

ARTIVION™

Aorta + Innovation + Vision

Corporate Overview

August 2025

FORWARD-LOOKING STATEMENT

Statements made in this presentation that look forward in time or that express management's beliefs, expectations, or forecasts are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements reflect the views of management at the time such statements are made. These statements include our belief that we can continue to drive sustained double digit revenue growth and EBIDTA growth as a result of our base business, our high growth stent graft business and our leverageable global infrastructure; our estimates of the size of the total addressable markets and growth profiles for our preservation services (human tissue), mechanical heart valves, and surgical sealants; our estimates of the size of the total addressable markets and growth rates for E-vita OPEN NEO, AMDS, NEXUS, E-nside, Artivex and E-tegra; our estimates relating the conduct of and timelines for enrollment of our ongoing and planned clinical trials and regulatory approvals, including PERSEVERE, Endospan's TRIOMPHE, and for ARCEVO and TAAA Systems; our beliefs that our products will result in improved patient outcomes; our expectations regarding future constant currency revenue growth in 2025 compared to 2024; our estimates and related expectations regarding increased incremental cash flow by revenue growth and gross margin and adjusted EBITDA margin expansion; our expectation that we will achieve be free cash flow positive and the timing thereof; our expectation that we will decrease net debt leverage by year end 2025; and our belief and expectations about our future revenue, year over year growth and growth drivers, earnings, adjusted EBITDA and other financial measures and related information.

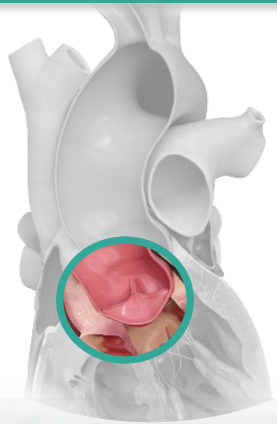
These forward-looking statements are subject to a number of risks, uncertainties, estimates and assumptions that may cause actual results to differ materially from current expectations, including but not limited to the risks and uncertainties relating to our international operations; regulatory developments; clinical trials and regulatory approvals; anticipated benefits of our credit facility and other agreements; market opportunities and commercialization; and the November 2024 cybersecurity incident. These risks and uncertainties include the risk factors detailed in documents that we file with or furnish to Securities and Exchange Commission, including our Form 10-K for the year ended December 31, 2024, our Quarterly Report on Form 10-Q for the quarter ended June 30, 2025. Artivion does not undertake to update its forward-looking statements, whether as a result of new information, future events, or otherwise.

AN AORTIC DISEASE-FOCUSED COMPANY

~\$400 MILLION FY24 REVENUE; ~\$70 MILLION FY24 EBITDA

ARTIVION™

AORTIC VALVE STENOSIS <65 YRS

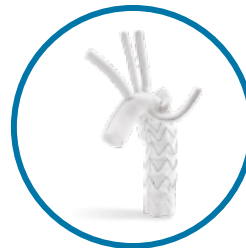
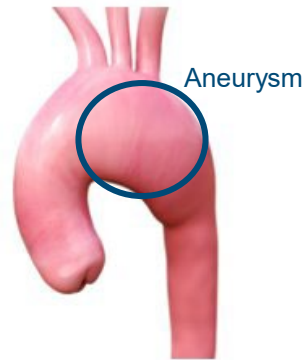


ALLOGRAFT VALVES

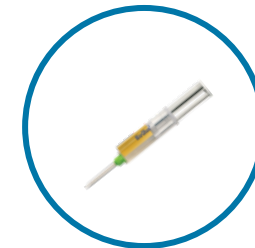


MECHANICAL VALVES

AORTIC DISSECTION & ANEURYSMS



STENT GRAFTS



SURGICAL SEALANT

EXPERIENCED LEADERS

ARTIVION™

Decades of combined experience and leadership in the medical device industry.



Pat Mackin

Chairman, President & CEO

Previously with
Medtronic



Lance Berry

EVP & CFO



John Davis

Chief Commercial Officer



Jean Holloway

SVP, GC, CCO & CS



Marshall Stanton

SVP, Clinical Research
& Chief Medical Officer



Drew Green

VP, Regulatory
Affairs



Rochelle Maney

VP, Quality



Robert Thomson

VP, Research &
Development



Florian Tyrs

VP, Global Operations
& General Manager,
Hechingen



Tim Manning

VP, Tissue
Operations



DRIVING SUSTAINED DOUBLE-DIGIT REVENUE GROWTH & 2x+ EBITDA GROWTH

ARTIVION™

Highly Differentiated,
Highly Defendable
Base Business



High Growth
Stent Graft Business

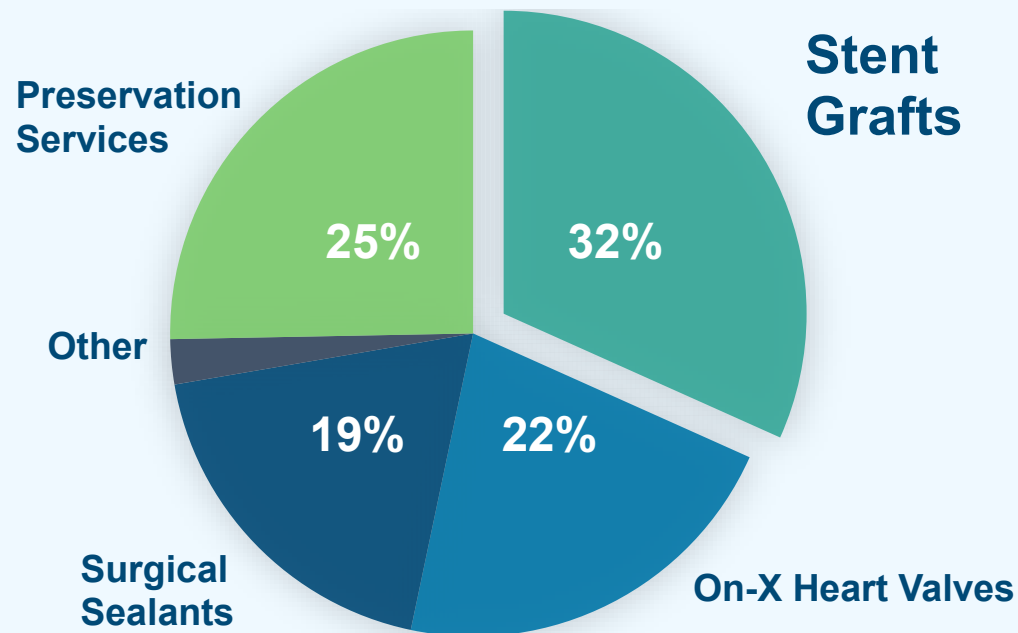


Leverageable
Global
Infrastructure



Double Digit
Revenue
Growth

2x+
EBITDA Growth






Data for Full Year Ended December 31, 2024

- ✓ ~200 Direct Sales Employees Globally
- ✓ Manufacturing Facilities with Capacity
- ✓ Global G&A Infrastructure

HIGHLY DIFFERENTIATED, HIGHLY DEFENDABLE BASE BUSINESS

ARTIVION™

Strong Positions in Segments with Limited Competition and No Anticipated New Entrants

		Differentiation	2024 Revenue	Global TAM	Market Position/Share	# Major Competitors	Growth Profile
	Mechanical Heart Valves (On-X)	Only Mechanical Aortic Heart Valve with low INR Indication*	\$84M	\$250M	#2 / 34%	1**	Low Double Digits
	Preservation Services (CryoValve® SG)	Only Decellularized Pulmonary Valve	\$98M	\$150M	#1 / 65%	2	Mid Single Digit
	Surgical Sealant (BioGlue)	Only Cardiac Sealant with Acute Type A Dissection Indication	\$74M	\$260M	#2 / 28%	3	Mid Single Digit

*Low INR of 1.5 – 2.0, reduce INR after 3 months of standard therapy

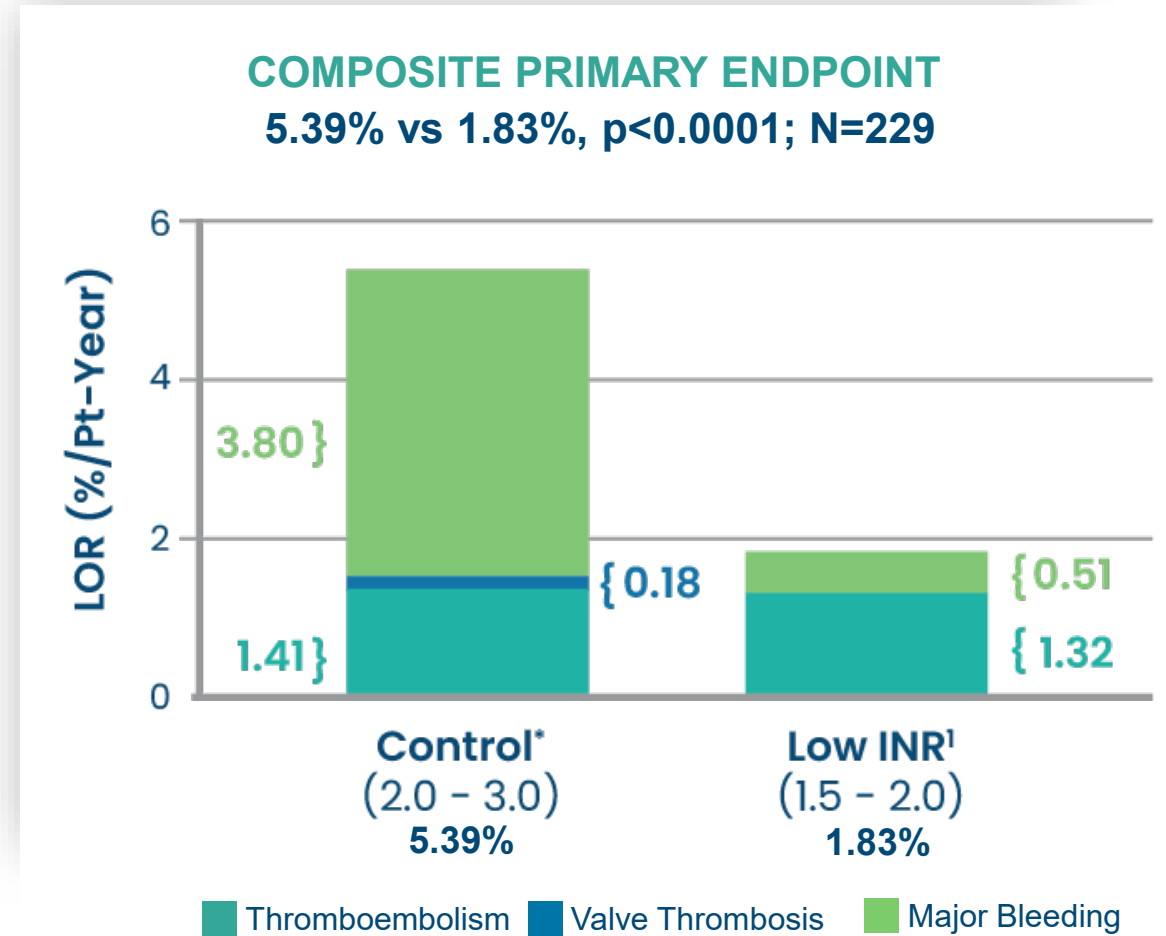
**3 competitors total, but 2 with less than 5% combined market share

ON-X AORTIC HEART VALVE POST APPROVAL STUDY (PAS) VS. PROACT IDE

ARTIVION™

5-year real-world results demonstrate even better patient outcomes than predicted by the On-X aortic heart valve PROACT IDE study

	Post Approval Study (5 Years) ¹	PROACT IDE Study ²
Reduction in Major Events**	66%	28%
Reduction in Major Bleeding	87%	60%
INR Monitoring Method (% Clinic / % Home)	83.8% / 16.2%	0% / 100%

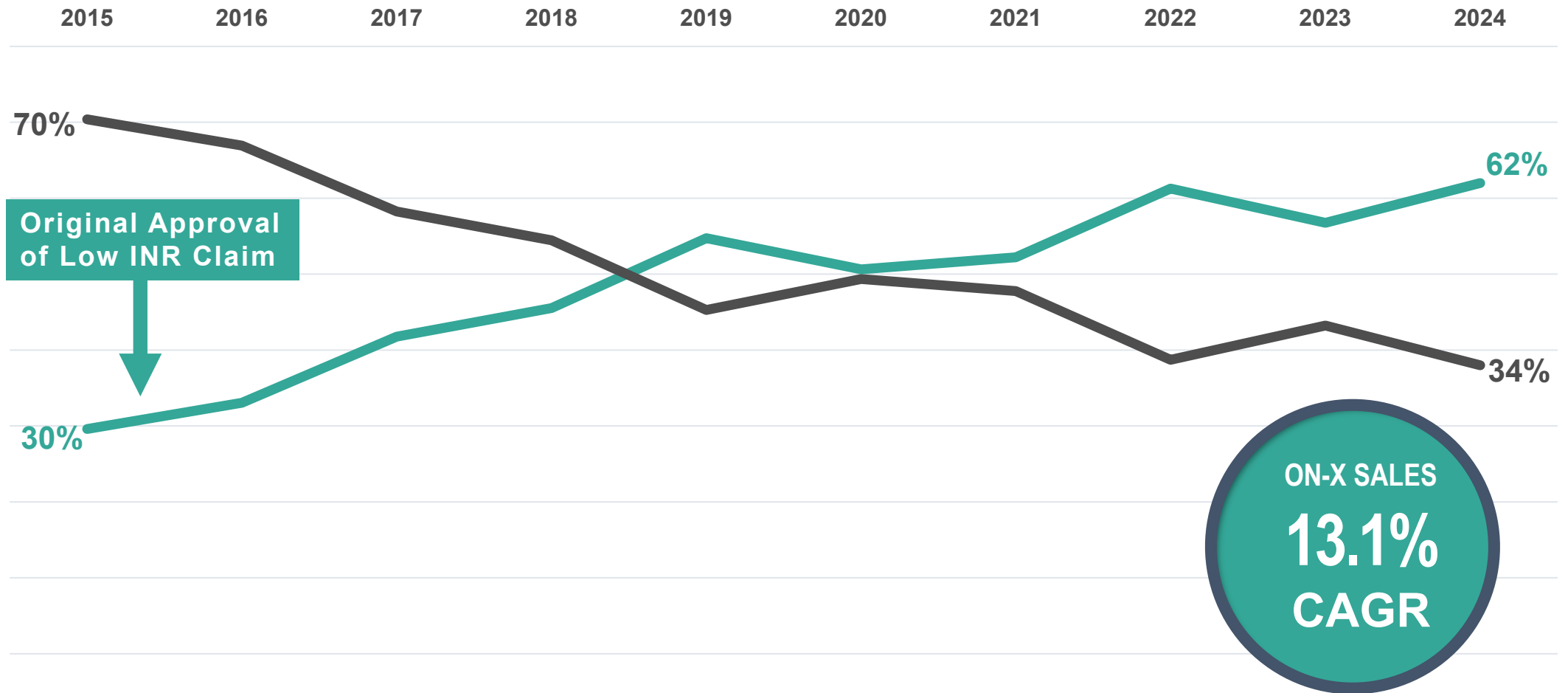


**Composite of Thromboembolism, Valve Thrombosis, and Major Bleeding

1. Gerdisch, et al. for the On-X Aortic Post-Approval Study Investigators. (2024, April 27-30) Low-Dose Warfarin with a Novel Mechanical Aortic Valve: Interim Registry Results at 5-Year Follow-up. [Presentation]. AATS. Toronto, Canada. 2. Puskas J, et al. (2014). Reduced anticoagulation after mechanical aortic valve replacement: Interim results from the Prospective Randomized On-X® Valve Anticoagulation Clinical Trial randomized Food and Drug Administration investigational device exemption trial. J Thorac Cardiovasc Surg, 147(4), 1201-11. *Artivion data on file, weighted average of control groups from FDA Premarket Approval P000037 S030 and IDE trial G050208.

LOW INR INDICATION DRIVING CONTINUED US MARKET SHARE GAINS FOR ON-X AORTIC VALVE*

ARTIVION™

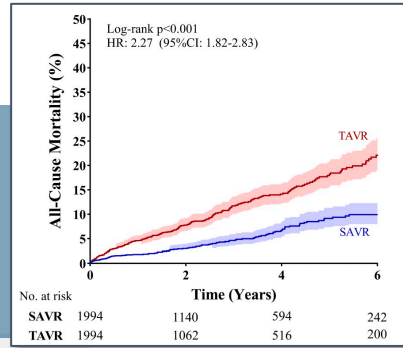


*Market share estimates derived from 2024 IQVIA Medical device supply audit and historical sales reports. Excludes MDT and CORCYM which combined are estimated to be <4% of total market share in 2024.

ARTIVION ABBOTT

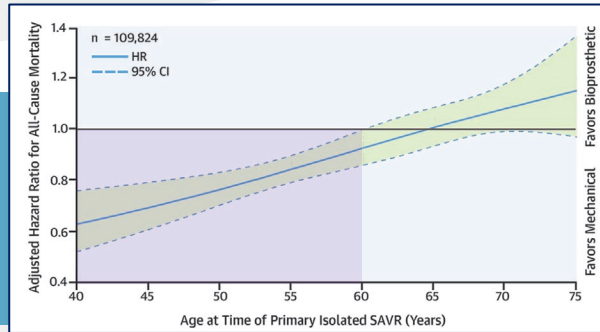
ON-X IS UNIQUELY POSITIONED FOR YOUNGER AVR PATIENTS, ARTIVION[™] BACKED BY A GROWING BODY OF CLINICAL EVIDENCE

SAVR > TAVR
in patients younger than 65 years



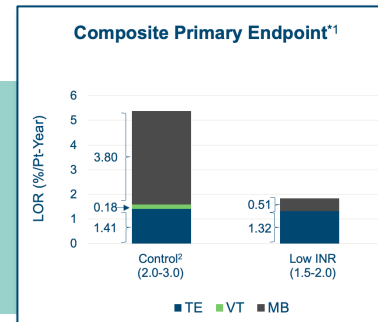
TAVR was associated with a 2.3-fold increased hazard (+130%) of 6-year mortality when compared to SAVR in patients <65.¹

Mechanical AVR > Bioprosthetic AVR
in patients 60 years and younger opens new \$100M market opportunity



10-year all-cause mortality favors mechanical valves in patients ≤60 (independently risk-adjusted)² when compared to bioprosthetic valves for AVR.

On-X > Other Mechanical Valves
with differentiated, validated clinical benefit³



At a lower INR target (1.5-2.0), On-X Aortic valve demonstrated an 87% decrease in major bleeding with no increase in thromboembolism and zero valve thrombosis when compared to standard anticoagulation therapy (INR 2.0-3.0).³

1. Alabbadi S, Bowdish ME, Sallam A, Tam DY, Hassan I, Kumaresan A, Alzahrani AH, Iribarne A, Egorova N, Chikwe J, Transcatheter versus Surgical Aortic Valve Replacement in Patients Younger than 65 Years in the US, *The Journal of Thoracic and Cardiovascular Surgery* (2025), doi: <https://doi.org/10.1016/j.jtcvs.2024.12.025>.
 2. Bowdish ME, Mehaffey JH, Chang S-C, O'Gara P, Mack MJ, Goldstone A, Chikwe J, Gillinov AM, Wu C, Fontana G, Bavaria J, Malaisrie C, Kaneko T, Sultan I, von Ballmoos MW, Harrington K, Jacobs J, Thourani V, Szeto W, Sabik J, Habib R, Badhwar V, Bioprosthetic vs. Mechanical Aortic Valve Replacement in Patients 40-75 Years. *Journal of American College of Cardiology* (2025) doi: <https://doi.org/10.1016/j.jacc.2025.01.013>.
 3. Gerdisch MW, et al. Low-Dose Warfarin with a Novel Mechanical Aortic Valve: Interim Registry Results at 5-Year Follow-Up, *J Thorac Cardiovasc Surg* (2024), doi: <https://doi.org/10.1016/j.jtcvs.2024.04.017>. 2. Artivion data on file, weighted average of control groups from FDA Premarket Approval P000037 S030 and IDE trial G050208.

HIGH GROWTH STENT GRAFT BUSINESS

ARTIVION™

- ✓ Focused on More Complex, Less Competitive Segments
- ✓ Artivion Stent Graft Growth: 16% 3-year CAGR

Advanced Stent Graft Segment

MARKET GROWTH RATE: MID-TEENS

Frozen Elephant Trunk (E-vita™ Open Neo)
\$250M Global TAM

Acute Type A Dissection (AMDST™)
\$540M Global TAM

Endovascular Arch Branched System (NEXUS®)
\$600M Global TAM

Thoracoabdominal (E-nside™ / Extra Design)
\$480M Global TAM

Iliac (E-liac™)
\$140M Global TAM

**\$2B
TAM**

Mature Stent Graft Segment

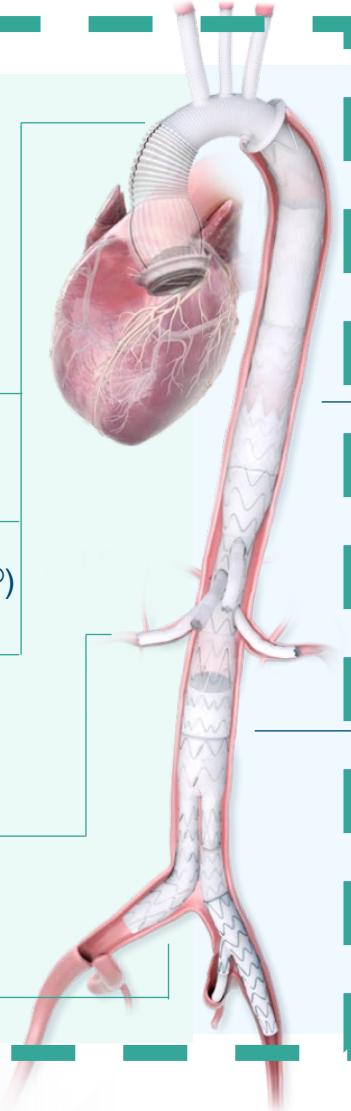
MARKET GROWTH RATE: MID-SINGLE DIGITS

Thoracic (Artivex™)
\$700M Global TAM

Abdominal (E-tegra)
\$1.3B Global TAM

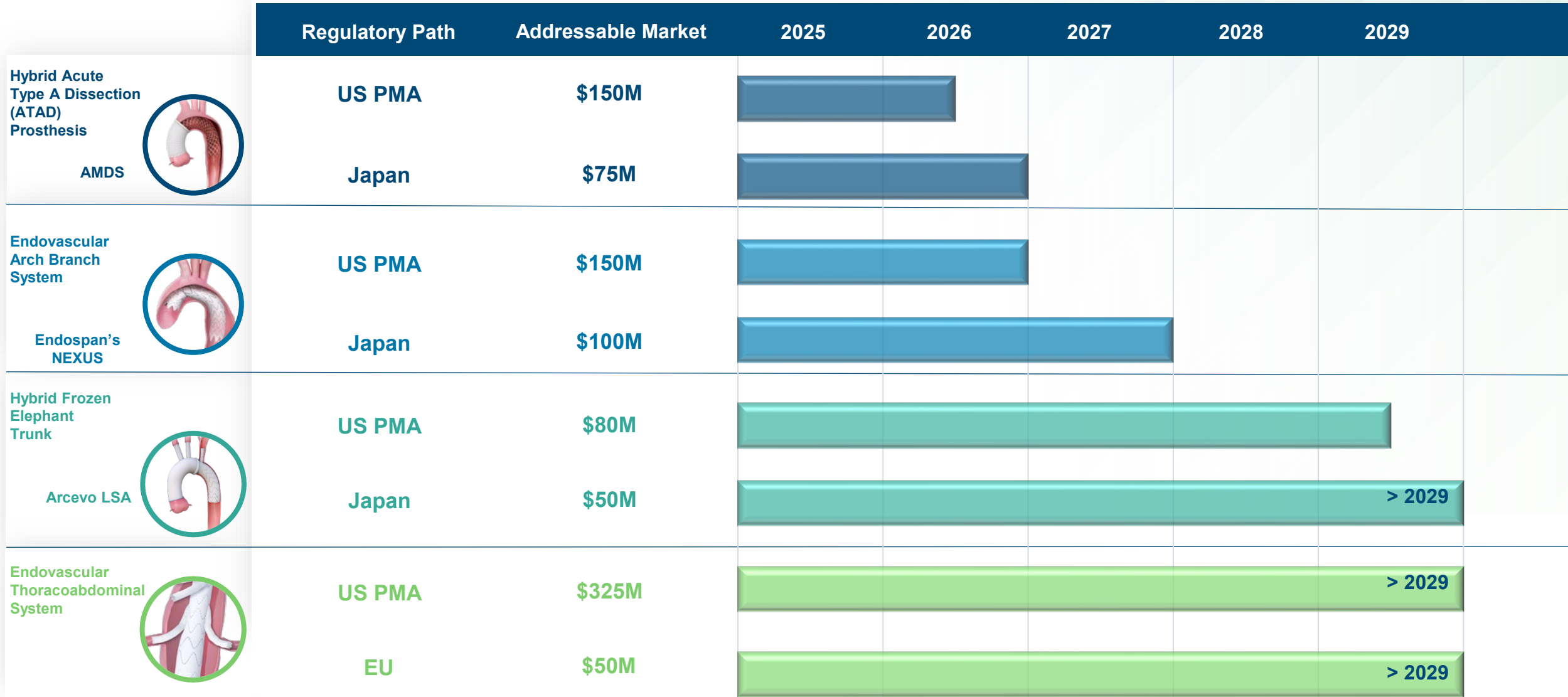
**Crowded
Competitive
Market**

**\$2B
TAM**



R&D PIPELINE

ARTIVION™

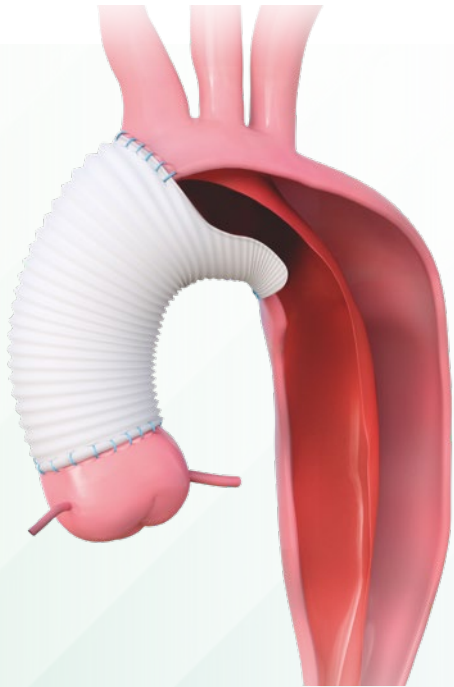


TOTAL OPPORTUNITY ~\$1 B

AMDS™ PERSEVERE US IDE Study Primary Endpoints **ARTIVION**

Full IDE data demonstrates AMDS use significantly lowers 30-day Major Adverse Events (MAEs) compared to hemiarach control

Through Hospital Discharge Data



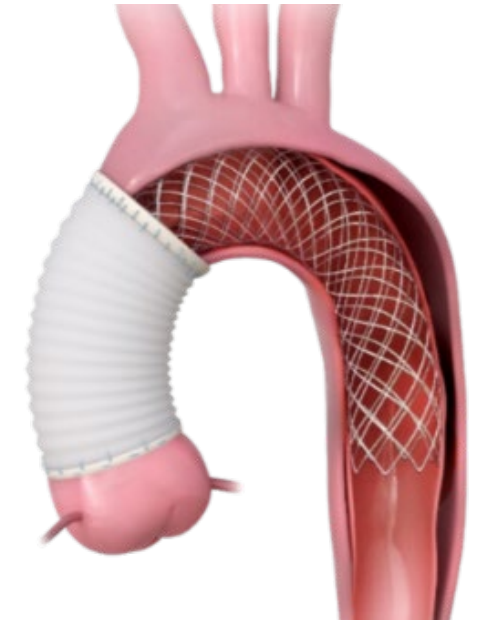
ACUTE DEBAKEY TYPE I (ADTI) WITH MALPERFUSION

Hemiarach Reference Cohort Avg.¹ (n=790)

PERSEVERE²
(n=93)

	>=1 MAE	
58.0%		26.9%
34.6%	All-Cause Mortality	9.7%
20.9%	New Disabling Stroke	10.8%
24.1%	Renal Failure Requiring Dialysis	19.4%
10.5%	Myocardial Infarction	0.0%
45.0%	Distal Anastomotic New Entry	0.0%

Full 30-Day Data



Total patients with ≥ 1MAE
PERSEVERE: 27%
Goal: < 40%

30-day data demonstrate AMDS induced positive aortic remodeling in over 80% of patients³

1. Zindovic I, 2019, Pacini D, 2013, Girdauskas E, 2009, Geirsson A, 2007, and Bossone E, 2002.
2. Szeto WY, Fukuhara S, Fleischman F, Sultan I, Brinkman W, Armaoutakis G, Takayama H, Eudailey K, Brinster D, Jassar A, DeRose J, Brown C, Farrington W, Moon MC. A novel hybrid prosthesis for open repair of acute DeBakey type I dissection with malperfusion: Early results from the PERSEVERE trial. J Thorac Cardiovasc Surg. 2024 Aug 6:S0022-5223(24)00677-9.
3. Adjudicated data as presented at AATS April 2024, manuscript pending publication

Endospan NEXUS® TRIOMPHE US IDE Trial

30-day data demonstrate 63% reduction in major adverse event (MAE) rate compared to the reference performance goal

ARTIVION™

Presented at
AATS 2025

30-DAY DATA¹



	TRIOMPHE (n=54)	Performance Goal	p Value
MAEs ² ≥1	13.0%	35.0%	p<0.001
Technical Failure	1.9%	30.0%	p<0.001



KEY TAKEAWAYS

- First FDA investigational device exemption (IDE) trial for endovascular treatment of chronic dissections in the aortic arch; focused on patients at high risk for open surgery
- 30-day data show statistically significant improvement in clinical outcomes and device technical performance compared with performance goals set forth in the FDA-approved IDE
- Stroke and renal failure rates particularly favorable compared to published data for alternative endovascular treatments
- PMA anticipated to be filed after completion of 1-year follow up

PROJECT STATUS (FORECAST COMPLETIONS)

Enrollment	4Q24
Follow Up	4Q25
Approval	2H26

Source: Endospan Ltd

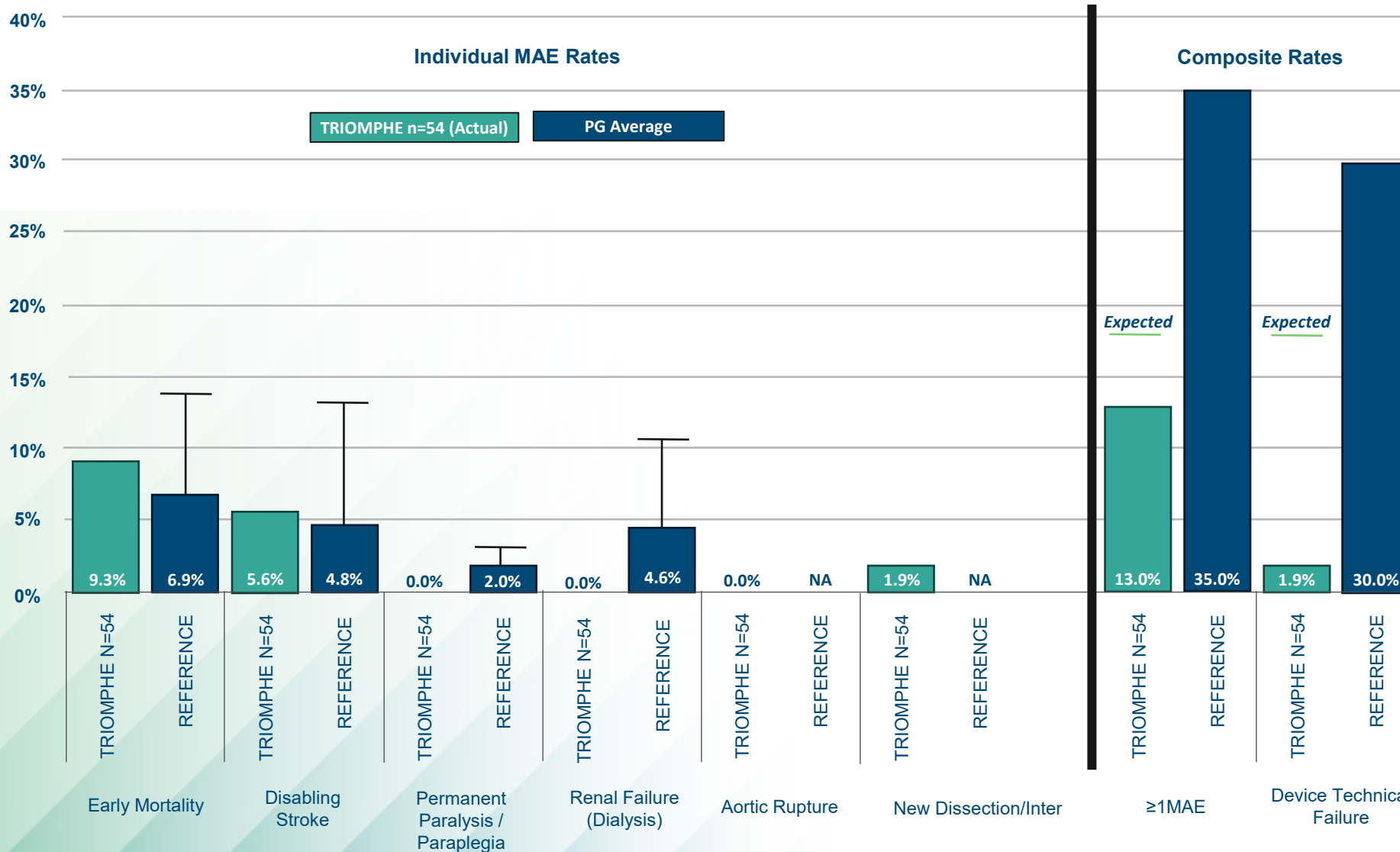
1. References for PG: Bashir et al. *Aorta* 2014; Brat et al. *JCTS*, 2015; Chakos et al. *Ann Cardiothorac Surg* 2018; DeRango et al. *J Vasc Surg* 2015; Hiraoka et al. *JTCVS*, 2017; Iba et al. *JTCVS* 2013; Joo et al. *JTCVS* 2018; Thomas et al. *JTCVS*, 2012

2. MAE includes: Early Mortality, Disabling Stroke, Permanent Paralysis/Paraplegia, Renal Failure (Permanent Dialysis), Aortic Rupture

NEXUS[®] TRIOMPHE US IDE Trial Primary Endpoints



30-day primary endpoints



TRIOMPHE Protocol Hypothesis:

Device Technical Failure:

$H_0: P_t \geq 0.30$ vs. $H_1: P_t < 0.30$

Results:

1.9% (1/54), p-value <0.001
95% CI: 0.05, 9.89

Clinical Failure:

$H_0: P_t \geq 0.35$ vs. $H_1: P_t < 0.35$

Results:

13.0% (7/54), p-value <0.001
95% CI: 5.37, 24.90

ARTIZEN PIVOTAL IDE STUDY

ARTIVION™

Prospective, Non-randomized, Non-blinded, Double-arm, Multicenter (US & EU ≈ 30 Sites)

PRIMARY PATIENT GROUP

117 patients: Chronic dissection or Aneurysm

Primary endpoint: Freedom from major adverse events (MAEs) within 1-year post-index procedure: all-cause mortality, new permanent disabling stroke, new permanent paraplegia and/or paraparesis, unanticipated aortic reoperation in the treated segment, LSA occlusion

SECONDARY PATIENT GROUP

15 patients: Acute or subacute dissection

Descriptive statistics: No pre-defined endpoint

REFERENCE COHORT

Historical controls freedom from MAE rate of 59%.

Positive outcome is freedom from MAE composite $\geq 74\%$

STUDY STATUS

1 ST Enrollment	Sep / Oct 2025
Enrollment	~ 2025-2027
Follow Up	~ 2027-2028
Approval	~ 2029



HIGHLY LEVERAGEABLE GLOBAL INFRASTRUCTURE

Significant EBITDA Expansion Opportunity



Gross Margin Expansion

Highly Accretive Product Pipeline

U.S. Mix Benefit from Recent AMDS
HDE Approval

Expected Double Digit Revenue Growth



Global Sales Force

~200 Global Direct Sales Employees

Focused on Cardiac & Vascular
Surgeons Treating Aortic Disease

Minimal Case Coverage

Demonstrated Leverage:

- 10% 3-year CC Revenue CAGR vs
- 5% Direct Sales Employee
Headcount CAGR



Global G&A Infrastructure

Public Company Since 1993

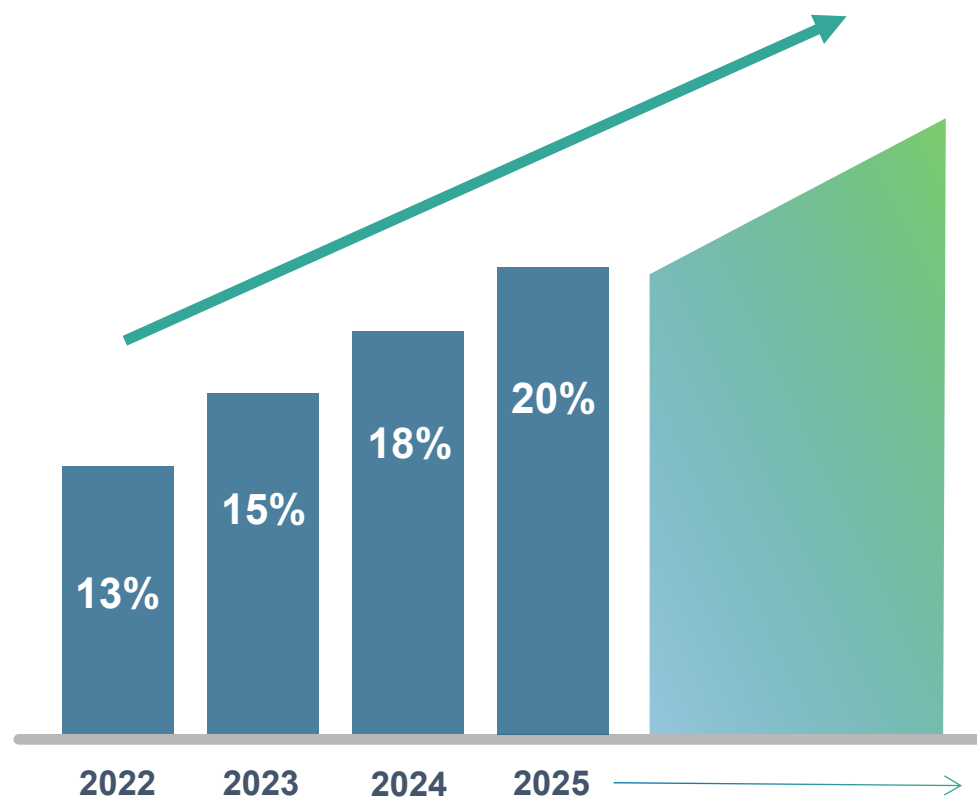
No Major Location Additions Since 2017

~1,600 Employees Worldwide

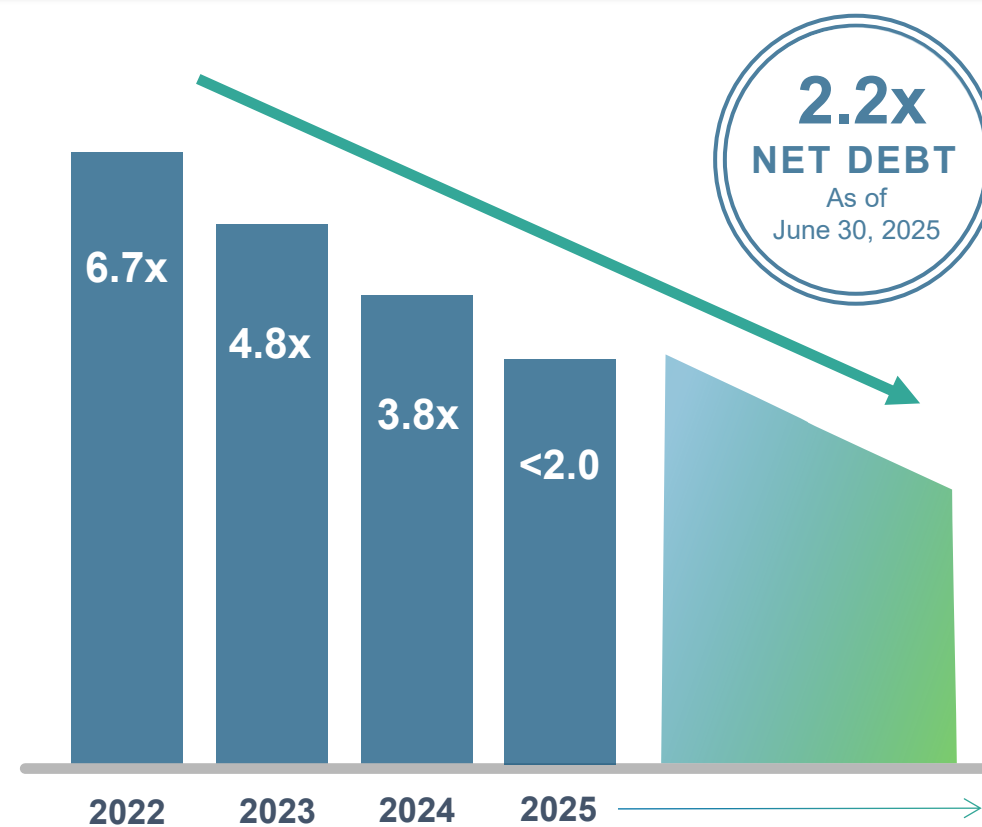
SIGNIFICANT IMPROVEMENT IN EBITDA MARGIN & NET DEBT LEVERAGE

ARTIVION™

ADJUSTED EBITDA MARGIN



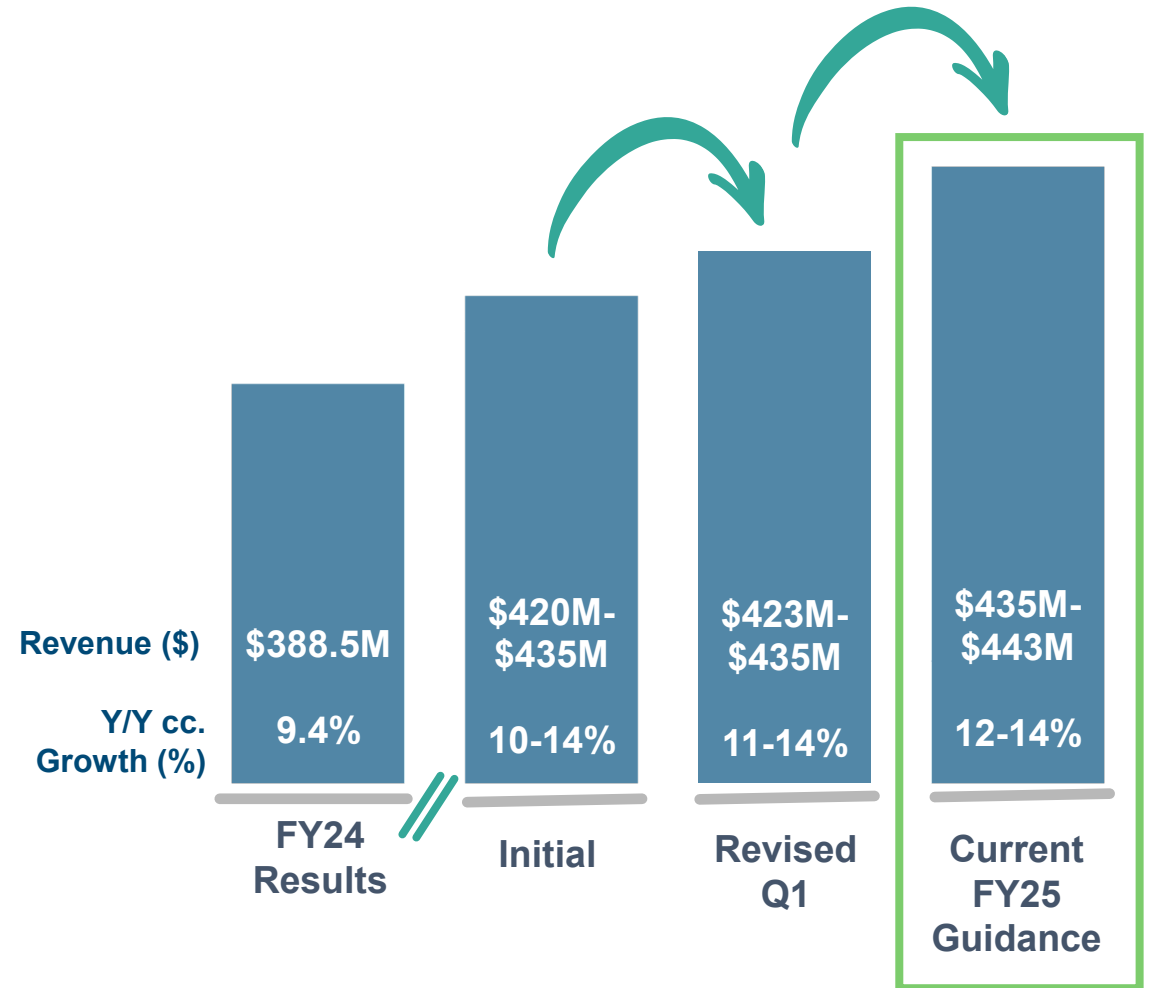
NET DEBT LEVERAGE



FULL YEAR 2025 REVENUE GUIDANCE

GROWTH DRIVERS

- + **Continued strength in existing products**
On-X and aortic stents
- + **Positive new data** supporting the benefits of AMDS and On-X aortic valves
- + **Launch of AMDS** following receipt of Humanitarian Device Exemption by the FDA



REVENUE GROWTH AND OPERATING LEVERAGE TO DRIVE ADJUSTED EBITDA EXPANSION

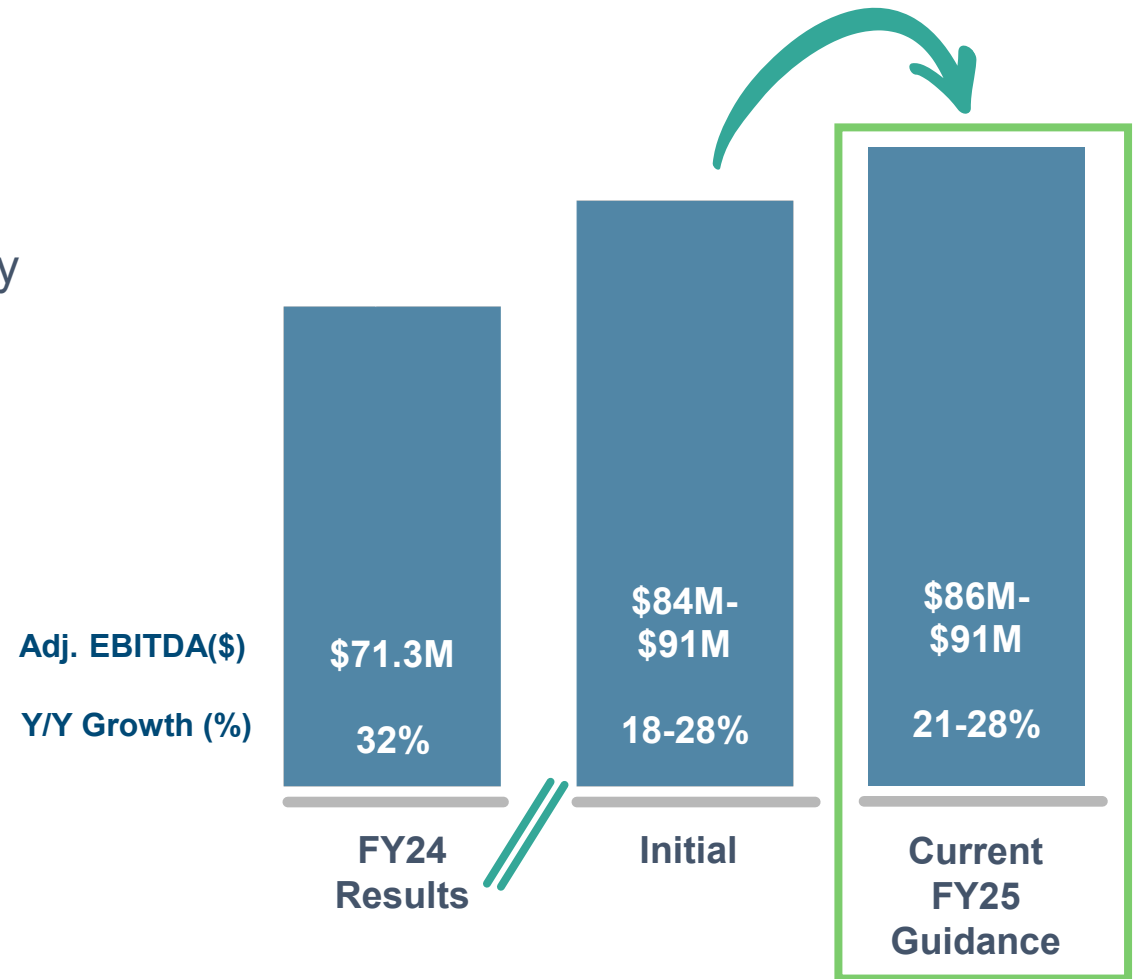
FULL YEAR 2025 ADJUSTED EBITDA EXPECTATIONS

DRIVERS

Expect continued operating leverage to be driven by global sales force and G&A infrastructure

Revenue growth and adjusted EBITDA margin expansion drives incremental cash flow

Expect to be free cash flow positive for FY25





ARTIVION™

Thank you