Surgery Reimagined

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

02.21.23

Surgery Reimagined

Investor Day February 2023

SENSUS SURGICAL™

PRESIDENT & CHIEF EXECUTIVE OFFICER

Anthony Fernando

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Forward-Looking Statements Disclosure

This presentation includes statements relating to the LUNA™ Surgical System next-generation program under development and an update on Asensus' strategic plan. 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, 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.

Agenda

- Welcome and overview
  Anthony Fernando, President & Chief Executive Officer
- Surgical robotics market
  Ethan Loiselle, Vice President, Global Marketing
- Performance-Guided Surgery – Building the future of surgery
  Next Generation Digital Surgery Platform – Dustin Vaughan, Vice President, R&D, Robotics
  KARL STORZ Partnership – Stephan Abele, Managing Director, KARL STORZ Venture ONE
  Intra-operative Clinical Guidance – Motti Frimer, Vice President, R&D, Digital Solutions
  Asensus Cloud – Brian Stellmach, Vice President, Digital Solutions
- Roadmap & Milestones
  Anthony Fernando, President & Chief Executive Officer
- Surgeon panel
  Dr. Amit Trivedi, Dr. Bernhard Kramer
  Moderator: Dr. Ed Chekan, Vice President, Medical Affairs & Professional Education
- Q&A
- Product demo and reception

The WHAT

AT

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WE BELIEVE

Digitizing the interface between surgeon and patient enables Performance-Guided Surgery to consistently deliver superior outcomes and a new standard of care.

WE UNDERSTAND

Hospitals and surgeons are under intense pressure to drive consistently excellent outcomes while optimizing resources.

WE DESIGN

Solutions and technology platforms to enhance surgeon capabilities, improve the surgical experience, and support hospital systems with innovative healthcare strategies.

The HOW

- ONE Global Team
- Innovate with Passion
- Focused Execution
- Drive High Engagement

Who We Are

Akihisa Akao
General Manager, Japan

Dr. Ed Chekan
VP, Medical Affairs & Professional Education

Wouter Donders
VP & GM, Europe

Motti Frimer
VP, R&D, Digital Solutions

Kathleen Frost
VP, Intellectual Property

Ravi Kommineni
Head of Global Quality & Regulatory

Ethan Loiselle
VP, Global Marketing

Wesley Long
VP, Customer Excellence

Ken Nicolosi
Director, US Sales & Clinical Operations

Daniel Odermatt
VP, Upstream Marketing

Amanda Owens
VP, People

Daniel Potts
VP, Asia Pacific

Shameze Rampertab
Executive VP & Chief Financial Officer

Brian Stellmach
VP, Digital Solutions

Nicholas Summitt
Senior Director, Strategy & Development

Johan van Doremalen
VP, Europe Sales

Dustin Vaughan
VP, R&D, Robotics

Joshua Weingard
Chief Legal Officer

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We Are Pioneering the Future of Surgery

10,000+
Procedures

100+
Surgeons

2,300+
Patient Registry

300+
Patents[1]

Global
Regulatory Approvals

80+
Publications

1. Includes, globally issued plus pending applications

VICE PRESIDENT, GLOBAL MARKETING

Ethan Loiselle

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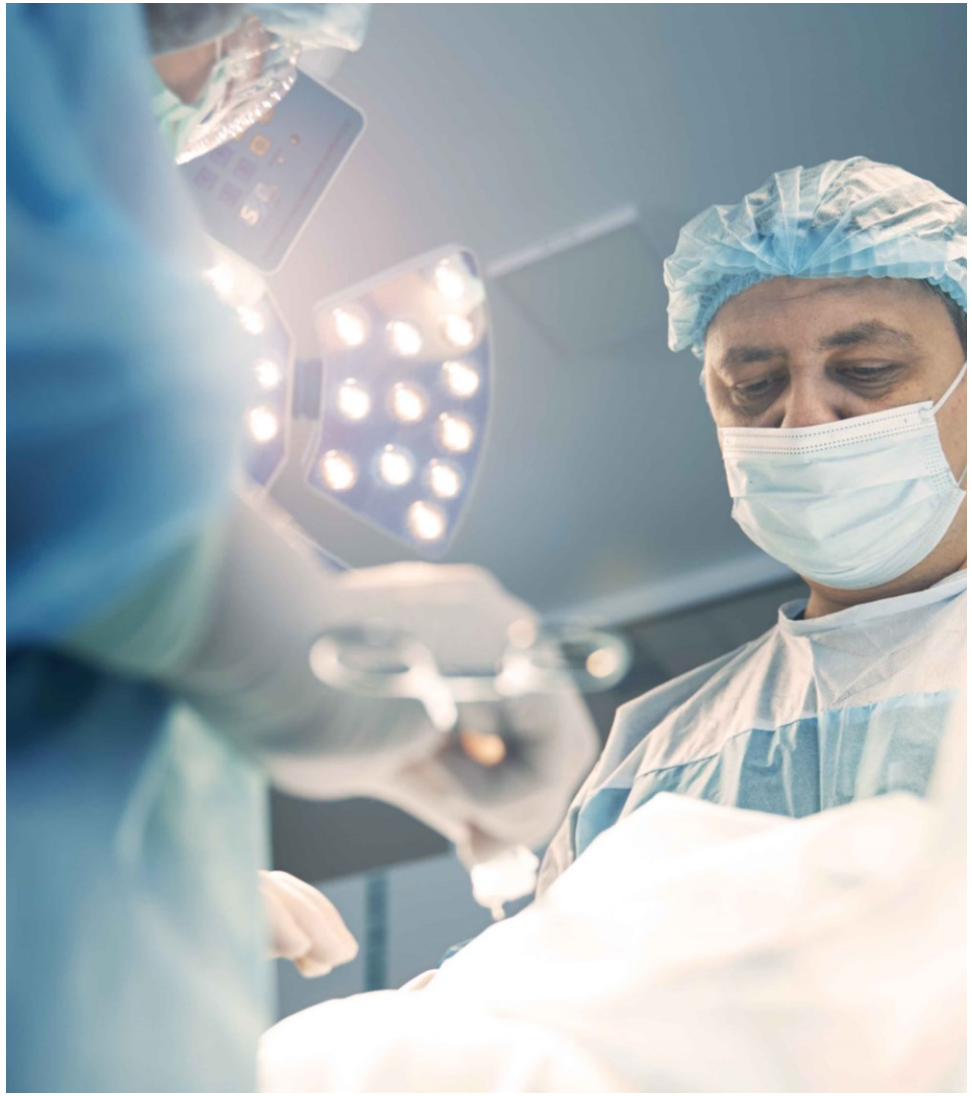

The State of Surgery

- Minimally Invasive Surgery (MIS) is the gold standard, **yet penetration is less than 50% and outcomes continue to vary**[1,2]
- Robotics as an enabling technology **remain under penetrated globally** (~6%) despite two decades of developments

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1. Gala, et al. Society of Gynecologic Surgeons Systematic Review Group. Systematic review of robotic surgery in gynecology: robotic techniques compared with laparoscopy and laparotomy. J Minim Invasive Gynecol. 2014 May-Jun;21(3):353-61.
2. Moretti, et al. Surgical Results and Complications for Open, Laparoscopic, and Robot-assisted Radical Prostatectomy: A Reverse Systematic Review. Eur Urol Open Sci. 2022 Sep 8;44:150-161.

Next Level Thinking for Next Level Outcomes

Digital Surgery

Improving outcomes by reducing **variability**

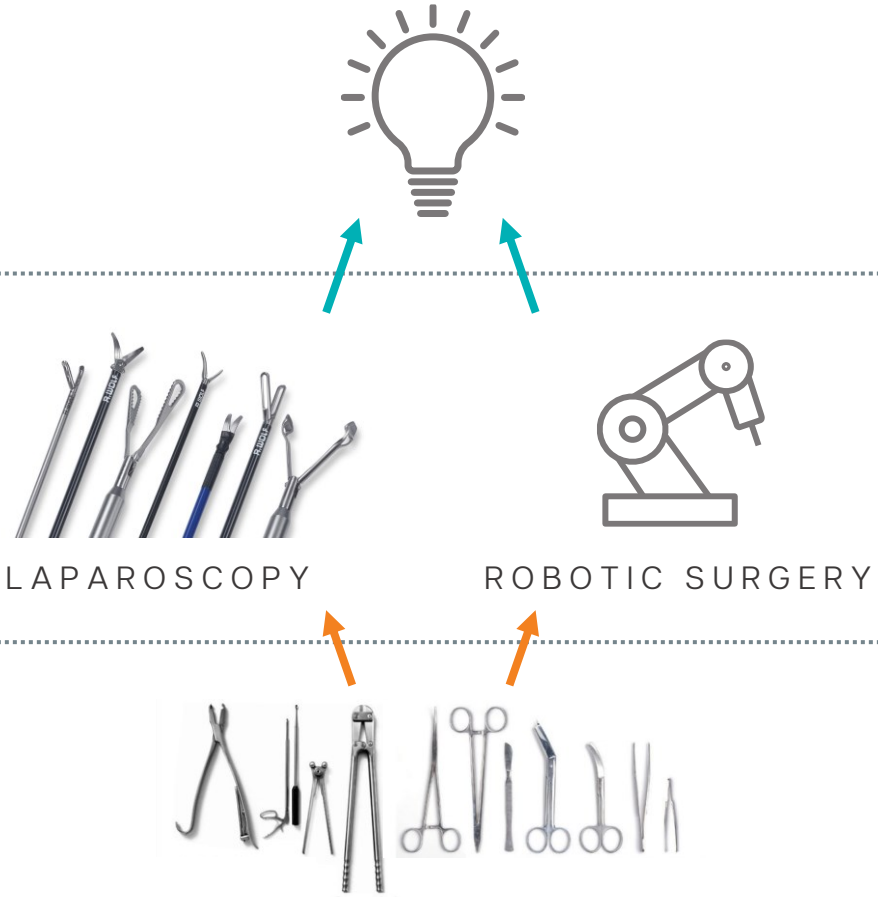
Digital tools to increase safety, predictability & consistency

Minimally Invasive Surgery

Improving outcomes by reducing **invasiveness**

Vision systems & mechanical tools for intracorporeal dexterity

Open Surgery



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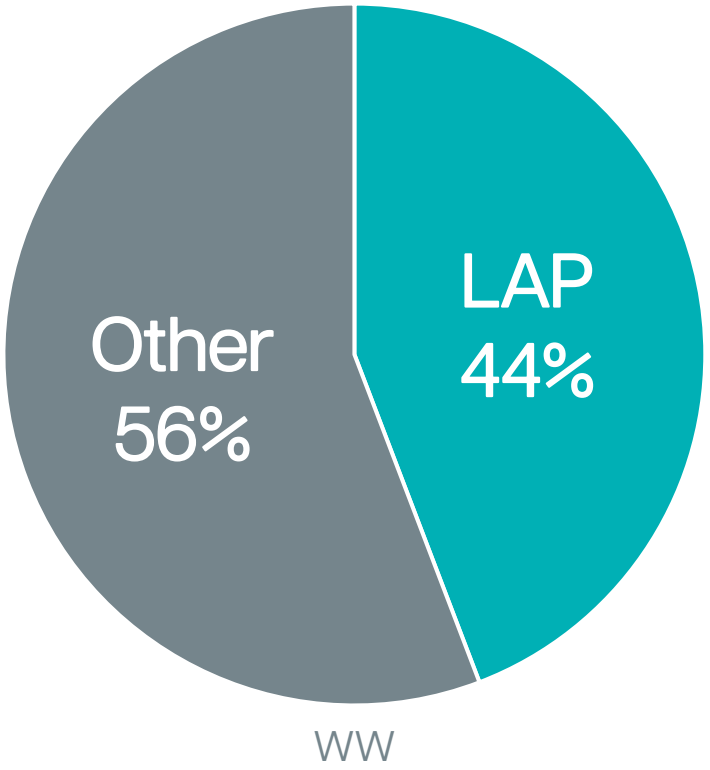
MIS: The Gold Standard

- 44% WW soft tissue procedures are performed laparoscopically[1]
- **Laparoscopy is better…**
  - Shorter length of stay
  - Reduced pain
  - Better outcomes
- **…but makes up less than 1/2 of procedures**
  - Increased complexity
  - Reduced access



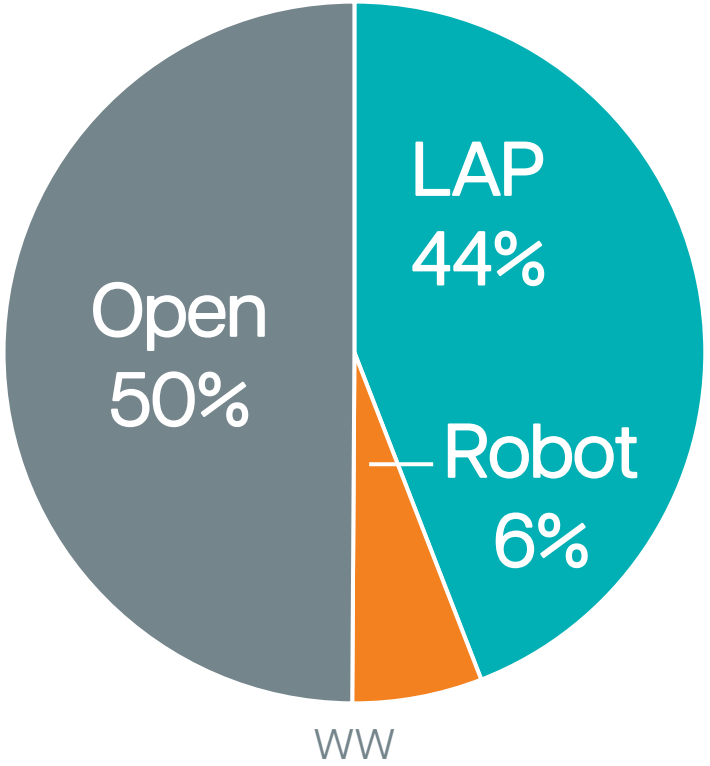
Soft Tissue Surgical Procedures (2022)

LAP

1. Clarivate / DRG Laparoscopic Devices Market Insight Dec 2021 combined with internal assessment of addressable procedures

Robotics Incremental Change

- Robotic Surgery today is ~6% of market[1]
- Incremental improvement vs. traditional laparoscopy
- Current Robotics adds challenges:
  - Higher learning curve
  - Cost per procedure
  - Surgeon disconnected from the OR
- Traditional Robotics has had little impact on patient outcomes vs. Laparoscopy



Soft Tissue Surgical Procedures (2022)

LAP

Robot

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1. Clarivate / DRG Laparoscopic Devices Market Insight Dec 2021 combined with internal assessment of addressable procedures

Variability Can Be Reduced

Surgical Variability Impact Patients

- **1 in 5** surgical procedures result in a complication that impacts the patient.[1]
- The **volume of surgeries performed** can have a direct correlation to patient outcomes.[2,3]
- **Complication rates** vary by procedure and surgeon, leading to unpredictable financial burdens for hospitals.[4,5]

Expanding clinical insights in real-time informs decision making to reduce surgical variability

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1.Birkmeyer, et al. Surgical skill and complication rates after bariatric surgery. N Engl J Med. 2013;369:1434-1442
2.Markar, et al. Volume-outcome relationship in surgery for esophageal malignancy: 2000-2011. J Gastrointest Surg. 2012 May;16(5):1055-63.
3.Hendricks, et al. Systematic review and meta-analysis on volume-outcome. Int J Surg. 2021 Feb;86:24-31.
4.Lee, et al. Clinical and economic burden of colorectal and bariatric anastomotic leaks. Surg Endosc. 2020 Oct;34(10):4374-4381. doi: 10.1007/s00464-019-07210-1. Epub 2019 Nov 12.
5.La Regina, et al. Financial Impact of Anastomotic Leakage in Colorectal Surgery. J Gastrointest Surg. 2019 Mar;23(3):580-586. doi: 10.1007/s11605-018-3954-z. Epub 2018 Sep 13.

 |

What We've Learned

Listening to surgeons and surgical staff 10+ years.

Observing challenges in the OR through 10+ thousand procedures.

Gaining a global perspective across 10+ geographies.

- There is a need for tools that inform surgical decisions and enhance cognitive abilities in the OR.
- Surgical technology should promote collaboration, productivity and career longevity.
- Robotic Surgery platforms must become far more accessible, i.e. easier to obtain, use and learn.
- Operational cost barriers can be addressed to make Robotics broadly available.

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There are Missing Pieces in the OR

Patients

- Predictable outcome
- Fast recovery, with less pain
- Rapid return to normal activity

Surgeons

- Complete less invasive instruments
- Robotic precision and control
- Real-time decision support tools
- Connection to OR
- Productive and fulfilling career

OR Staff

- Easy setup / stay on schedule
- Simple instrument exchange
- Full patient access
- Interactive communication
- Standardization to familiar tools and supplies

Hospital

- Lower cost per procedure
- Reduced complications
- Performance metrics and dashboards
- Standardization

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The Next Evolution of Surgery


Then
Now
Future

Digitizing Surgery

Moving from an Analog to a Digital World

Robotics + Digital Interface + Machine Vision & Augmented Intelligence

Best in Class Robotics
PHYSICAL ADVANTAGE

- System versatility & footprint
- Full suite of surgical tools & partners
- Smallest 5mm wristed Instruments

Surgical Assistance
COGNITIVE ADVANTAGE

- Surgeon-driven and autonomous visualization
- Haptic feedback to “feel” the surgery

Clinical Intelligence
INFO TO SUPPORT SURGICAL DECISIONS

- Structural identification & no-fly zones
- Intra-operative guidance
- Procedural steps based on past surgeries
- Training and education of surgeons

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Performance-Guided Surgery

Clinical Intelligence and Real-Time Decision Support Tools That Drive Consistently Superior Outcomes

01 Robotic Manipulation

02 Intra-operative Clinical Guidance

03 Cloud Integration

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Meet LUNA™

The Next Generation of Digital Surgery

VICE PRESIDENT, R&D, ROBOTICS

Dustin Vaughan

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LUNA System Overview

Instinctive
Surgeon Console

Collaborative
Robotic Manipulator Arms

Enabling
Instruments

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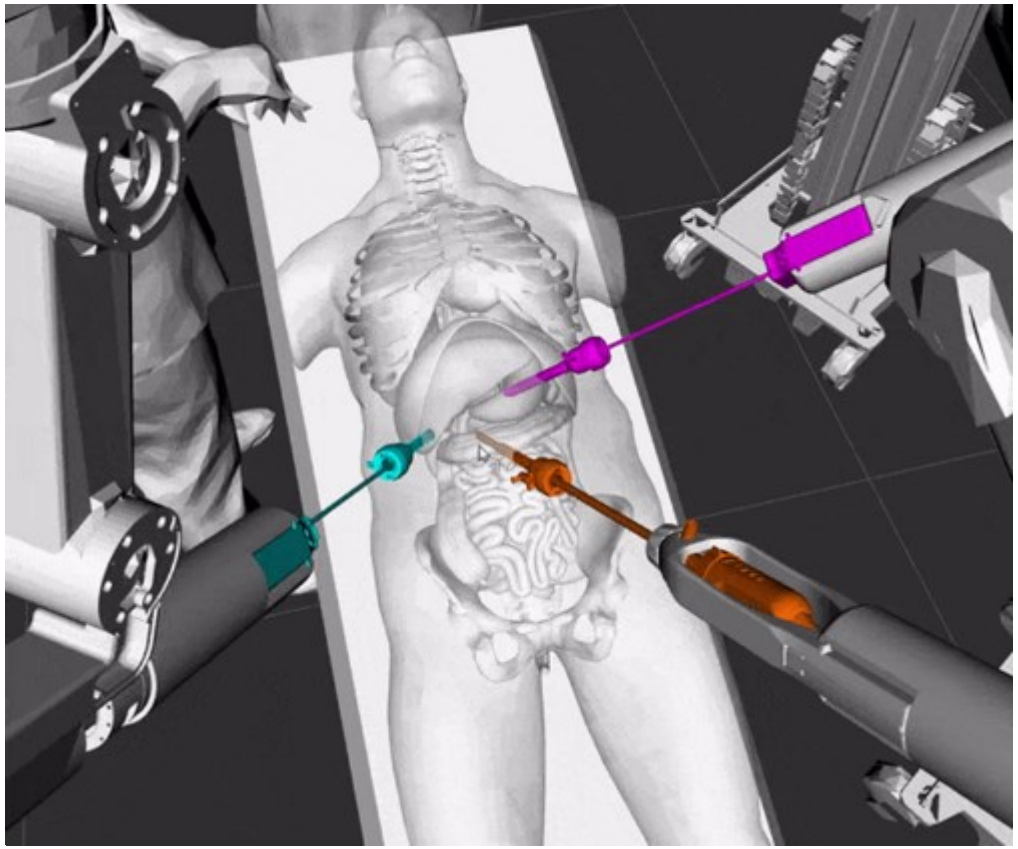
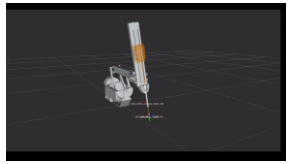
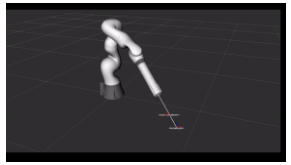
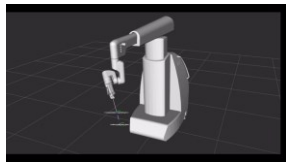
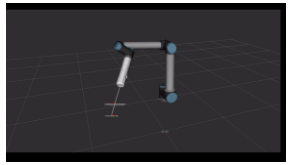
Building LUNA

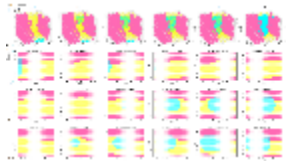












- Senhance experience
- System architecture
- Leveraging global relationships
- Design for Excellence
- Regulatory mentality

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Surgeon Console

Market leading 4K-3D visualization from KARL STORZ

(No 3D glasses required)

Accessible touch screen user interface

Unconstrained surgeon controls for seamless operation of robotic arms

Manipulator Arm

Greater range of motion for improved surgical dexterity

Haptic feedback and virtual fulcrum for tissue protection

Capable drive system and rapid instrument exchange

Real-time guidance for ease of pre-operative setup

Reduced footprint for greater bedside maneuverability and patient access

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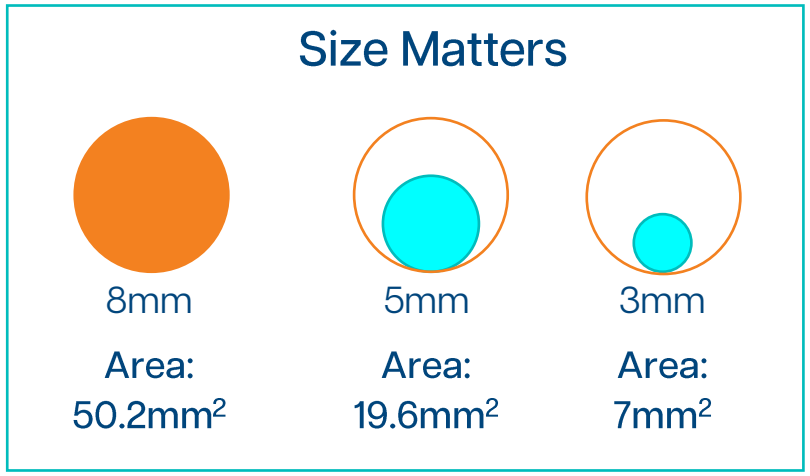
Instruments

- TrueWrist™ fully articulated 5mm instruments line
- Passive, Monopolar and Bipolar offerings
- Reusable
- Standard minimally invasive 3mm and 5mm trocars
- Continued development and manufacturing by KARL STORZ



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SENSUS
SURGICAL
LUNA
LUNA
LUNA
LUNA™
The Next Generation of Digital Surgery

KARL STORZ Collaboration

- Industry-leading imaging solutions
- Next-generation instrumentation
- Commercial scale

Managing Director, KARL STORZ VENTURE ONE

Stephan Abele


STORZ
KARL STORZ — ENDOSKOPE

Facts and figures at a glance

Foundation

1945 in Tuttlingen (Germany)

Fields

Medical Technology

Business areas

Human & Veterinary Medicine

Production sites

Germany, USA, Estonia, Switzerland

8,300

Employees worldwide

1.97 billion

Euro turnover in 2021

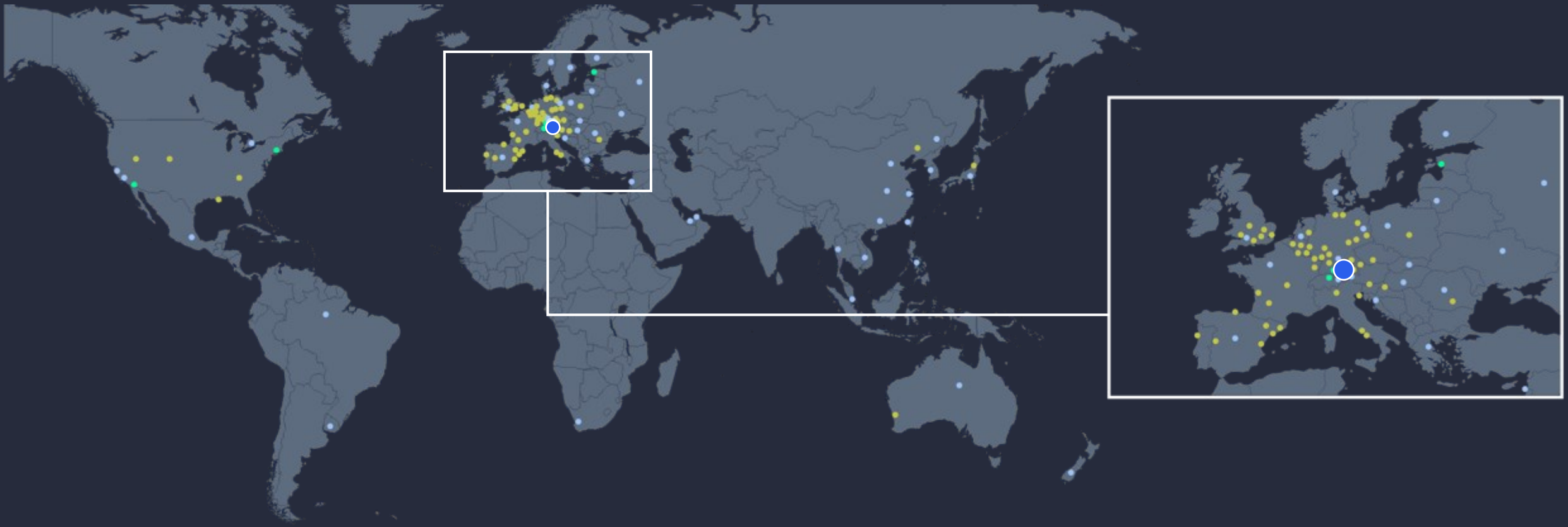
70

subsidiaries in 40 countries

STORZ
KARL STORZ—ENDOSKOPE

The world is our home

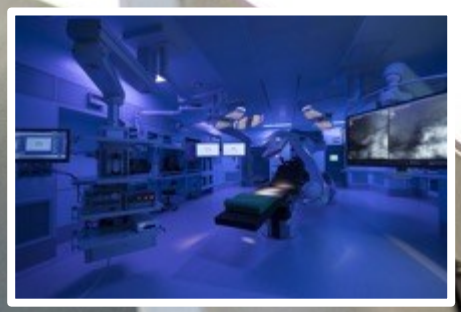
Headquarters Sales & Marketing Manufacturing Training Centers



KARL STORZ—ENDOSKOPE

Hospitals worldwide value technologies from KARL STORZ

Leading Hospitals and healthcare partners worldwide rely on our innovations.



- 10,000 OR1 installations globally
- 20% Market Share in the US and EU in integration
- 28% Market Share globally in imaging systems

KARL STORZ—ENDOSKOPE

High-end operating rooms from KARL STORZ

OR1™ – Integrated operating room

- Integration of the OR into the hospital IT infrastructure
- Central control of the integration system for medical equipment and room functions

SCENARA® – The modular software platform

- Modular, expandable and cybersafe application platform
- Supports pre-, intra-, and postoperative processes
- Expanded documentation chain thanks to simple and safe access to endoscopic videos – at any time and any place — also on mobile devices

Optimal imaging makes the difference in robotic surgery

- Surgeons around the globe have relied on KARL STORZ imaging in their daily practice for decades.
- The 3D-4K video endoscope TIPCAM®1 Rubina™ fits perfectly for robotic surgery
- Robotic surgery benefits from outstanding image quality and excellent depth perception.
- NIR/ICG enables visualization of anatomical structures beyond what the human eye can see

KARL STORZ venture one

STORZ
KARL STORZ — ENDOSKOPE

Performance-Guided Surgery

Clinical Intelligence and Real-Time Decision Support Tools That Drive Consistently Superior Outcomes

01 Robotic Manipulation

02 Intra-operative Clinical Guidance

03 Cloud Integration

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VICE PRESIDENT, R&D, DIGIAL SOLUTIONS

Motti Frimer

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Some Definitions

Artificial Intelligence

The ability of machines to do things that usually require human cognition, such as learning, problem-solving and decision-making.

Augmented Intelligence

The use of technology to enhance human intelligence, rather than replacing it.

Intraoperative Clinical Intelligence

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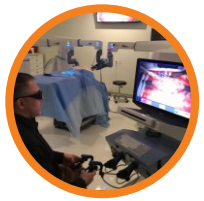
The Asensus Intelligent Surgical Unit™ (ISU™)

Cloud Connectivity

Laparoscopic Vision System



Overlay Outputs

Robotic System Data/Control

Loop Through OR Video

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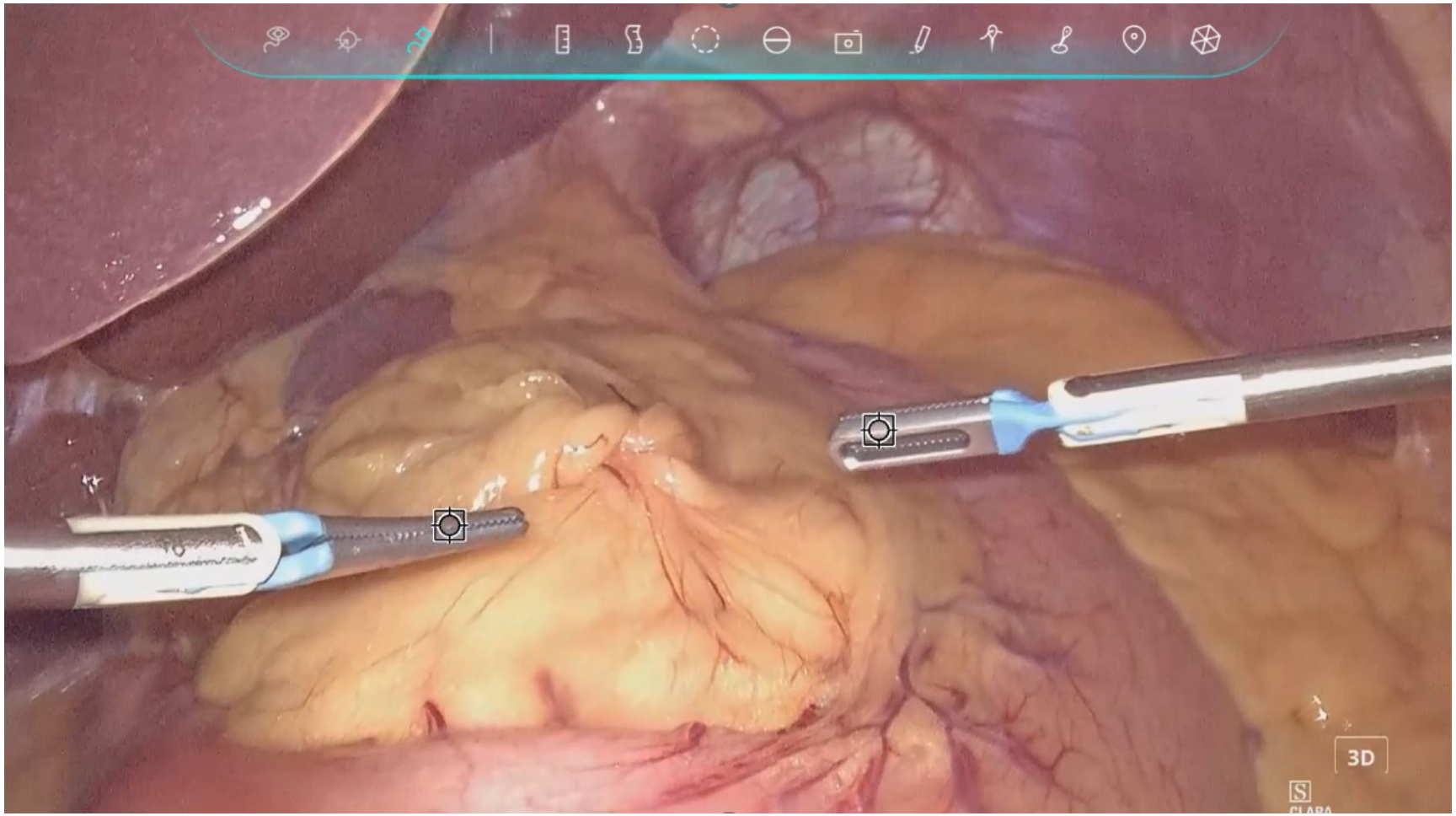
Camera Control and Manipulation



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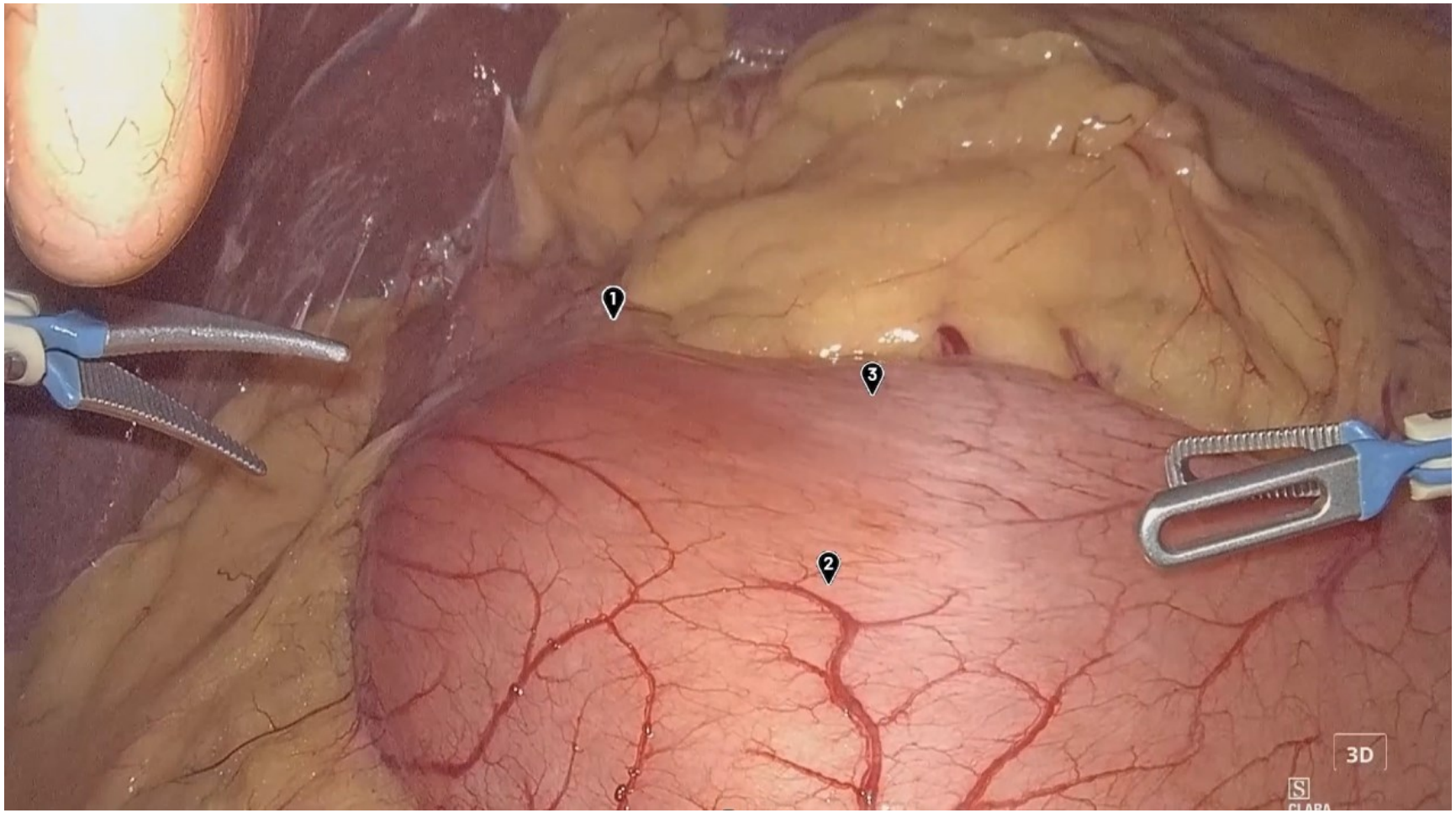
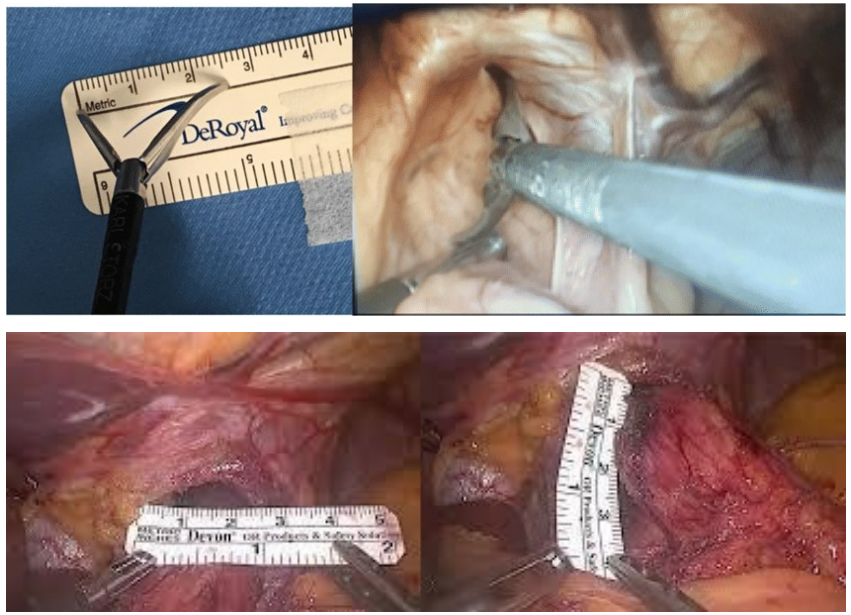
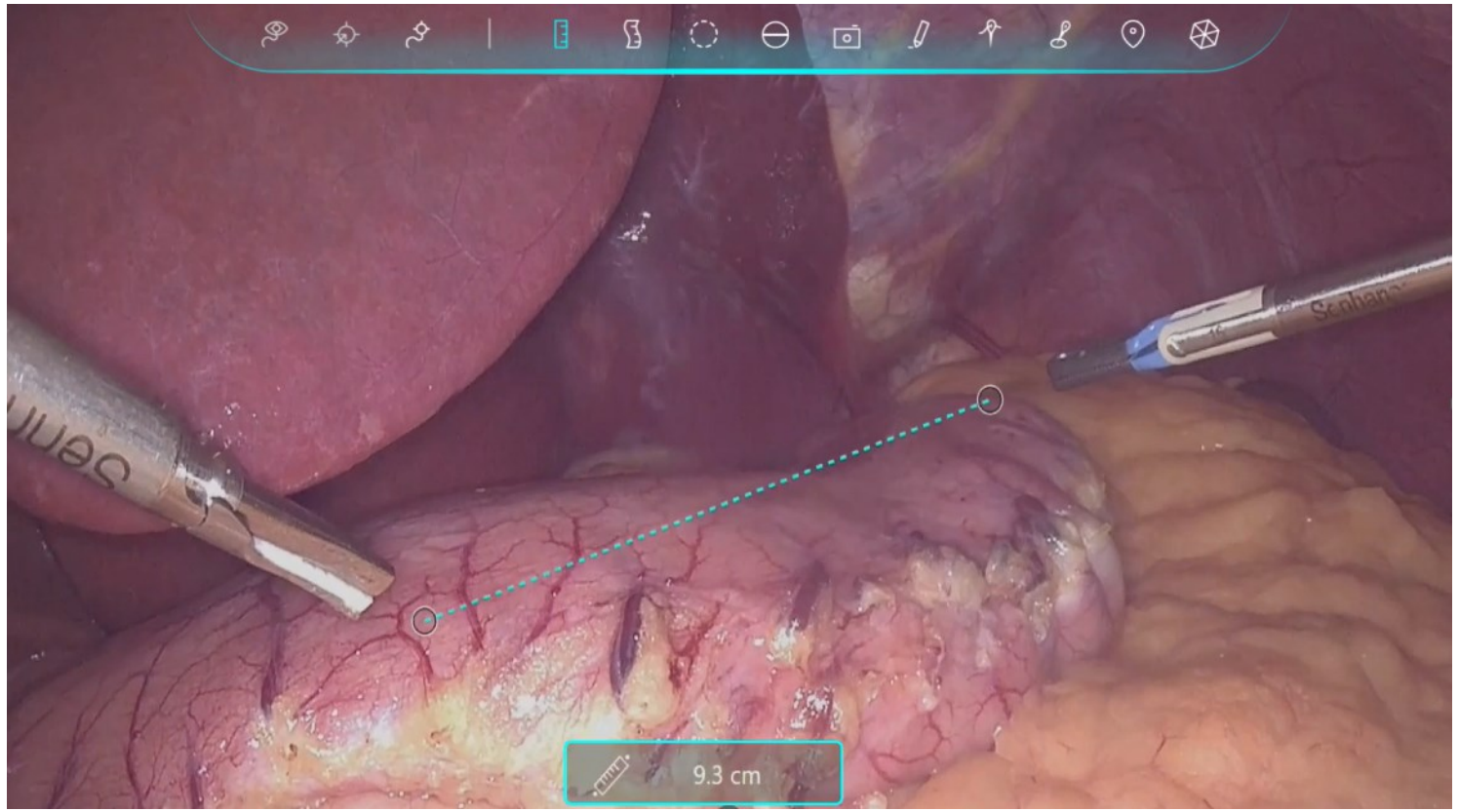
Digital Tags



3D Digital Measurement



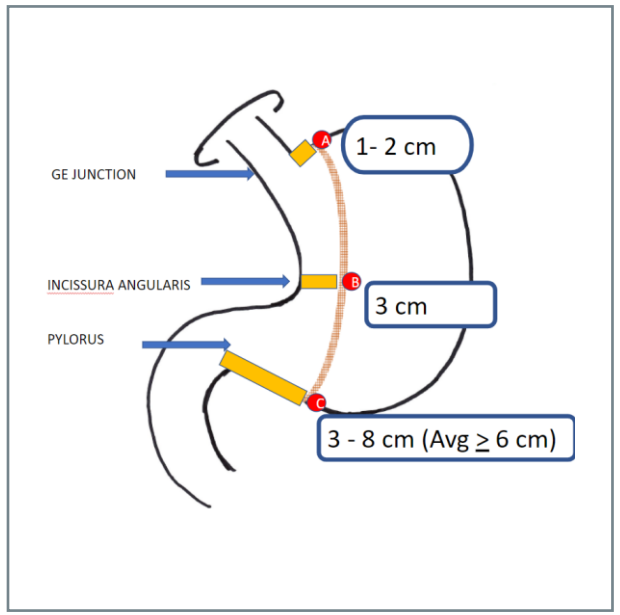


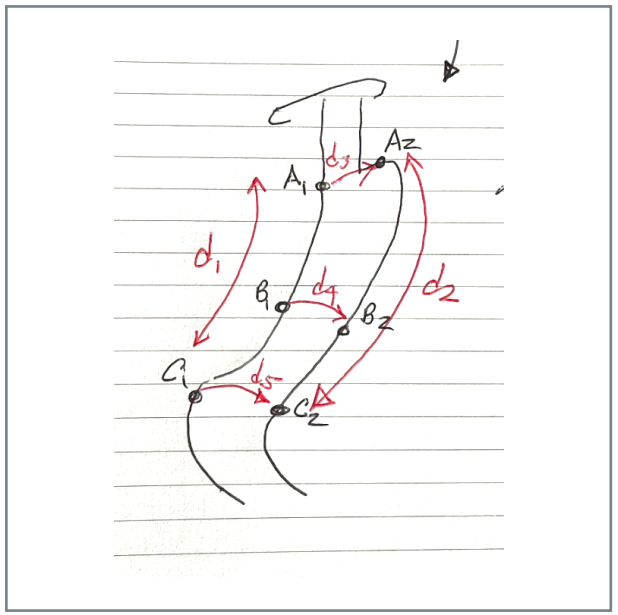
Evolution of the ISU

- Analytical Tools
- Safety Tools
- Training Tools

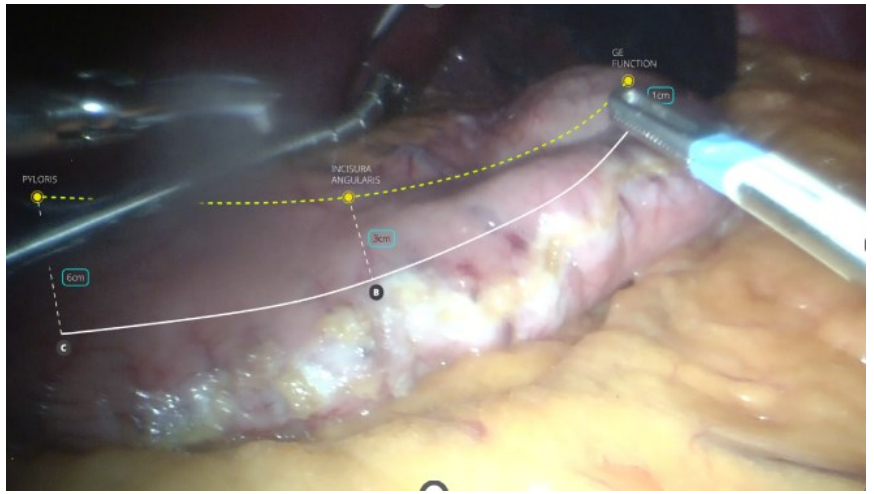
Analytical Tools Example

3D Measurement

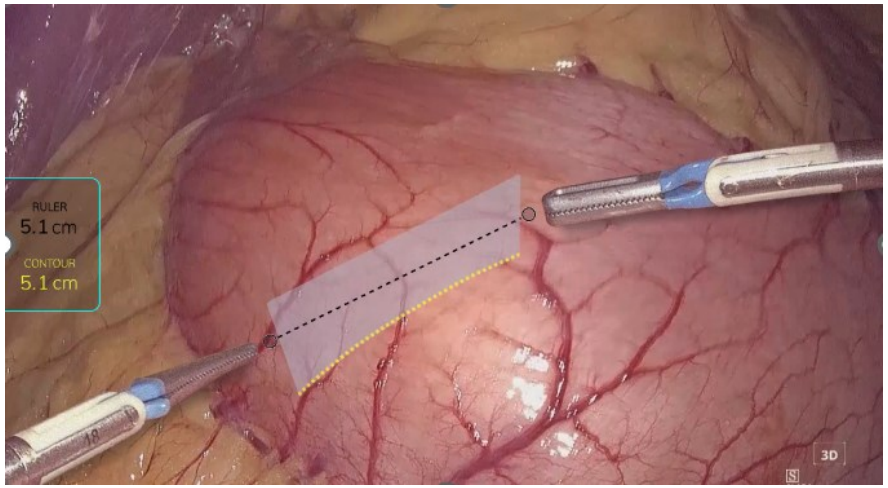




Gastric Sleeve Procedure



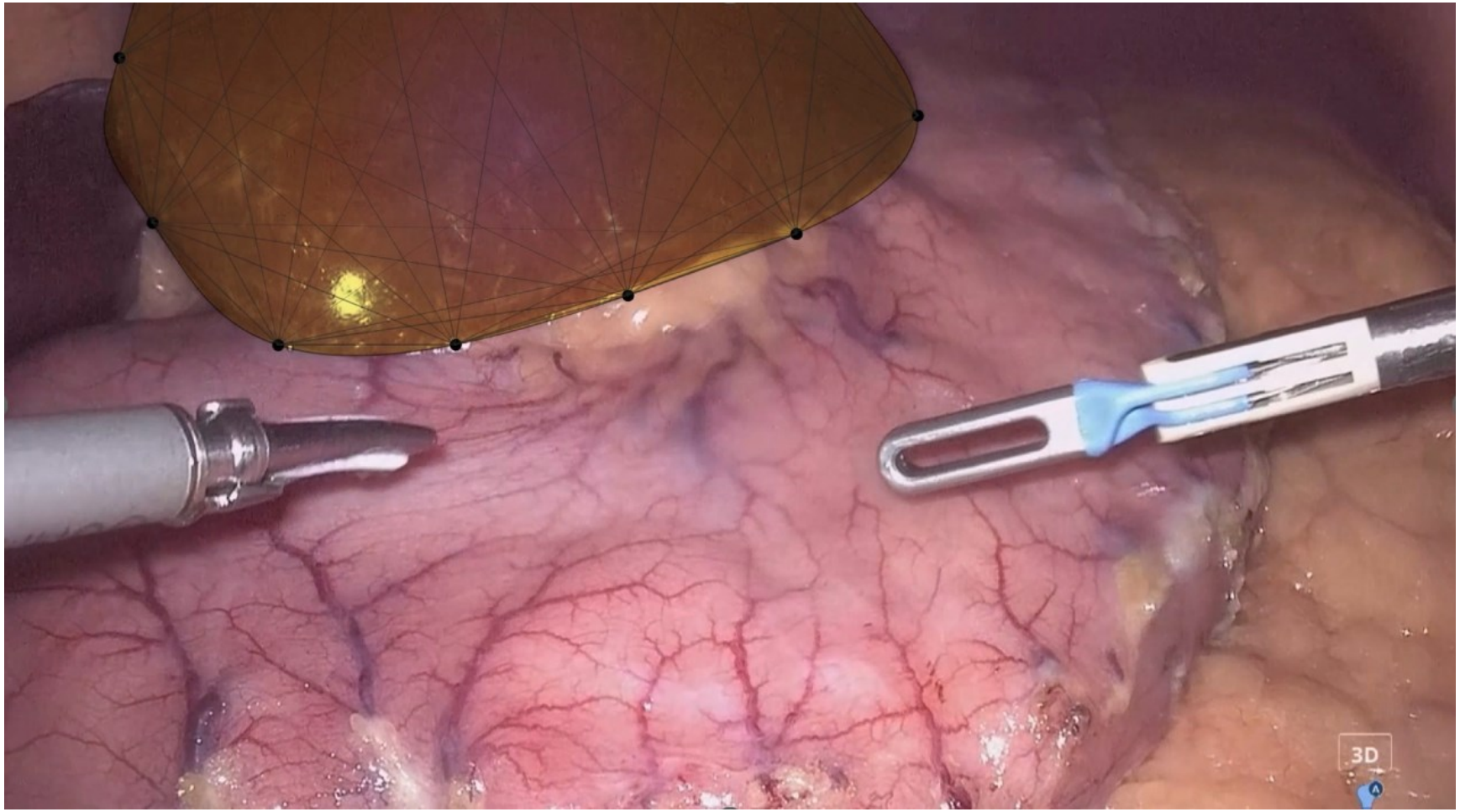
Measurement with Reference Plane



Some features are still in development and the safety or effectiveness of these features have not been established.

Safety Tool Example

Establish ‘No-Fly’ Zones



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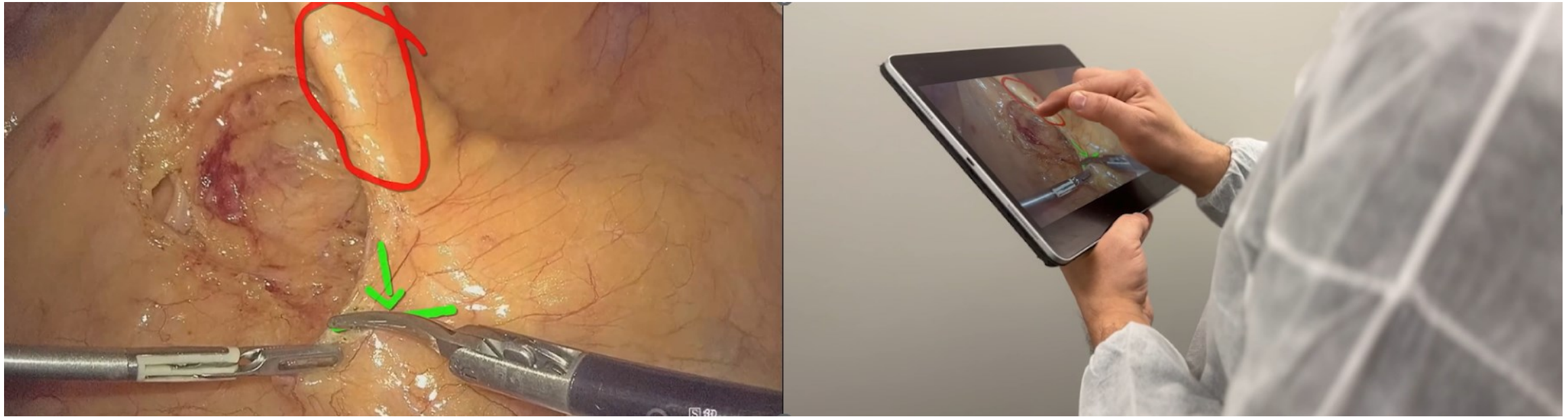
Some features are still in development and the safety or effectiveness of these features have not been established.

Training Tool Example

Real-time telestration



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Performance-Guided Surgery

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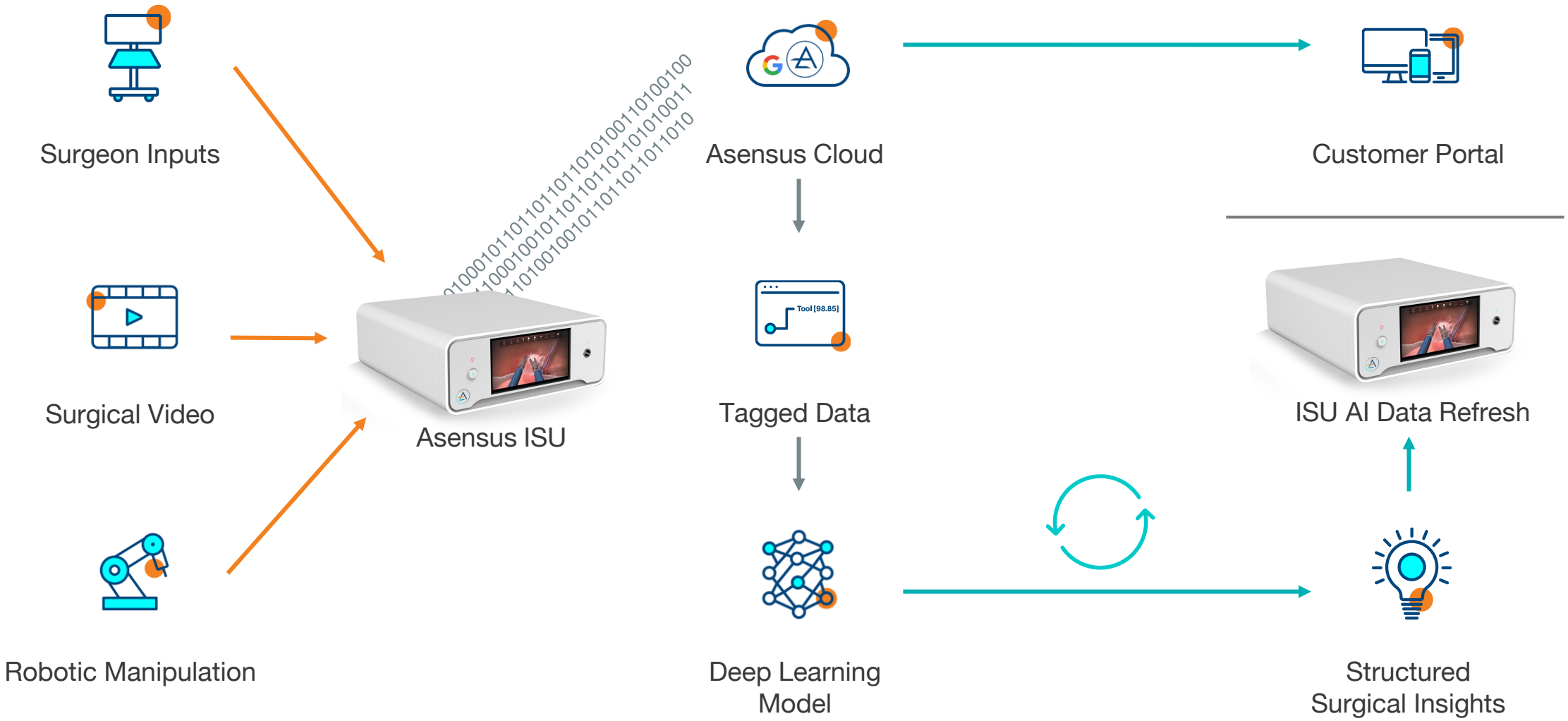
Capture

Process

Deploy



VICE PRESIDENT, DIGIAL SOLUTIONS

Brian Stellmach

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Data & the Asensus Cloud

Data in the Past

- Nearly zero

Present

- Infrequent
- Unstructured

Future

- Massive
- Actively collected
- High quality
- Well-organized

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Customized Cloud Solution for Surgical Applications

Unique Considerations

- Huge video files (4K-3D)
- Privacy & security
- Adaptive scalability in storage, compute, etc.

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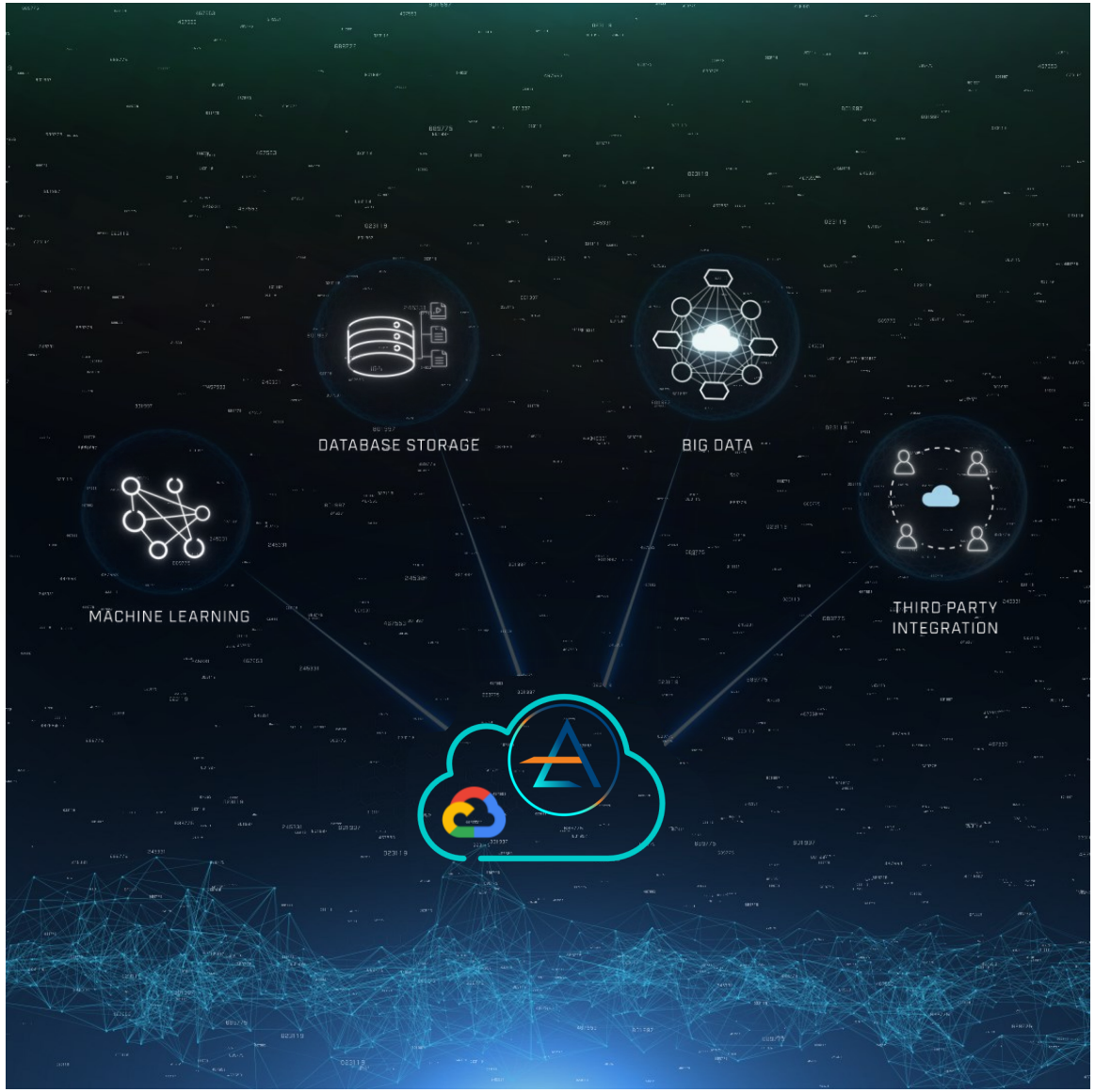
Data Automation Enhances Cloud Capabilities

- Democratization of Surgical Data Annotation
- Big Data Enrichment
- Future 3rd Party Integrations



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Data to Insights

Analytics Applications

Intra-operative

- Augmented Intelligence

Pre & Post Op

- Evaluating performance
- Comparative planning
- Workflow optimization
- Training, research, etc.

Cloud Partnerships

Google Cloud

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Surgery Reimagined

Patients

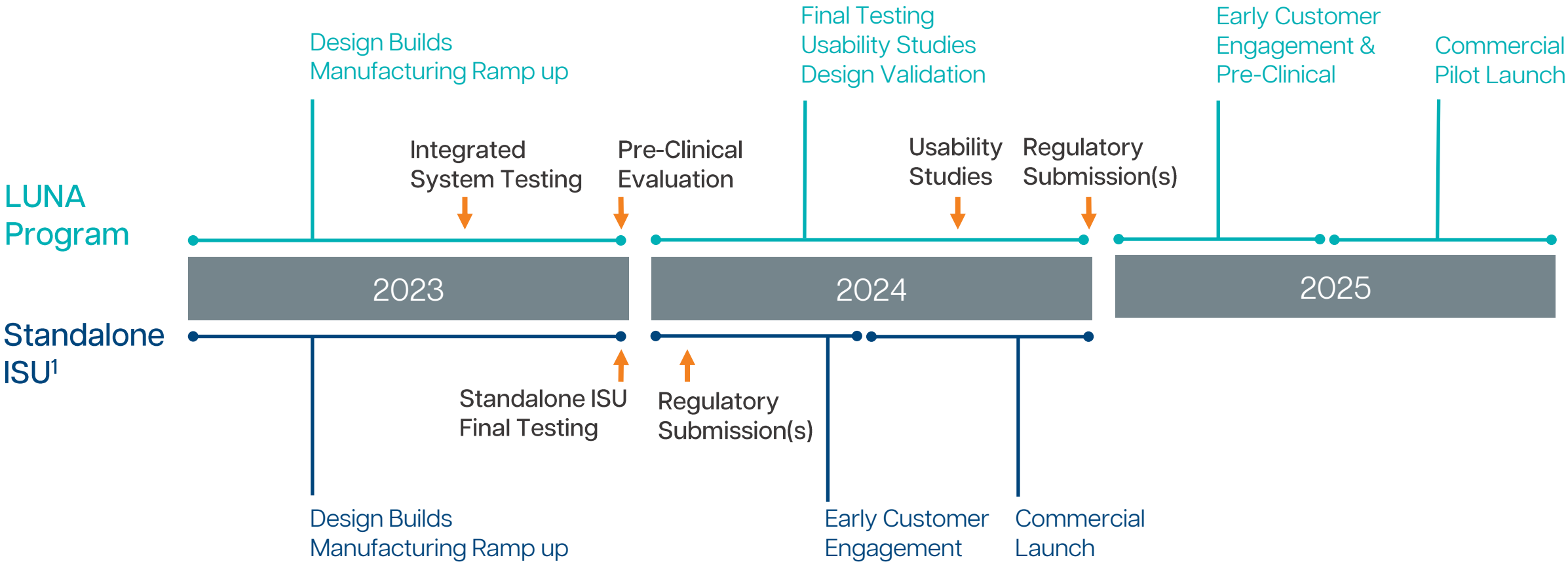
Surgeons

OR Team

Hospital

Performance-Guided Surgery

Key Milestones



1. Timelines to be finalizes as part of definitive agreement

Key Takeaways

- Surgical outcomes can be improved.
- Performance-Guided Surgery is surgery reimagined.
- Asensus is the right company to advance this vision.
- LUNA: Next-generation digital surgery platform and instruments.
- Standalone ISU: Incremental revenue stream.
- Digital surgery is more than just a robot.
- Clear pathway to execute and achieve our vision.

Surgeon Panel

The Next Evolution of Surgery

SURGEON

Dr. Amit Trivedi

Chair, Department of Surgery
Pascack Valley Medical Center, New Jersey (US)

SURGEON

Prof. Bernhard Krämer

Deputy Medical Director of Gynecology
Tuebingen University Hospital, Tuebingen (Germany)

MODERATOR

Dr. Ed Chekan

VP, Medical Affairs & Professional Education
Asensus Surgical

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ON BEHALF OF OUR ENTIRE TEAM,

Thank You