



NOVUSON

Soundly Simplifying Surgery

STUART B MITCHELL
FOUNDER AND CEO

NOVUSON SURGICAL, INC. JUNE 2018

IMPROVED OUTCOMES



Novuson

- Founded in 2014, Located in Bothell, WA
- 3 NIH SBIR Grants
- Cooperative Agreement with MADIGAN



New Patented Ultrasound Medical Devices

- 4 patents issued 4 patents pending
- First in class med device to use 100% ultrasound to seal and divide tissue & vessels
- Only Advanced Energy Device that can be integrated into all surgical markets
- Safer (no charring, no smoke, no electricity)
- Reduces Surgical Complications
- Saving Hospitals Money



STATUS QUO



Market dominated by 1990's technology

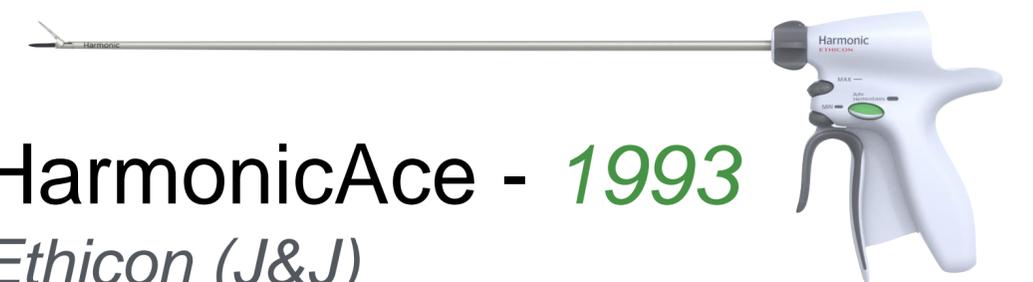
- ⇒ RF Bipolar Electrocautery - 1991
- ⇒ Vibrating Scalpel - 1993
- ⇒ Resistance Thermal - 1960
- ⇒ Monopolar Electrocautery - 1891



Enseal - 1991
Ethicon (J&J)



LigaSure - 1992
Covidien (Medtronic)



HarmonicAce - 1993
Ethicon (J&J)

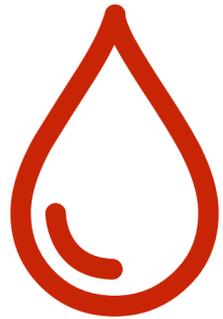
Advanced Energy Surgical Devices 25 years!

STATUS QUO LIMITATIONS

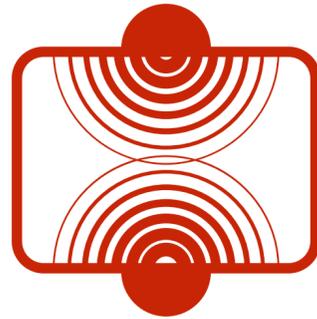


Market Survey & Key Opinion Leader (KOL) Pain Points World Renowned OBGYN, Pediatric, & Trauma Surgeons

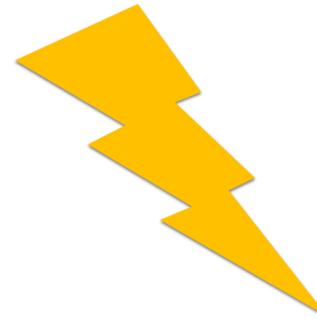
Efficacy



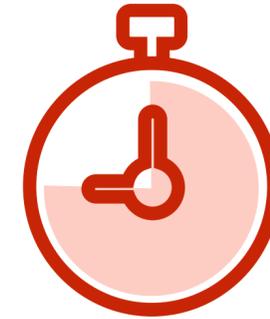
Precision



Safety



Speed



Versatility

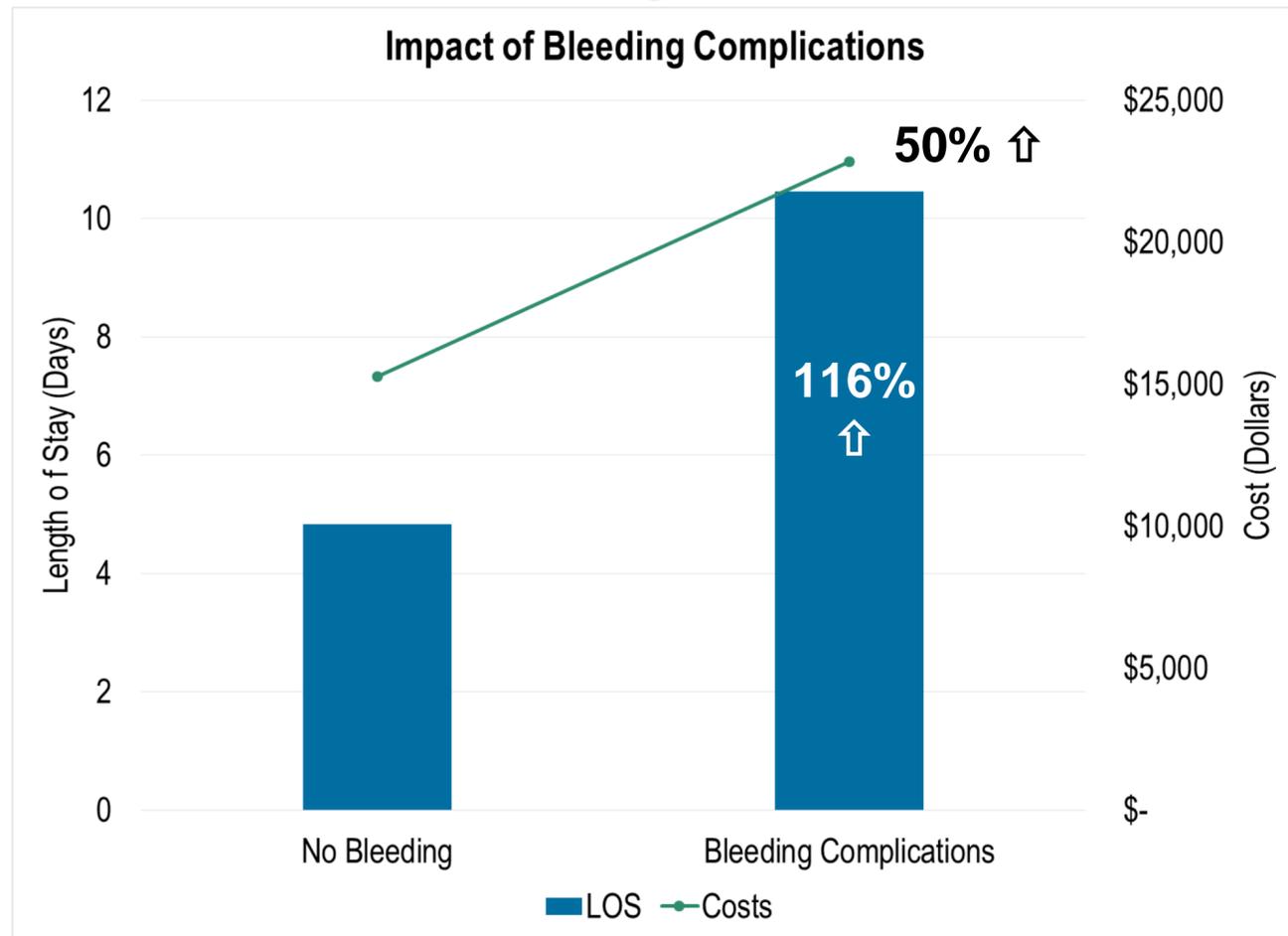


Physicians, Patients, & Hospitals deserve BETTER

PROBLEM FOR PATIENTS

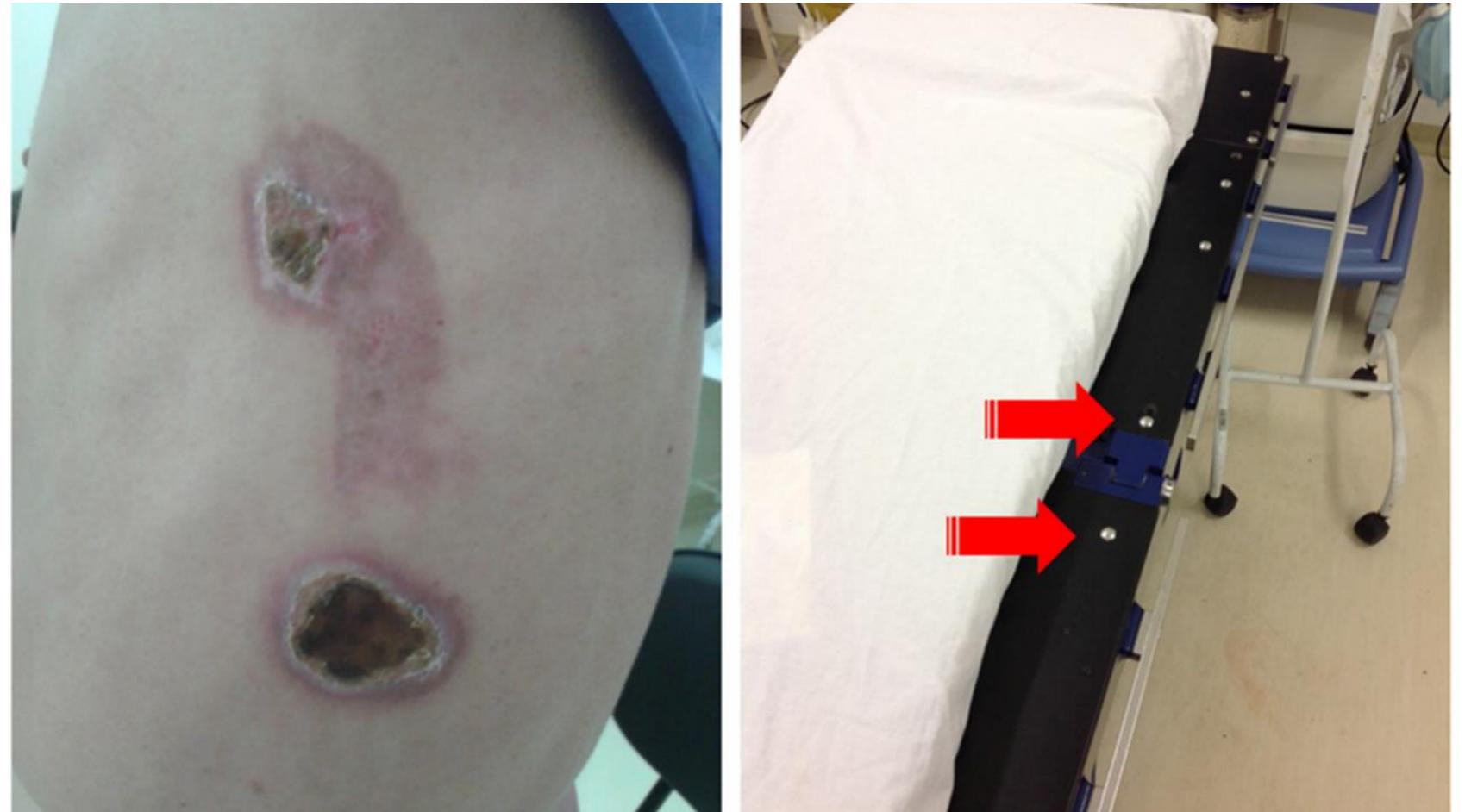


41% of Surgical Procedures Result in Bleeding Complications



Stokes et al. BMC Health Services Research 2011, 11:135

1 in Every 200 Uses of Advanced Energy Devices Result in Adverse Events



Massarweh, N. N., Cosgriff, N., & Slakey, D. P. (2006). Electrosurgery: history, principles, and current and future uses. *Journal of the American College of Surgeons*, 202(3), 520-530

PROBLEMS FOR HEALTH PROFESSIONALS

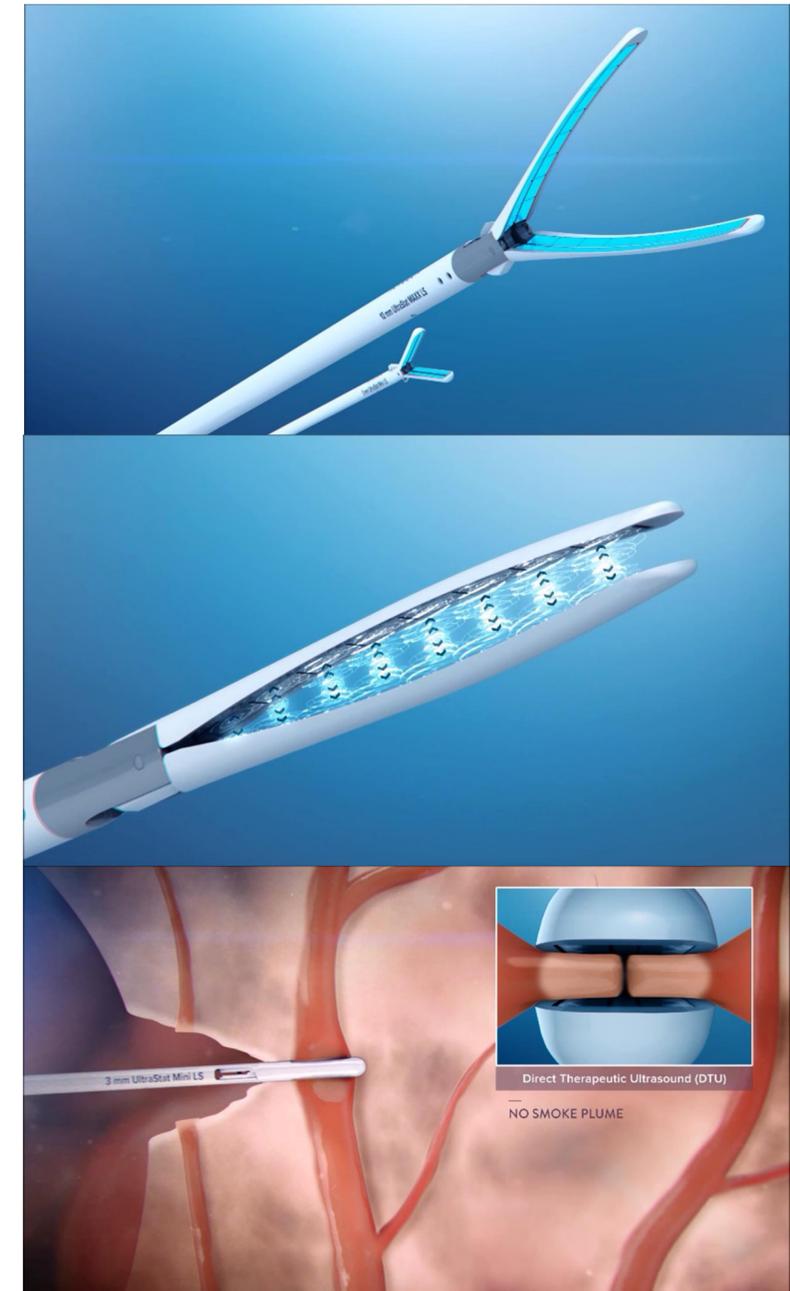


Smoke	Bleeding
Charring	Thermal Damage

Impact of bleeding-related complications and/or blood product transfusions on hospital costs in inpatient surgical patients.

Stokes et. Al. Study
 2006-2007
 = \$19 Billion in USA

DIRECT THERAPEUTIC ULTRASOUND



Novuson - unique & revolutionary

FIRST-IN-CLASS DTU - DIRECT THERAPEUTIC ULTRASOUND



Safety

Precision

Efficacy

UltraStat 3mm MiniLS

⇒ > 350 *Ex Vivo* “Bench” Studies

⇒ > 300 *In Vivo* Treatments (16 Animals)

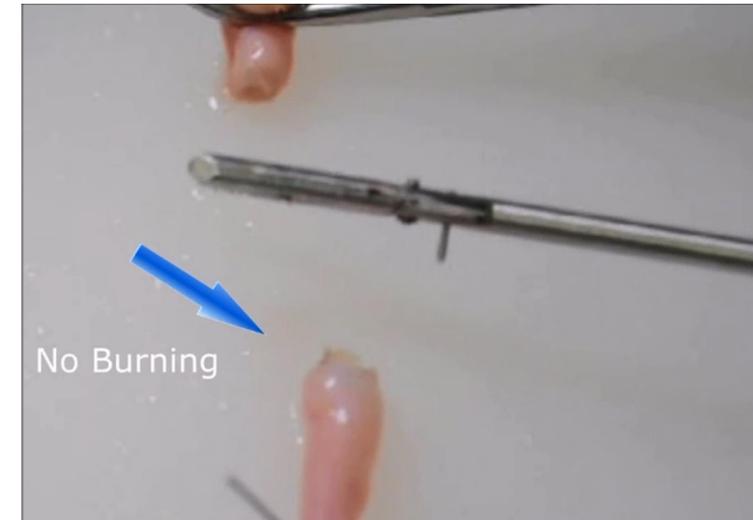
Clear Value Proposition

No Burning

No Charring

No Smoke

Novuson - the future of surgery



**Saving Hospitals
~ \$13k per patient**

COMPARATIVE ADVANTAGES



		UltraStat	Hamonic Ace	Ligasure	Enseal
Energy Modality		DTU	Harmonic	RF	RF
3mm Shaft Diameter		✓			
Thermal Damage < 1mm		✓			
Hemostasis Efficacy > 90%		✓		✓	
Burst Pressue > 240 mmHg		✓	✓	✓	✓
Speed < 10 s	Seal & Divide	✓	✓	✓	
Seal 7mm Dia Artery		✓		✓	
Adhesions < 1%		✓			
No Charring		✓			
No Smoke		✓			
Electrically Neutral		✓	✓		
Articulating		✓			

ULTRASTAT: PRODUCT, PATENTS, AND PRICE



Equipment



UltraStat
Control Console
\$21K each

Premier Advanced Energy Surgical Device for
Safety & Precision

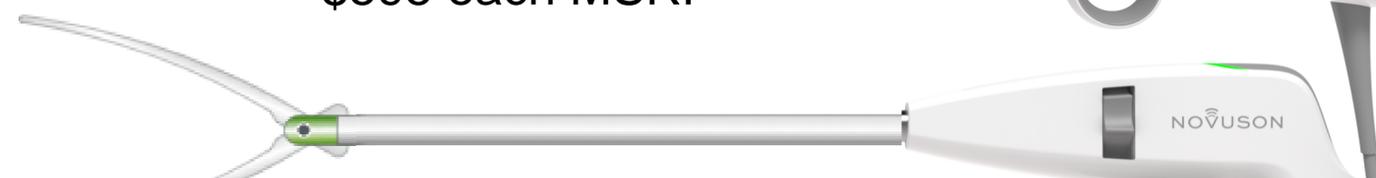
- ⇒ Only 3mm Sealer/Divider available
- ⇒ More capability than 5mm competitor devices
- ⇒ 3mm diameter = less scarring and pain
- ⇒ Unprecedented speed, precision, & control
- ⇒ Wide range of sizes

Disposable

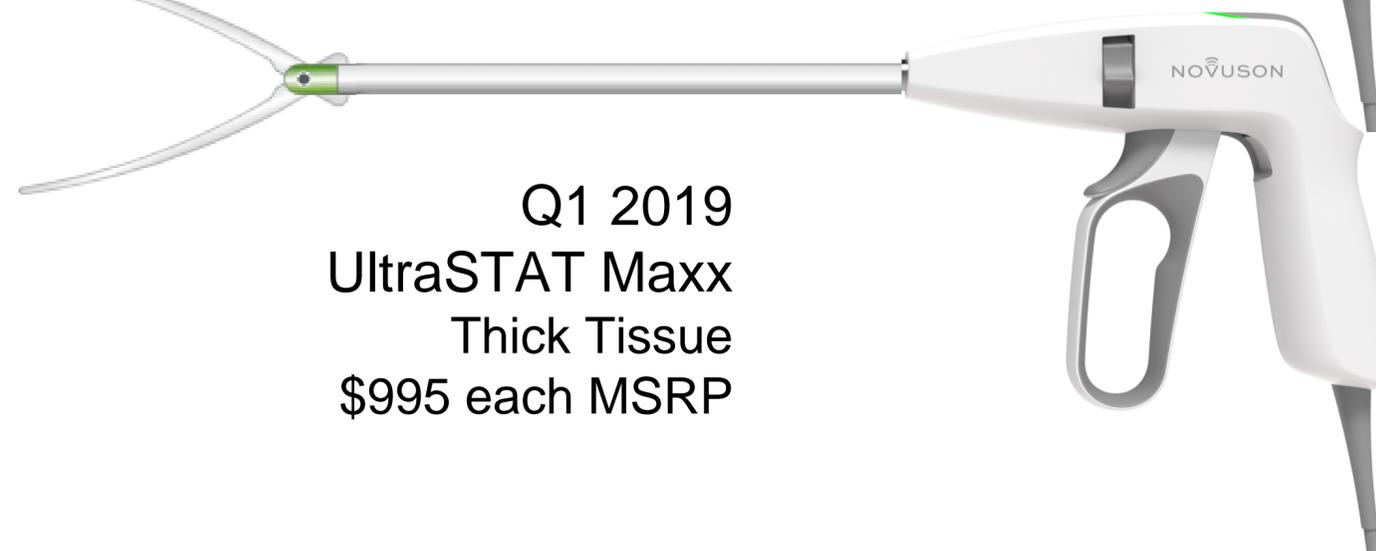
Launch Product Q3 2018
UltraSTAT 3mm Mini LS
Thin Tissue
\$595 each MSRP



Q4 2018
UltraSTAT 5mm LS
Thin Tissue
\$595 each MSRP



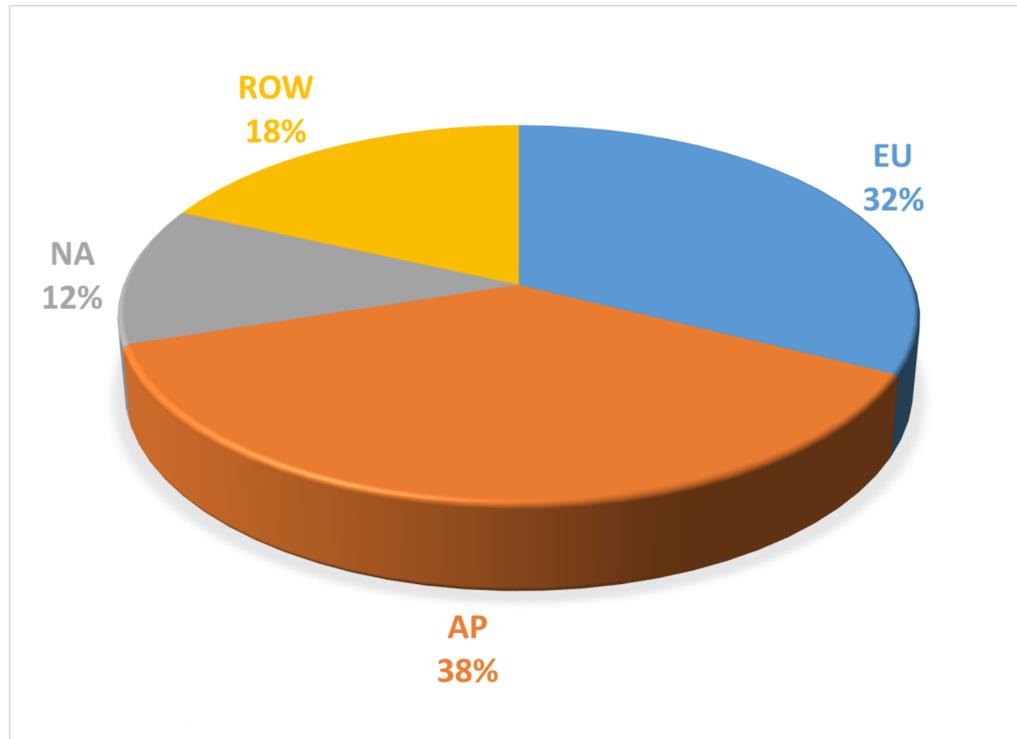
Q1 2019
UltraSTAT Maxx
Thick Tissue
\$995 each MSRP



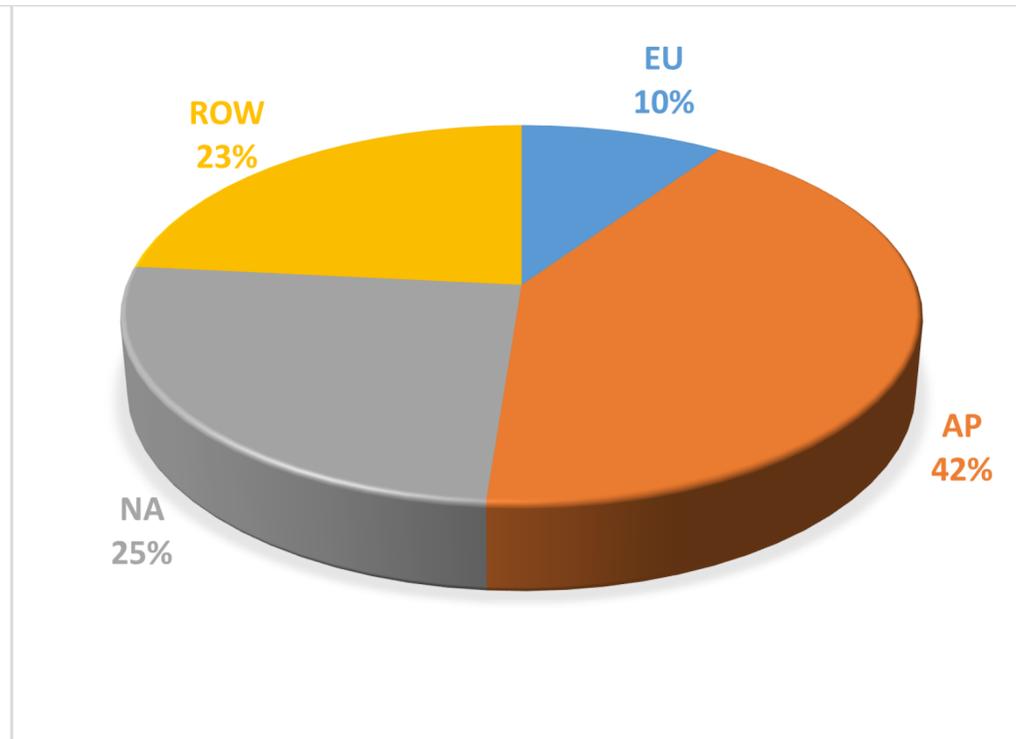
\$50BN GLOBAL SURGICAL MARKET



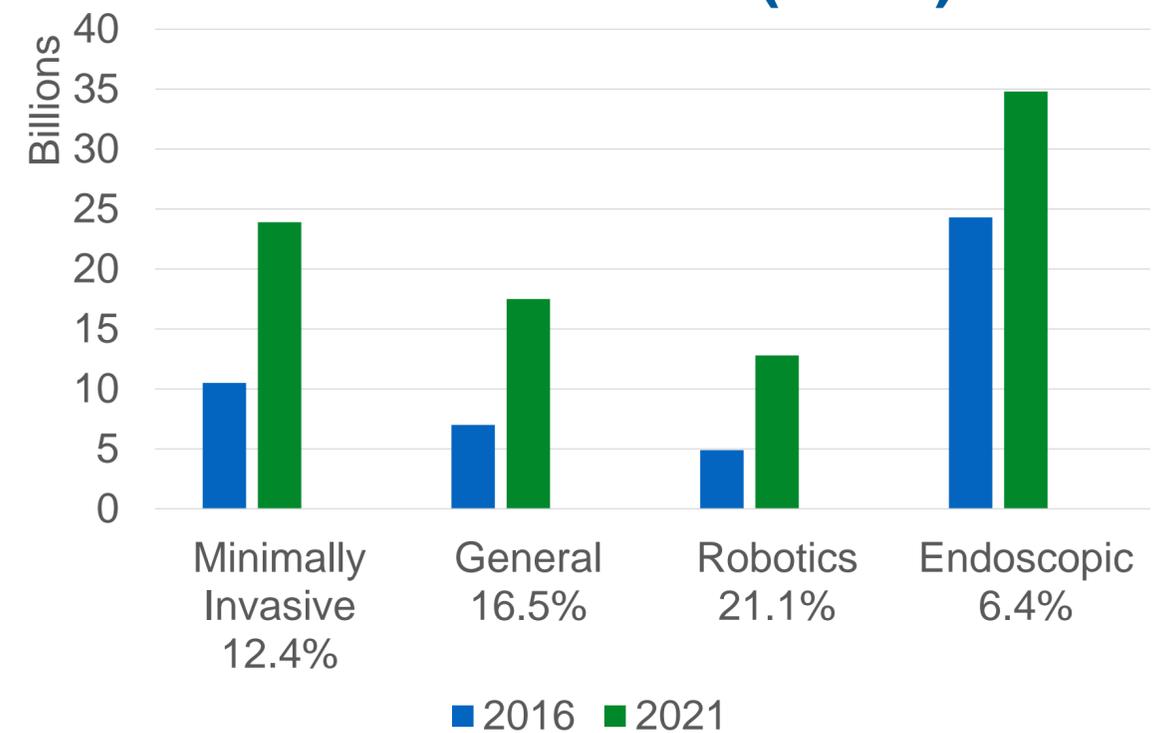
405K SURGICAL SUITES



410M SURGICAL PROCEDURES



\$50BN GLOBAL SURGICAL DEVICE MARKET (2016)



2018 – Direct Therapeutic Ultrasound

NOVUSON

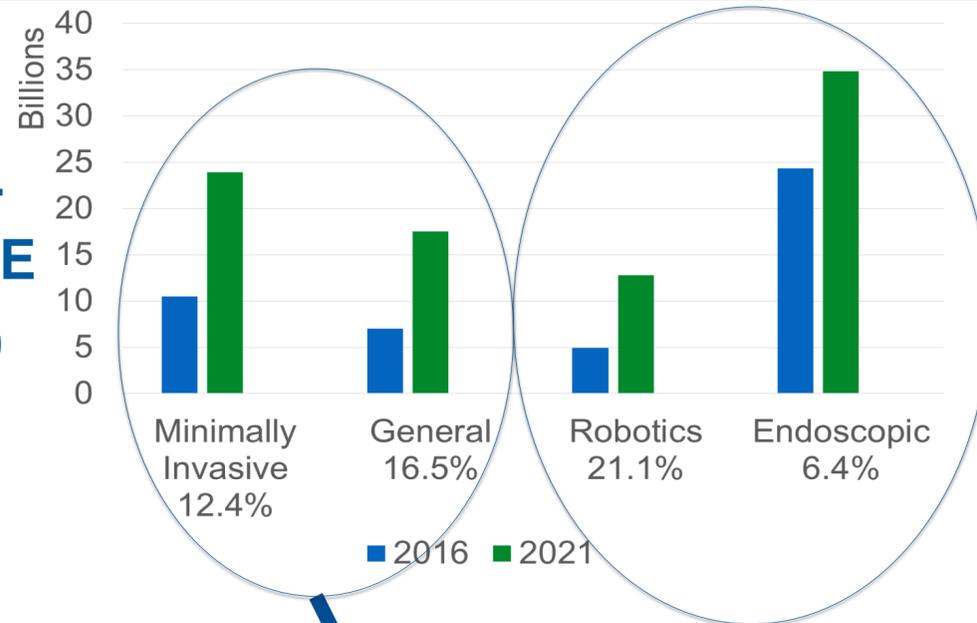


*MIS- Statistics MRC ID: 283193, *General – Grand View Research Oct 2016, *Robotics – Markets and Markets (2916860), *Endoscopic – BCC Research (HLC093A)

ADDRESSABLE MARKET



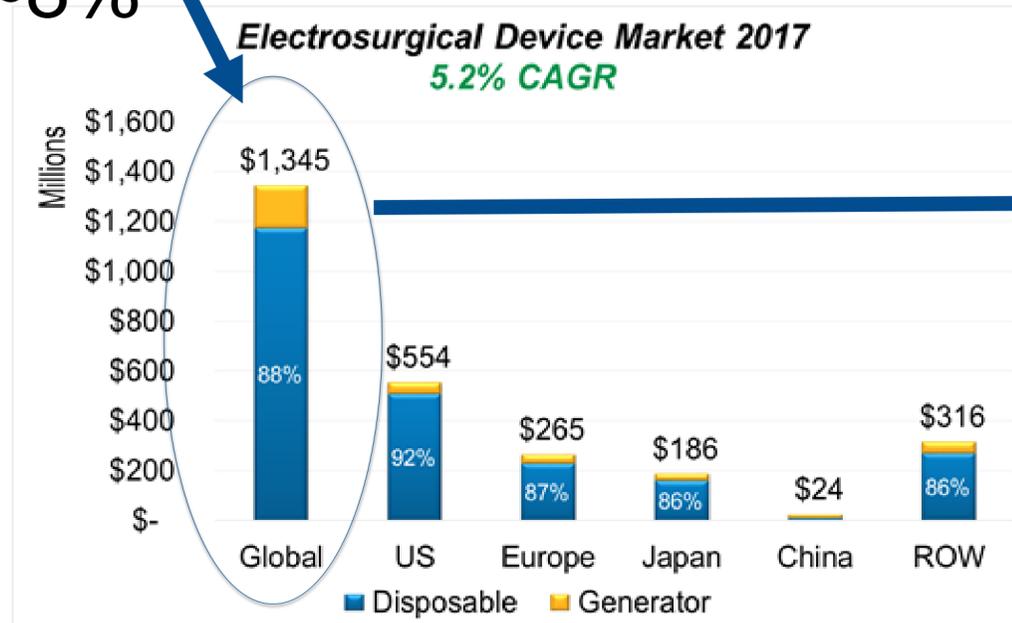
\$50BN GLOBAL SURGICAL DEVICE MARKET (2016)



8%

\$2.4 B Potential

~8%



+ \$1.3 B Launch
= \$3.5 B TAM

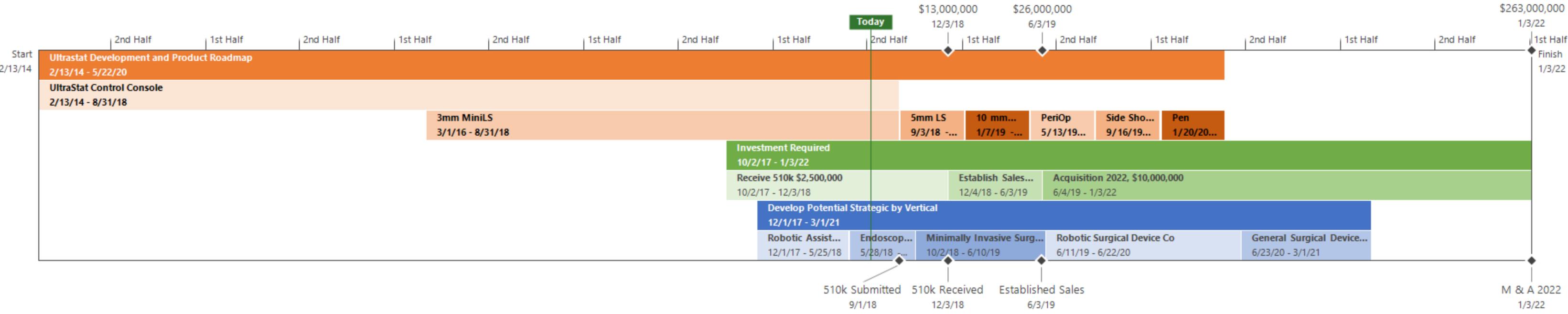


SOFT LAUNCH STRATEGY

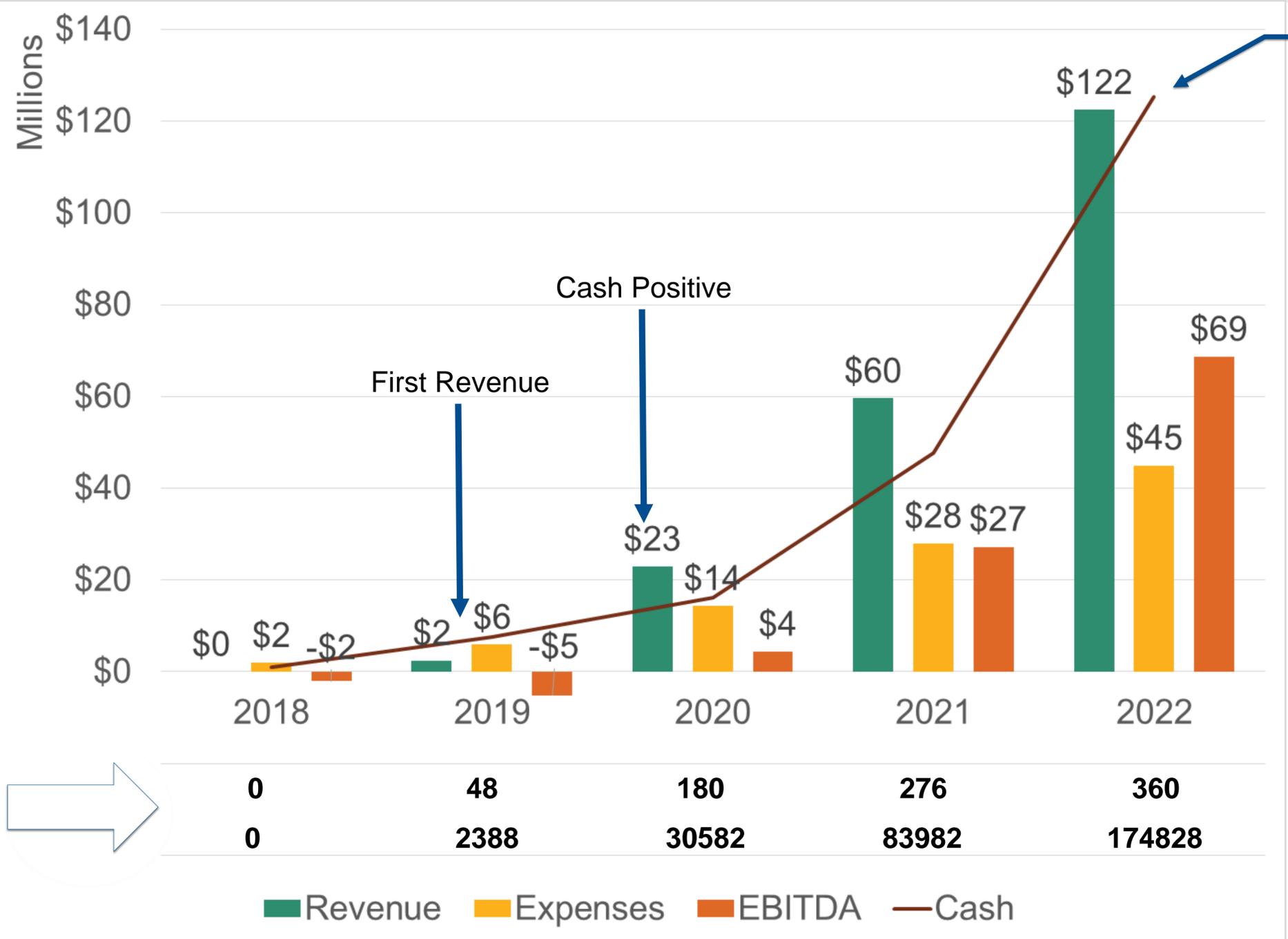
US – MINIMALLY INVASIVE SURGERY



STRATEGIC PLAN

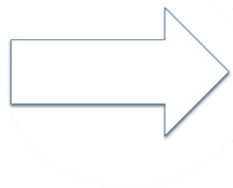


PROJECTED FINANCIAL SUMMARY US MARKET



1% Surgical Suites
2% MIS Procedures

Sales Forecast



0	48	180	276	360
0	2388	30582	83982	174828

Consoles Sold
Handset Sold

Revenue Expenses EBITDA Cash

LEADERSHIP



Executive Management



Stuart B Mitchell, PhD

CEO, CSO, Founder

- 35 yrs Business and Program Mgmt
- 25 yrs Biomedical Technology
- 15 yrs Therapeutic Ultrasound



Jim Bazzinotti, MBA

COO, EVP Sales / Marketing

- 25 yrs Medical Device Industry
- Expertise in MIS
- US and Global Product Launch



Jean Maixner, DVM, MBA

EVP Operations and Finance

- Entrepreneur w/Successful Exit
- Strategic Planning
- Financial Projections/Budgeting



Shane Cerrato, MBA

EVP Business Development

- 18 yrs Global Commercial Development
- Leadership Positions in Med Device
- Successful Launches of Niche Med Device



Marco Daoura, MS BioE

EVP Program and Product Mgmt

- 20 years in healthcare industry
- Development, regulatory
- Commercialization

Board of Directors



Stuart B Mitchell, PhD

Chairman



Mike Gertner, MD

CEO, Kona Medical.



Carla Corkern

Former CEO, Talyst



Sam Liao

CFO, Series A Investor

Medical Board



DEREK KHORSAND, MD
Chief Medical Officer

Resident Physician Diagnostic and Interventional Radiology University of Washington Medical Center



JUAN A. ASENSIO, MD, FACS, FCCM, FRCS (ENGLAND), KM

Advisor of Surgical and Trauma Surgery Applications



CAMRAN NEZHAT, MD, FACS, FACOG

Camran Nezhat Institute, Minimally Invasive & Robotic Surgery



RUSSELL JENNINGS, MD

Boston Children's Hospital Surgical Director Esophageal and Airway Treatment Center



THOMAS K JONES, MD

Professor of Pediatrics & Medicine, University of Washington, Director of Cardiac Catheterization Laboratories, Seattle Children's Hospital



FARR NEZHAT, MD, FACS, FACOG

Clinical Professor Obstetrics and Gynecology Weill Cornell Medical College at Cornell University,



CEANA NEZHAT, MD, FACS, FACOG

Medical Director, Nezhat Medical Center, Director of Training and Education, Northside Hospital Fellow Emory University School of Medicine

FOCUSED INVESTMENT FOR Q4 '18 – 510K CLEARANCE



⇒ **Open Convertible Note \$1.5M Bridge Round**

- ⇒ \$75k Founder, \$650k Series A, \$175k Keiretsu and other Angels
- ⇒ \$600k remaining on the Bridge Round
- ⇒ 12 month, 10% Interest, 20% discount, \$13M Valuation Cap (~0.36/share)
- ⇒ Additional 20% discount for any single investment of \$100k+
- ⇒ Warrant good for 30 days post 510k clearance (2X amount of Investment)

⇒ **Use of Funds**

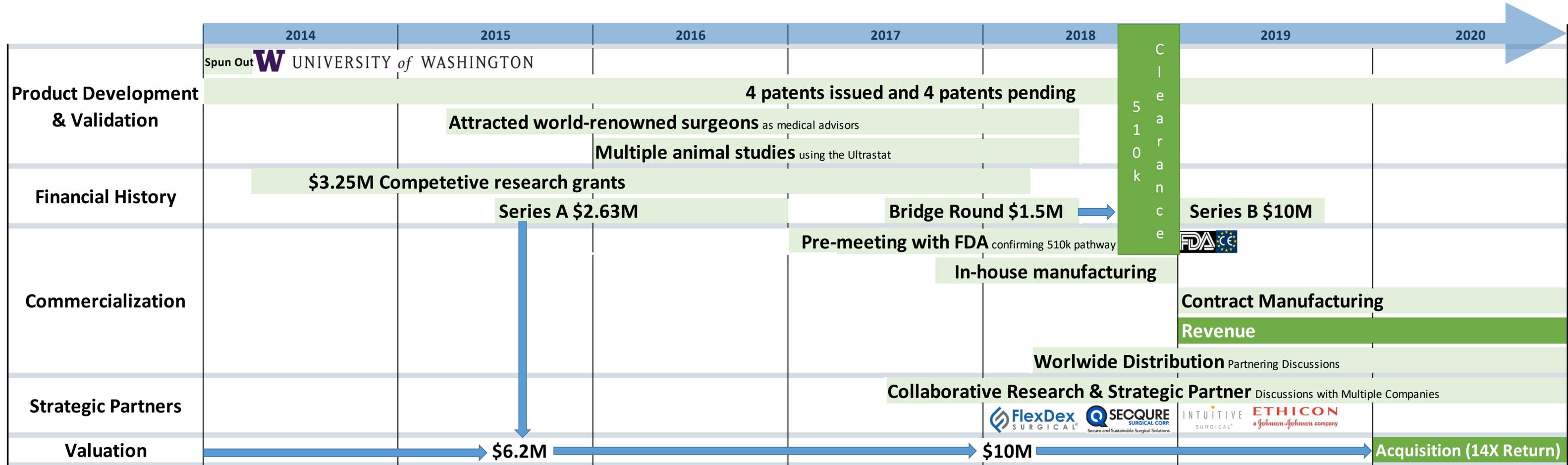
- Clinical system completion
- Validation & verification testing
- Final GLP studies

- 510K clearance, CE Mark
- Soft Product launch

} 90 Days to FDA Submission



TRACTION AND ROI



EXIT VIA ACQUISITION 2019-2021



Year	Company	Acquired By	Price	Investment	Product
2011	 PEAK TM surgical	 Medtronic	\$ 120,000,000	\$ 29,000,000	Plasmablade (RF scalpel)
2011	 SALIENT SURGICAL TECHNOLOGIES	 Medtronic	\$ 525,000,000	\$ 45,000,000	RF + Saline ablation
2011	 Interlace MEDICAL	 HOLOGIC [®] The Science of Sure	\$ 125,000,000	\$ 23,000,000	MyoSure (Vibratory scalpel)
2008	 SURGRX [®]	 ETHICON a Johnson & Johnson company	\$ 225,000,000	\$ 41,000,000	Enseal
2015	 Spinal Modulation	 ST. JUDE MEDICAL	\$ 175,000,000	\$ 109,400,000	Neurostimulator
2014	 Topera	 Abbott	\$ 250,000,000	\$ 25,000,000	electrophysiological arrhythmia

Conservative acquisition price estimate = **\$250M**

MEDICAL DEVICE INVESTMENT OPPORTUNITY



- Novel, disruptive technology in a dormant \$50B global market
- Value Proposition: Safer, Reduces Complications, Precise
- Clear regulatory path
- Submitting our first 510k in ~90days
- Platform technology that can be integrated into all surgical markets
- Experienced executive team and advisory boards
- We have strategic partnerships developed or in progress
- Great terms on a convertible note, 12 month, 10% interest, 20% Disc, \$13M Cap
- Pre-Money Valuation \$10M, Closing out our Bridge Round \$600K Remaining
- Potential Exit ranges ROI 3x – 14x (depending on early or later)



THANK YOU!



Stuart B Mitchell, PhD | *CEO, President, & CSO*
Novuson Surgical | 11824 North Creek Pkwy N, Suite 103
Bothell, WA 98011
O: (425) 481-7165 | C: (425) 238-6227
sbmitchell@novuson.com
www.novuson.com | [Disclaimer](#)