



VICARIOUS SURGICAL

INVESTOR PRESENTATION AUGUST 2022



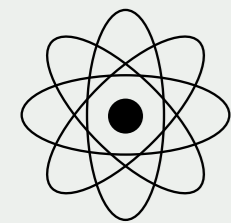


DISCLAIMER

This presentation includes “forward-looking statements” within the meaning of the “safe harbor” provisions of the United States Private Securities Litigation Reform Act of 1995. The company’s actual results may differ from its expectations, estimates, and projections and, consequently, you should not rely on these forward-looking statements as predictions of future events. All statements other than statements of historical facts contained herein are forward-looking statements that reflect the current beliefs and expectations of management. These forward-looking statements involve significant risks and uncertainties that could cause the actual results to differ materially from those discussed in the forward-looking statements. Most of these factors are outside Vicarious Surgical’s control and are difficult to predict. Factors that may cause such differences include, but are not limited to: the impact of COVID-19 on Vicarious Surgical’s business; changes in applicable laws or regulations; the ability of Vicarious Surgical to raise financing in the future; the success, cost and timing of Vicarious Surgical’s product and service development activities; the potential attributes and benefits of Vicarious Surgical’s products and services; Vicarious Surgical’s ability to obtain and maintain regulatory approval for the Vicarious System, and any related restrictions and limitations of any approved product; the size and duration of human clinical trials for the Vicarious Surgical; Vicarious Surgical’s ability to identify, in-license or acquire additional technology; Vicarious Surgical’s ability to maintain its existing license, manufacture, supply and distribution agreements; Vicarious Surgical’s ability to compete with other companies currently marketing or engaged in the development of products and services that Vicarious Surgical is currently marketing or developing; the size and growth potential of the markets for Vicarious Surgical’s products and services, and its ability to serve those markets, either alone or in partnership with others; the pricing of Vicarious Surgical’s products and services and reimbursement for medical procedures conducted using its products and services; the company’s estimates regarding expenses, revenue, capital requirements and needs for additional financing; Vicarious Surgical’s financial performance; economic downturns, political and market conditions and their potential to adversely affect Vicarious Surgical’s business, financial condition and results of operations; and other risks and uncertainties indicated from time to time in Vicarious Surgical’s filings with the SEC. Vicarious Surgical cautions that the foregoing list of factors is not exclusive. The company cautions readers not to place undue reliance upon any forward-looking statements, which speak only as of the date made. Vicarious Surgical does not undertake or accept any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements to reflect any change in its expectations or any change in events, conditions or circumstances on which any such statement is based.



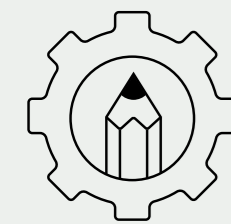
KEY INVESTMENT HIGHLIGHTS



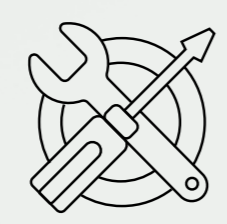
NEXT GENERATION ROBOTICS TECHNOLOGY



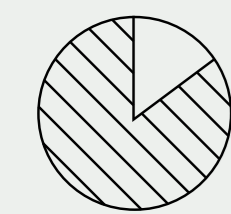
ABILITY TO ADDRESS MOST ABDOMINAL PROCEDURES



DESIGNED TO SOLVE MANUAL AND ROBOT-ASSISTED SURGERY SHORTCOMINGS



DEVELOPED IN STEALTH BY VISIONARY MANAGEMENT TEAM AND INVESTORS



TAPPING INTO A \$136B MARKET; 96.8% UNADDRESSED BY ROBOTICS¹

[1] VICARIOUS ESTIMATES FROM DATA SOURCED FROM LSI MARKET SIZE ANALYSIS AND PUBLIC FILINGS. INCLUDES ONLY PROCEDURES THAT COULD BE ADDRESSED BY VICARIOUS THROUGH 2027





01

OUR TEAM AND INVESTORS





VISIONARY MANAGEMENT TEAM



CO-FOUNDER AND CEO

ADAM SACHS



CO-FOUNDER AND CTO

SAMMY KHALIFA



EXECUTIVE CHAIRMAN

DAVID STYKA



CHIEF FINANCIAL OFFICER

BILL KELLY



GENERAL COUNSEL AND CHIEF LEGAL OFFICER

JUNE MORRIS



VP OF PRODUCT DESIGN AND COMMERCIALIZATION

MICHAEL PRATT



CO-FOUNDER, CHIEF MEDICAL OFFICER

BARRY GREENE



VP OF OPERATIONS

JOHN MAZZOLA



VP OF STRATEGY AND CORPORATE DEVELOPMENT

PETER MEYER



VP OF CLINICAL REGULATORY AFFAIRS

MICHAEL TRICOLI



VP OF SOFTWARE ENGINEERING

KEVIN HYNES



VP OF PEOPLE & CULTURE

EMMA PLOUFFE





EXPERIENCED BOARD AND ADVISORS



EXECUTIVE CHAIRMAN
DAVID STYKA

AURIS

Former Operational Leader at Auris



D8 BOARD DIRECTOR'
DAVID HO



Noted HIV/AIDS Researcher; Time "Man of the Year" 1996



BOARD DIRECTOR
PHIL LIANG



BOARD DIRECTOR
ADAM SACHS



BOARD DIRECTOR
RIC FULOP



BOARD DIRECTOR
SAMMY KHALIFA



BOARD DIRECTOR
SAMIR KAUL

khosla ventures



BOARD DIRECTOR
DROR BERMAN



BOARD MEMBER
DONALD TANG



TECHNOLOGY ADVISOR
PAUL HERMES

Medtronic

Former Head of Medtronic Robotics Program



IP ADVISOR
DAVE HIGHET



Former General Counsel and Chief IP Counsel at BD

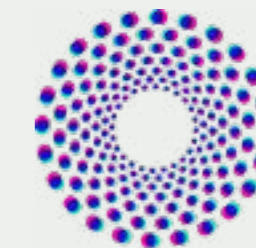
SEASONED INVESTORS

SELECT EXISTING INVESTORS

khosla ventures



AME CLOUD VENTURES



E15VC

Bill Gates

[1] SUBJECT TO BEING FORMALIZED

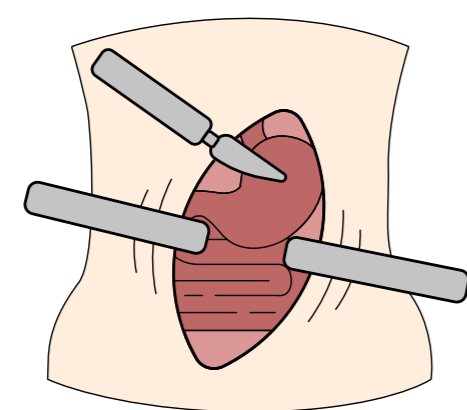


02

THE PROBLEM



THE STATE OF SURGERY TODAY



THE BEGINNING
OPEN SURGERY

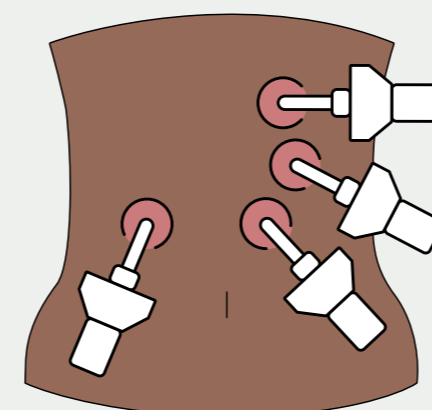
Weeks
at home and months of pain

High
cost of care

- ✗ Large incision
- ✗ Injuries
- ✗ Pain
- ✗ Complications

COMPLICATION RATES
FROM INCISION

15-20%¹

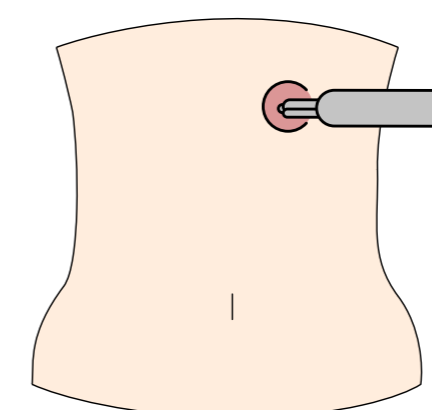
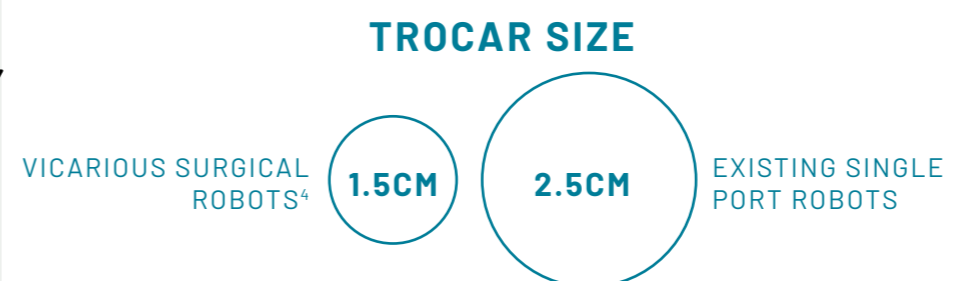


ONE STEP FORWARD
MINIMALLY-
INVASIVE
SURGERY

Manual and Robotic

- ✓ Small incision
- ✗ Multiple incisions
- ✓ Less injuries
- ✗ Less capability

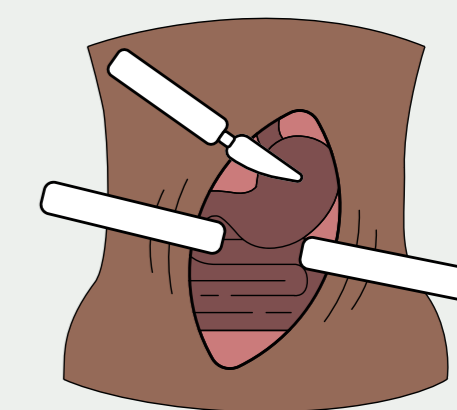
1.2%³



ONE STEP BACKWARD
EXISTING
SINGLE-PORT
ROBOTS

- ✗ Even more injury
- ✗ Even less capability
- Tiny procedural area
- Limited motion
- High cost

8.4%³



STUCK AT THE BEGINNING
OPEN
SURGERY
DOMINANCE

39 million² robotic
addressable abdominal
soft-tissue procedures
worldwide per year

>50%² are still open surgery

15-20%¹

WE NEED A SOLUTION THAT IS MINIMALLY INVASIVE AND **MORE CAPABLE**

[1] HERNÁNDEZ-GRANADOS P ET AL, INCISIONAL HERNIA PREVENTION AND USE OF MESH. A NARRATIVE REVIEW. 2018

[2] VICARIOUS ESTIMATES BASED ON LSI DATA. 2020 DATA

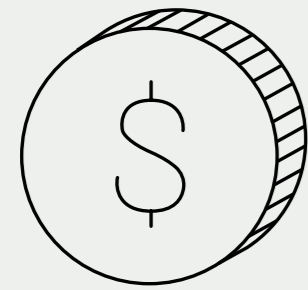
[3] MARKS JM ET AL, SINGLE INCISION LAPAROSCOPIC CHOLECYSTECTOMY IS ASSOCIATED WITH

IMPROVED COSMESIS SCORING AT THE COST OF SIGNIFICANTLY HIGHER HERNIA RATES. 2013

[4] VICARIOUS SYSTEM IS CAPABLE OF INCISION SIZES AS LOW AS 1.2CM. CURRENT DISPOSABLES REQUIRE 1.8CM INCISION. VICARIOUS IS DEVELOPING AND EXPECTS TO LAUNCH DISPOSABLES REQUIRING 1.5CM INCISION



LIMITATIONS OF ROBOTIC SURGERY TODAY



HIGH COST

**Capital and service costs
>\$2M investment**

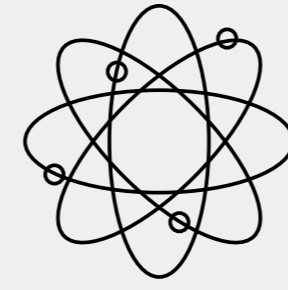
High upfront cost and burdensome service contracts are often prohibitively expensive, especially for outpatient settings



DIFFICULT TO USE

Steep learning curves and device-specific training requirements

Surgeon is required to “design robot motion” for each procedure: in choosing incision sites, surgeon needs to build a robot for every procedure to operate well and avoid collisions inside and outside the abdomen

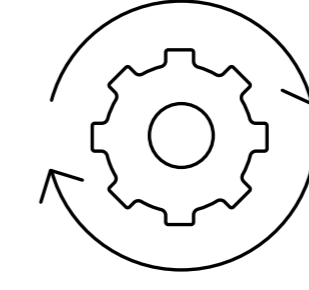


LIMITED CAPABILITIES

Ill-suited for many outpatient procedures. Single-port systems have limited capabilities

Limited ability to operate in multiple quadrants, difficulty operating on the ceiling, collisions inside and outside the abdomen, and restricted access to the patient

Existing single port robots increase complications in 8.4%² of surgeries with trocar sizes of 2.5cm+



LOW UTILIZATION

Large profile, limited portability, extensive set-up, and OR turnover times

Multi-port systems occupy valuable OR real-estate due to large profile and limited portability

Extensive set up and OR turnover times create inefficiencies and increase cost

THESE LIMITATIONS RESULT IN ONLY

3.2%

PENETRATION OF PROCEDURES ADDRESSED BY LEGACY ROBOTS¹

[1] VICARIOUS ESTIMATES FROM DATA SOURCED FROM LSI MARKET SIZE ANALYSIS AND PUBLIC FILINGS

[2] MARKS JM ET AL, SINGLE INCISION LAPAROSCOPIC CHOLECYSTECTOMY IS ASSOCIATED WITH IMPROVED COSMESIS SCORING AT THE COST OF SIGNIFICANTLY HIGHER HERNIA RATES. 2013



03

OUR SOLUTION





THE SYSTEM

9

DEGREES OF FREEDOM PER ARM

1.5cm

SINGLE INCISION¹

360

DEGREES VIEW

5-10x

LOWER CAPITAL COST²



7

YEARS OF R&D

30+

PATENTS ISSUED AND PENDING³

34" wide

FITS THROUGH ANY STANDARD DOOR

28

SENSORS PER ARM INSIDE PATIENT

[1] VICARIOUS SYSTEM IS CAPABLE OF INCISION SIZES AS LOW AS 1.2CM. CURRENT DISPOSABLES REQUIRE 1.8CM INCISION. VICARIOUS IS DEVELOPING AND EXPECTS TO LAUNCH DISPOSABLES REQUIRING 1.5CM INCISION

[2] AS COMPARED TO LEGACY SURGICAL ROBOTS; VICARIOUS MANUFACTURING DATA AND VICARIOUS ESTIMATES FROM PUBLIC FILINGS

[3] INCLUDING PROVISIONAL APPLICATIONS

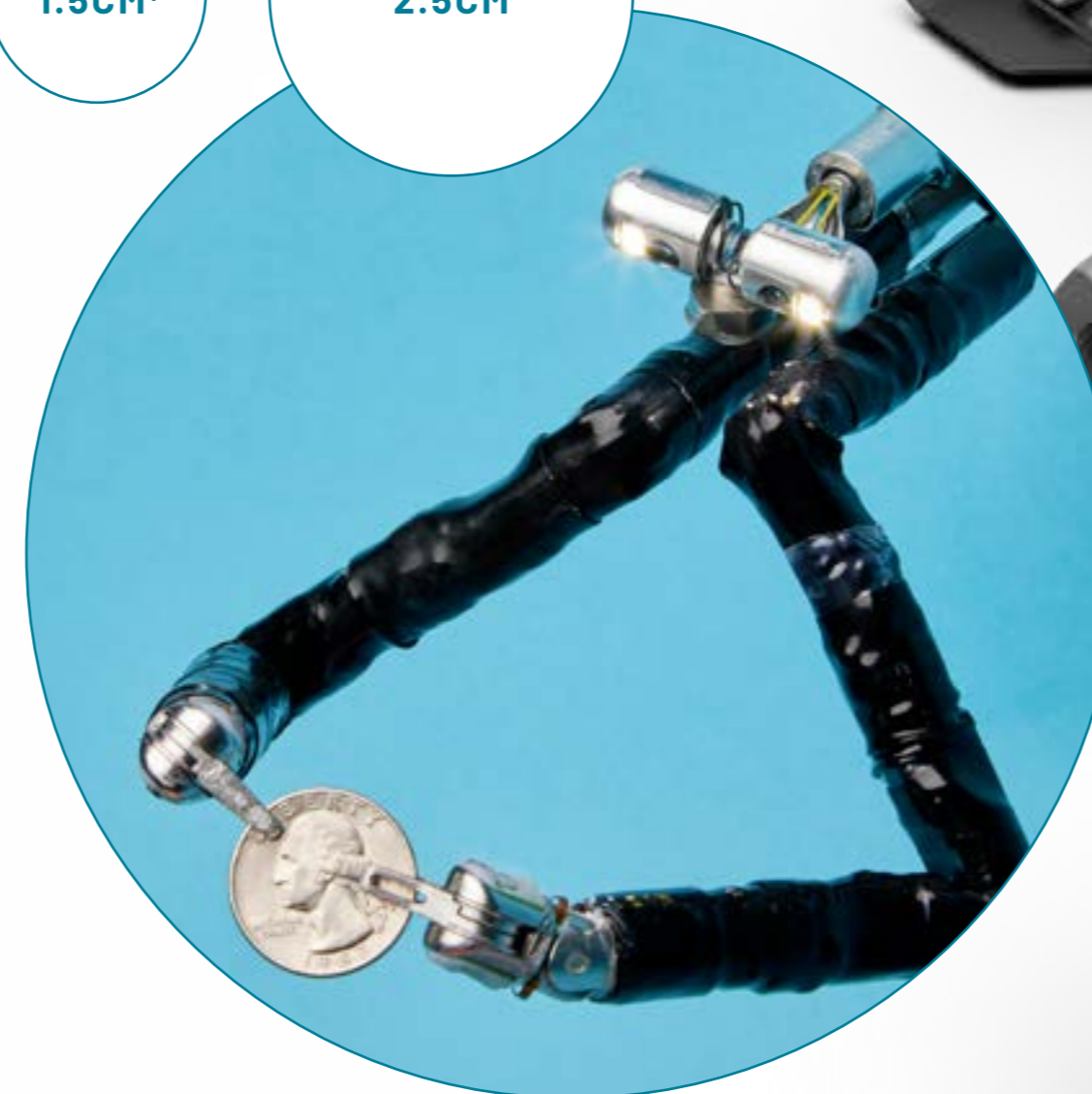
TROCAR SIZE

VICARIOUS SURGICAL ROBOT

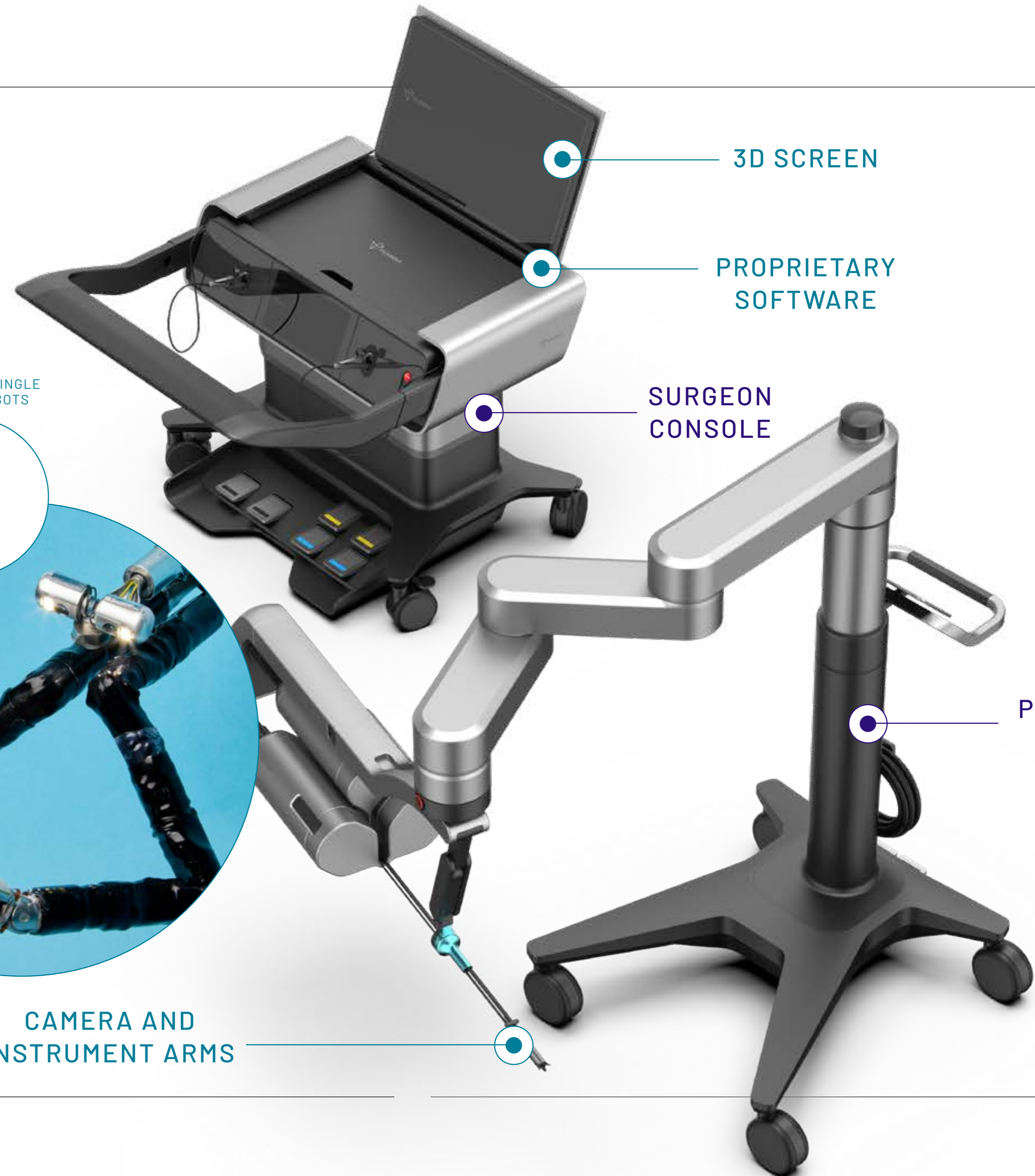
1.5CM¹

EXISTING SINGLE PORT ROBOTS

2.5CM



CAMERA AND INSTRUMENT ARMS



3D SCREEN

PROPRIETARY SOFTWARE

SURGEON CONSOLE

PATIENT CART



LESS INVASIVE WHILE MAXIMIZING CAPABILITIES

INCISION

ONE 1.5CM¹ TROCAR

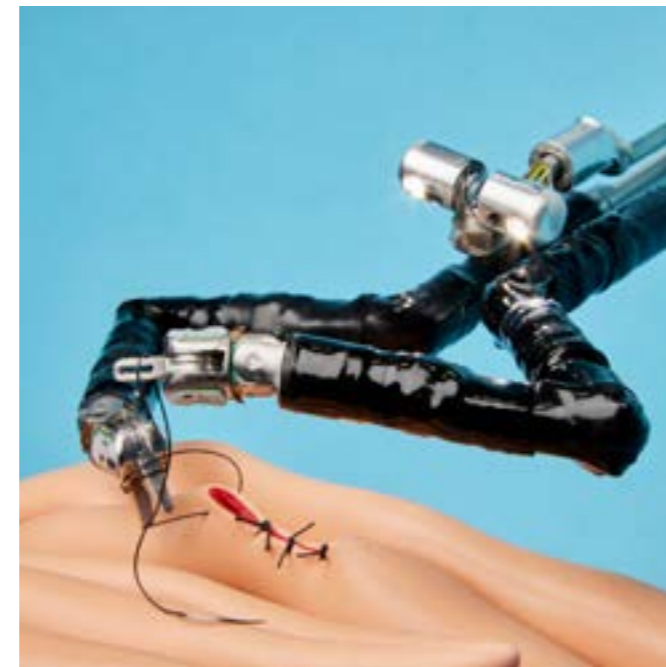


2 robotic arms and 1 camera through
1 incision

In and out; less collateral damage;
small scar

MOTION

HUMAN EQUIVALENT



[VIDEO LINK](#)

9 degrees of freedom per arm

Full replication of surgeon's upper
body: wrists, elbows, and shoulders

2 robotic arms mapped to the
surgeon's own arms

REACH

ANYWHERE²

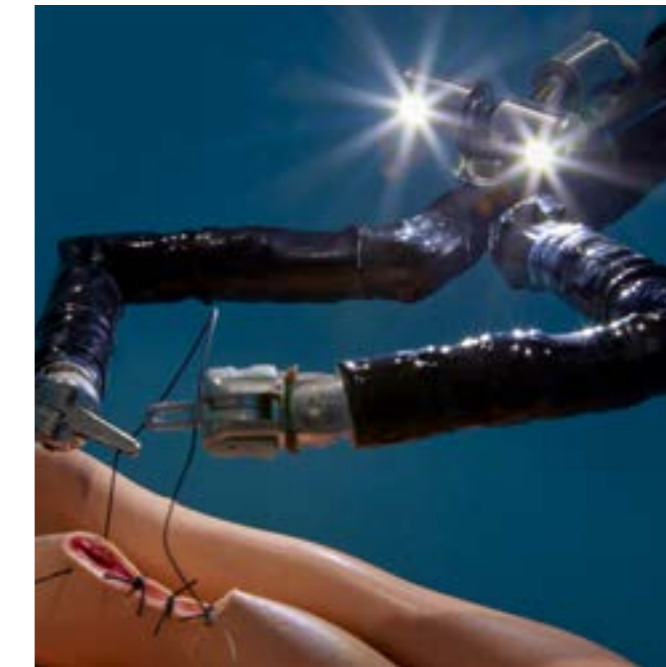


[VIDEO LINK](#)

Unprecedented dexterity through
the same incision

VISIBILITY

EVERYWHERE²



Natural view in any and all
directions—see in 360°

MOBILITY

PORTABLE



Fits through a standard door; faster
set up/break down time

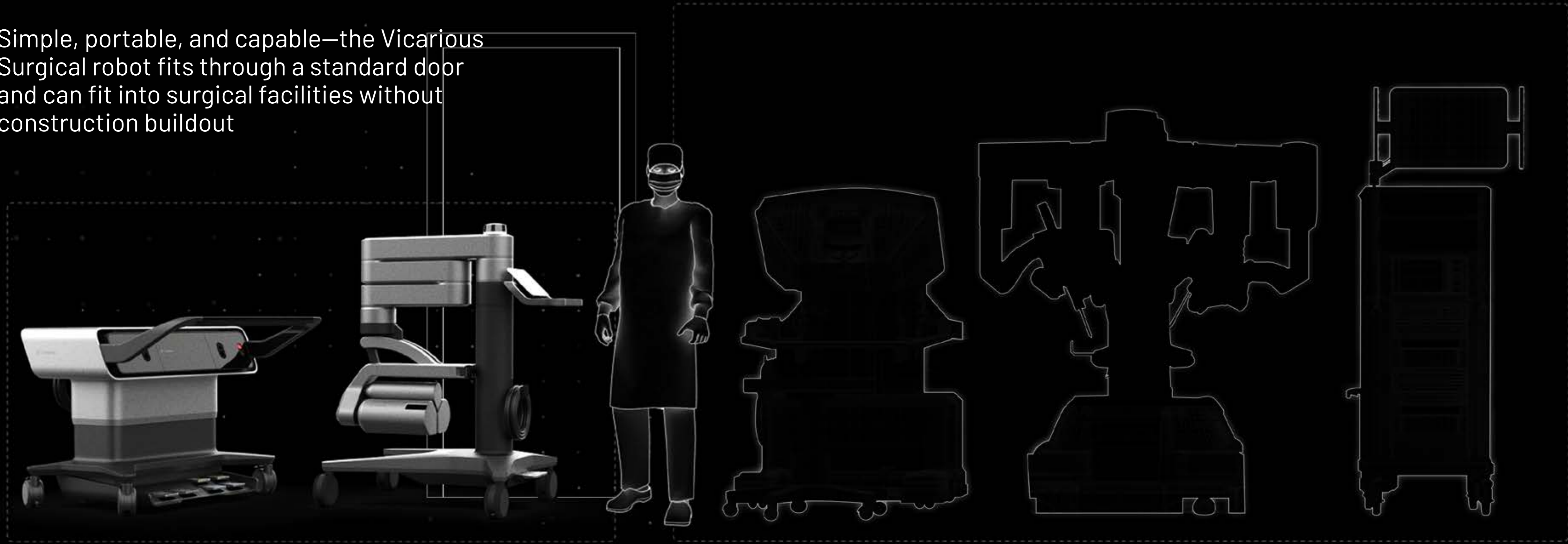
[1] VICARIOUS SYSTEM IS CAPABLE OF INCISION SIZES AS LOW AS 1.2CM. CURRENT DISPOSABLES REQUIRE 1.8CM INCISION. VICARIOUS IS DEVELOPING AND EXPECTS TO LAUNCH DISPOSABLES

REQUIRING 1.5CM INCISION
[2] WITHIN THE ABDOMINAL CAVITY



SIZE

Simple, portable, and capable—the Vicarious Surgical robot fits through a standard door and can fit into surgical facilities without construction buildout



VICARIOUS SURGICAL ROBOTS

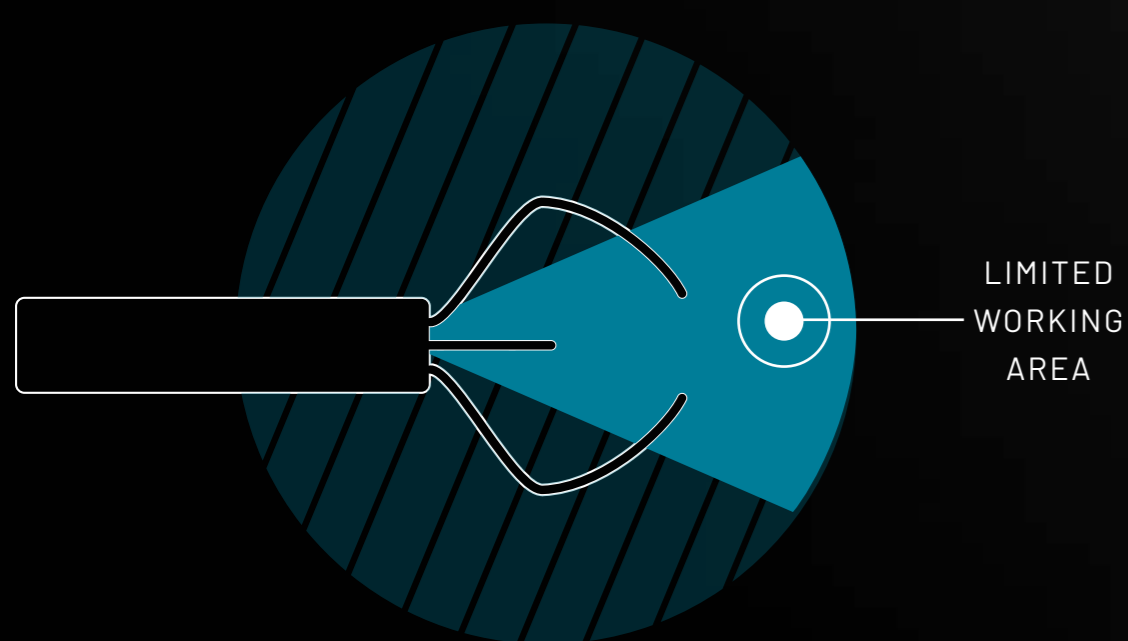
LEGACY SURGICAL ROBOTS



360° REACH AND VIEW

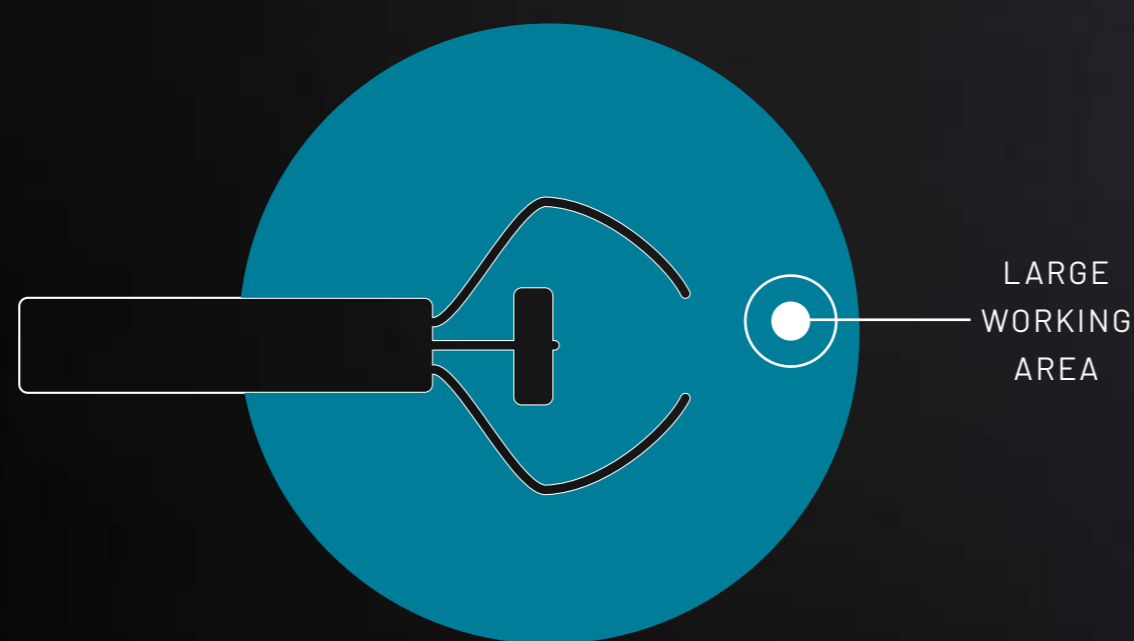
The Vicarious Surgical robot can work anywhere in the abdomen through a 1.5cm¹ incision

The 9 decoupled actuators in each arm provide unprecedented dexterity inside of an ultra thin support tube



LEGACY SINGLE PORT ROBOTS

Limited area where the surgeon can work



VICARIOUS SURGICAL

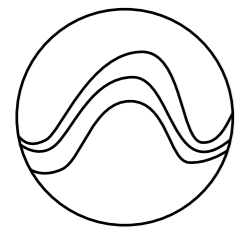
Surgeon has full access to work within the abdomen



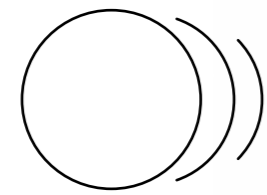
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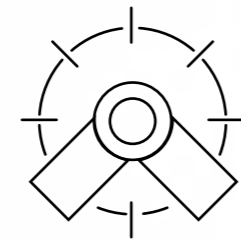
SENSING AND VISUALIZATION



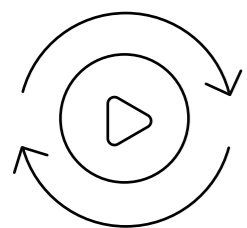
3D DEPTH MAPPING



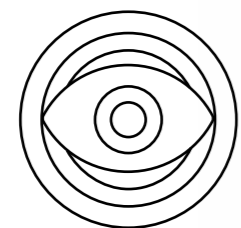
FULL MOTION TRACKING



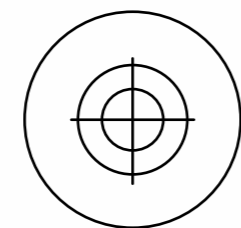
FORCE SENSING + FEEDBACK AT EVERY JOINT



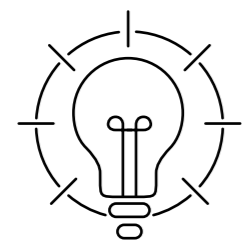
4K HIGH FRAME RATE



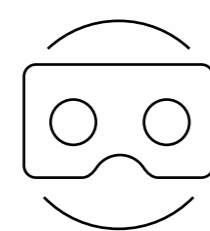
WIDE FOV



AUTOFOCUS



TONE ADJUSTING LIGHTING



HEAD MOUNTED DISPLAY¹



[1] WHILE CAPABLE OF HEAD MOUNTED DISPLAY CURRENTLY, HEAD MOUNTED DISPLAY WILL BE LAUNCHED AS AN UPGRADE AFTER INITIAL PRODUCT CLEARANCE



ECONOMICS

Advanced engineering enables sterile portion to be **disposable** with competitive cost structure

- 3D printed and injection molded parts with polymer fiber cables
- Decoupled actuators enable polymer cables and parts, **lowering part costs vs traditional manufacturing over 5-10x¹**
- Enables **sterile portions of robot to be fully disposable**
- Closed loop feedback enables high force capability with polymer cables, **enabling most abdominal procedures**

Capital equipment is primarily non-robotic as robotic motion happens from inside the patient

- Cost of goods of capital equipment is significantly lower than competing products¹



[1] BASED ON QUOTED PRODUCTION PARTS FROM VICARIOUS SUPPLIERS



MARKET RESEARCH FEATURES


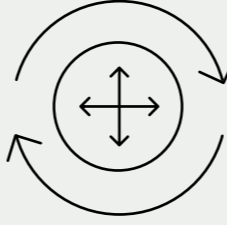
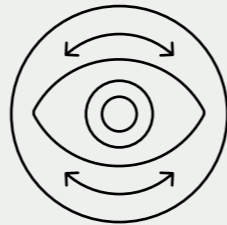
Surgeons and administrators reacted positively to the features that our surgical robot provides. Their favorite features are **unique to our technology**

I like it because it can articulate in 360° and provides a camera that allows for instruments to always be in view

- GENERAL SURGEON, COMMUNITY HOSPITAL

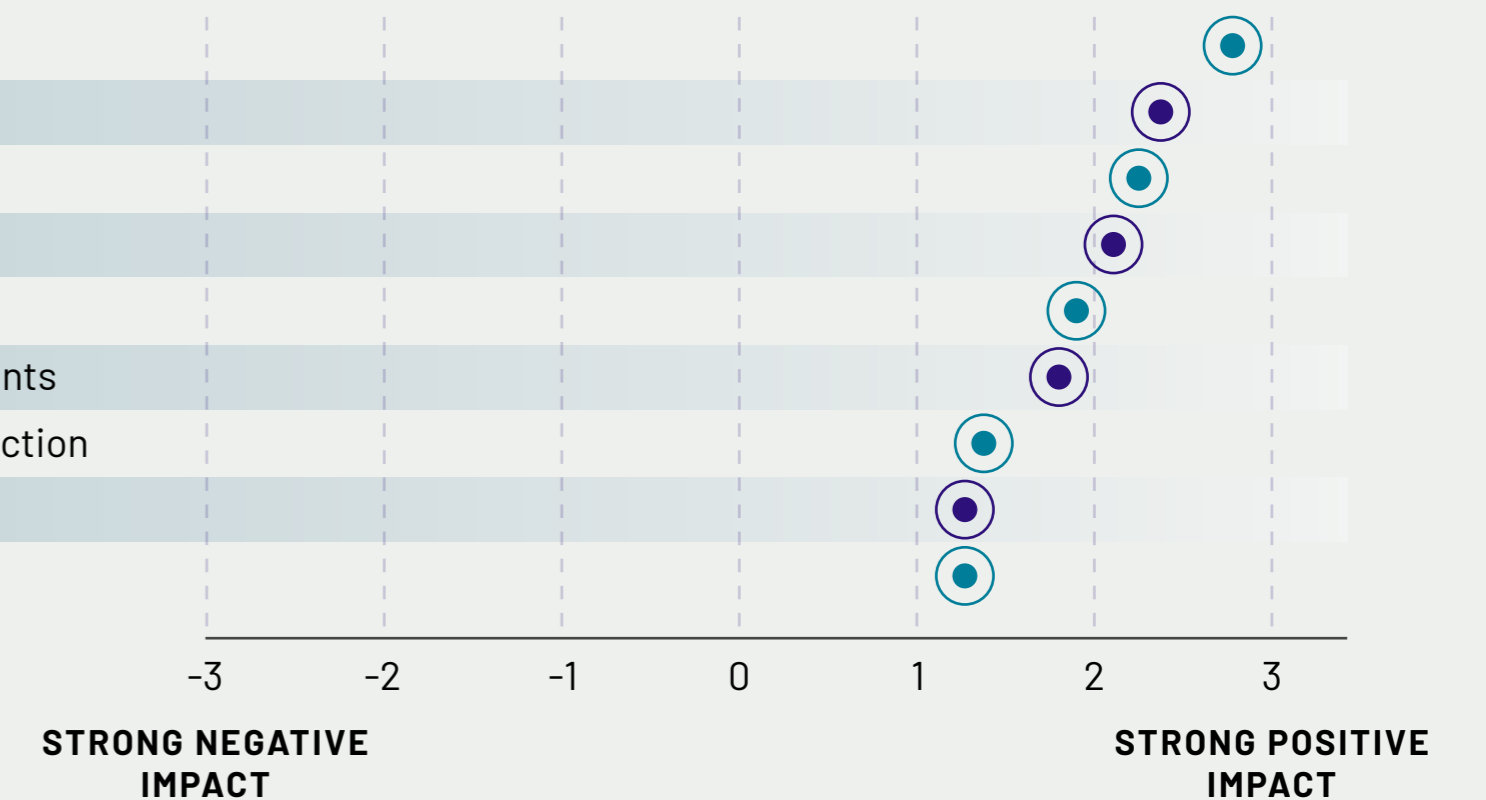
This is what I call a real generation ahead of everything. This is much better than what currently exists

- GENERAL SURGEON, ACADEMIC MEDICAL CENTER

- 1 |  360° REACH PROVIDES ACCESS TO ENTIRE ABDOMEN
- 2 |  FULLY ARTICULATING JOINTS ALLOW FOR 9 DEGREES OF FREEDOM
- 3 |  REAL-TIME 4K 3D VISUALIZATION WITH WIDE FIELD OF VIEW

VICARIOUS DELIVERS:

- 1| 360° reach provides access to entire abdomen
- 2| Fully articulating joints allow for 9 degrees of freedom
- 3| Real-time 4K 3D visualization with wide FOV
- 4| More space efficient than existing solutions
- 5| Future AI capabilities
- 6| Compact and portable parts for easy access around patients
- 7| Future pipeline includes advanced sensing and data collection
- 8| Enables remote training and tele-surgery
- 9| Ergonomic design



SOURCE: BLINDED STUDY PERFORMED BY THIRD PARTY RESEARCH FIRM

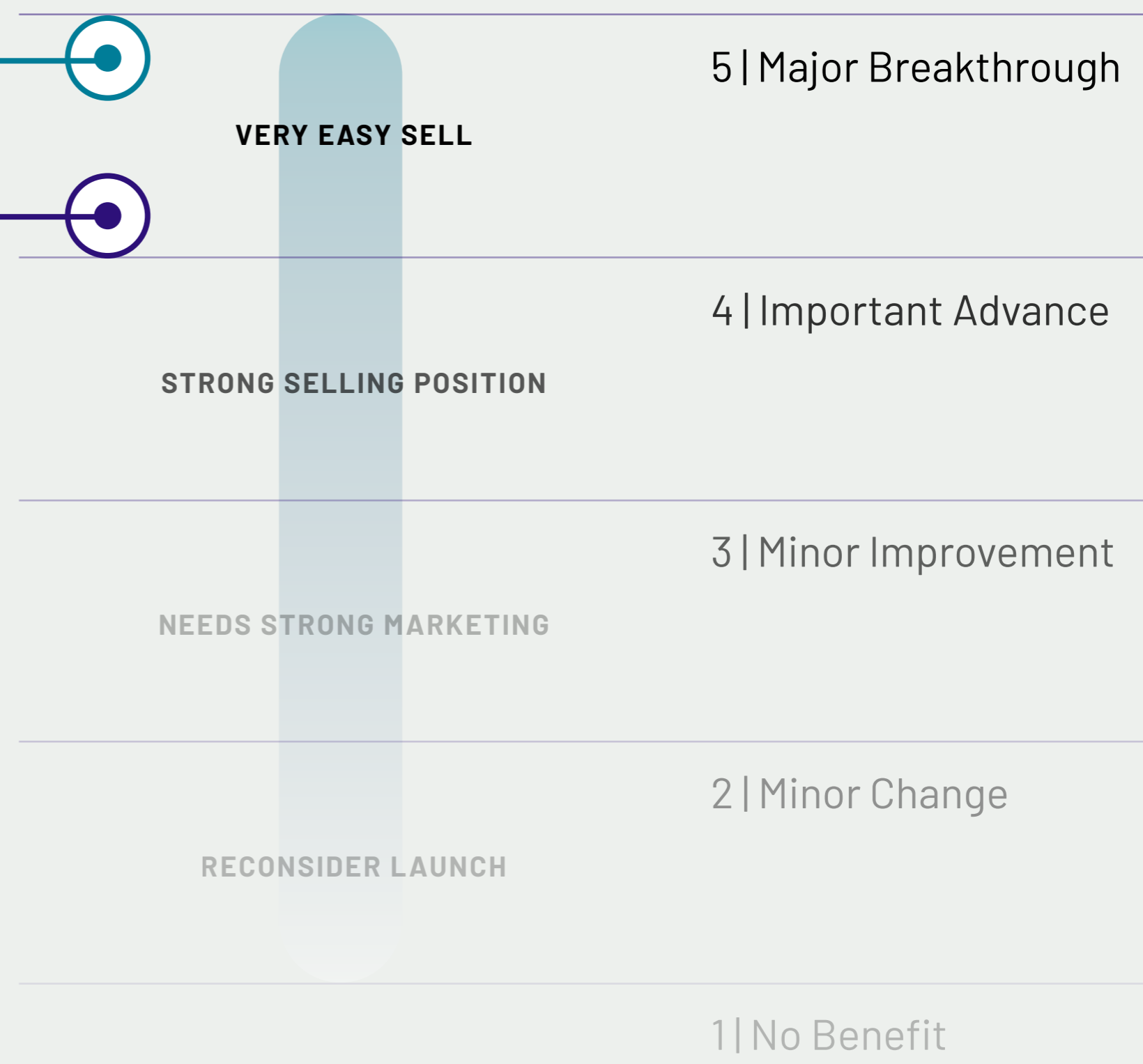


MARKET RESEARCH COMPETITOR COMPARISON

Independent blinded study with surgeons and hospitals shows over 4 out of 5 score (very easy sell), **well above competing solutions**

4.8
COMPARED TO
MANUAL MINIMALLY
INVASIVE SURGERY

4.2
COMPARED TO
LEGACY SURGICAL
ROBOTS

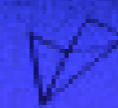


SOURCE: BLINDED STUDY PERFORMED BY THIRD PARTY RESEARCH FIRM



04

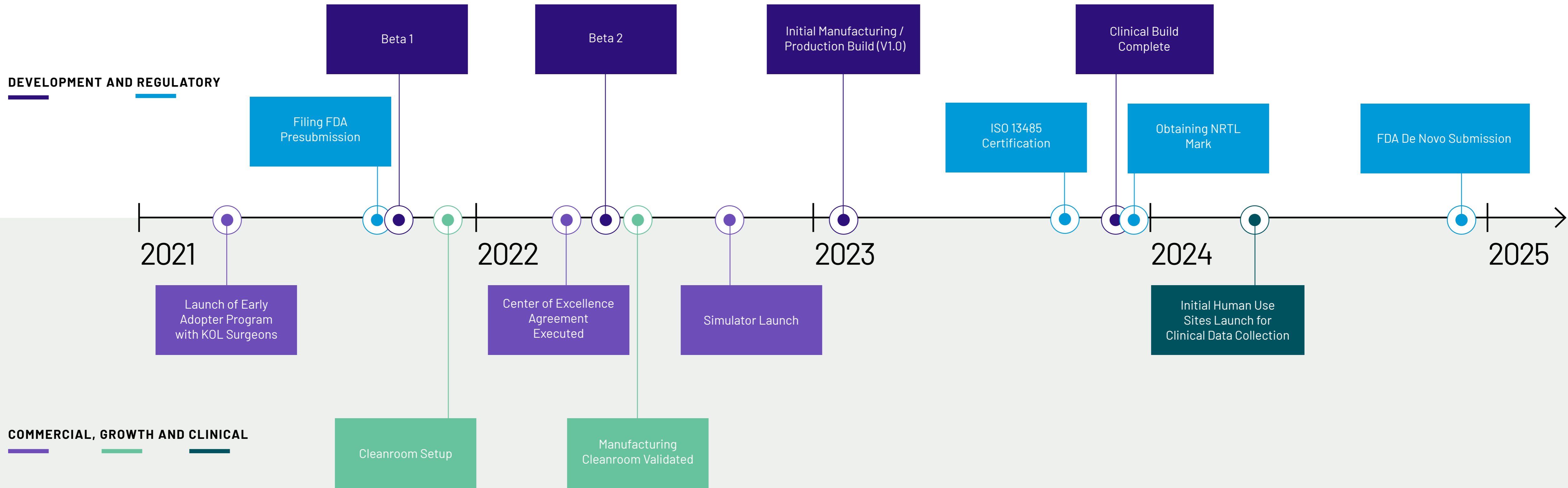
OUR PATHWAY TO COMMERCIALIZATION

 VICARIOUS





EXPECTED ROADMAP

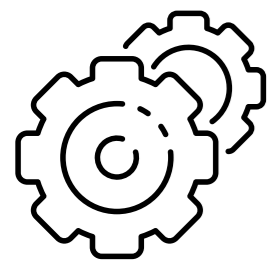


NOTE: ACTUAL MILESTONES AND TIMELINE MAY VARY AS CERTAIN ACTIVITIES ARE BEYOND VICARIOUS' CONTROL

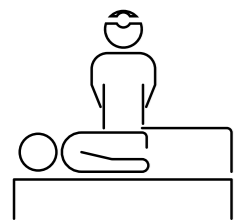


CENTER OF EXCELLENCE AGREEMENTS

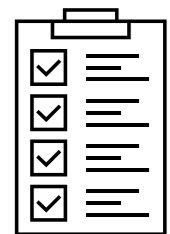
WORKING TOGETHER TO REFINE THE PATIENT, SURGEON AND HOSPITAL
VALUE OF THE VICARIOUS SURGICAL ECOSYSTEM FOR FUTURE
STREAMLINED ADOPTION



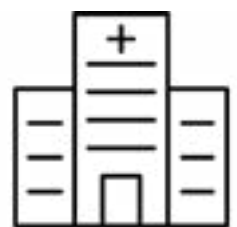
PRODUCT DEVELOPMENT: LEVERAGE ADMINISTRATIVE,
OPERATIONAL, AND CLINICAL FEEDBACK FOR REFINEMENT



VERIFICATION & VALIDATION: OPERATING ROOM AND SYSTEM
TESTING OF THE VICARIOUS SURGICAL PLATFORM



CLINICAL EXECUTION: JOINT SITE SELECTION AND CLINICAL
TRIAL OVERSIGHT FOR FDA SUBMISSION



PLATFORM TRAINING: PEER-TO-PEER CASE OBSERVATION,
SURGEON PROCTORING AND LEARNING PROGRAMS

CREATING THE FOUNDATION TO SUPPORT A STRONG COMMERCIAL LAUNCH

OUR PARTNERS

Groundbreaking agreements with **TWO**
leading healthcare providers

Grants direct **access to key stakeholders** and
invaluable insights across the healthcare continuum
Critical commercial support and expertise

>200

HOSPITALS COMBINED



05

OUR MARKET, OUR POTENTIAL

 VICARIOUS

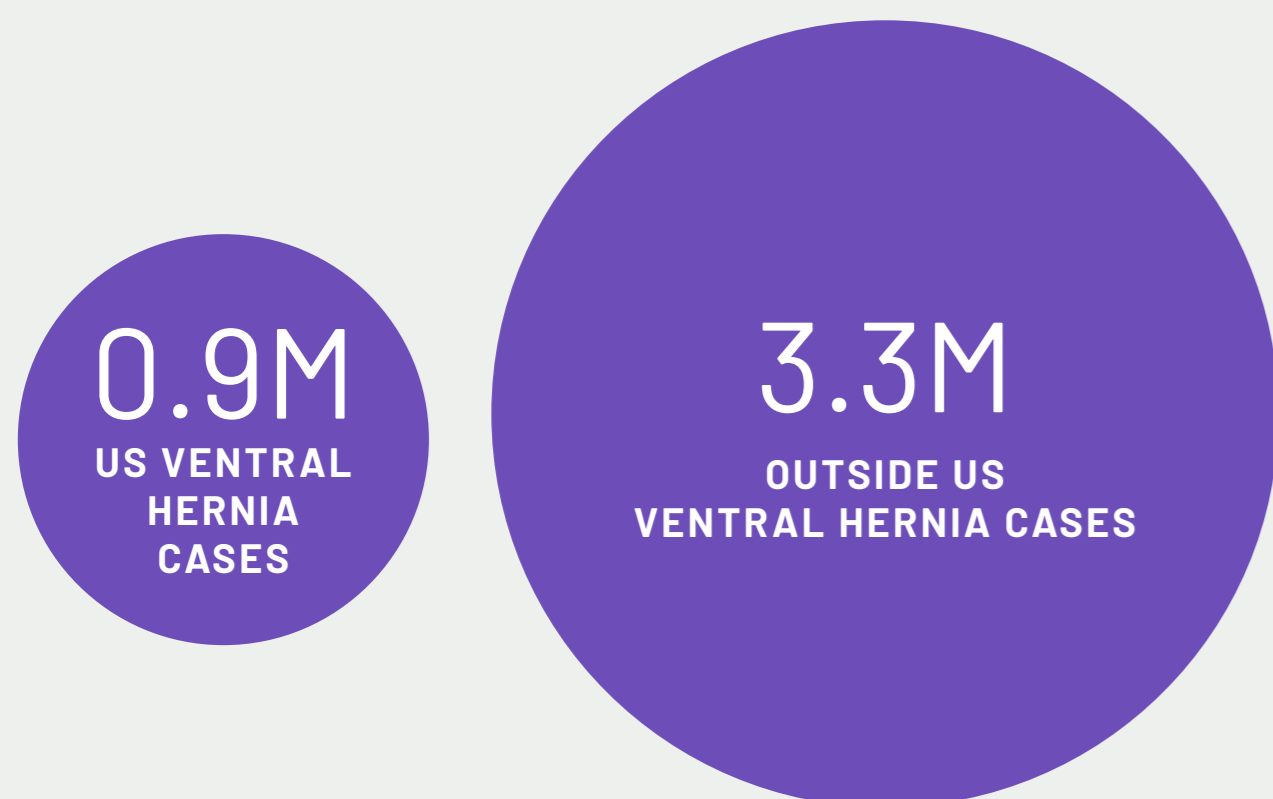
 TIGHT 





FIRST INDICATION: VENTRAL HERNIA

MARKET SIZE¹



[1] VICARIOUS ESTIMATES FROM LSI MARKET DATA, INCLUDES INCISIONAL AND UMBILICAL HERNIA CASES. 2020 DATA

[2] MEDICARE.GOV CODES 49652, 49654, 49654+BILATERAL 15734

[3] LAVANCHY ET AL: LONG-TERM RESULTS OF LAPAROSCOPIC VERSUS OPEN INTRAPERITONEAL ONLAY MESH INCISIONAL HERNIA REPAIR. 2018

[4] J. A. WEGDAM ET AL, SYSTEMATIC REVIEW OF TRANSVERSUS ABDOMINIS RELEASE IN COMPLEX ABDOMINAL WALL RECONSTRUCTION. 2018

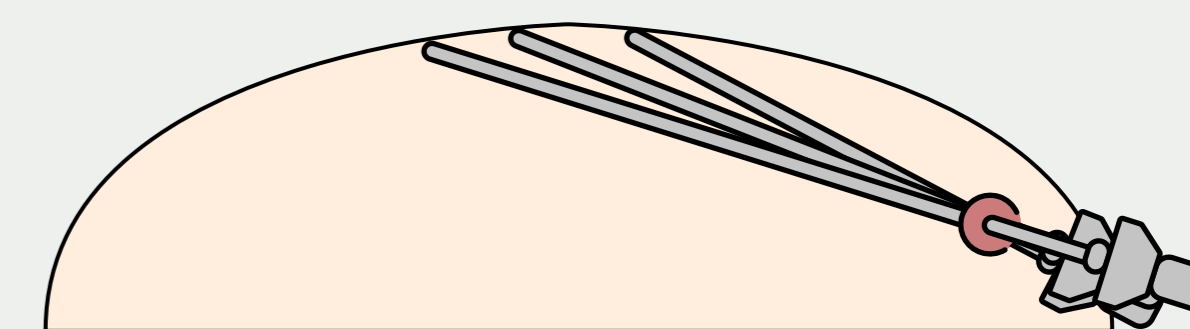
EXISTING MEDICARE REIMBURSEMENTS

MEDICARE REIMBURSEMENT FOR EACH PROCEDURE²

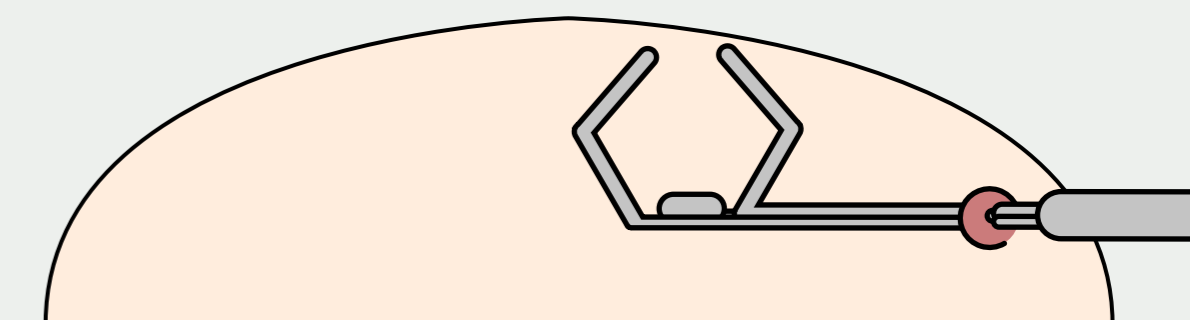
PROCEDURE TYPE	REIMBURSEMENT	RECURRENCE RATE
Simple Repair	\$5,615	20% ³
Incisional Hernia Repair	\$9,301	20% ³
Complex Abdominal Wall Repair	\$13,227	4% ⁴

AMOUNTS SHOWN ARE AVERAGE TOTALS PAID TO HOSPITAL AND SURGEON FOR EACH PROCEDURE IN 2020

OUR FUNDAMENTAL ADVANTAGE



Legacy robots struggle to work on the abdominal wall



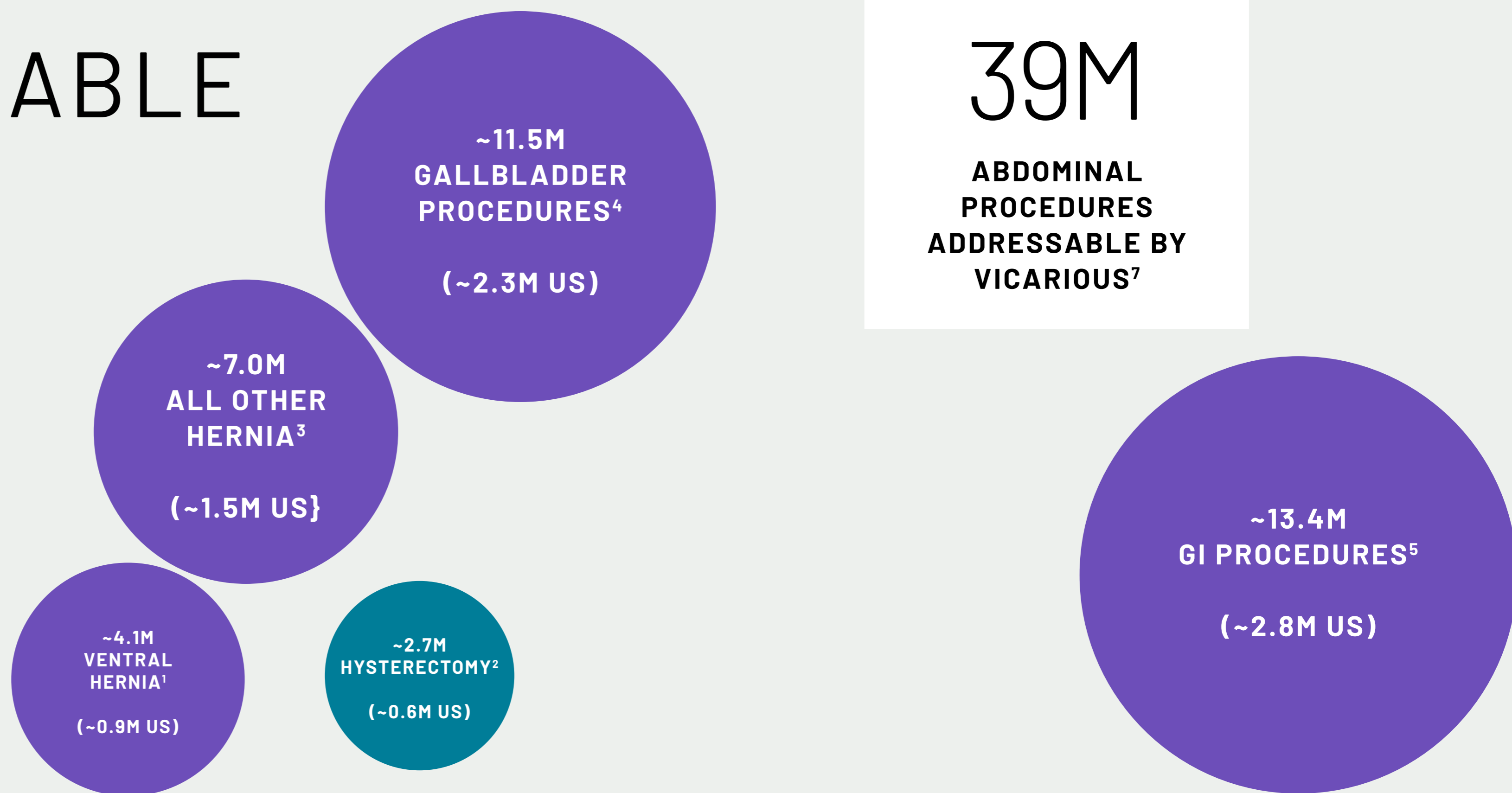
Our system easily operates on the "ceiling" of the abdominal cavity



INITIAL ADDRESSABLE MARKET

ADDRESSABLE PROCEDURES

TOTAL INITIAL ADDRESSABLE MARKET
\$136B⁶



TARGET LAUNCH

● GENERAL SURGERY ● GYNECOLOGY

[1] INCLUDES INCISIONAL HERNIA AND UMBILICAL, VICARIOUS ESTIMATES FROM LSI WW 2020 DATA, INCLUDES SOME PATIENTS WHO CHOSE TO NOT HAVE HERNIAS REPAIRED WITH LEGACY TECHNIQUES

[2] HYSTERECTOMY, OOPHORECTOMY, COLPOPEXY, LSI WW 2020 DATA

[3] VICARIOUS ESTIMATES FROM LSI WW 2020 DATA, INCLUDES SOME PATIENTS WHO CHOSE TO NOT HAVE HERNIAS REPAIRED WITH LEGACY TECHNIQUES

[4] LSI WW 2020 DATA

[5] COLORECTAL, SMALL BOWEL, BARIATRIC, ESOPHAGEAL, BARIATRIC, STOMACH (NON-ENDOSCOPIC), LSI WW 2020 DATA

[6] VICARIOUS ESTIMATES FROM DATA SOURCED FROM LSI MARKET SIZE ANALYSIS 2020 DATA AND PUBLIC FILINGS. INCLUDES ONLY PROCEDURES THAT COULD BE ADDRESSSED BY VICARIOUS THROUGH 2027. ASSUMES \$3506 REVENUE PER PROCEDURE CURRENTLY REALIZED BY LEGACY ROBOTIC COMPANY.

[7] VICARIOUS ESTIMATES FROM LSI MARKET DATA. 2020 DATA



THANK YOU

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