

A profile view of a surgeon wearing a blue surgical cap, set against a background of glowing blue and white circuitry patterns. The image has a futuristic, high-tech aesthetic.

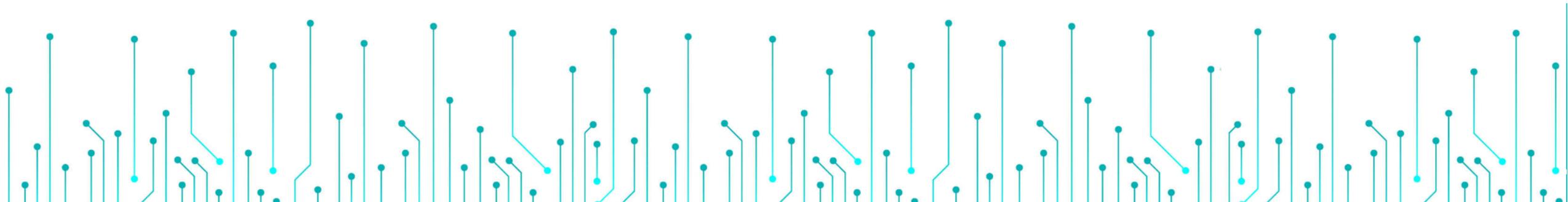
40TH ANNUAL J.P. MORGAN HEALTHCARE CONFERENCE

Anthony Fernando, President & CEO
Shameze Rampertab, EVP & CFO

January 13, 2022

Forward Looking Statements

This presentation includes statements relating to the Senhance[®] Surgical System's market development and a general corporate update for Asensus Surgical. 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 market development activities related to the Senhance Surgical System will be successful, the pace of adoption of our products by surgeons will increase, the success and market opportunity of our products, the impact of the ongoing pandemic on our business and our customers, the effect on our business of existing and new regulatory requirements, 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.





We believe in 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.

Asensus Surgical (NYSE American: ASXC)

Early-Commercial Stage Company Developing the Future of Surgery



Regulatory Approvals
U.S. EU and Japan



6 Global Training Centers



100+ Active Surgeon Users



39 Active Clinical Sites in US, EU & Asia



6,000+ Surgeries Performed



Compelling Per Procedure Economics



1st
eye-sensing camera control
haptic feedback
3 mm robotic instruments
augmented intelligence and machine vision
real-time surgical image analytics
pediatrics with robotic 3 mm



Strong Talented Global Team & Infrastructure



Fully Integrated Machine Vision & AI* in Surgery

* Augmented Intelligence

We Are Uniquely Focused on Laparoscopy and Why That Matters

An Opportunity And Need To Create Value Beyond Robotics

Global Soft Tissue Abdominal Surgery Market

Laparoscopy: ~16 million



Applicable Technology

Digital Laparoscopy (multi-port)

Industry Participants



Surgical Technique

Laparoscopy

Instruments

Fully Reusable

- Low \$ / procedure

5mm & 3mm

- Advances MIS, broadens applicability

Articulating

- Enabling where needed

Advanced Technology

Intelligent Capabilities

- Robotics + intelligent digital platform

Open Surgery : ~37 million



Robotic-Assisted Surgery (multi-port)



Open Surgery / Hybrid MIS

Limited / Single Use

- Increased \$ / procedure

8mm & 5mm

- More invasive than laparoscopy

Wristed

- Enabling with higher cost per procedure

Not Available

- Robotics only platform

< 5% robotic penetration after 20+ years

Senhance is the only platform able to address the conversion of laparoscopy by leveraging standard laparoscopic tools, digital information and decision support tools

Competitors are following the Da Vinci model and focusing on open surgery conversion

Senhance System Addresses Key Challenges Facing Hospitals and Surgeons

Building The Bridge From Laparoscopy To Performance-Guided Surgery



Senhance®

A **digital fulcrum** sets a dynamic virtual pivot point that helps potentially minimize the incision trauma

Standard reusable instruments keep costs similar to traditional laparoscopic instruments

Digital Laparoscopy maintains familiar motion, ancillary tools, and techniques

The **3DHD visualization** provides the surgeon with additional intelligence regarding depth and spatial relation of organs

Eye-tracking camera control where the system can sense the surgeon's eye activity, allowing camera control

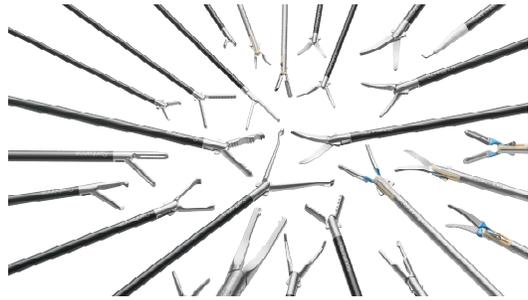
Open-platform architecture allows use and integration of existing OR technologies to maximize benefit from capital investments and support surgeon preference

Haptic sensing of the platform heightens the surgeon sensing of pressure/ tension through alerts if pressure threshold is reached for an added layer of security not currently available elsewhere

Allows the surgeon to be seated in an **ergonomically comfortable position** throughout the procedure

Digitizing Laparoscopic Instrumentation

Broad Instrumentation Portfolio Adds Unique Advantages For Surgeons And Patients



Core Laparoscopic

Developed broad instrument portfolio with 70+ instruments in the catalog



Ultrasonic

New standard in minimally invasive robotic surgery with 3mm instruments



3mm

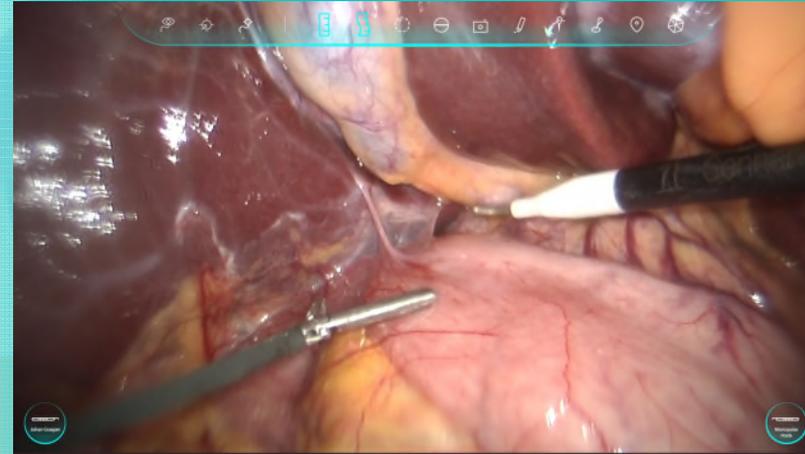
Reusable instruments enable compelling per procedure economics



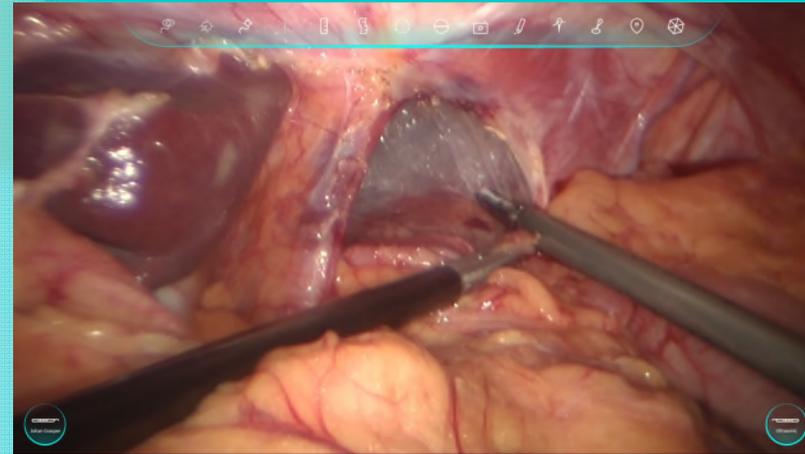
Articulating

ISU: The First Machine Vision System In Minimally Invasive Surgery

Laying The Foundation For Digitizing Surgery → Enabling The Future of Performance-Guided Surgery



Vision Based
Real-Time 3D
Point to Point
Measurement



Real-Time Defect
Identification and
Sizing

ISU – Intelligent Surgical Unit™, Some features are still in development and the safety or effectiveness of these features have not been established.

Senhance Connect

Mobile In-OR Surgeon Communication System



- Connects expert Senhance Surgeons across the globe
- Streams multiple camera views and the endoscopic view simultaneously
- Allows 2-way screen sharing and annotation

Robust Global Applicability

High Volume Procedural Approvals Widely Available To Address Significant Markets



United States

FDA Approved



European Union

CE Marked



Japan

PMDA Approved



Rest of World

Russia, Taiwan, Others

Senhance System Surgical



Procedural Indications for Use

General



GYN



*Thoracic**



Pediatric



Urology



Addressable Market

(# of annual procedures)

16 million

Our Path To Market Leadership

Delivering A New Era In Digital Surgery

- 1 Educate surgeons on the benefits of Senhance
- 2 Grow global installed base
- 3 Increase global procedure volume
- 4 Expand the portfolio
- 5 Continue the technological advancement Digital Surgical tools

1 Educating Surgeons On The Benefits Of Senhance

Grow Compelling Set of Data to Demonstrate Clinical and Economic Value

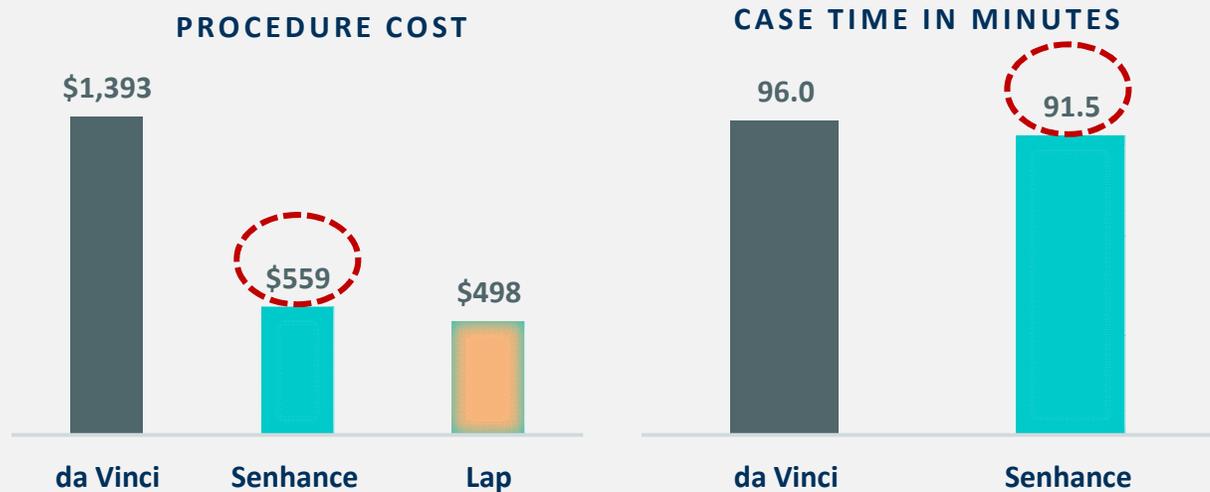
70+
peer review
articles to date

Focused on the following data:

- Health economics
 - Cost per procedure
 - Procedure times/workflow
- Usability across specialties
- Clinical outcomes

International Journal of Medical Robotics (Apr 2021)

Senhance surgical system in benign hysterectomy: A real-world comparative assessment of case times and instrument costs versus da Vinci robotics and laparoscopic-assisted vaginal hysterectomy procedures



- Senhance per procedure costs were less than half of da Vinci
- Senhance per procedure costs were in line with laparoscopy
- Case times between Senhance and da Vinci were comparable

The TransEnterix European Patient Registry for Robotic-Assisted Laparoscopic Procedures in Urology, Abdominal, Thoracic, and Gynecologic Surgery ("TRUST")

Dietmar Stephan^{1,2}, Ibrah
Affiliations + expand
PMID: 33513657 DOI: 10.10

Abstract

Introduction: Robotic surg
da Vinci[®] System (Intuitive
monopoly for years afterwa
Morrisville, North Carolina)
movements and is designe
patients after different Visc
with the Senhance™ digita
Materials and methods: T
surgery with the Senhance
and bilateral), cholecystect
in Europe between Februar

Upper urinary tract surgery and radical
prostatectomy with Senhance[®] robotic system:
Single center experience-First 100 cases

Zeljko Kastelan^{1,2}, Tvrtko H
Marjan Maric³, Toni Zekulic

Affiliations + expand
PMID: 33900026 DOI: 10.10

Abstract

Background: The Senhance[®]
European and World centres

Patients and methods: From
urinary tract (UUT) and 70 ex
prospectively collected for k

Results: The median age for
UUT was 30, and for RRP 200
In-hospital stay for UUT was
Dindo complication grade II
three patients had grade II c

Conclusion: The Senhance[®]

Inguinal hernia TAPP repair using Senhance[®] robotic
platform: first multicenter report from the TRUST
registry

N E Samalavicius^{1,2,3}, A Dulskas^{4,5}, A Sirvys⁶, V Klimasauskiene⁷, V Janusonis^{1,3},
T Janusonis⁸, V Eismontas¹, O Deduchovas¹, D Stephan¹⁰, I Darwich¹⁰, C Poth¹¹,
F Schilcher¹¹, V Slabadzins¹², M Kukharчук¹², F Willeke¹⁰, L Staib¹¹

Affiliations + expand

PMID: 34591213 DOI: 10.1007/s10029-021-02510-9

Abstract

Purpose: The purpose of this article was to provide feasibility and safety results of robotic
transabdominal preperitoneal inguinal hernia repair (Robotic TAPP).

Methods: We included 271 cases of robotic inguinal hernia TAPP repair using the Senhance[®] robotic
platform from four different centers between March 2017 and March 2020. Key data points were
intraoperative and postoperative complication rate, operating time, length of hospital stay,
postoperative pain score and time required to get back to a daily routine that were inserted in the
TransEnterix European Patient Registry for Robotic-assisted Laparoscopic Procedures in Urology,
Abdominal Surgery, Thoracic and Gynecologic Surgery (TRUST).

Results: We report 203 cases of unilateral and 68 cases of bilateral inguinal hernia repairs. Mean
operative time was 74 ± 35 min (range 32-265 min), postoperative complications occurred in five
(1.85%) cases, the intraoperative complication rate was five (1.85%). The average subjective patient-

2

Growing Global Installed Base

Expanding Number of Systems Being Used Across Multiple Geographies



- 10 systems added in 2021

- Training Centers located in key geographies

- Growing surgeon users globally

39
Active Installed
Units

6
Global Training
Centers

100 +
Active
Surgeons

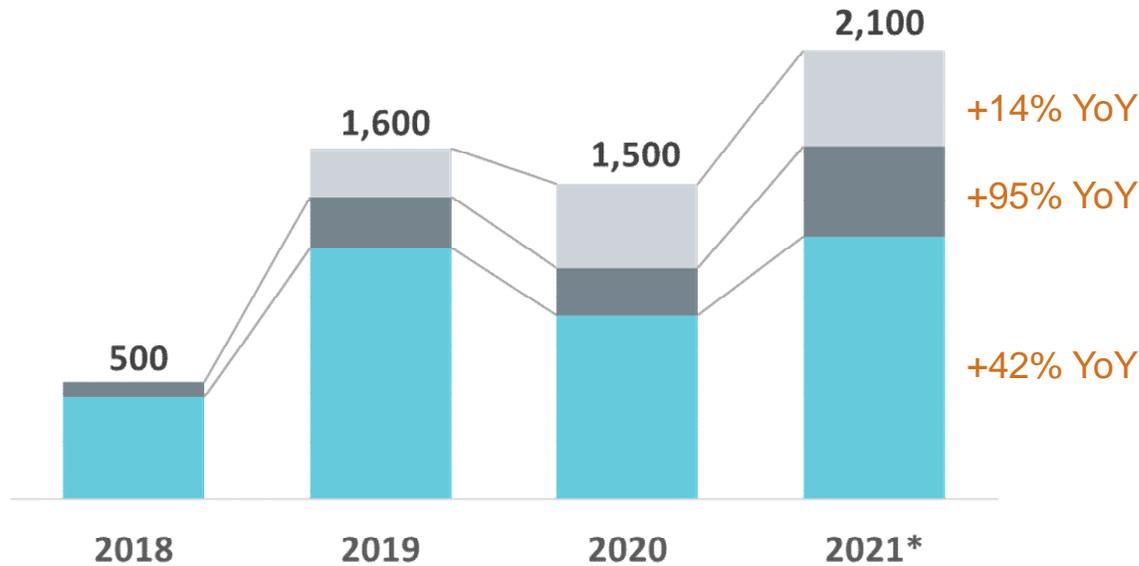
3

Increasing Global Procedure Volumes

Senhance Demonstrating Strong Clinical Performance Across The Three Major Geographies

GLOBAL CLINICAL CASE VOLUME TREND

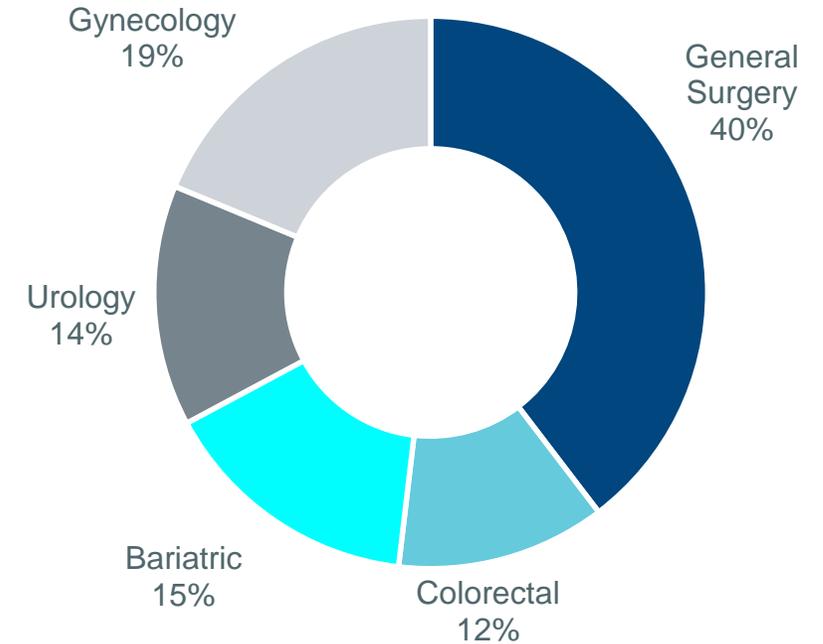
■ EMEA ■ US ■ Asia



Year end Active Sites	2018	2019	2020	2021*
Year end Active Sites	6	18	29	39**

Strong clinical case performance

2021* CASE MIX



Adoption across multiple specialty areas, demonstrating broad applicability and adoption

*2021 Preliminary, **35 Clinically active, 4 pending clinical start

4

Expanding The Portfolio

Broadening Applicability Through Digital Technology, Regulatory And Instrument Expansion

2021

Initial ISU™ CE Mark

- Provided Senhance Digital Laparoscopy programs access to new Augmented Intelligence technology
- Brings initial Performance-Guided Surgery capabilities to European hospitals

Expanded General Surgery Indication FDA 510(k) clearance

- Expanded on-label applicability
- Can be utilized in 2.7 million annual procedures

Articulating Instruments

FDA 510(k) clearance
Japan PMDA Approval

- Widens the clinical utility to a broader number of surgeons
- Initiating limited launch before full commercialization in FY22

Next Wave ISU Features

FDA 510(k) clearance
Japan PMDA Approval

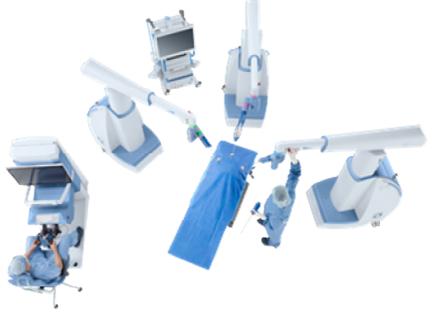
- Next phase in progress towards Performance-Guided Surgery
- Provide advanced Machine Vision and Augmented Intelligence capabilities
- Only robotic platform to offer scene recognition and surgical image analytics

5

Continue The Technological Advancement Of Digital Surgical Tools

Focused Investment To Deliver The Future Of Surgery

Robust Digital Laparoscopy platform built on the fundamentals of MIS



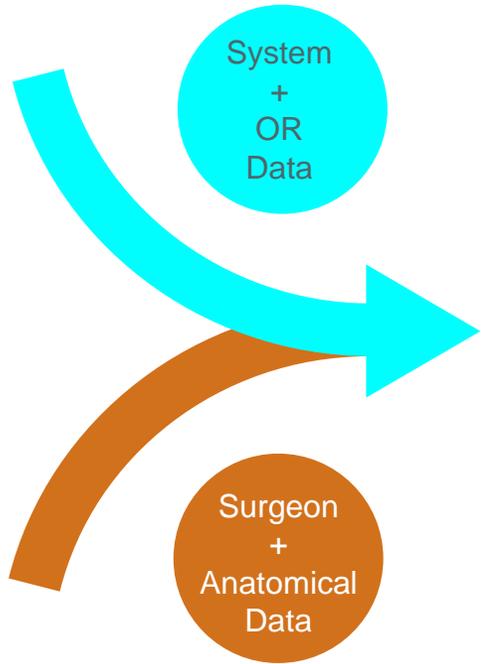
Senhance

Intelligent Surgical Unit™ (ISU™)



Senhance

Digital Platform capable of machine vision and augmented intelligence to enable real-time surgical analytics

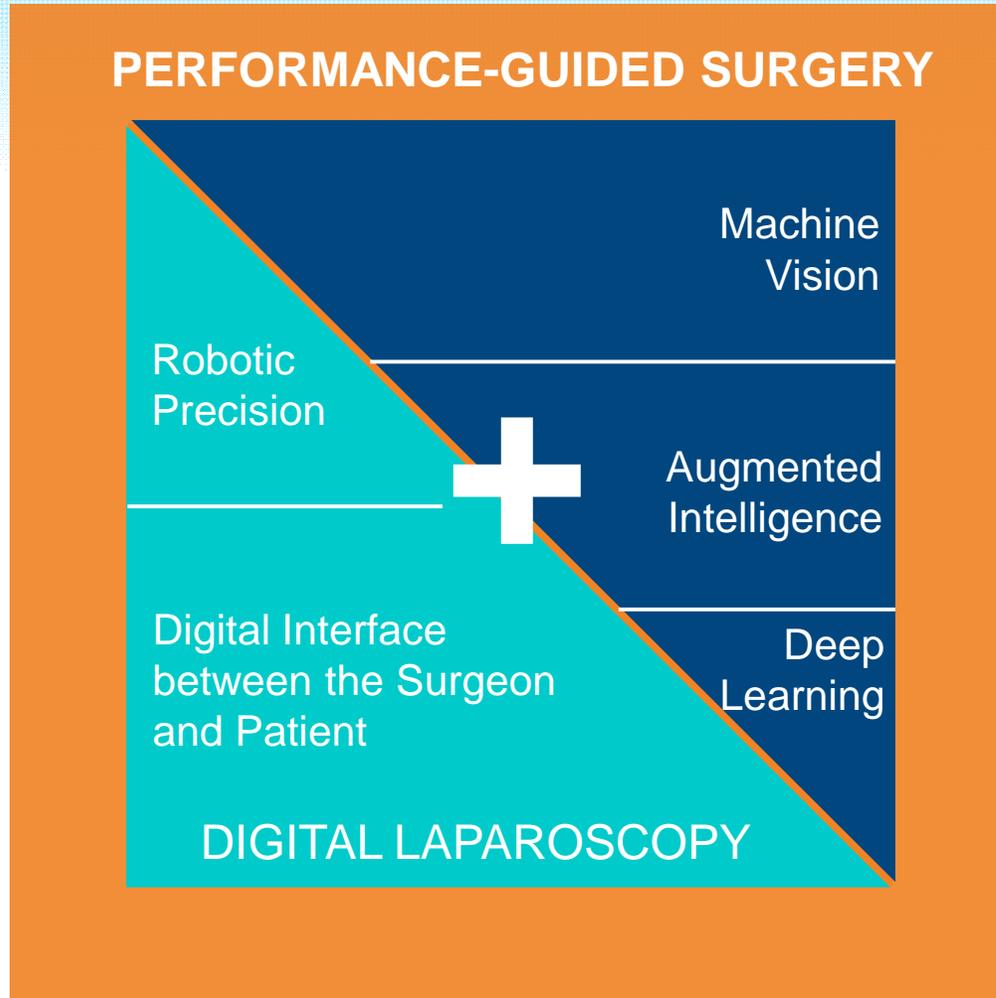


Performance-Guided Surgery



Clinical Intelligence to unlock superior outcomes with surgery

Performance-Guided Surgery



Improved Decision Making

Improved Collaboration

Improved Predictability

Surgical Paradigm

Mapping Categories To The Surgical Value Chain

Laparoscopy

Manual Control

Robotic Surgery

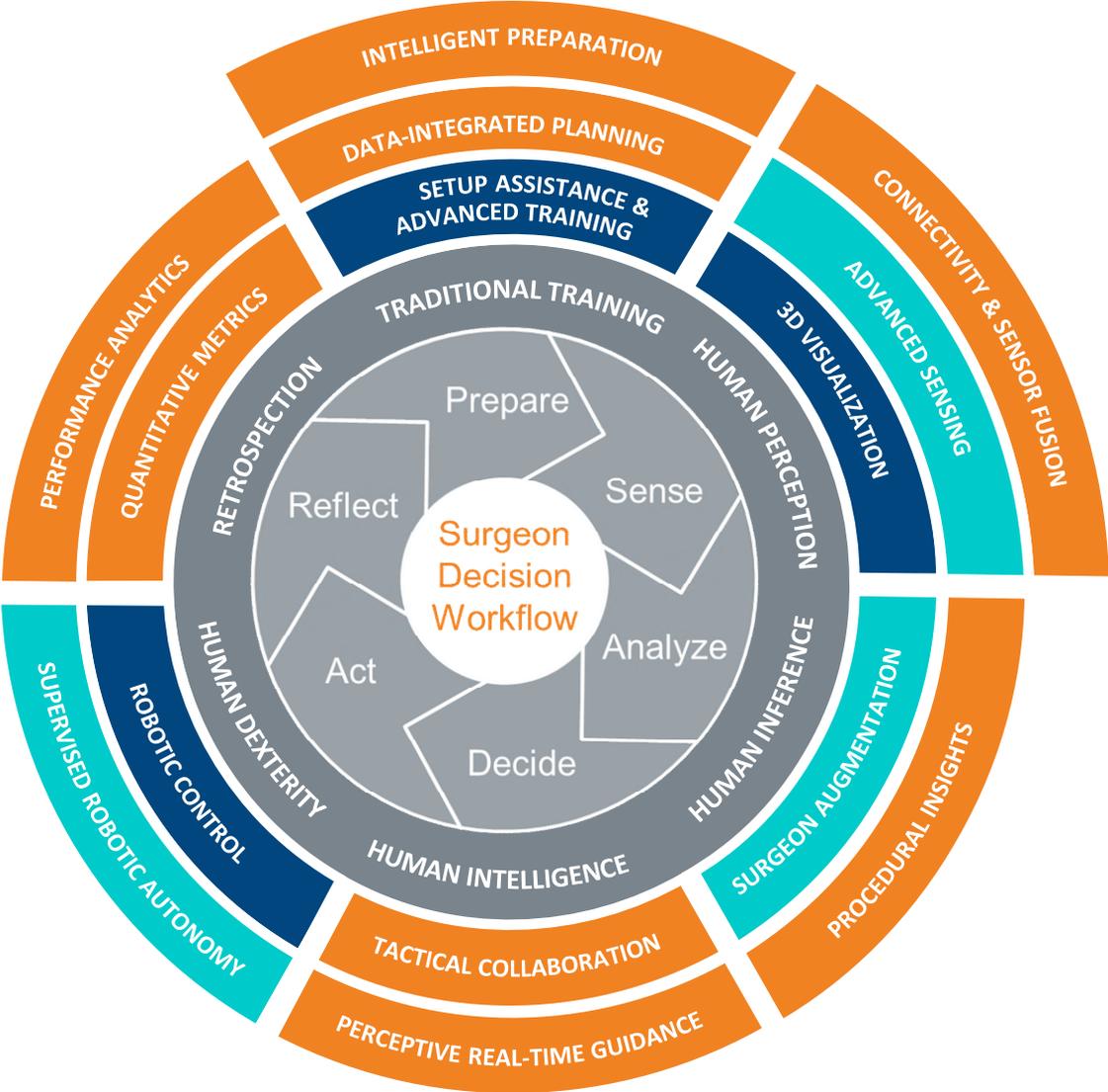
Robotic Precision and Control

Digital Laparoscopy

Advanced Sensing, Digital Insights

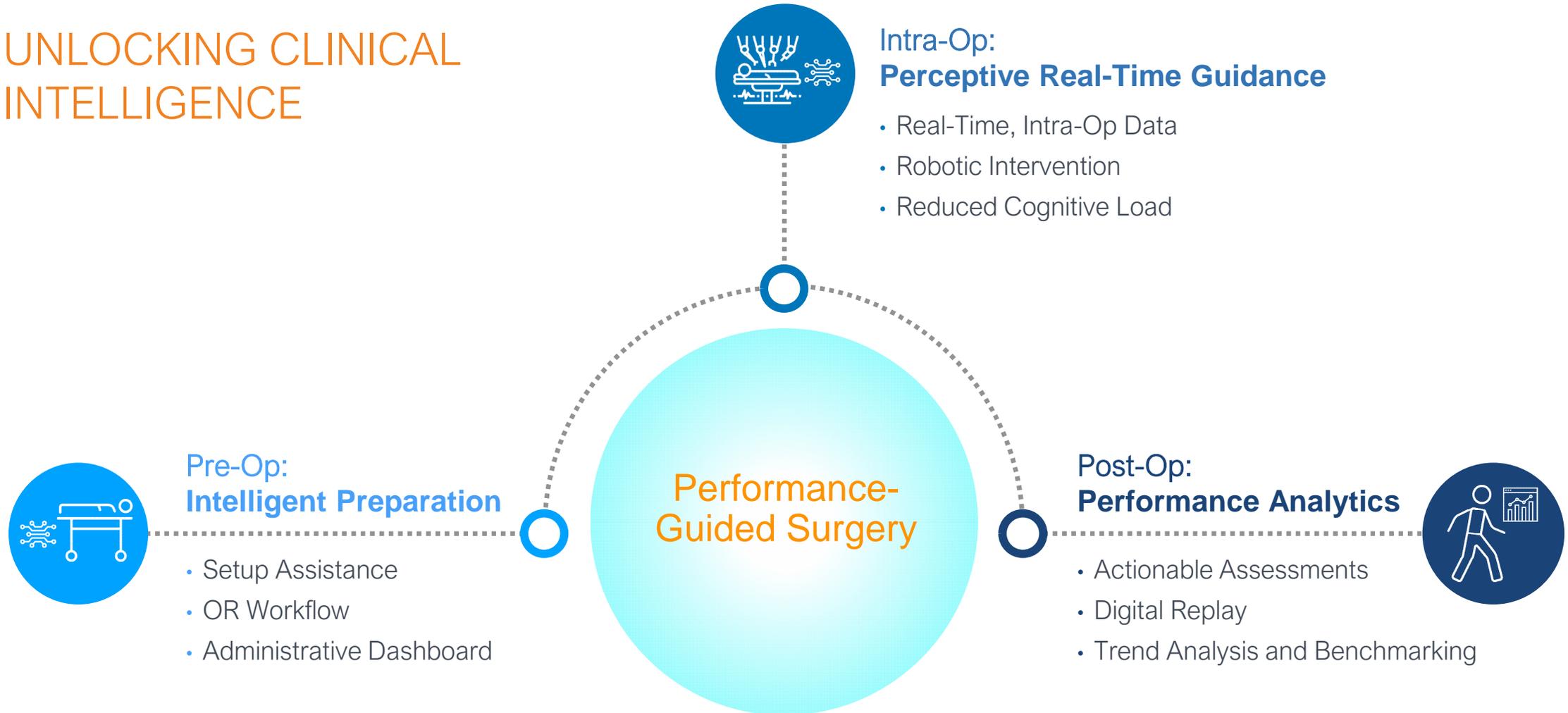
Performance-Guided Surgery

Intelligent Preparation, Perceptive Real-Time Guidance

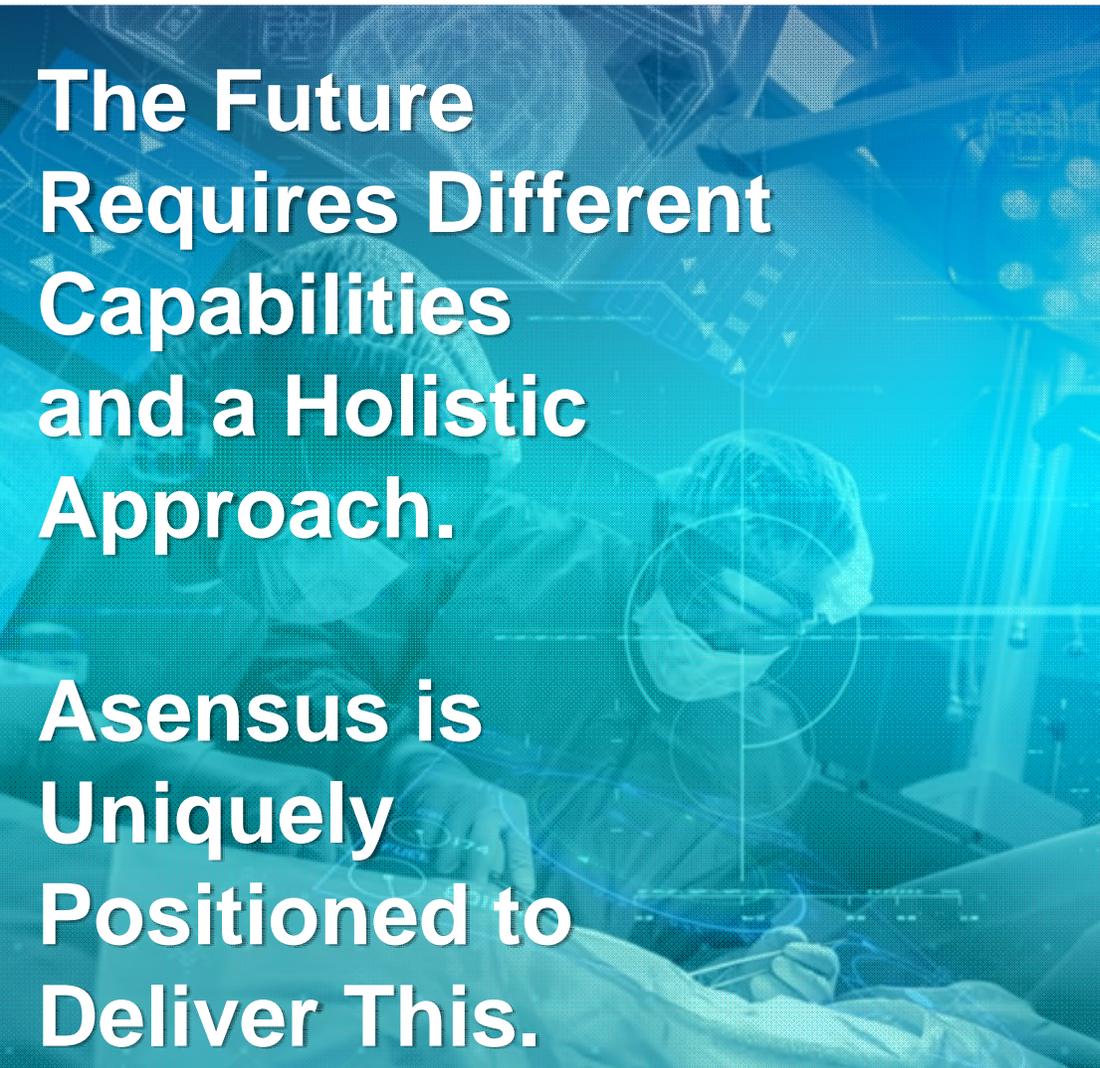


The Surgical Assurance Framework

UNLOCKING CLINICAL INTELLIGENCE



Our Path To Market Leadership



The Future
Requires Different
Capabilities
and a Holistic
Approach.

Asensus is
Uniquely
Positioned to
Deliver This.



- 1 **Increase safety** for better outcomes which lead to better patient and provider satisfaction
- 2 **Reduce surgical variability** and factors that contribute to poor outcomes
- 3 **Guide surgeons** to successfully navigate when unexpected events occur to effectively reduce surgical errors and complications
- 4 **Provide real-time clinical intelligence** and capabilities to create more predictable outcomes to meet value-based care constraints

2021 Financials (Unaudited)

- 2021 Revenue ~ \$7.9-8.3 million
 - 147%-159% increase over 2020
- December 31, 2021 Balance Sheet Highlights
 - Cash, cash equivalents, short-term and long-term investments~ \$135 million
 - No Debt

Surgery Reimagined

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



ASENSUS
SURGICAL

