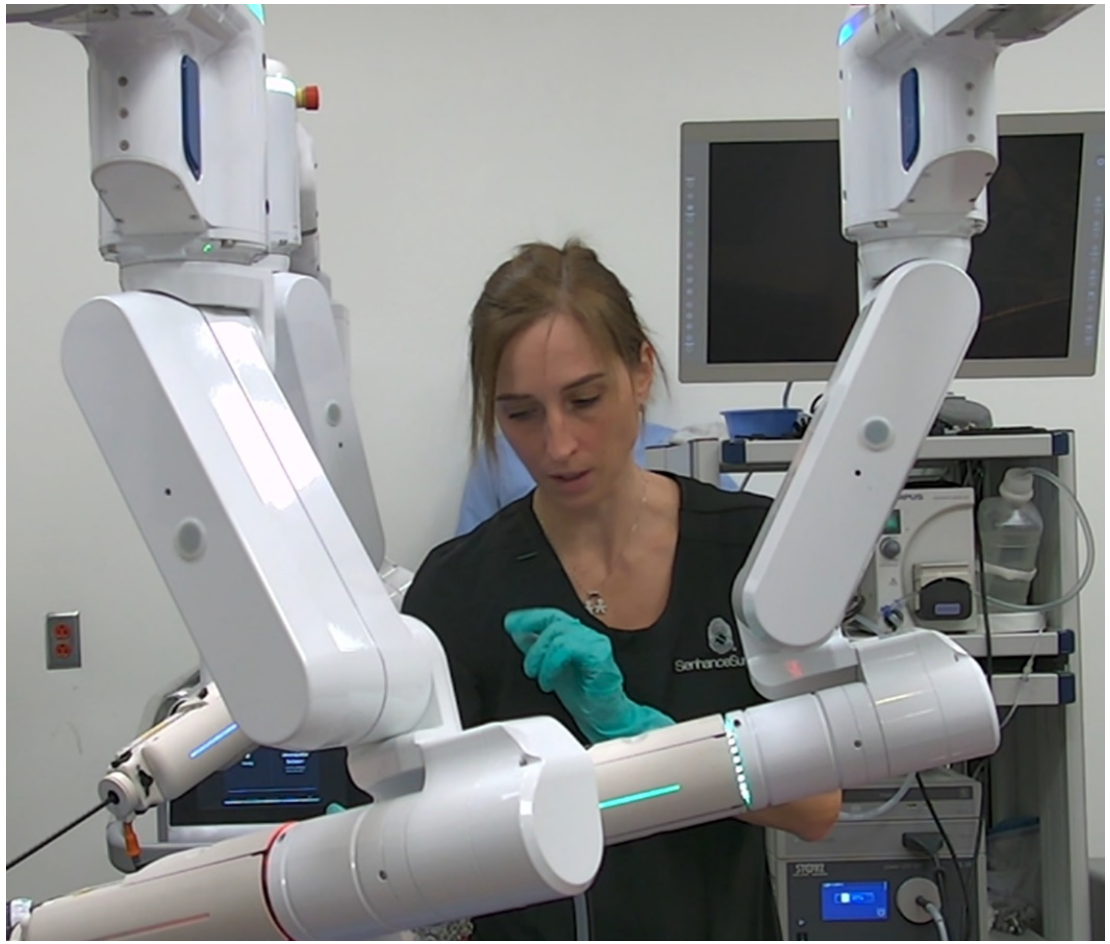
Reduces variability

Increases precision across time

Digital Tools

Address cognitive fatigue

Level skills, experience, technique, and proficiency across surgeons and geographies



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Delivering the Future of Surgery

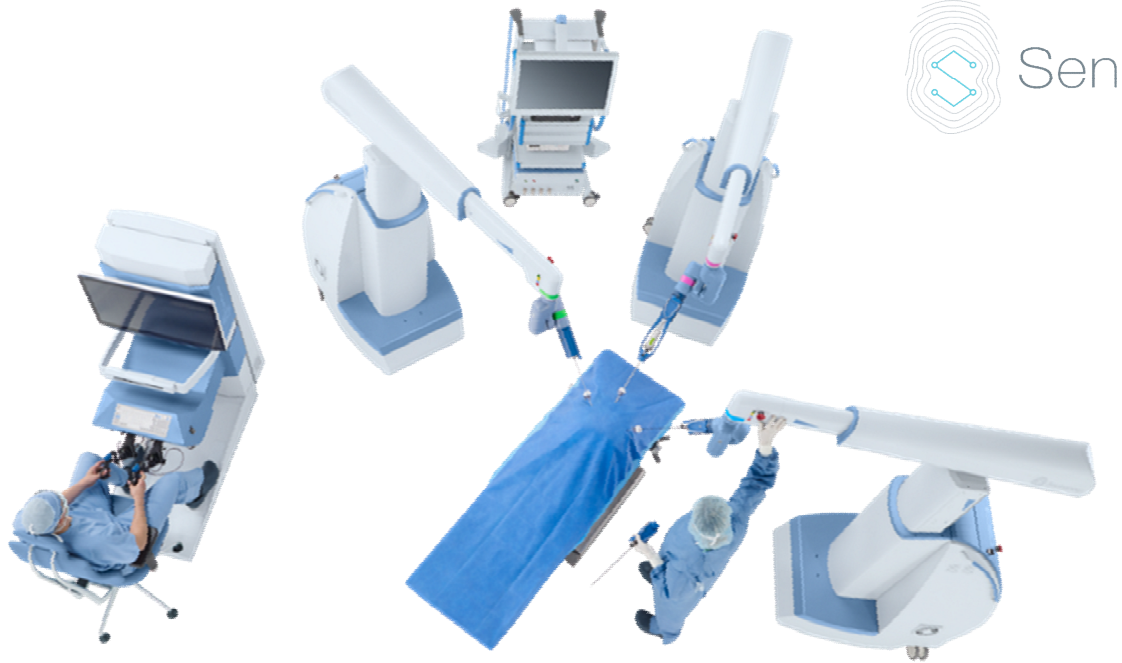
We know what surgeons, hospitals and OR teams need and want

12,000+
Procedures

Global
Regulatory Approvals

130
Active Surgeons

325+
Patents*



3,200+
Patient Registry

95
Publications

Accelerating procedure volumes

Averaging **+30%** YoY growth over the last 3 years

Utilization across multiple specialty areas

GYN, Urology, Colorectal
General, Bariatric, Pediatric

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*Includes, globally issued plus pending applications

De-Risked Regulatory Pathway for LUNA

Ability to leverage Senhance clearances on LUNA regulatory strategy

	United States *FDA Approved*	European Union *CE Marked*	Japan *PMDA Approved*	Rest of World *Russia, Taiwan, Others*
Senhance System	✓	✓	✓	✓
Intelligent Surgical Unit™	✓	✓	✓	✓
Procedural Indications for Use				
General	✓	✓	✓	✓
GYN	✓	✓	✓	✓
*Thoracic**		✓	✓	✓
Pediatric	✓	✓	✓	✓
Urology		✓	✓	✓

*non cardiac Thoracic

Enabling Performance-Guided Surgery

The only way to improve outcomes is to combine Robotic Precision with real-time Surgical Decision Support with a solution accessible to more patients

LUNA

Enabling Surgery

State of the art robotics platform

+

ISU

Empowering Surgeons

Intra-operative digital toolkit for
“Real-time” Augmented Intelligence

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LUNA System Overview

Instinctive
Surgeon Console

Collaborative
Robotic Arms

Enabling
Instruments

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Arms

Optimizing workspace and patient access

Preserving tissue sensing

Facilitating system setup

Enabling bedside efficiency

Digitizing Surgery

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Console

Delivering unconstrained freedom of motion

Enabling 3 simultaneous actuations

Offering market leading (2D, 3D-4k) visualization

Allowing easy access to digital capabilities

Reducing the ergonomic burden on the surgeon

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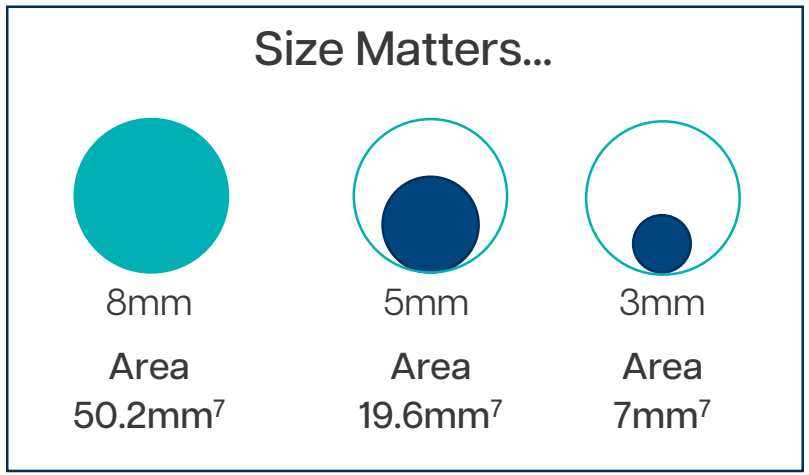
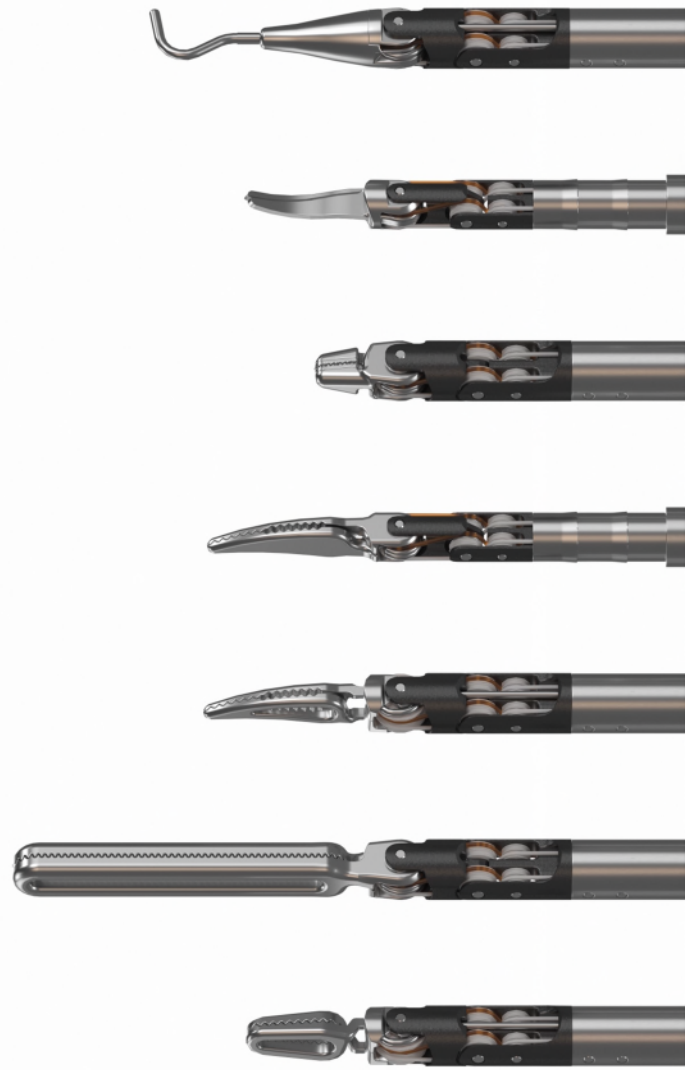
Instruments

Enabling dexterity, utility, minimal invasiveness and cost efficiency:

- Fully articulated 5mm TrueWrist
- Reusable straight stick 5mm and 3mm
- Advanced energy, ligation and stapling





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Augmented Intelligence

The Intelligent Surgical Unit (ISU)

Informing surgical decisions

Digital measurements guiding surgeons and surgical maneuvers

Avoiding preventable errors

Identification of critical anatomy to mitigate risk of tissue damage

Improving OR efficiency

Hands-free camera control enables OR staff optimization

Enriching medical education

Digital tags and annotations enhancing learnings, OR communication

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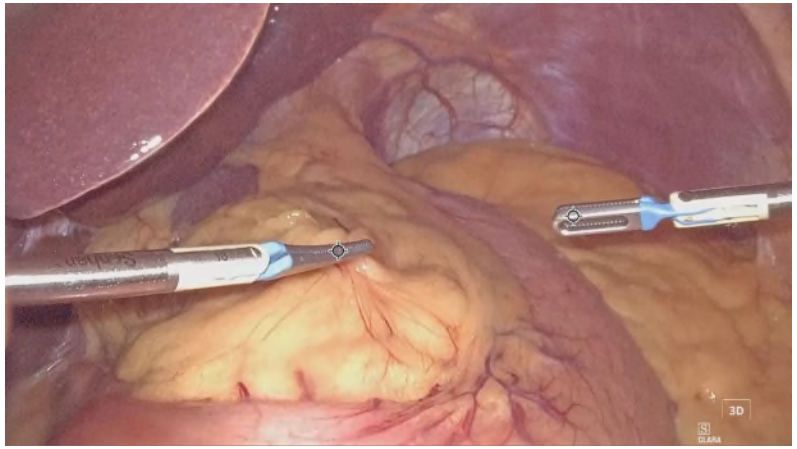
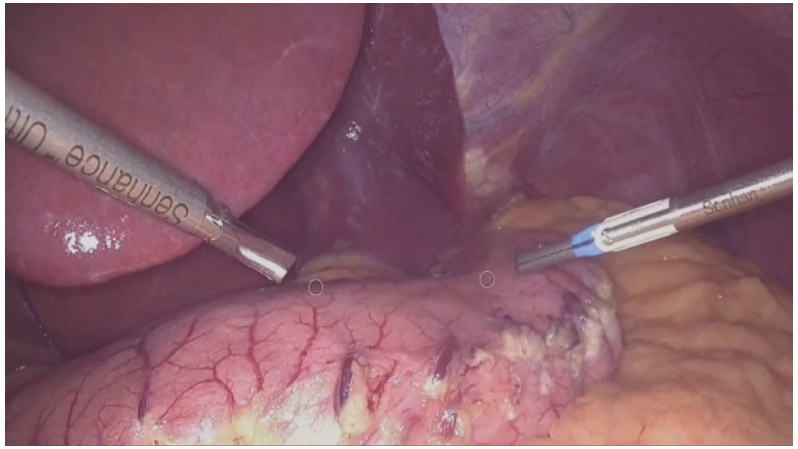
ISU

Providing Intra-operative Decision Support

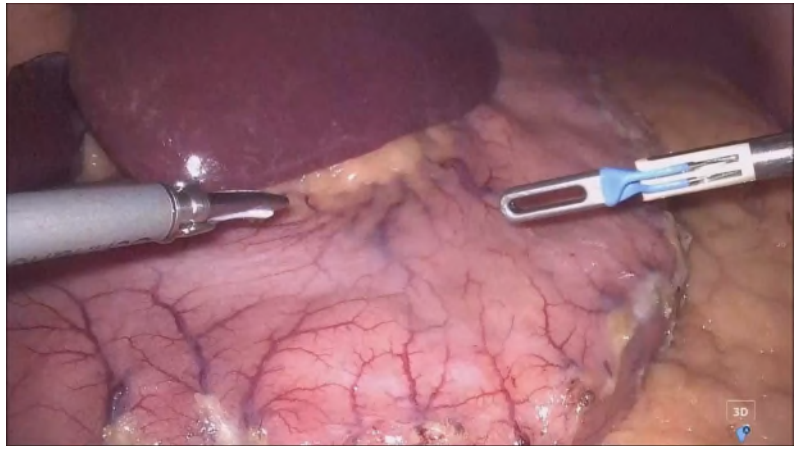
Automated Camera Control – Follow Me



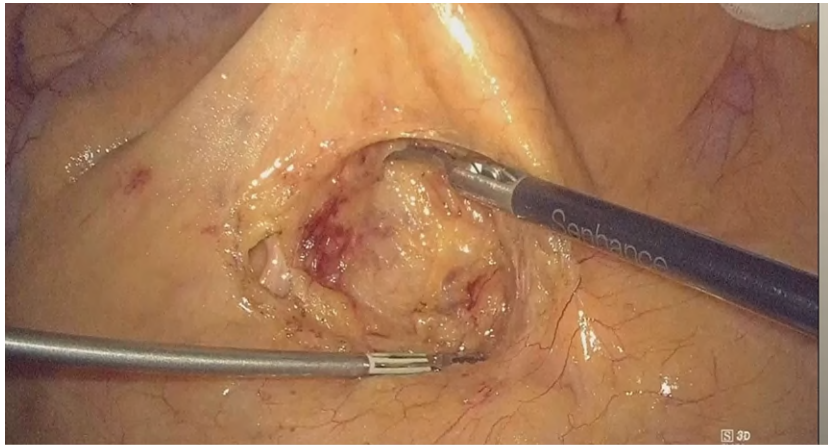
Analytical Toolkit – 3D Measurement

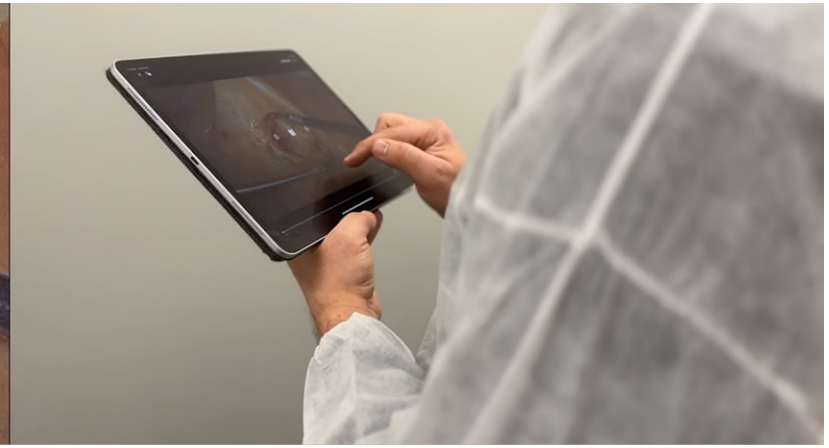


Safety Toolkit – No Fly Zones



Training Toolkit – Real Time Telestration





Cloud Infrastructure

Capture

Surgeon Inputs

Surgical Video

Robotic Manipulation

Asensus ISU

Process

Asensus Cloud

Tagged Data

Deep Learning Model

Deploy

Customer Portal

ISU AI Data Refresh

Structured Surgical Insights

Financial Snapshot

FY 2023

14%
YOY Growth in Surgical Procedures

8
Senhance Surgical Placements Initiated

>3,550
Procedures Performed

~$8.2-8.8M
Revenues (Unaudited)

December 31, 2023 (Unaudited)

- Cash & Cash Equivalents: ~$21.0 Million
  incl. short-term investments, excluding restricted cash
- No debt
- Common Stock: 264.9 Million Shares

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Asensus 2024

SUMMARY: Surgical outcomes can be improved. Asensus is the right company to advance that vision.

We are delivering Performance-Guided Surgery through the combination of advanced Robotic Precision with real-time Surgical Decision Support:

LUNA
Enabling Surgery

Next Generation digital surgery platform and instruments

+

ISU
Empowering Surgeons

Intra-operative digital toolkit for “Real-time” Augmented Intelligence

A clear pathway to execute and achieve our vision.

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Surgery Reimagined

Performance-Guided Surgery – next level technology that completely changes the idea of what's possible.

ON BEHALF OF OUR ENTIRE TEAM

Thank You

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