



Investor Presentation

TSX: TMD | Nasdaq: TMDI

April 2019

Forward-looking Statements

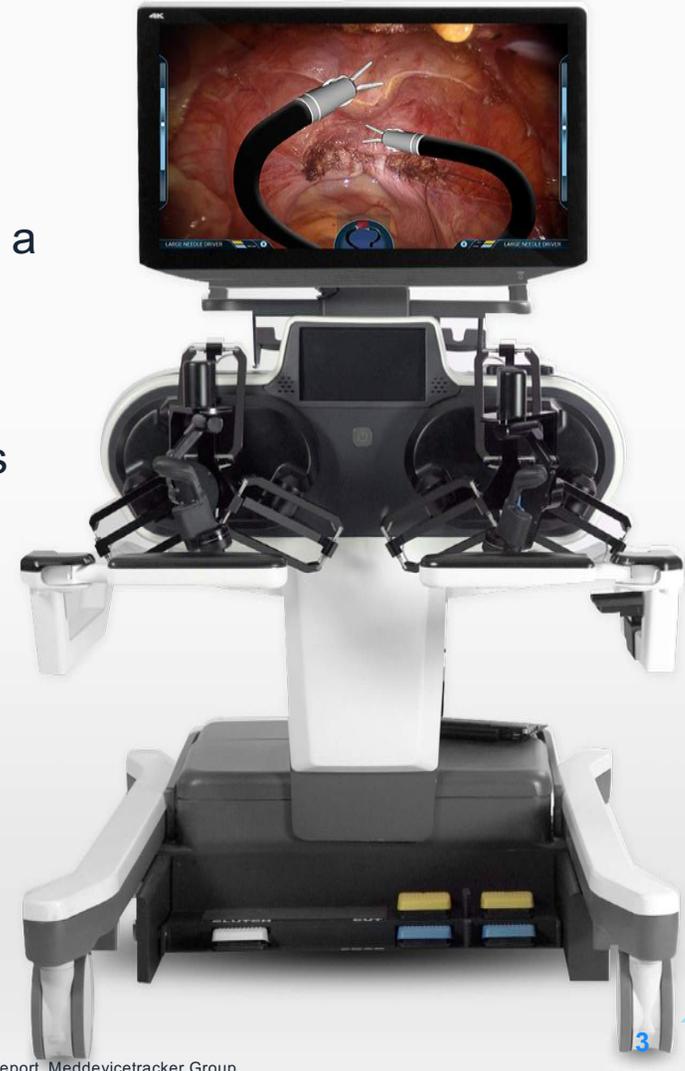
This presentation contains “forward-looking information” and “forward-looking statements” which relate to future events or future performance and reflect the current expectations and assumptions of management of the Company's future growth, results of operations, performance and business prospects, opportunities, and illustrations and prototypes of the SPORT Surgical Systems. Wherever possible, words such as “may”, “would”, “could”, “will”, “anticipate”, “believe”, “plan”, “expect”, “intend”, “estimate”, “project”, “predict”, “target”, “potential”, and similar expressions have been used to identify these forward-looking statements. These statements reflect management's current beliefs with respect to future events and are based on information currently available to management. Forward-looking statements involve significant risks, uncertainties and assumptions. Many factors could cause the Company's actual results, performance, achievements or technological development and implementation to be materially different from any future results, performance, achievements or technological development and implementation that may be expressed or implied by such forward-looking statements, including, without limitation, those listed in the “Risk Factors” section of the Company's Annual Information Form in respect of the fiscal year ended December 31, 2018 and other information contained in the Company's public filings (which may be viewed at www.sedar.com). Information contained in this presentation is qualified in its entirety by such public filings. Should one or more of these risks or uncertainties materialize, or should assumptions underlying the forward looking statements prove incorrect, actual results, performance or achievements may vary materially from those expressed or implied by the forward-looking statements contained in this presentation. These factors should be considered carefully and prospective investors should not place undue reliance on the forward-looking statements. Although the forward-looking statements contained in the presentation are based upon what management currently believes to be reasonable assumptions as of the date of this presentation, the Company cannot assure prospective investors that actual results, performance or achievements will be consistent with these forward-looking statements. This presentation does not constitute an offer to sell any class of securities of the Company in any jurisdiction. There is no assurance as to the whether hospitals will purchase at assumed prices. The Company does not forecast what portion of the total addressable market it will be able to capture. On slide 6, the Company assumes that the information presented in Intuitive Surgical's news release is accurate, but has not independently verified the information.



Titan Medical Overview

Designer and developer of the **SPORT Surgical System**, a versatile single-port platform that is intended to address a growing multibillion-dollar market* for abdominal surgeries performed using robotic technology.

Designed for improved clinical performance, ease-of-use, operating room efficiency and hospital economics.



*Robotically Assisted Surgical (RAS) Devices market to grow at 11.7% CAGR for the next 5 years and reach \$5.3 billion in 2021, RAS Devices Market Report, Meddevicetracker Group.

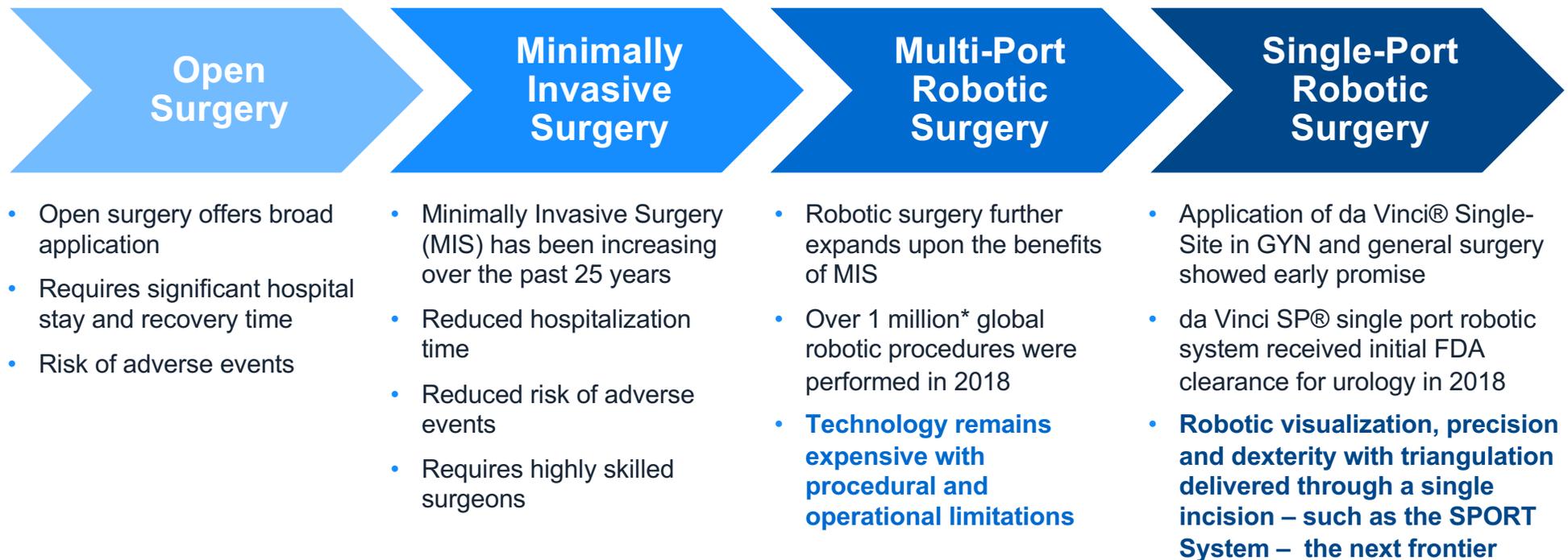


Investment Highlights

Novel Clinical Paradigm	✓ Multi-articulated triangulation through a single incision
Promising Physician Feedback	✓ Tested by U.S. and EU surgeons from 4 surgical disciplines ✓ 45 preclinical studies ✓ 9 peer-reviewed abstract presentations and 1 published manuscript
Robust IP Portfolio	✓ 100+ global patents and applications
Disruptive Business Model	✓ Projected savings on capital equipment, service and procedure costs ✓ Compelling recurring revenue model
Pre-commercial Momentum	✓ U.S. launch planned in 2020 using direct sales strategy
Favorable Market Dynamics	✓ Large, underpenetrated market due to size, complexity and costs associated with existing robotic surgical systems ✓ Applicable to multiple minimally invasive procedures



Evolution of Surgical Care



* Press Release: Intuitive Surgical Announces Preliminary Fourth Quarter and Full Year 2018 Results, January 9, 2019



Today's Robotic Surgery Environment

Robotic technology was introduced to mitigate the risks of MIS, reduce variations in procedural efficiency and improve consistency of patient outcomes.

Benefits

- Increased Dexterity
- Improved Visualization (3D)
- Improved Ergonomics

Titan's single-port robotic system offers the benefits of multi-articulated surgery through a single point of entry in order to reduce trauma.

Technology Differentiation

Engineered for Simplicity and Efficiency



Single-Incision

With a single incision made around the umbilicus, the result can be near-scarless surgery



Small Footprint

Enhanced mobility and ease-of-use leads to quicker deployment in multiple ORs and higher utilization



Multi-Articulating

Single-use end-effectors on reusable multi-articulating instrument arms result in optimal and economical device performance in every procedure



Open Display

3D high-definition display offers the perfect balance of surgical immersion and situational awareness in the OR



Ergonomic Workstation

Highly ergonomic workstation with natural handle interface enables comfortable surgical posture, even during long procedures



Purposeful Design

Designed from the ground up to improve:

- Clinical Capabilities**
- OR Efficiency**
- Hospital Economics**

System Overview

- Versatile single-port robotic surgery solution
- Smaller OR footprint than multiport systems
- Designed to overcome multi-port robotic surgery limitations
- Engineered for performance, efficiency and cost-effectiveness
- Expected to provide access to underserved market segments, such as ambulatory surgery centers



Workstation

Open, unobtrusive 3D high-definition display platform on a 4K monitor

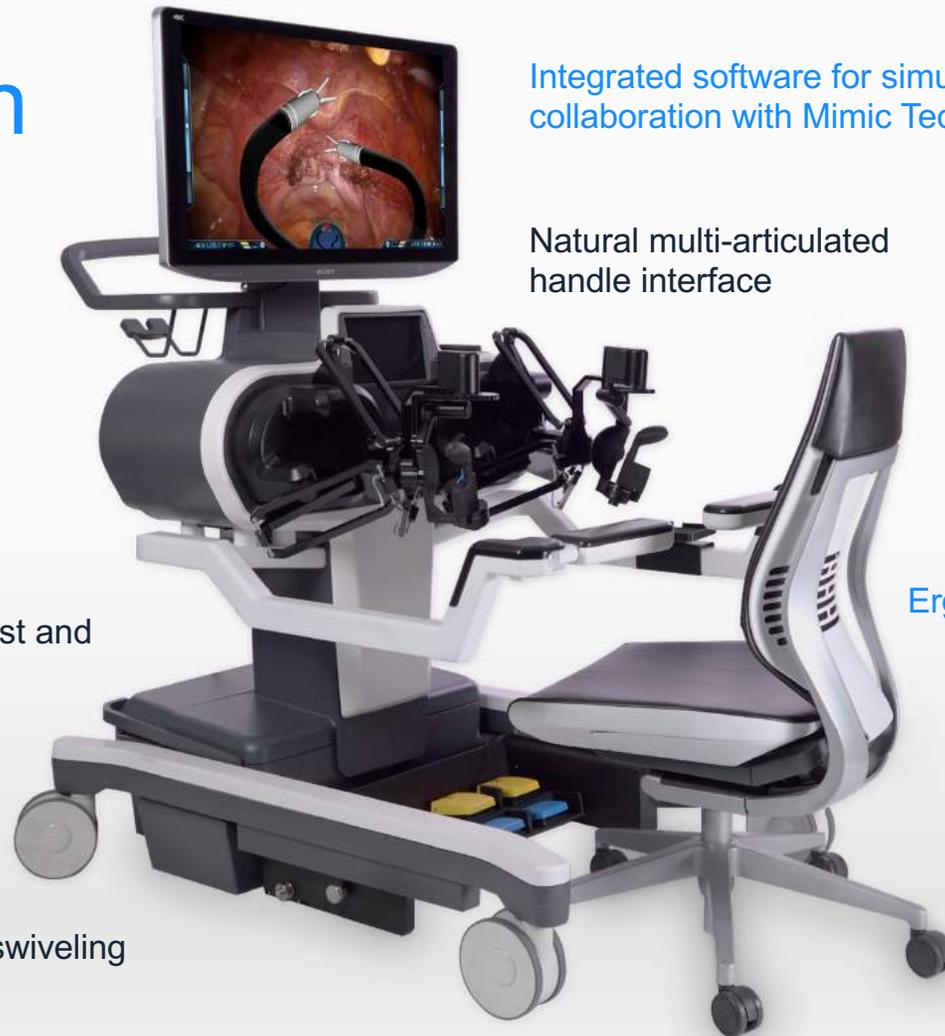
Integrated software for simulation training (in collaboration with Mimic Technologies, Inc.)

Natural multi-articulated handle interface

Multi-configurable elbow rest and foot pedal positioning

Ergonomically focused design

Easily maneuverable with swiveling easy-gliding coasters



Patient Cart

Easy to load and unload instruments through a detachable camera insertion tube

Single-port enables swift multi-quadrant positioning

Minimal cable management in OR

Single-arm configuration with no external moving parts facilitates simple setup and assistant-friendly surgery

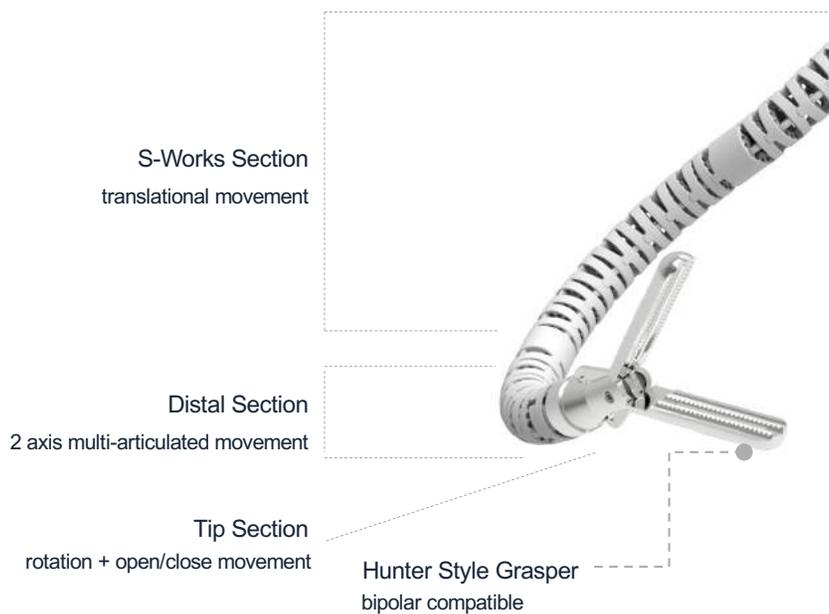
Instruments and 3D high-definition camera delivered through a camera insertion tube of 25 millimeter diameter

Compact, rollers enable mobility to maneuver and position



Multi-Articulated Instruments

Variety of multi-use instruments with single-patient-use end effectors for grasping, suturing, cutting and coagulation



Scissors
monopolar compatible

Dissector
bipolar compatible

Hook
monopolar compatible

Needle Driver

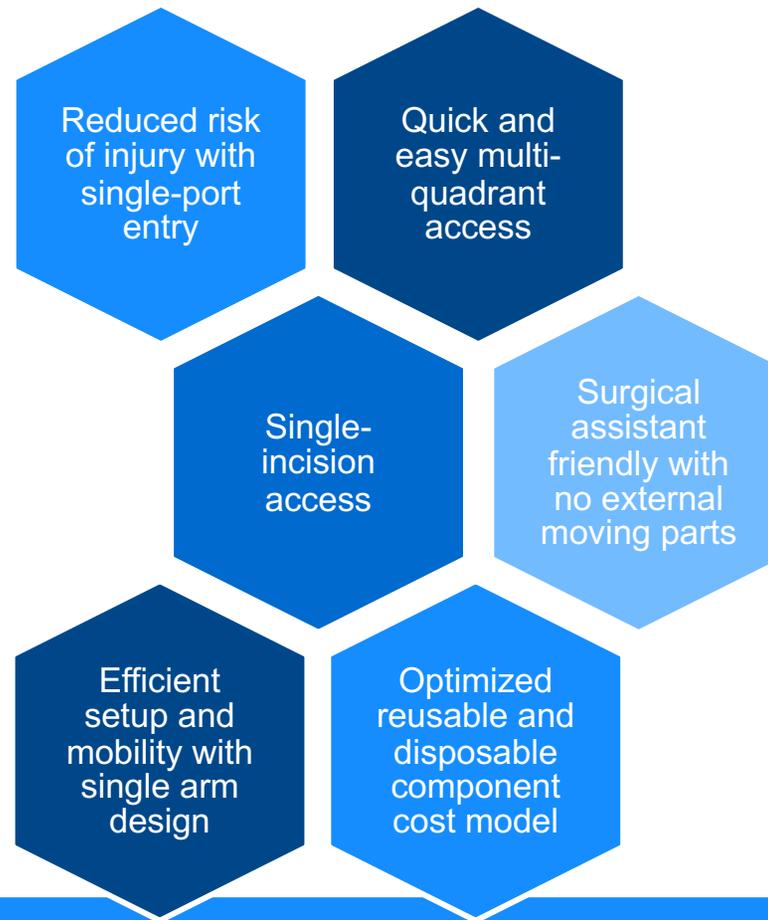
Traditional Grasper



Open architecture for adaptation of future end effectors and functionality

Single-Incision
Surgery + Enhanced
Robotic Technology

Optimal Patient Care



SPORT Surgical System is designed to provide surgeons with multi-articulated instruments in a triangulated configuration through single-port access to the body.

Intellectual Property

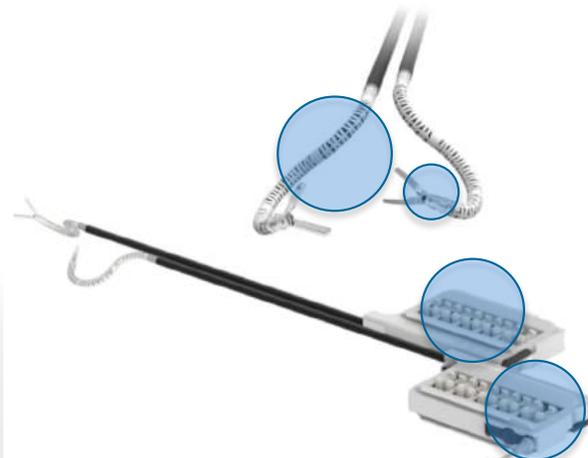
The SPORT Surgical System is a unique single-incision robotic system that is differentiated by its patented multi-articulating instruments, user interface and ergonomic features.

Differentiated and innovative design provides a strong position on freedom to operate.

32 U.S. & International Patents Issued

75 Applications Pending

Areas of the SPORT Surgical System covered by patents or pending applications:



Proven Feasibility in Wide Variety of Procedures

45 Procedures Performed to Date (*live porcine unless otherwise indicated*)

- GYN and GYN-ONC (8 procedures at Columbia University and Florida Hospital):
 - Radical Hysterectomy with Bilateral Salpingo Oophorectomy and Bilateral Pelvic / Para-Aortic Node Dissection
 - Simple Hysterectomy with Bilateral Salpingo Oophorectomy and Bilateral Pelvic Node Dissection
 - Simple Hysterectomy with Bilateral Salpingo Oophorectomy
- Urology (19 procedures at IHU Strasbourg and Florida Hospital):
 - Hemi-Nephrectomy and Partial Nephrectomy
 - Prostatectomy (Human Cadaver)
 - Pyeloplasty
 - Ureteral-Bladder Anastomosis
- General Surgery (14 procedures at IHU Strasbourg and Florida Hospital):
 - Cholecystectomy (1 Human Cadaver, 5 Live Porcine)
 - Nissen Fundoplication (1 Human Cadaver, 3 Live Porcine)
 - Esophagectomy (Human Cadaver)
 - Gastrectomy
 - Splenectomy
- Colorectal (4 procedures at Florida Hospital):
 - Colectomy
 - Low Anterior Resection



Peer-reviewed Abstracts to Date

SPORT single-port
robotic surgery is
feasible &
repeatable.

- 1. Multi-disciplinary applications of a new robotic platform** by Barbara Seeliger, MD and Lee Swanstrom, MD (IHU Strasbourg)
Accepted and presented at Society of American Gastrointestinal and Endoscopic Surgeons Meeting, Seattle, WA, April 2018
- 2. Single-port prostatectomy using SPORT Surgical System** by Eric Barret, MD (IMM, France)
Accepted and presented at EAU Section of Urology Technology Meeting, Modena, Italy, May 2018
- 3. Multispecialty single port robotic technology applied in the live animal model: proof of concept** by Travis Rogers, MD, Eduardo Parra Davila, MD, Vipul Patel, MD (all from Florida Hospital), Ricardo Estape, MD (South Miami GOG) and Armando Melani, MD (IRCAD Brazil)
Accepted and presented as a poster at Society of Robotic Surgery Meeting, Stockholm, Sweden, June 2018
- 4. Feasibility of single-port partial nephrectomy using SPORT surgical system** by Eric Barret, MD (IMM, France)
Accepted and presented as a poster at Society of Robotic Surgery Meeting, Stockholm, Sweden, June 2018
- 5. Single-port robotic partial and hemi nephrectomy using a novel single port robotic platform** by Sebastien Crouzet, MD (University of Lyon, France) and Barbara Seeliger, MD (IHU Strasbourg)
Accepted and presented at EAU Robotic Urology Section Meeting, Marseille, France, September 2018
- 6. Reverse Objective Structured Assessment of Technical Skills (Reverse-OSATS) as a means of measuring the capability of the Titan Medical SPORT Surgical System on core surgical principles** by Chetna Arora, MD, Arnold P. Advincula, MD (both from Columbia University Medical Center) and William B. Burke, MD (Stony Brook Cancer Center)
Accepted and presented at Society of European Robotic Gynecologic Surgeons Meeting, Milan, Italy, September 2018
- 7. Multispecialty single port robotic technology applied in the live animal model: proof of concept** by Travis Rogers, MD, Eduardo Parra Davila, MD, Vipul Patel, MD (all from Florida Hospital), Ricardo Estape, MD (South Miami GOG) and Armando Melani, MD (IRCAD Brazil)
Accepted and presented at World Congress of Endourology Meeting, Paris, France, September 2018
- 8. Feasibility of single-port partial nephrectomy using SPORT surgical system** by Eric Barret, MD (IMM, France)
Accepted and presented at World Congress of Endourology Meeting, Paris, France, September 2018
- 9. Reverse Objective Structured Assessment of Technical Skills (Reverse-OSATS) as a means of measuring the capability of the Titan Medical SPORT Surgical System on core surgical principles** by Chetna Arora, MD, Arnold P. Advincula, MD (both from Columbia University Medical Center) and William B. Burke, MD (Stony Brook Cancer Center)
Accepted and presented at American Association of Gynecologic Laparoscopists Global Congress, Las Vegas, NV, November 2018



Published Manuscript

Surgical Endoscopy

Enabling single-site laparoscopy: the SPORT platform

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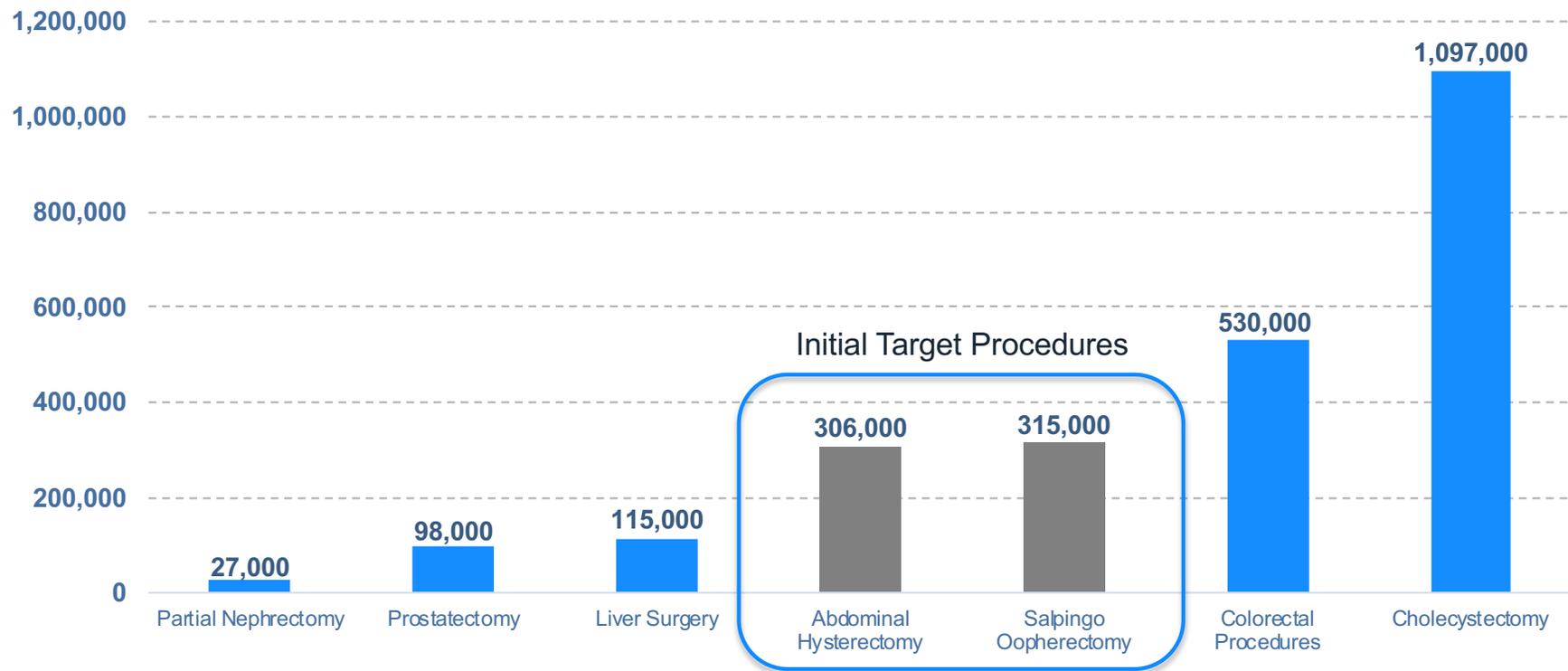
3 Department of General, Bariatric, Laparoscopic and Robotic Surgery, Athens Medical Center, Athens, Greece

4 Division of GI/MIS, The Oregon Clinic, Portland, OR, USA



Potential Procedures for Single Incision Surgery

Projected 2017 U.S. Procedure Volume (based on most recently-published research)*



*Source: Life Sciences Intelligence Meddevicetracker Report MDT 17015, published October 2017



Initial U.S. Target: Benign Gynecologic Surgery

- Rationale:
 - Potential to reduce trauma and scarring, and offers possibility of faster recovery for an engaged patient population
 - Ability to produce positive patient outcomes in relatively low-risk benign procedures
 - Viable alternative to other single-port approaches based on gynecologic surgeon feedback from preclinical studies
 - Attractive procedure volumes performed in outpatient as well as inpatient settings, favoring smaller footprint and lower-cost model
 - Clarity of regulatory pathway
 - With U.S. focus, ability to efficiently provide comprehensive product training and support to facilitate early product adoption and ensure consistent, excellent outcomes



Initial U.S. Target: Benign Gynecologic Surgery

Potential addressable annual market opportunity \$900M+ in U.S. alone¹

- Abdominal Hysterectomy: 306,000 procedures per year in U.S.²
- Salpingo-Oophorectomy and Oophorectomy: 315,000 procedures per year in U.S.²
- Endometriosis³:
 - Underdiagnosed, affects about 5 million U.S. women
 - Most common in women in their 30s and 40s
 - Surgery usually chosen for severe symptoms
 - Typically performed in outpatient surgery setting

(1) Based on *potential* of 621,000 procedures per year in the U.S. and management's estimation of revenue of \$1,500 per procedure

(2) Source: Life Science Intelligence Report LSI-PV-US173SU, published November 2017

(3) Source: A Fact Sheet From the Office on Women's Health, Department of Health & Human Services, USA, www.womenshealth.gov

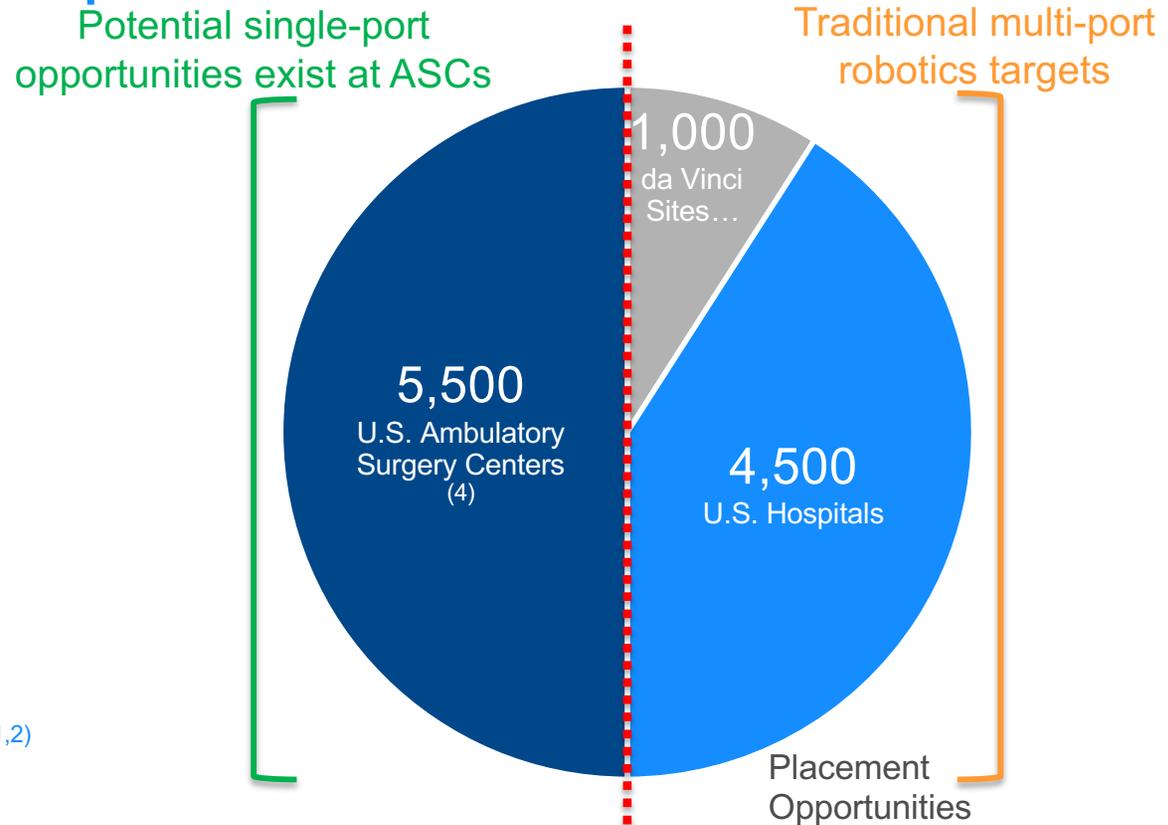


Titan SPORT has been developed to address the needs of both hospitals and ASCs

\$12B+

U.S. Capital
Revenue
Opportunity

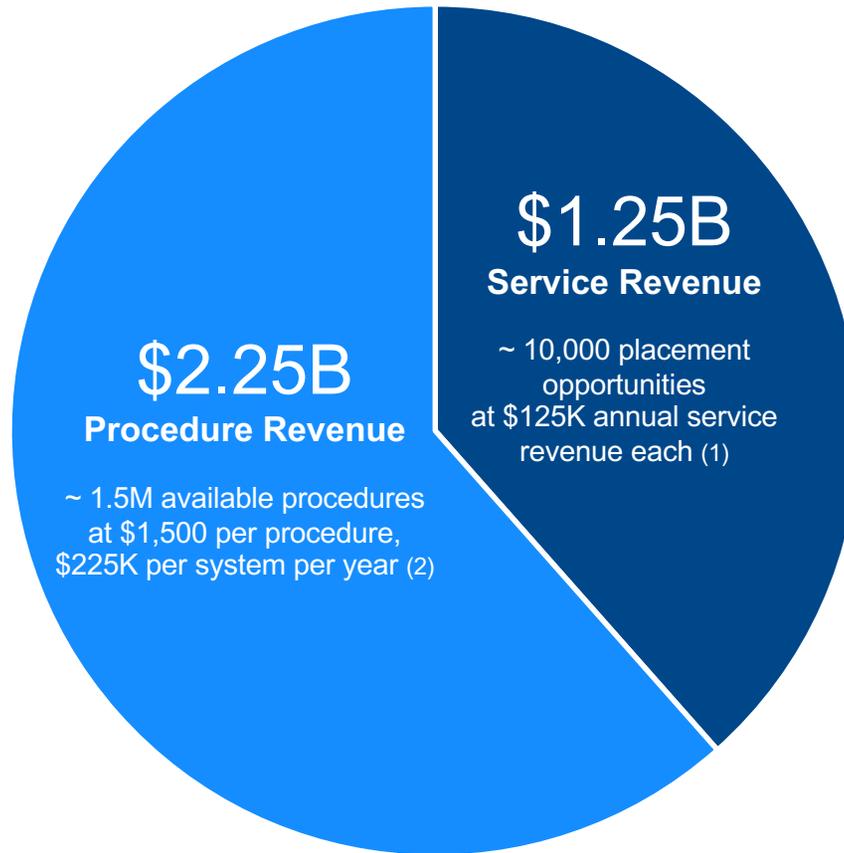
10,000 Unaddressed
Placement Opportunities^(1,2)



- (1) Potential addressable market opportunity based on management's assumption of one system per hospital at \$1.25M per system, plus accessories
- (2) Registered U.S. Hospitals Source: <http://www.aha.org/research/rc/stat-studies/fast-facts.shtml>
- (3) Intuitive Surgical da Vinci U.S. Hospitals Source: <http://davincisurgeonlocator.com/>
- (4) Ambulatory Surgery Centers Source: <http://www.ascassociation.org/advancingurgicalcare/whatisanasc/numberofascspstate>

\$3.5B
U.S. Annual
Recurring
Revenue
Opportunity

For Service and
Consumables



Titan SPORT
enables
20 – 30% per
procedure
cost savings
over other
Robotic
Systems²

(1) Potential service revenue based on management's projection of \$125,000 of annual service revenue per system after year 1

(2) Potential procedure revenue based on management's assumption of \$1,500 per procedure revenue, assuming 150 procedures per system per year



Commercial Timeline

	2018	2019	2020
Established US & EU Centers of Excellence	✓		
Proven Feasibility	✓		
Integrated Simulation Training	✓		
Engineering Confidence Build	✓		
Design Freeze		H1	
GLP Animal Studies		H1	
IDE Approval		H2	
Submit 510(k) Application		H2	
Submit Technical File for CE Mark		H2	
Anticipated Regulatory Clearance			●
Projected Initial Launch			●





Summary

- Targeting growing multibillion-dollar global robotic surgery market
- Highly versatile, differentiated advanced single-port platform
- Designed for improved clinical performance, ease of use, operating room efficiency and hospital economics
- Potential benefits to patients, surgeons and hospitals versus competitive offerings
- System performance verified in preclinical studies with data presented at clinical conferences
- Attractive capital and recurring revenue streams expected
- Experienced management team with record of success



Thank You

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