AtriCure

Creating a World Class Afib Platform

INVESTOR PRESENTATION

AUGUST 2022

Forward Looking Statements

This presentation and oral statements made in connection with this presentation contain "forward-looking statements," which are statements related to future events that by their nature address matters that are uncertain. Forward-looking statements address, among other things, AtriCure's expected market opportunity, future business, financial performance, financial condition, and results of operations, and often contain words such as "intends," "estimates," "anticipates," "hopes," "projects," "plans," "expects," "drives," "seek," "believes," "see," "should," "will," "would," "can," "opportunity," "target," and similar expressions and the negative versions thereof. Such statements are based only upon current expectations of AtriCure. All forward-looking information is inherently uncertain and actual results may differ materially from assumptions, estimates, projections or expectations reflected or contained in the forward-looking statements as a result of various risk factors.

Reliance should not be placed on forward-looking statements because they involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements to differ materially from those expressed or implied. These risks, uncertainties and other factors include, but are not limited to, those identified at http://www.atricure.com/forward-looking-statements and/or described in AtriCure's Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q, particularly the "Risk Factors" sections thereof, as filed with the U.S. Securities and Exchange Commission and available at http://www.sec.gov.

With respect to all forward-looking statements, AtriCure claims the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. Forward-looking statements speak only as of the date they are made. AtriCure undertakes no obligation, and does not expect, to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise unless required by law.



Non-GAAP Financial Measures

To supplement AtriCure's condensed consolidated financial statements prepared in accordance with accounting principles generally accepted in the United States of America, or GAAP, AtriCure provides certain non-GAAP financial measures as supplemental financial metrics in this presentation.

Adjusted EBITDA is calculated as net income (loss) before other income/expense (including interest), income tax expense, depreciation and amortization expense, share-based compensation expense, acquisition costs, legal settlement costs, impairment of intangible asset and change in fair value of contingent consideration liabilities. Management believes in order to properly understand short-term and long-term financial trends, investors may wish to consider the impact of these excluded items in addition to GAAP measures. The excluded items vary in frequency and/or impact on our continuing results of operations and management believes that the excluded items are typically not reflective of our ongoing core business operations and financial condition. Further, management uses adjusted EBITDA for both strategic and annual operating planning. Adjusted income (loss) per share is a non-GAAP measure which calculates the net income (loss) per share before non-cash adjustments in fair value of contingent consideration liabilities, impairment of intangible asset and legal settlement costs.

The non-GAAP financial measures used by AtriCure may not be the same or calculated in the same manner as those used and calculated by other companies. Non-GAAP financial measures have limitations as analytical tools and should not be considered in isolation or as a substitute for AtriCure's financial results prepared and reported in accordance with GAAP. We urge investors to review the reconciliation of these non-GAAP financial measures to the comparable GAAP financials measures, and not to rely on any single financial measure to evaluate our business.



We are passionately focused on reducing the global Afib epidemic and healing the lives of those affected

Large Markets

Addressing an underserved and growing patient population

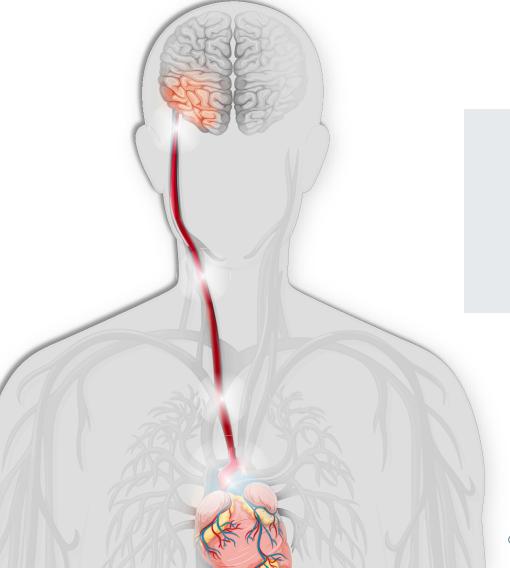
Strong Portfolio

Existing products and solutions driving consistent growth

Bright Future

Novel therapies supported by growing body of clinical evidence

Afib: A Serious Problem



 ~ 1.2 M

Afib diagnoses annually in the US²

1/4

Adults over 40 will develop Afib in their lifetime³

Atrial Fibrillation (Afib) is an irregular heartbeat (or arrhythmia) that affects more than 33 million people worldwide.

5x
Higher Risk of Stroke⁴

46%

Greater Risk of Mortality⁵

>5x

Higher Risk of Heart Failure⁶

Significant Global Market Opportunity

US Market

\$3B+
ANNUAL OPPORTUNITY

- Continued build of dedicated sales and training expertise
- Clinical data supporting multiple label expansions
- New product development
- Enhanced reimbursement



International Market

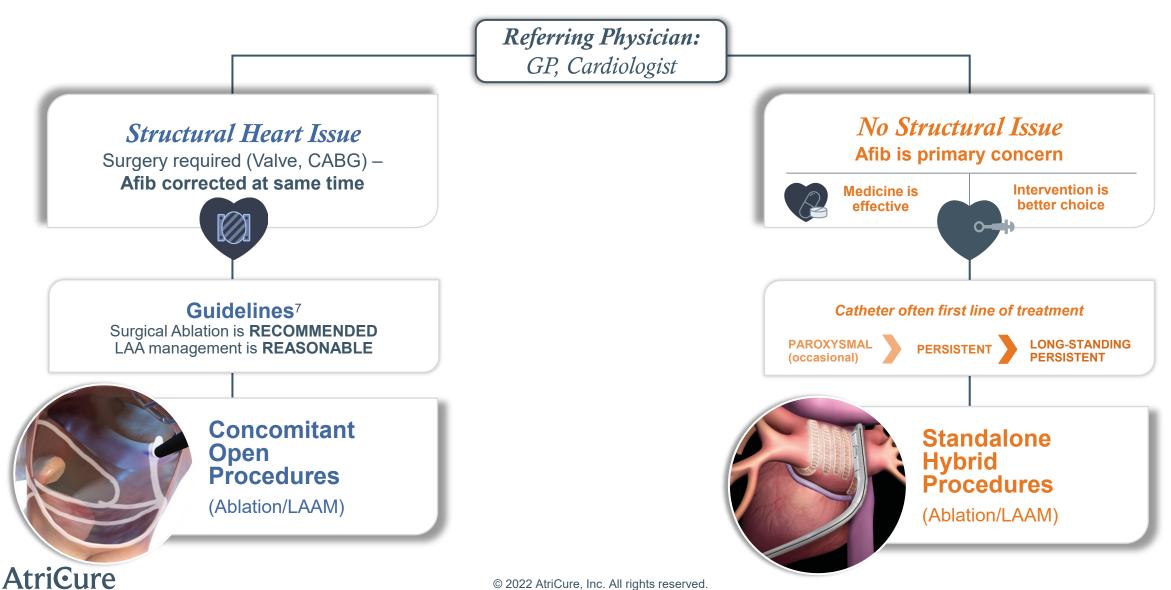


- Penetration of large markets first
- Expand product availability
- Improve market access via reimbursement
- Continued build of dedicated sales and training expertise

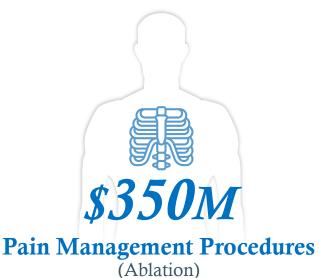
Market opportunity based on internal estimates and research, as well as from publicly available information. See Supplemental Information for additional detail.



Two Distinct Patient Profiles

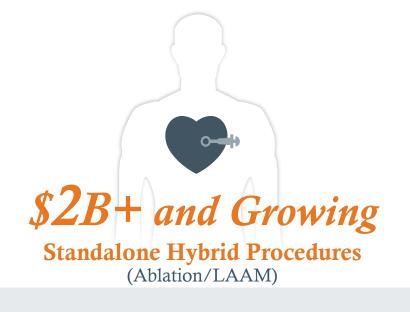


US Market Opportunity



\$700-800M

Concomitant Open Procedures
(Ablation/LAAM)



Novel, High Growth Market

~140k thoracic patients

Steady Growth in Penetration of Cardiac Surgery Market

- ~300k total patients (Afib, non-Afib) with structural heart issue
- Only PMA product for concomitant surgical treatment of Afib

Expansive Growth from Development of Standalone Afib Market

- Addressable market is more than 3 million patients
- Multiple approaches to treatment: Hybrid AF Therapy + AtriClip[®], DEEP

Market opportunity based on internal estimates and research, as well as from publicly available information. See Supplemental Information for additional detail.

AtriCure: A Decade of Progress

2011

Impacting more than 300,000 patients worldwide.

2021

Isolator Synergy Ablation System

approved by FDA for treatment of persistent or long-standing persistent Afib concomitant to open heart procedures... the first medical device to receive FDA approval for the treatment of persistent Afib

- Maze IV Training Program initiated;
 Advanced Ablation Courses endorsed
 by the Society of Thoracic Surgeons (STS)
- Continued innovation in AtriClip platform
- Guidelines recommend Afib ablation treatment and state management of LAA reasonable
- Expansion of AtriClip labeling with electrical isolation of LAA
- Three acquisitions, moving into EP space with minimally invasive therapies
- Release of cryoSPHERE® probe and dedicated commercial team

EPi-Sense® System approved by FDA for treatment of long-standing persistent Afib

Expanded labeling for Cryo Nerve Block Therapy in adolescents

510k clearance of **EnCompass® clamp**

Differentiated portfolio of solutions built from continuous innovation and strong clinical evidence, supported by robust training and education.



2022 Priorities: Driving Therapy Expansion



Concomitant Open Procedures

Initiate clinical trial for LAAM in cardiac surgery (LeAAPS)

Launch EnCompass Clamp in U.S.



Grow commercial team and awareness globally



Standalone Hybrid Procedures

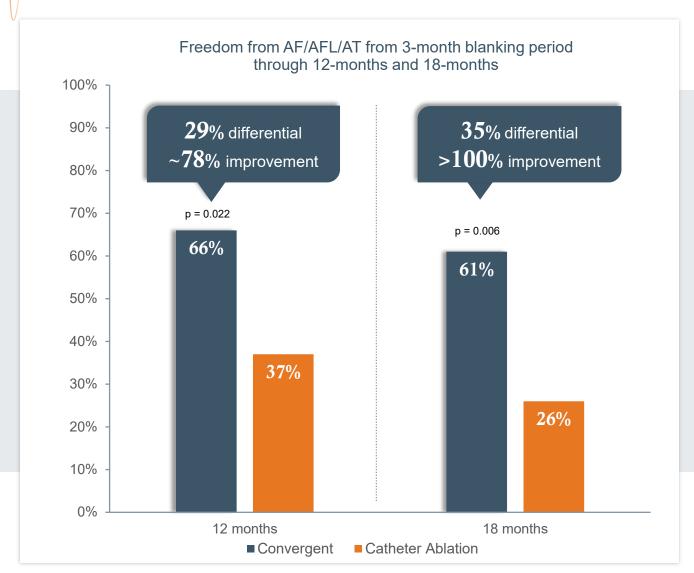
Train and Expand Hybrid AF Therapy:

Adoption by new and existing accounts

Addition of LAAM to procedures



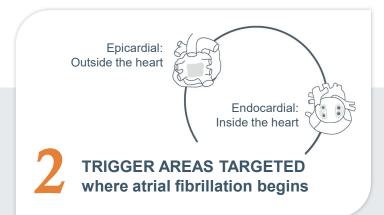
CONVERGE: Long-standing Persistent Afib Patient Analysis



- Superior outcomes with hybrid Convergent procedure when compared to endocardial catheter ablation alone in patients with drug refractory long-standing persistent Afib
- Data for long-standing persistent patients in the trial demonstrated compelling efficacy and durability
- Improved EP lab efficiency demonstrated by reduction in endocardial ablation time as a result of adding epicardial ablation

Benefits of the EPi-Sense System and Hybrid AF Therapy

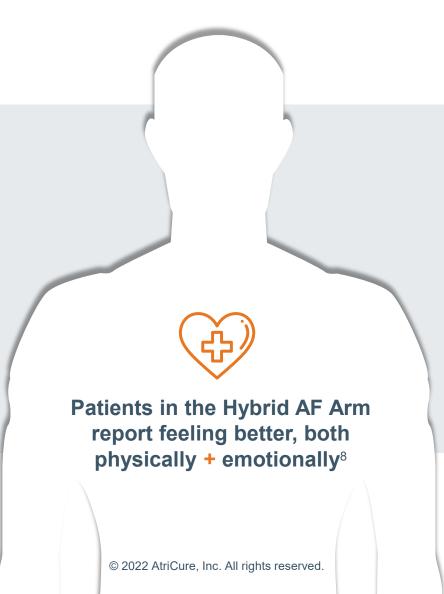
Benefits based on 7-day continuous rhythm monitoring at 18-months post procedure



Emphasizes value of team-based approach for advanced AF treatment



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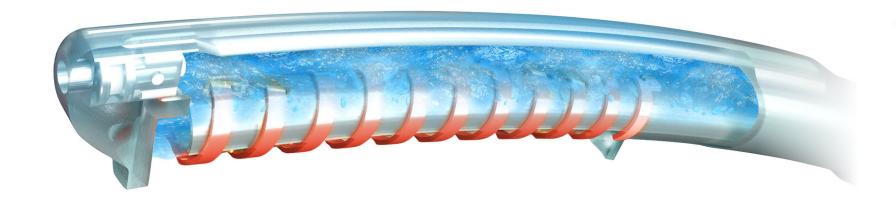




Additive to endocardial catheter ablation



Commercial Strategy for the EPi-Sense System



Target

Drive utilization with existing and new sites

Build

Train and develop programs, build referral channel

Leverage

Add AtriClip to Hybrid AF Therapy

Expand

Grow commercial + training teams, broaden internationally

Amplify

Spread awareness of Hybrid AF Therapy to patients

Innovative and Expanding Product Portfolio



Continuous innovation to less invasive, simpler to use, and more efficient products





Spotlight: Cryo Nerve Block for Pain Management

A new way to freeze out post-operative pain: cryotherapy for temporary pain relief in thoracic surgical procedures

Highlights

- Dedicated commercial team established (2019) and expanding
- Launch of cryoSPHERE® probe in US (Q1 2019)
- Label expansion includes adolescent patients as young as 12 years of age
- Europe launch in 2022



Therapy Overview

- Temporarily stops transmission of pain signals coming from the chest wall during surgery
- Nerve "scaffolds" remain intact allowing axons to regenerate and restore nerve function over time
- Applicability in a wide variety of thoracic surgical approaches and procedures
- Can be an important tool in combatting the opioid epidemic 1 in 7 thoracic surgery patients become reliant upon opioids after their procedure⁹

Spotlight: Isolator Synergy EnCompass® Clamp

A simpler and faster approach to ablating the heart in open procedures

Highlights

- FDA 510(k) clearance in July 2021
- Broad commercial launch in U.S. **April 2022**
- Continue to drive penetration of cardiac surgery market



Product Overview

- FDA 510(k) clearance to ablate cardiac tissue during surgery
- Designed with same benefits of the AtriCure Isolator Synergy Clamps:
 - + Parallel closure
 - + Uniform pressure
 - + Synergy algorithm provides custom power
- Compatible with existing AtriCure RF generator

HEAL-IST Overview

IDE Trial to support safety and efficacy of hybrid sinus node sparing ablation procedure for the treatment of IST

Using AtriCure ISOLATOR Synergy Ablation System

Study Design

Summary

Multi-center, prospective, single arm, Bayesian Adaptive Design

Number of Subjects and SitesUp to 142 patients at up to 40 sites

(US, UK, and EU)

Study Duration

Safety: 30-day follow-up Efficacy: 12-month follow-up

All subjects followed for a total of 24

months post procedure

Primary Endpoints

Effectiveness

Freedom from IST at 12-months. Freedom from IST is defined as mean heart rate of ≤ 90bpm or at least a 15% reduction in mean heart rate as compared to baseline, in the absence of new or higher dosage of previously failed medications.

Safety

Incidence of device or procedure-related major adverse events (MAEs) for subjects undergoing the hybrid sinus node sparing ablation procedure from the index procedure through 30-days post procedure.



CLINICAL TRIAL

Highlights

- Inappropriate Sinus Tachycardia (IST)
 is a chronic condition characterized by
 elevated resting heart rate and
 exaggerated response to exercise or
 stress
 - ✓ Currently, no approved therapies
 - ✓ First clinical trial for this large unmet need
 - Building off current Synergy product technology
 - Hybrid therapy leverages expertise and partnership between EP and Cardiac Surgery
- FDA approval of HEAL-IST clinical trial protocol (Q1 2022)
- First patient treated (Q2 2022)

LeAAPS Overview

IDE Trial to evaluate the effectiveness of prophylactic LAA exclusion for the prevention of ischemic stroke or systemic arterial embolism in cardiac surgery patients without pre-operative AF diagnosis

Using AtriClip LAA Exclusion System

Study Design

Summary

Multi-center, prospective, randomized control (1:1) trial

Number of Subjects and Sites

Up to 6,500 subjects at up to 250 sites worldwide

Study Duration

Safety: 30-day follow-up Efficacy: Event-driven trial, with a minimum follow-up of 5 years post procedure

Primary Endpoints

Effectiveness

First occurrence of ischemic stroke or systemic arterial embolism.

Safety

Incidence of safety events through 30-days to demonstrate no increase in risk with LAA exclusion during cardiac surgery.

Left
Atrial
Appendage Exclusion for Prophylactic
Stroke Reduction



CLINICAL TRIAL

Highlights

- Seminal clinical trial one of the largest IDE trials in cardiac surgery
- Study will have a global reach with sites in the United States, Canada, Europe and Asia
- Multiple secondary and other key endpoints will be evaluated
- FDA approval of LeAAPS clinical trial protocol (Q2 2022)



Key Investments Driving Growth

AtriCure Pillars

Foundation of our past + Strengthening our future

INNOVATION

Increasing pipeline to drive LAAM penetration and build MIS market



CLINICAL SCIENCE

hybrid AF Therapy proven by CONVERGE trial; Focusing on expansion of clinical data across franchises



EDUCATION

Significant **investment** in physician education, providing multiple **training** options

U.S. SALES LEADERSHIP

26 Area Directors across teams

U.S. EDUCATION

40+ Physician + Field Support Roles

INTERNATIONAL

50+ Sales + Education Professionals

Aligning Expertise and Opportunity

Dedicated Commercial + Education Teams

U.S. CARDIAC

130+ Sales + Clinical Specialists

U.S. HYBRID THERAPIES

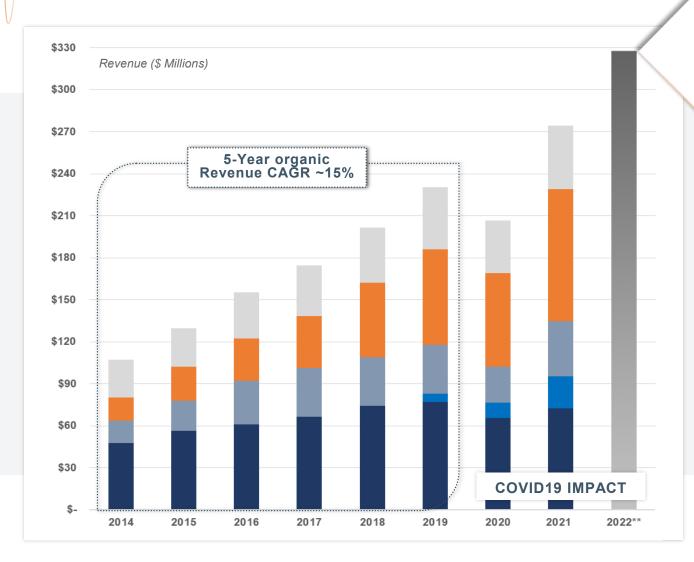
50+ Sales + Clinical Specialists

U.S. CRYO NERVE BLOCK

40+ Sales + Clinical Specialists



History of Strong Growth



2022 Revenue Guidance

Updated August 2022

Accelerating Growth (18-21% YoY) \$323M-333M worldwide revenue

History of Consistent Revenue Growth

5-Year historical organic revenue CAGRs (pre-COVID-19)

32%

U.S. AtriClip

11%

U.S. Open Ablation excluding Pain Management 8%

U.S. MIS Ablation *10*%

International

U.S. Open Ablation
 U.S. Pain Management
 U.S. MIS Ablation
 U.S. LAAM
 International

**Based on midpoint of 2022 Revenue guidance range

Second Quarter 2022 Financial Highlights



- Strong activity and growing demand across key product lines demonstrating our many growth catalysts
- U.S. revenue of \$71.3M (84% of revenue)
- International revenue of \$13.3M (16% of revenue)

Key Metrics*

	Q2 2021	Q2 2022
GROSS MARGIN	75.8%	75.1%
OPERATING EXPENSES	\$69.2M	\$77.2M
ADJUSTED EBITDA-S**	(\$2.7M)	(\$3.2M)
ADJ. LOSS PER SHARE**	(\$0.30)	(\$0.32)
CASH & INVESTMENTS	\$230M	\$183M



^{* 2022} financial results are preliminary and unaudited

^{**} Reconciliation of Adjusted EBITDA and Adjusted Loss per share to GAAP metrics may be found in Q2 2022 earnings release.

Exciting Future Ahead

Comprehensive Platform of Therapies for differentiated population of Afib patients
Surgical Ablation + AtriClip

Accelerating Growth in EP Landscape
Hybrid AF Therapy

Expanding With Pain Management
Cryo Nerve Block

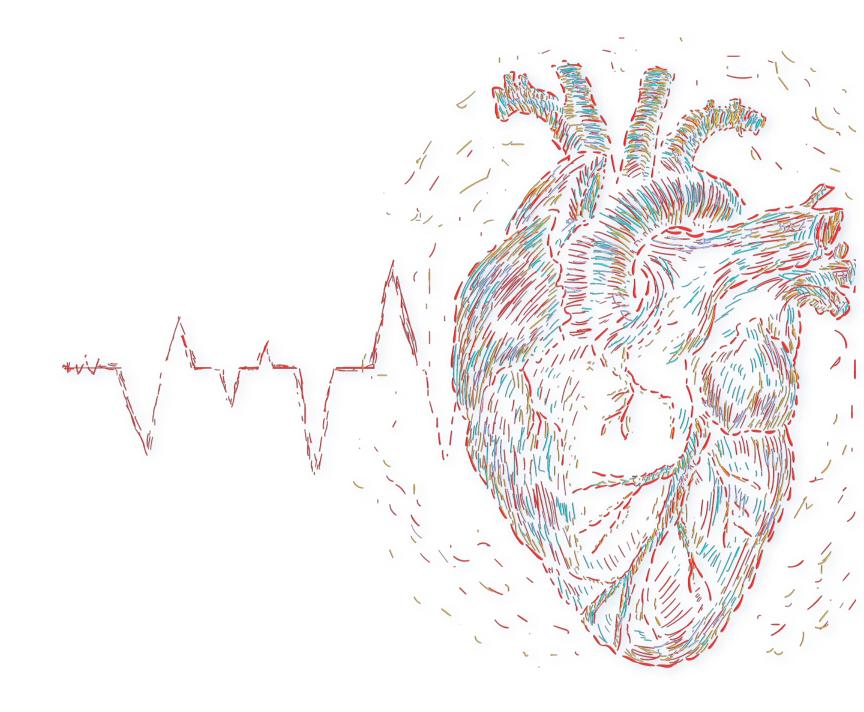




Supplemental Information

References for any comments, statistics, or figures in this presentation are available upon request.

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Change in Revenue Presentation

Summary of Changes Implemented Q1 2022

Presentation of revenue aligns with current product line offerings.

- PAIN MANAGEMENT revenue (sales of cryoSPHERE probe), historically included in Open ablation revenue, is now separately presented.
- VALVE revenue, historically shown as a separate product type, is now included in Open ablation revenue.

	Three Months Ended (in \$000s)			
	March 31, 2021	June 30, 2021	September 30, 2021	December 31, 2021
United States Revenue:				
Open ablation	\$17,439	\$19,503	\$17,893	\$17,56
Minimally invasive ablation	8,385	9,702	9,990	11,303
Pain management	3,898	5,709	6,253	6,927
Total ablation	29,722	34,914	34,136	35,791
Appendage management	20,587	25,156	23,401	25,424
Total United States	\$50,309	\$60,070	\$57,537	\$61,21
International Revenue:				
Open ablation	\$4,434	\$5,526	\$6,690	\$6,544
Minimally invasive ablation	1,274	1,575	1,849	1,71
Pain management	<u></u>	11	11	39
Total ablation	5,708	7,112	8,550	8,294
Appendage management	3,258	4,194	4,373	3,709
Total International	\$8,966	\$11,306	\$12,923	\$12,003
Total Revenue	\$59,275	\$71,376	\$70,460	\$73,218

Key Investment Rationale



Large Markets

Addressing an underserved and growing patient population

- Approximately 33 million Atrial Fibrillation patients globally, with majority having advanced forms of the disease¹
- Multibillion dollar annual market opportunity
- Current standard of care for intervention (catheter ablation) does not adequately address the most advanced forms of the disease



Strong Portfolio

Existing products and solutions driving consistent growth

- Strong history of double-digit revenue growth, driven by great products, clinical evidence, commitment to education, and societal guideline support
- Only PMA product for the concomitant surgical treatment of Afib
- AtriClip device is the most widely used Left Atrial Appendage device with over 300,000 sold to date
- Diverse and expanding product portfolio from internal development and acquisitions



Bright Future

Novel therapies supported by growing body of clinical evidence

- Only PMA product for treatment of LS persistent Afib with Hybrid AF Therapy
- Growing pain management business to address pain associated with surgery
- Early in market development process – evolution to minimally invasive therapies expected to drive growth, diversifying and accelerating in 2022 and beyond



COVID-19 Response

Positioning AtriCure for long-term growth



Health & Safety

Provide a safe work environment for our employees

- Enabling employees to work remotely; implemented hybrid workplans
- Providing personal protection and other measures to ensure the safety of those working in our offices and with customers



Maintaining Operations

Deliver products and support to our customers

- Maintaining manufacturing, assembly, fulfillment modified to adhere to safety recommendations
- Continuing case coverage support
- Utilizing online and mobile training venues to educate our customers

While our plans will continue to evolve in response to changes caused by the COVID-19 pandemic, we remain committed to the AtriCure team and to the execution of our strategic initiatives.



US Concomitant Market Opportunity

- US annual cardiac surgery volume steady over the past 5 years with shifts in procedure types¹⁰
- Pre-Op Afib occurs frequently in cardiac surgery patients¹¹

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 New onset Post-Op Afib is a welldocumented complication of cardiac surgery, even if patients do not present with pre-op Afib¹²





Estimated Afib Opportunity in Cardiac Surgery

Annual Cardiac Surgeries ¹³	300,000
Pre-Operative Afib Rate ¹¹	~28%
Cardiac Opportunity – Pre-Op Afib	85,000
ASP Mix (Ablation and Appendage Management) ¹⁴	\$5,000
Open Cardiac Surgery Opportunity – Afib	\$410M

Estimated Non-Afib Opportunity in Cardiac Surgery

Annual Cardiac Surgeries	300,000
Pre-Operative Non-Afib Rate	~72%
Cardiac Opportunity – Pre-Op Afib	215,000
ASP Mix (Appendage Management ONLY)14	\$1,750
Open Cardiac Surgery Opportunity – Non-Afib	\$376M

US Standalone Market Opportunity

Market opportunity in analysis at right considers:

- Addition of ablation and LAAM to existing catheter ablation procedures
 - Catheter ablation procedures have grown 10-15% annually¹⁵
- Incremental penetration of advanced Afib patient population
 - Today, long-standing persistent Afib population represents more than 3 million patients in the United States, expected to grow to more than 4.4 million by 2025¹⁶
- ASP Mix is both ablation and AtriClip



Estimated Standalone Afib Opportunity

	2020	Projected 2025
Long-standing Persistent Afib Catheter Ablation ¹⁷	25,000	45,000
ASP Mix (Ablation + Appendage Management) ¹⁴	\$15,000	\$15,000
Immediate Standalone Afib Opportunity	\$375M	\$675M
Additional penetration Long-standing Persistent Afib patients (estimated at 5% penetration) ASP Mix (Ablation + Appendage Management) ¹⁴	150,000 \$15,000	175,000 \$15,000
Incremental Standalone Afib Opportunity (estimated at 5% penetration)	\$15,000 \$2B+	\$15,000 \$3B+

CONVERGE Overview

SUPERIORITY TRIAL designed to support FDA approval of the EPi-Sense device

Achieved statistical superiority for primary endpoints

Study Design

Summary

Multi-center, prospective, open label randomized 2:1 (Hybrid Convergent procedure vs endocardial catheter ablation) pivotal study

Number of Subjects and Sites

153 subjects 27 sites (25 US and 2 OUS)

Study Duration

12 month and 18 month monitoring, then 3 and 5 year follow-up of all subjects

Primary Endpoints

Effectiveness

Primary efficacy endpoint is success or failure to be AF/AT/AFL-free absent class I and III AADs except for a previously failed or intolerant class I or III AAD with no increase in dosage following the 3 month blanking period through the 12 months post procedure follow-up visit

Safety

Predetermined performance goal for the study is 12% freedom from MAE's as adjudicated by the CEC for the procedural to 30-day post procedure time period

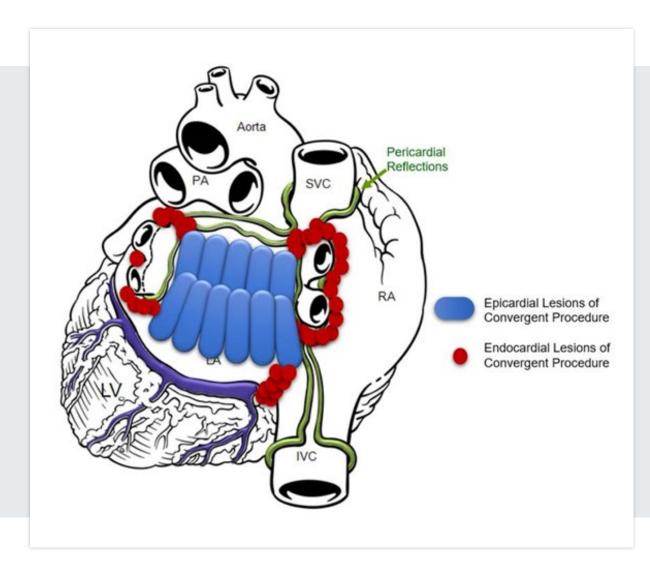


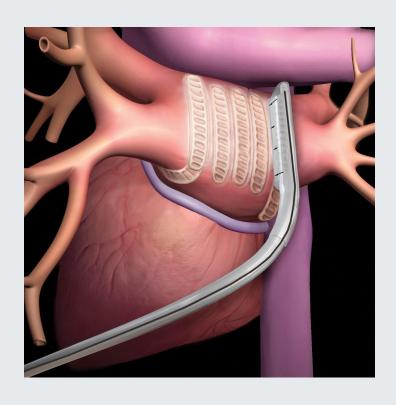
Highlights

- Completed enrollment August 2018
- Data released at virtual Heart Rhythm Society (HRS) conference May 2020
- PMA submission seeking approval for treatment of long-standing persistent Afib November 2020
- Trial results published in Circulation: Arrhythmia and Electrophysiology November 2020
- Long-standing persistent Afib patient subgroup analysis presented at 26th Annual Atrial Fibrillation (AF) Symposium January 2021 and 14th Annual Western AF Symposium February 2021
- FDA approval of EPi-Sense System for treatment of long-standing persistent Afib April 2021



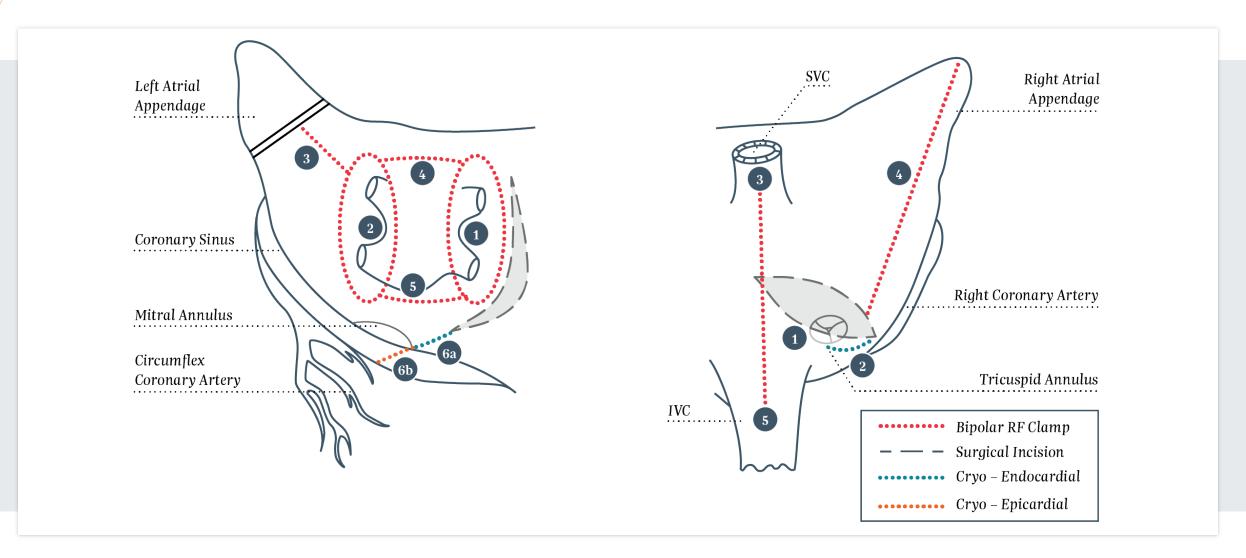
Hybrid AF Therapy: The Convergent Procedure







The Cox-Maze IV Procedure





References and Abbreviations

Note	Reference
1	Worldwide Epidemiology of Atrial Fibrillation: A Global Burden of Disease 2010 Study
2	The American Journal of Cardiology (2013), 112: 1142-1147
3	Lifetime risk for development of atrial fibrillation. Circulation, 110 (2004): 1042-1046. doi: 10.1161/01.CIR.0000140263.20897.42
4	J Geriatr Cardiol. 2016 Oct; 13(10): 880–882, doi: 10.11909/j.issn.1671-5411.2016.10.004
5	Odutayo, A. et al. (2016). Atrial fibrillation and risks of cardiovascular disease, renal disease, and deaths systematic review and meta analysis. BMJ 2016; 354:i4482
6	Santhanakrishnan R et al., "AF Begets Heart Failure and Vice Versa," Circulation, 133 (2016):484-492
7	The Society of Thoracic Surgeons 2017 Clinical Practice Guidelines for the Surgical Treatment of Atrial Fibrillation
8	IFU for EPi-Sense® Guided Coagulation System Data: PMA# P200002
9	The Society of Thoracic Surgeons, Current News Release (1/30/2018): 1 in 7 Lung Surgery Patients at Risk for Opioid Dependence
10	STS Adult Cardiac Surgery Database, 2018/2019 Harvest Executive Summary
11	McCarthy, P.M. et al. (2019). Prevalence of atrial fibrillation before cardiac surgery and factors associated with concomitant ablation. J Thorac Cardiovasc Surg, PII: S0022-5223(19)31361-3, DOI: 10.1016/J.JTCVS.2019.06.062.
12	Lin et al, Stroke 2019 Jun; 50(6):1364-1371. doi: 10.1161/STROKEAHA.118.023921. Epub 2019 May 2.
13	Harvested from data previously available through the Society of Thoracic Surgeons
14	Average Selling Prices (ASPs) are management estimates based on a mix of products used for the various procedures
15	Estimated based on various catheter company presentations
16	Medical management estimate: Colilia, et al. Estimates of Current and Future Incidence and Prevalence of Atrial Fibrillation in the U.S. Adult Population. Am Journal of Cardiology 2013, 112: 1142-1147 Persistent patient estimate: Berisso et al Epidemiology of atrial fibrillation: European perspective Clin Epidemiol. 2014; 6: 213–220
17	Estimated based on Advisory Board data, along with various scientific presentations

Key Abbreviations		
Afib or AF	Atrial Fibrillation	
AA	Atrial Arrythmia	
AAD	Anti-Arrhythmic Drugs	
AFL	Atrial Flutter	
AT	Atrial Tachycardia	
CABG	Coronary Artery Bypass Graft	
CEC	Clinical Events Committee	
EP	Electrophysiologist	
FDA	Food & Drug Administration	
IST	Inappropriate Sinus Tachycardia	
LAA	Left Atrial Appendage	
LAAM	LAA Management	
LS	Long-standing	
MAE	Material Adverse Event	
PMA	Pre-Market Approval	
RF	Radio Frequency	

