LivaNova

Health innovation that matters

# LivaNova Investor Presentation

December 5, 2017

# Safe Harbor Statement – Forward Looking Statements

Certain statements in this presentation, other than purely historical information, are “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These statements include, but are not limited to, LivaNova’s plans, objectives, strategies, financial performance and outlook, trends, the amount and timing of future cash distributions, prospects or future events and involve known and unknown risks that are difficult to predict. As a result, our actual financial results, performance, achievements or prospects may differ materially from those expressed or implied by these forward-looking statements. In some cases, you can identify forward-looking statements by the use of words such as “may,” “could,” “seek,” “guidance,” “predict,” “potential,” “likely,” “believe,” “will,” “should,” “expect,” “anticipate,” “estimate,” “plan,” “intend,” “forecast,” “foresee” or variations of these terms and similar expressions, or the negative of these terms or similar expressions. Such forward-looking statements are necessarily based on estimates and assumptions that, while considered reasonable by LivaNova and its management based on their knowledge and understanding of the business and industry, are inherently uncertain. These statements are not guarantees of future performance, and stockholders should not place undue reliance on forward-looking statements. There are a number of risks, uncertainties and other important factors, many of which are beyond our control, that could cause our actual results to differ materially from the forward-looking statements contained in this press release, including those described in the “Risk Factors” section of Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, the Registration Statement on Form S-4 and other documents filed from time to time with the United States Securities and Exchange Commission by LivaNova.

The Company does not undertake or assume any obligation to update publicly any of the forward-looking statements in this presentation to reflect actual results, new information or future events, changes in assumptions or changes in other factors affecting forward-looking statements, except to the extent required by applicable law. If we update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements. We caution you not to place undue reliance on any forward-looking statements, which are made only as of the date of this presentation.

All numbers may be rounded for presentation purposes.

# Safe Harbor Statement – Intellectual Property

In this presentation, “LivaNova,” “the Company,” “we,” “us” and “our” refer to LivaNova PLC and its consolidated subsidiaries.

This report may contain references to our proprietary intellectual property, including among others:

- Trademarks for our VNS therapy systems, the VNS Therapy® System, the VITARIA® System and our proprietary pulse generator products: Model 102 (Pulse®), Model 102R (Pulse Duo®), Model 103 (Demipulse®), Model 104 (Demipulse Duo® ), Model 105 (AspireHC ® ), Model 106 (AspireSR® ) and Model 1000 (SenTiva™).

- Trademarks for our oxygenator product systems: Inspire™, Heartlink™ and Connect™.

- Trademarks for our line of surgical tissue and mechanical valve replacements and repair products: Mitroflow™, Crown PRT™, Solo Smart™, Perceval™, Top Hat™, Reduced Series Aortic Valves™, Carbomedics Carbo-Seal™, Carbo-Seal Valsalva™, Carbomedics Standard™, Orbis™ and Optiform™, and Mitral valve repair products: Memo 3D™, Memo 3D ReChord™, AnnuloFlo™ and AnnuloFlex™.

- Trademarks for our implantable cardiac pacemakers and associated services: REPLY 200™, ESPRIT™, KORA100™, KORA250™, SafeR™, the REPLY CRT-P™, the remedé® System.

These trademarks and tradenames are the property of LivaNova or the property of our consolidated subsidiaries and are protected under applicable intellectual property laws. Solely for convenience, our trademarks and tradenames referred to in this presentation may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights to these trademarks and tradenames.

# We are a $1.2B focused medical innovator

Improving quality of patients' lives

Strong leadership position in Neuromodulation and Cardiac Surgery

Targeting underserved and high-growth market segments

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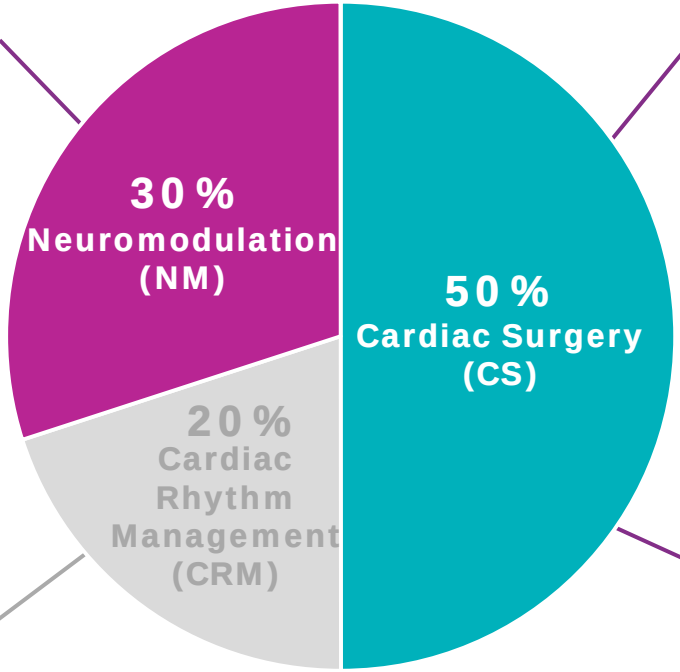
# Leading positions in critical areas of treatment

Sales through Q3 2017

**Total: $916M**




**Vagus Nerve Stimulation** (VNS Therapy®)

Drug Resistant Epilepsy
Treatment Resistant Depression

**Hypoglossal Nerve Stimulation** (HGNS Therapy)

Obstructive Sleep Apnea

On November 20, 2017 LivaNova announced it was divesting its CRM business

80%

**Cardiopulmonary (CP)**

Heart-lung machines (HLM)
Oxygenators
Autotransfusion systems (ATS)
Cannulae

20%

**Heart valve (HV)**

Sutureless valves
Mechanical valves
Traditional tissue valves
Annuloplasty rings

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Numbers are rounded for presentation purposes
HGNS sales < $2M in 2017 and not included as part of total sales

# Transforming the company with a sense of urgency

## Divesting CRM business unlocks significant shareholder value

- Great outcome for all stakeholders; the result of a thorough and competitive process
- Allows company to focus on faster-growing and more profitable areas
- Improves top-line growth rate to mid-single digits
- Improves operating margins by 200-300 bps
- Allows redeployment of capital toward M&A

**LivaNova:** An attractive long-term investment

# Focusing portfolio on “Head & Heart”

| | NEUROMODULATION | CARDIAC SURGERY | |
|---|---|---|---|
| | | CARDIOPULMONARY | HEART VALVES |
| | Creator, leader of VNS Therapy | Market-leading positions | Only sutureless valve on the market |
| Global Market (2016)* | $4.1B | $2.0B | $1.7B |
| Market Growth | Low-double-digit | Low-single-digit | Low-single-digit |
| Sales (2016)*<br>Sales through Q317* | $350M<br>$275M | $475M<br>$355M | $140M<br>$103M |
| Disease State | Drug-resistant epilepsy<br>Treatment-resistant depression (TRD)<br>Obstructive sleep apnea | Heart valve disease<br>Coronary disease<br>Congenital heart defect<br>Chronic heart failure | |
| Customers | Neurologists<br>Epileptologists<br>Psychiatrists<br>Neurosurgeons<br>Patients<br>ENT Specialists | Perfusionists<br>Cardiac Surgeons<br>Cardiologists | |

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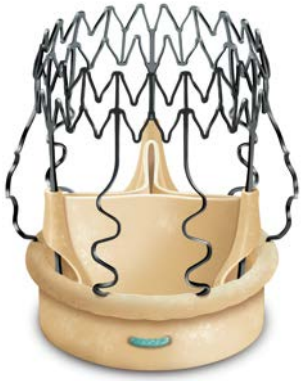
- Numbers are rounded for presentation purposes
- ENT = Ear, Nose & Throat

# Near-term Growth Drivers

# Our portfolio has multiple near-term growth drivers

| NEUROMODULATION | CARDIAC SURGERY | | |
|---|---|---|---|
| SenTiva™ advances the science of VNS Therapy | S5® HLM reduces transfusions and improves recovery | Inspire® oxygenator provides personalized perfusion | Perceval® optimizes the surgical approach to sutureless aortic valve replacement |
|  |  |  |  |
| **100,000** patients treated with VNS Therapy | **40** years as market leader in heart-lung machines | **1 million+** patients treated with Inspire | **10** years of clinical use |

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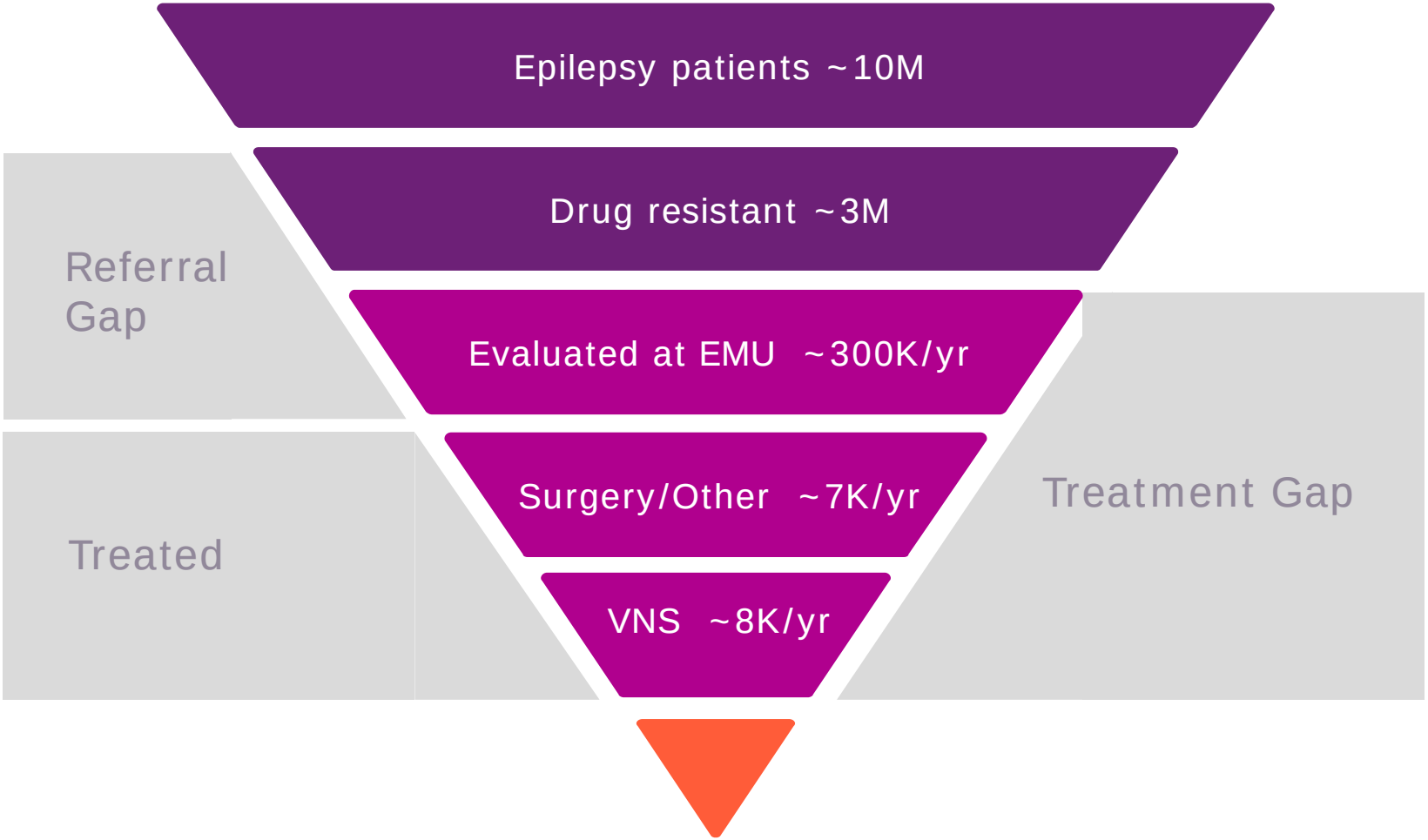
# There is a significant referral and treatment gap for drug resistant epilepsy

~35% of patients need treatment beyond medication




Source: Prevalence data and approximations based on CDC

EMU = Epilepsy Monitoring Unit – contained inside a comprehensive epilepsy center, which is a specialized extensive center that focuses on treatments for epilepsy

# Developing customer-driven innovation

## Patient quality of life

- Innovation driven from customer inputs
- Reduce seizure severity and improved seizure profiles
- Better recovery from seizures
- Cadence of new product innovation every 18-24 months
- Future generations:
  - Wearable technology
  - Patient apps & portal
  - Cloud based data

Provides ease of use, better patient care and cost effectiveness

## SenTiva VNS Therapy

- Smallest and lightest responsive therapy for epilepsy
- Senses bradycardia and tachycardia
- Monitors patient sleeping position
- Provides scheduled dosing
- Next-generation programmer
- New user interface on tablet
- Wireless wand

# Our S5 HLM is the market leader

30 percent of Cardiac Surgery sales are in capital equipment

- 70% market share
- 100% customizable, flexible and easy to use
- Proven safety over 40 years
- Near-term: Focus on commercial execution and S5 enhancements
- Mid- to long-term: Next-generation device

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# Inspire ignited the fastest adoption of oxygenators

70 percent of Cardiac Surgery sales are in disposable equipment

- 30% market share, market leader
- Broad choice from complete family of products
- Fastest adoption ever, with over 1 million patients treated
- Near-term: Commercial execution and leverage HLM footprint
- Mid- to long-term: Next-generation device; pediatric line extensions

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# CONNECTing the cardiopulmonary workflow

## Data is the driver for Goal Directed Perfusion


- One system connects data from all devices
- Automatic integration of perfusion data, patient parameters and product information
- Allows user to tailor perfusion to individual patient factors
- Improves patient outcome

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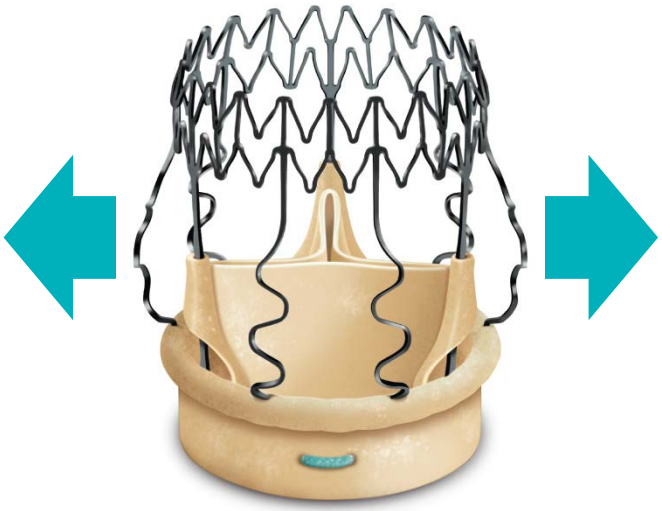
ATS = Auto-transfusion system

# Driving expansion and penetration of Perceval

## Near-term

- Focusing on $200M MICS segment
- Sales force effectiveness
- Proctorship expansion
- Deeper penetration into existing accounts
- Product enhancements

Goal: $80 million global sales by 2018



## Medium-term

- Larger sizes to increase addressable market
- Continued clinical and economic evidence to support efficacy
- Geographic expansion: Japan in 1H18

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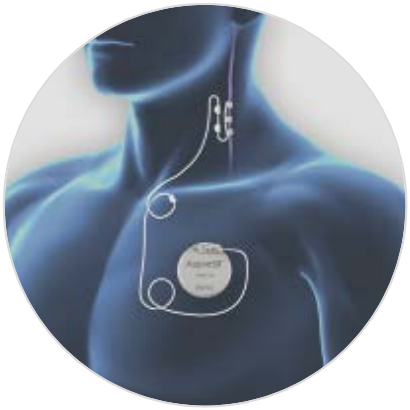
MICS = Minimally Invasive Cardiac Surgery

# Strategic Portfolio Initiatives

# Our portfolio has multiple mid- to long-term growth drivers: strategic portfolio initiatives

## TREATMENT-RESISTANT DEPRESSION (TRD)

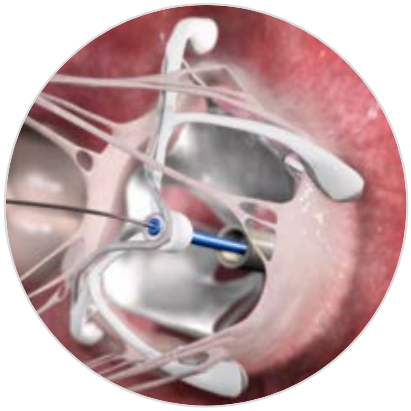
VNS Therapy may provide better outcomes and symptom improvement



Depression is the leading cause of disability worldwide

## TRANSCATHETER MITRAL VALVE REPLACEMENT (TMVR)

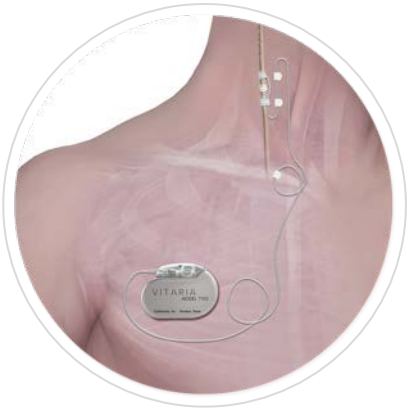
Unique transseptal investigational device



2-3 times the size of aortic market opportunity

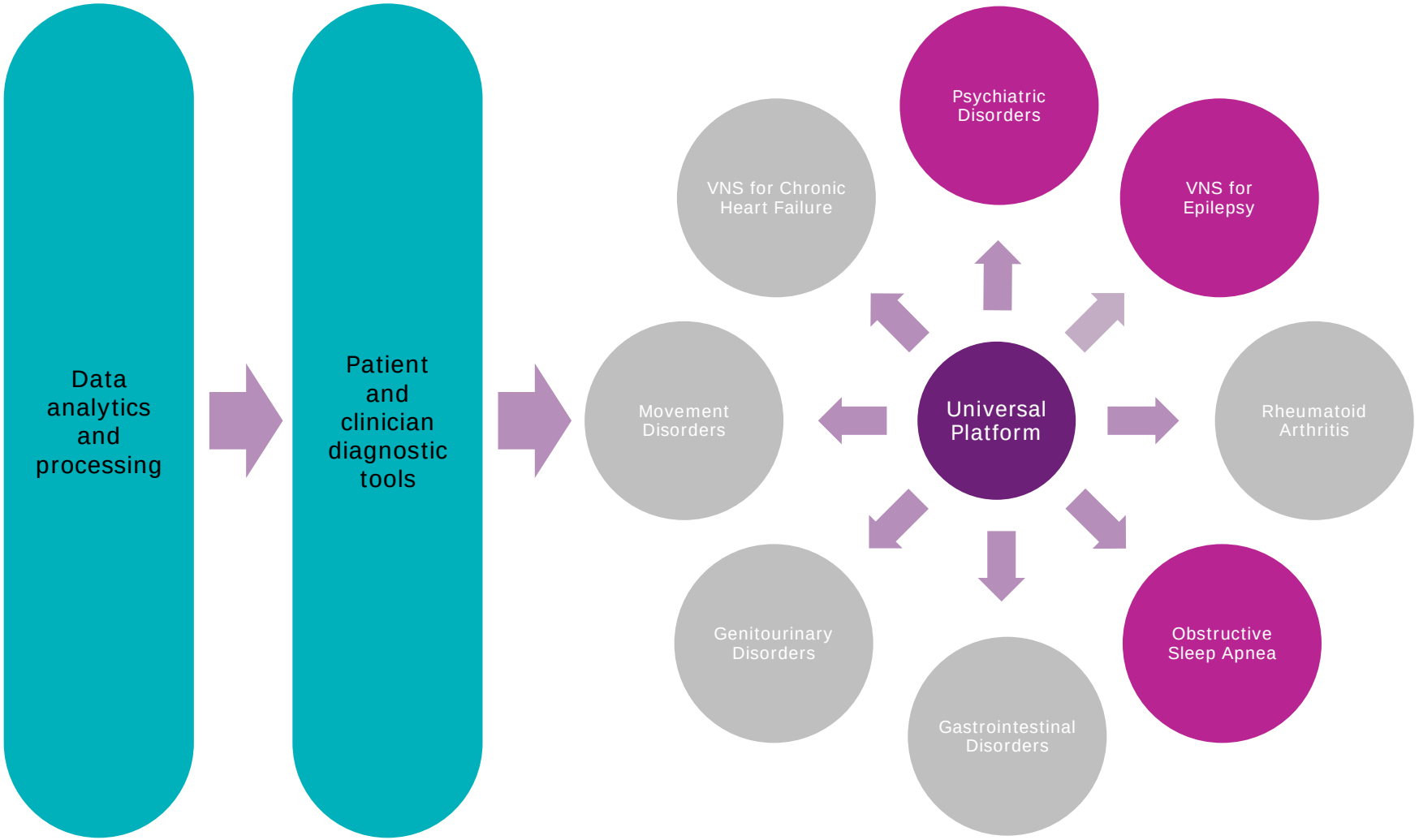
## HEART FAILURE (HF)

Novel delivery of Autonomic Regulation Therapy (ART) may improve regulation of cardiovascular function




Leading cause of morbidity and mortality

# VNS: Leveraging the technology
## A universal platform is the foundation for additional indications

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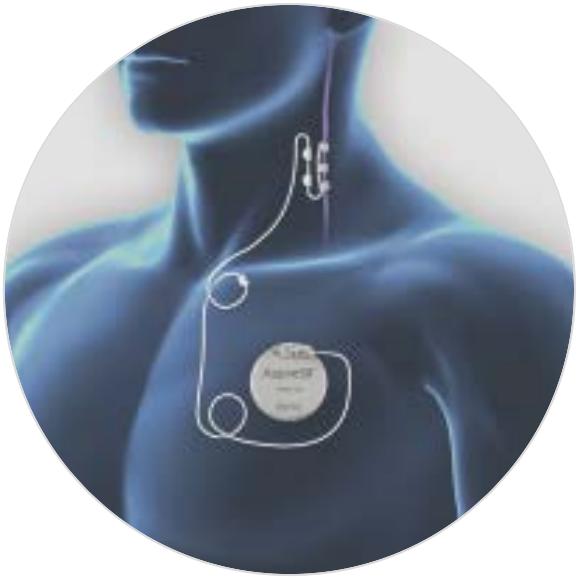
# Exploring options for LivaNova's Treatment Resistant Depression therapy



- Received CE Mark in 2001
- Received FDA approval in 2005
- Currently have 4,000 devices implanted over ~18-month period
- Started pilot trial in Germany in 1Q17
- Planning scaled launch in European countries where we have approval and reimbursement
- Ongoing discussions with CMS to gain U.S. reimbursement approval

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CMS = Centers for Medicare and Medicaid Services

# Depression affects patients in the prime of their life and burdens families and society

| | |
|---|---|
| Depression | • 300M+ patients globally<br>• Median age of onset: 25 years<br>• Fewer than half of patients receive treatment<br>• Leading cause of disability and major burden |
| Treatment-Resistant Depression (TRD) | • ~10-30% of patients with depression<br>• Median age 40+ after 2+ unsuccessful treatments (medications, psychotherapy, electroconvulsive therapy)<br>• More relapse, less remission, more side effects |
| VNS Therapy as an adjunctive treatment | • 800 TRD patients with 4+ unsuccessful prior treatments for 5 years<br>• 40.9% responded with treatment as usual<br>• 67.9% responded with VNS Therapy |

"We are **very encouraged** by the results of this unprecedented study, and hope that VNS becomes more readily available as a viable option for patients who have been through countless interventions for severe, chronic depression."

*- Dr. Scott Aaronson, lead investigator, Sheppard Pratt Health System*

Sources: Aaronson et al. American Journal of Psychiatry. 2017; 174(7): 640-48.; WHO Depression Fact sheet: http://www.who.int/mediacentre/factsheets/fs369/en/; RC Kessler and EJ Bromet. Annu Rev Public Health. 2013; 34:119–138.; Rush et al. Am J Psychiatry 2006; 163:1905–1917.; Rush et al. Psychiatric Annals. 2008; 38(3):188-193.; Gaynes et al. AHRQ Publication No. 11-EHC056-EF. September 2011.

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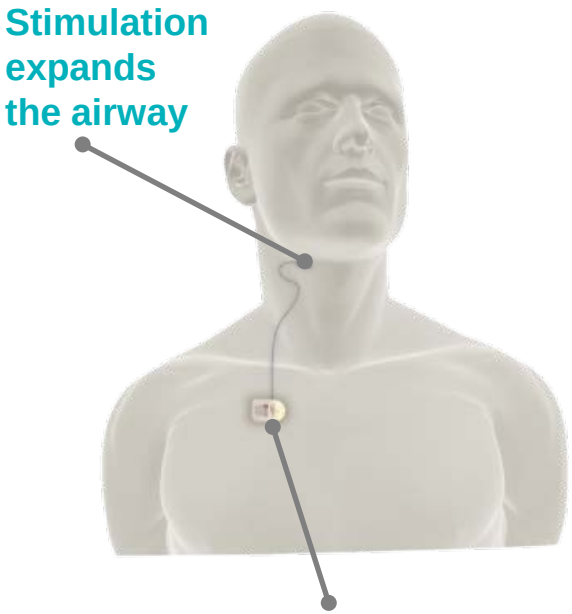
# Implantable Therapy for Obstructive Sleep Apnea (OSA)

**Obstructive Sleep Apnea (OSA) is a disorder in which breathing repeatedly stops and starts due to the throat muscles relaxing and blocking the airway during sleep**

## Illustration



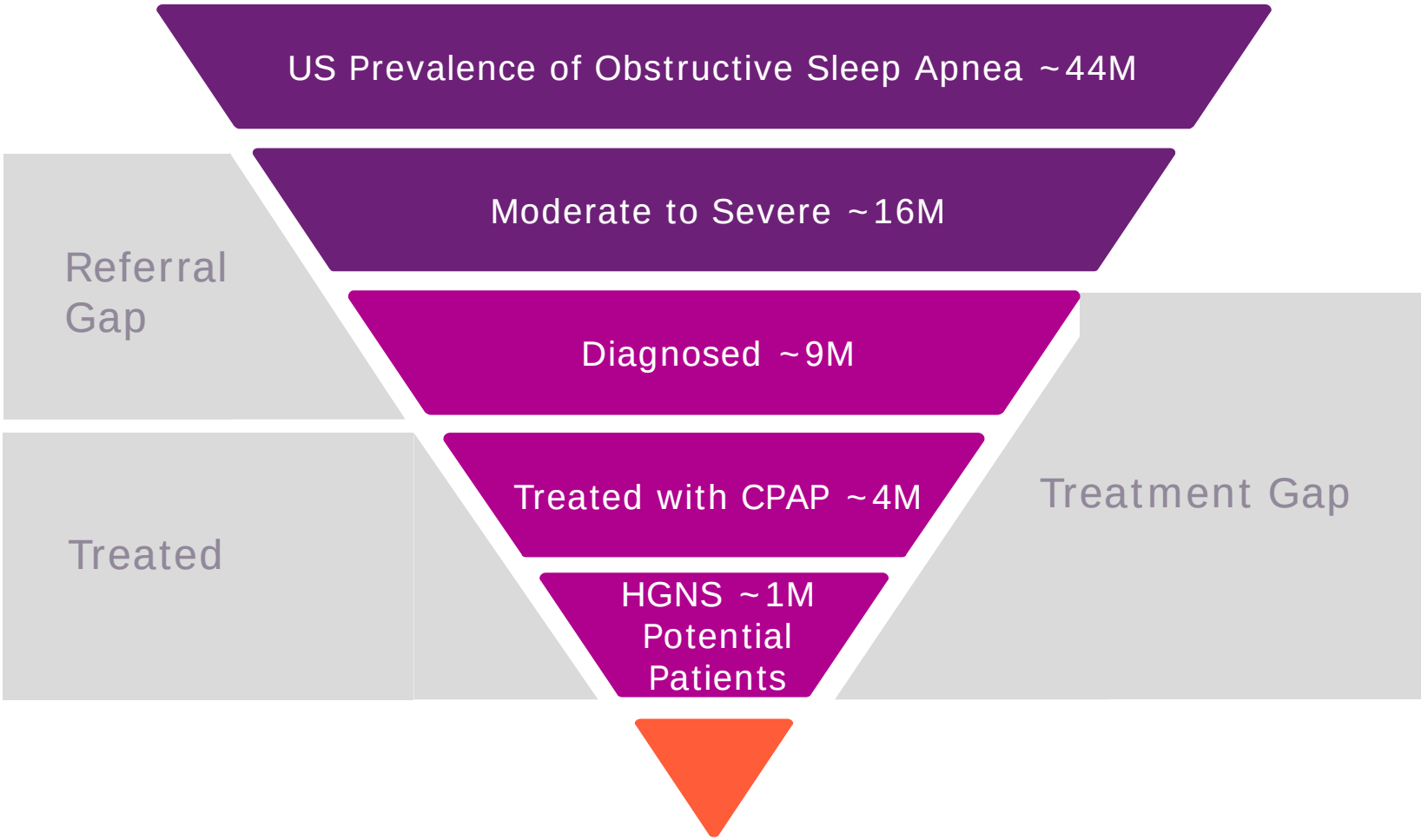

## Overview

- Restoration of normal sleep patterns
- CPAP alternative: indicated for people with moderate and severe sleep apnea
- Less invasive than conventional sleep apnea surgeries
- Fully implantable with no masks, hoses or mouthpieces
- CE mark obtained in Europe in 2012



CPAP = Continuous Positive Airway Pressure

# Significant unmet clinical need for the approximately 40-50% of OSA patients who stop or refuse CPAP




Source: Health Advances.
HGNS = Hypoglossal Nerve Stimulation

# Obstructive Sleep Apnea - ImThera Rationale

| | |
|---|---|
| **Market Potential** | • Opportunity to disrupt current treatment paradigm and fill significant unmet clinical need for new therapy:<br>- 40-50% of OSA patients stop or refuse CPAP<br>- U.S. CPAP market estimated at $4 billion annually, growing low- to mid-double digit |
| **Portfolio Synergies** | • Good strategic fit:<br>- Neuromodulation therapy with ENT call point<br>- Expands neuromodulation product portfolio |
| **Leverage of Existing Infrastructure** | • Proven market development capabilities in Neuromodulation<br>• Global commercial network<br>• Global R&D, regulatory and supply chain capabilities |
| **Technology** | • Differentiated technology with small IPG, single lead and easier implant procedure<br>• ImThera device second to gain CE Mark approval and minimal competitors on the horizon:<br>- Expected FDA submission by end 2019/early 2020 |
| **Financial** | • Meets IRR & ROIC hurdle with shared risk on regulatory approval and sales milestones |

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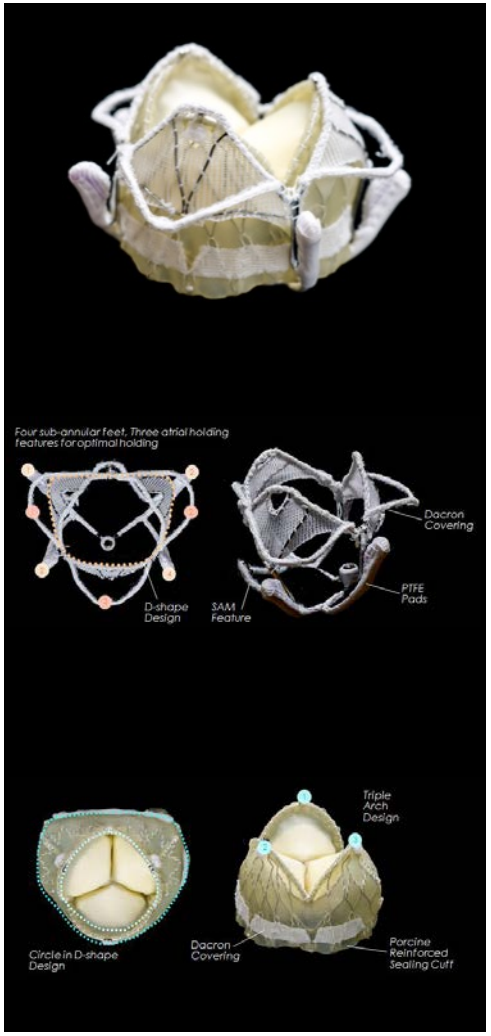
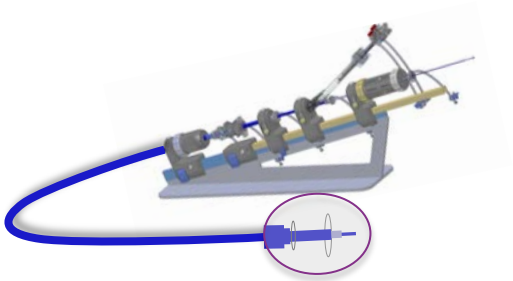
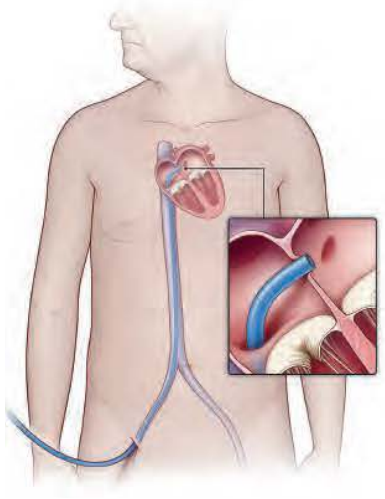
Note: Information obtained from publicly available sources.
IPG = Implantable Pulse Generator

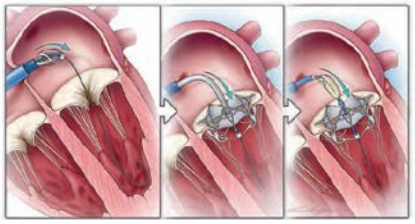
# LivaNova TMVR Concept




- **Delivery System**
  - Completely transvenous percutaneous approach
  - 2-step implant
  - Fully reversible
- **Anchor**
  - 4 sub-annular anchoring feet
  - SAM management feature
  - Nitinol self-expanding frame
  - Covered with polyester and ePTFE
- **Valve**
  - Porcine pericardium
  - 3 leaflet circular valve, EOA>3.0cm$^2$
  - D-shaped outer stent
  - Nitinol self-expanding







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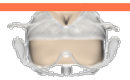
SAM = Surface Area Management; ePTFE = Polytetrofluroethylene; EOA = Effective Orifice Area

# Competitive advantage in TMVR and opportunity to lead the transseptal market

| | | | |
|---|---|---|---|
| **TRANSSEPTAL** | LivaNova | Caisson |  |
| | Edwards | CardiAQ |  |
| | Abbott | Cephea |  |
| | Edwards | Valtech |  |
| **TRANSAPICAL** | Edwards | CardiAQ |  |
| | Abbott | Tendyne |  |
| | Medtronic | Twelve |  |
| | MValve | |  |
| | Neovasc | |  |
| | HighLife | |  |
| | Sinomed | |  |
| | ~~Direct Flow~~ | |  |

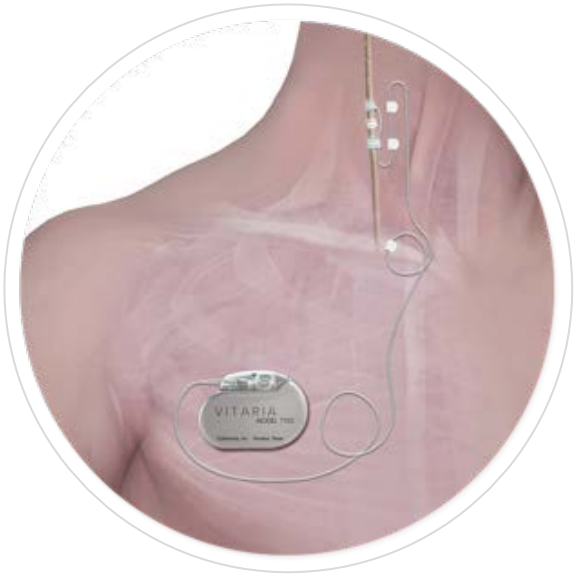
# Executing on a clinical data development plan designed to enable commercialization

| | | Patients | Centers | Objective | Status |
|---|---|---|---|---|---|
| prelude |  | 20 | 8-10 | FIH study proving TMVR concept | Continuing enrollment |
| interlude |  | 75* | 15-25 | Confirmatory study to secure CE Mark in Europe | Started to enroll |
| ensemble |  | 400 | 20-30 | U.S. IDE study to build on FIH and CE Mark study to secure FDA approval | Finalizing protocol with enrollment planned in 2019 |

* 75 Patient study with a 75 patient follow-up study

IDE = Investigational Device Exemption

# Advancing heart failure treatment options




- Heart failure prevalence of almost 6 million in the United States and more than 23 million worldwide
- By 2030, the cost of heart failure will exceed $70B in the U.S. alone
- Specialized forms of VNS Therapy result in improved regulation of cardiovascular function
- Received CE Mark approval of the VITARIA System in February 2015
- FDA granted unconditional approval and “Breakthrough Technology” designation to the VITARIA system
- Patient enrollment will begin in 1H18 for FDA-approved ANTHEM-HFrEF Pivotal Study

# Financials and M&A

# Clear roadmap for value creation

## 2017-2018
## Invest & Grow

- Increasing adoption of global VNS
- Expansion of HGNS in Europe
- Driving Perceval penetration
- Upgrading existing HLM customers and enhancing current device
- Increasing oxygenator market share
- Accelerating geographic expansion
- Implementing profitability initiatives
- Enrolling patients in TMVR CE Mark INTERLUDE study
- Piloting TRD in Europe
- Enrolling patients in FDA-approved Anthem heart failure pivotal study
- M&A tuck-in acquisitions

## 2019-2020
## Accelerate Growth

- Operational excellence
- Global expansion of VNS Therapy leadership
- U.S. FDA approval of HGNS
- New product launches in cardiopulmonary
- Leadership in sutureless valves
- CE Mark and launch TMVR in Europe
- Growing TRD in Europe
- Anthem heart failure FDA pivotal study follow-up
- M&A tuck-in acquisitions

## 2021+
## Positioned for Success

- Global leader in VNS Therapy
- Global leader in cardiopulmonary
- Global leader in sutureless valves
- U.S. trials for TMVR
- TRD presence in the U.S.
- Commercialize Vitaria heart failure system
- M&A drives incremental growth

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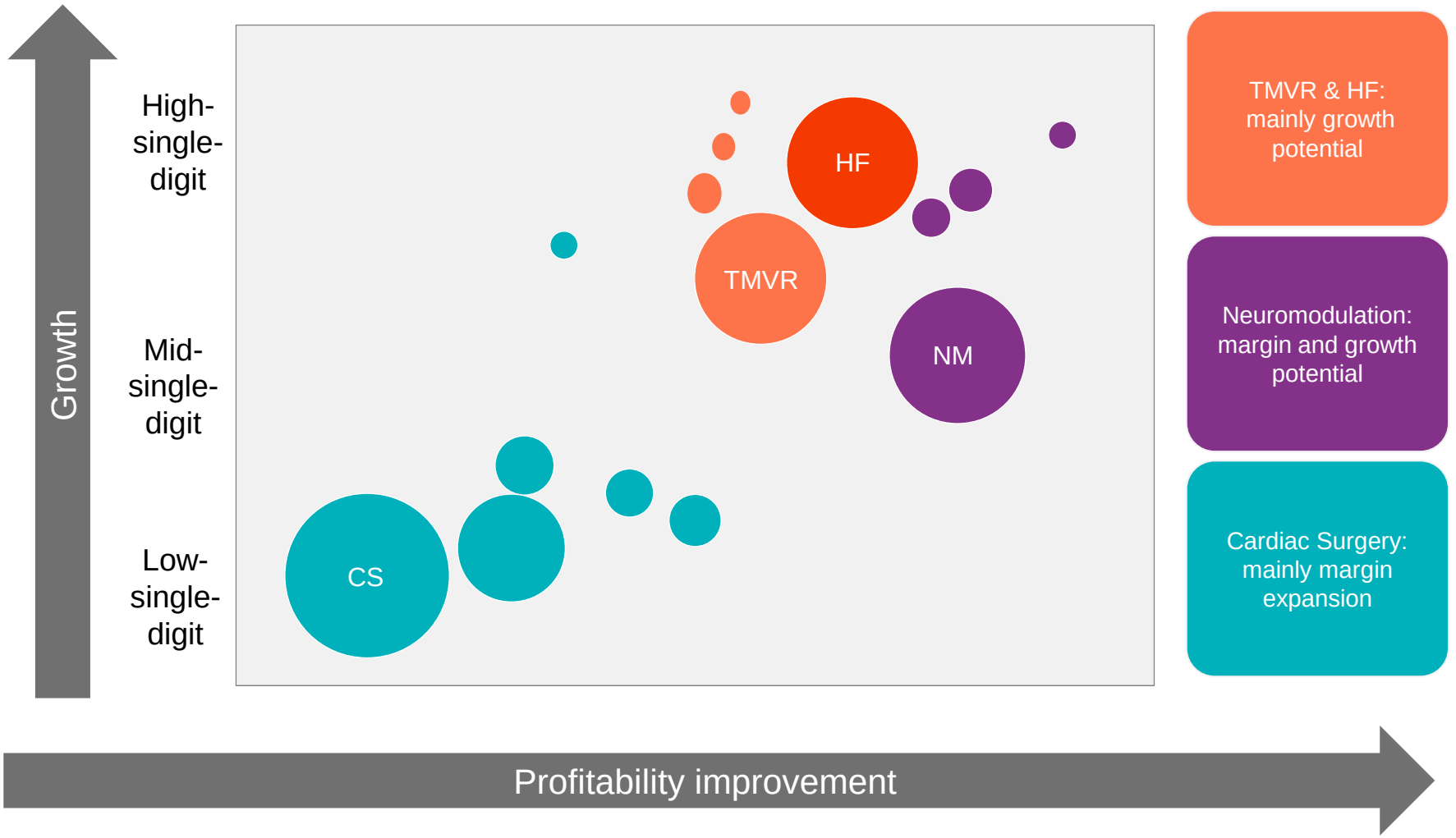
# M&A strategy targets growth and margin expansion




TMVR & HF: mainly growth potential

Neuromodulation: margin and growth potential

Cardiac Surgery: mainly margin expansion

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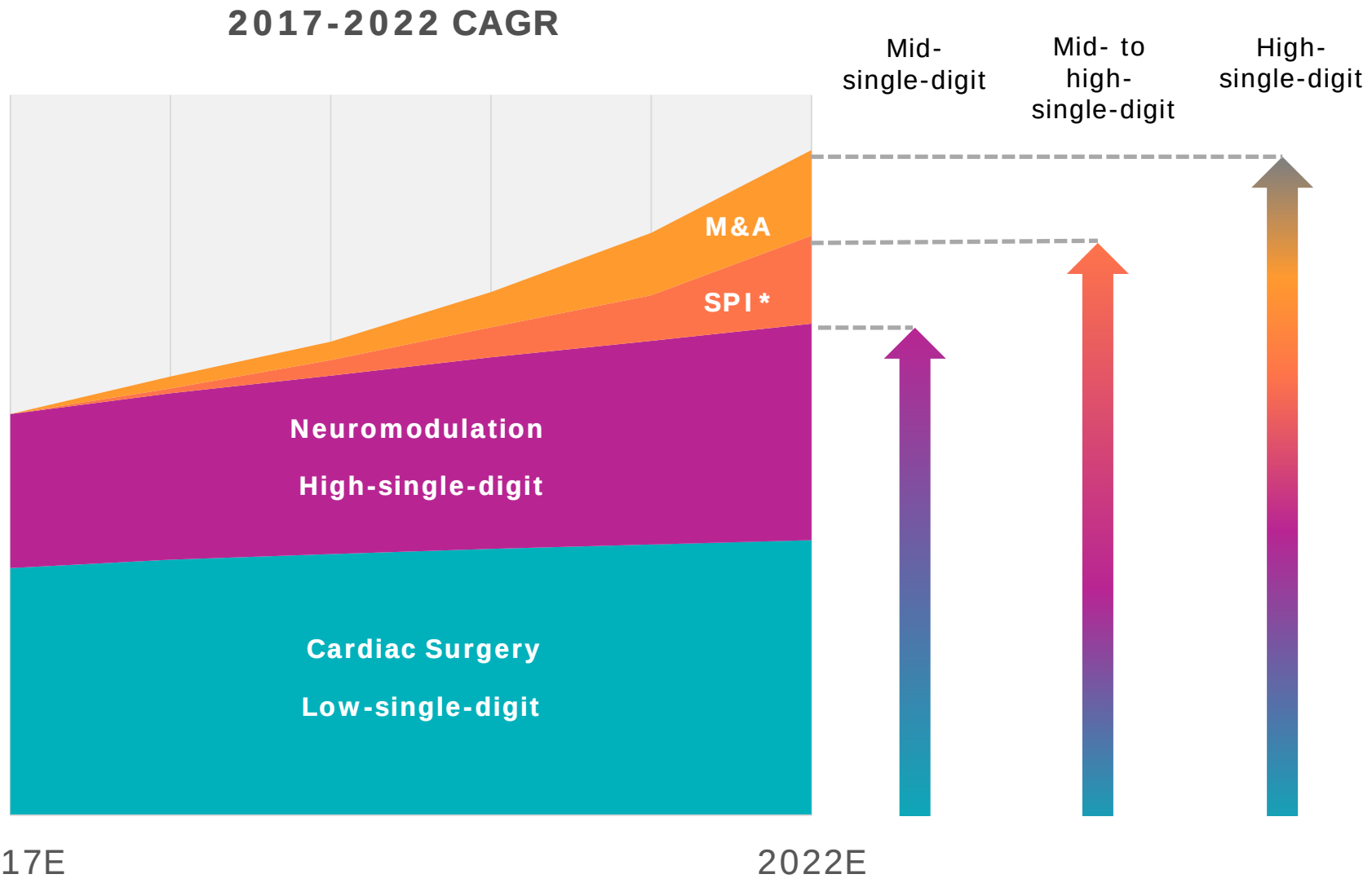
Illustrative only and not to scale; TMVR = Transcatheter Mitral Valve Repair; HF = Heart Failure

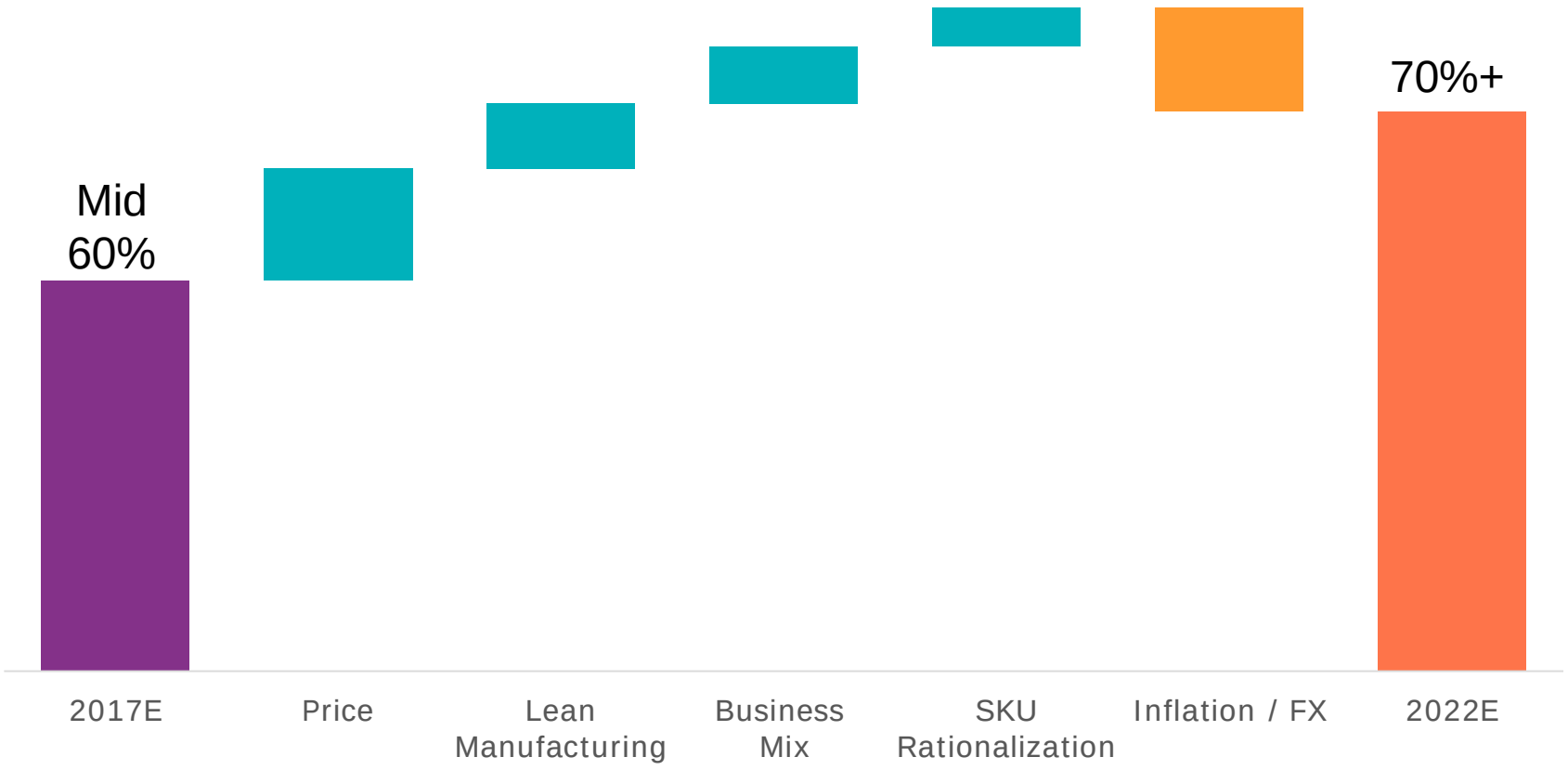
# Building a strong future through top line growth




SPI = Strategic Portfolio Initiatives, which include Transcatheter Mitral Valve Replacement (TMVR), Treatment-Resistant Depression (TRD) and Heart Failure (HF)

# Expanding our gross margins

Gross margin* as a percentage of revenues

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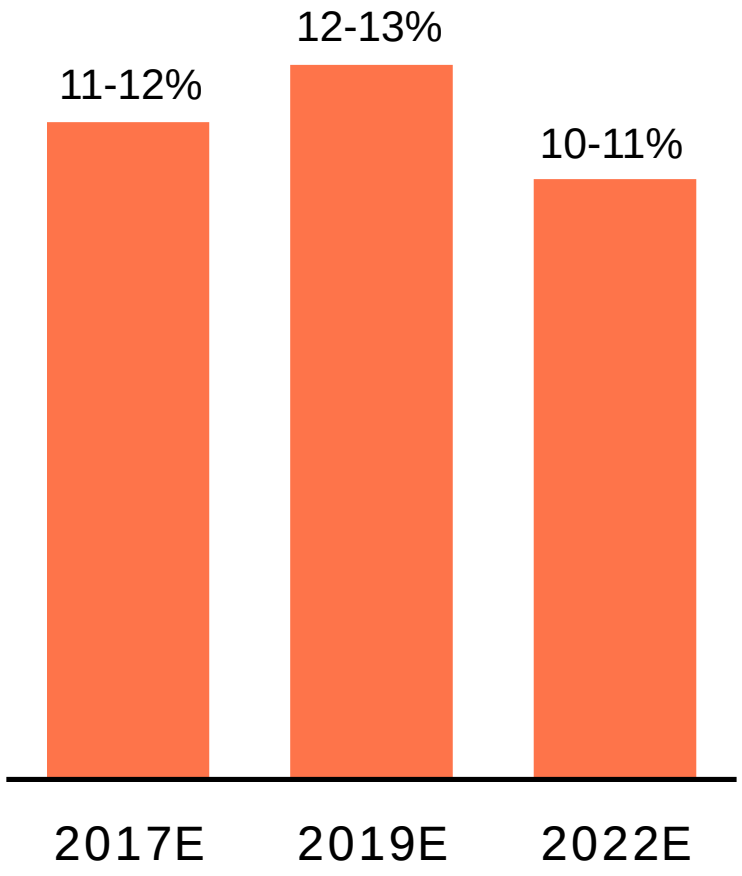
* Gross margin is an adjusted non-GAAP measure; all numbers include CRM business

# Invest in R&D today to drive growth tomorrow

R&D* as a percentage of revenues




- In 2016/2017, prior to Caisson acquisition, R&D* expense was 9-11% of net sales
- R&D profile will increase mid-term to support investment in portfolio expansion
- Expanding margins enable longer-term R&D investments

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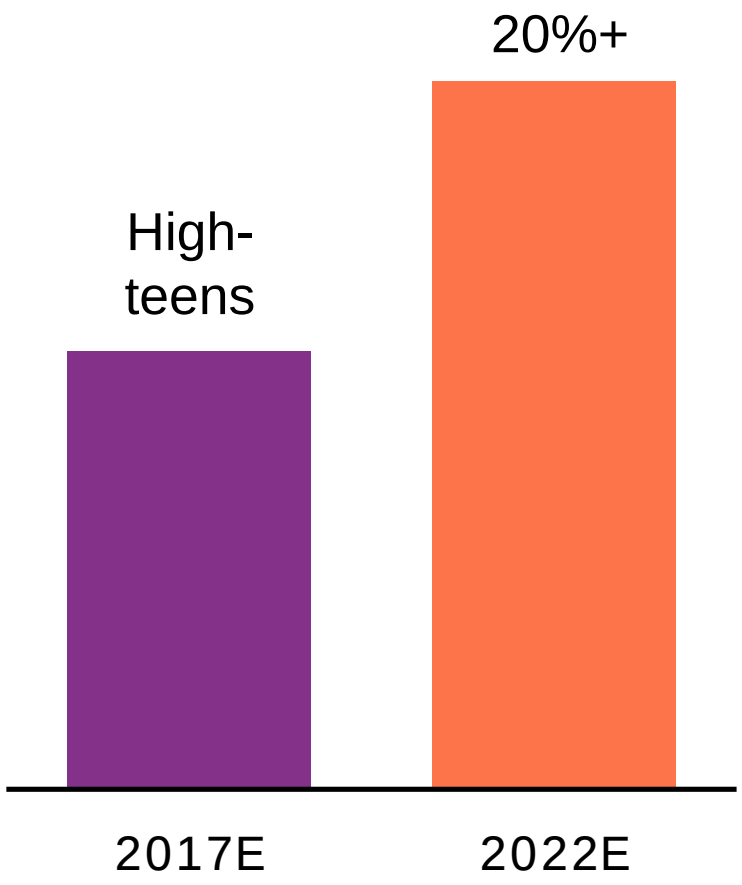
* R&D is an adjusted non-GAAP measure. Estimates as of September 14, 2017.

# Expanding operating margins

Operating income* as percentage of revenues



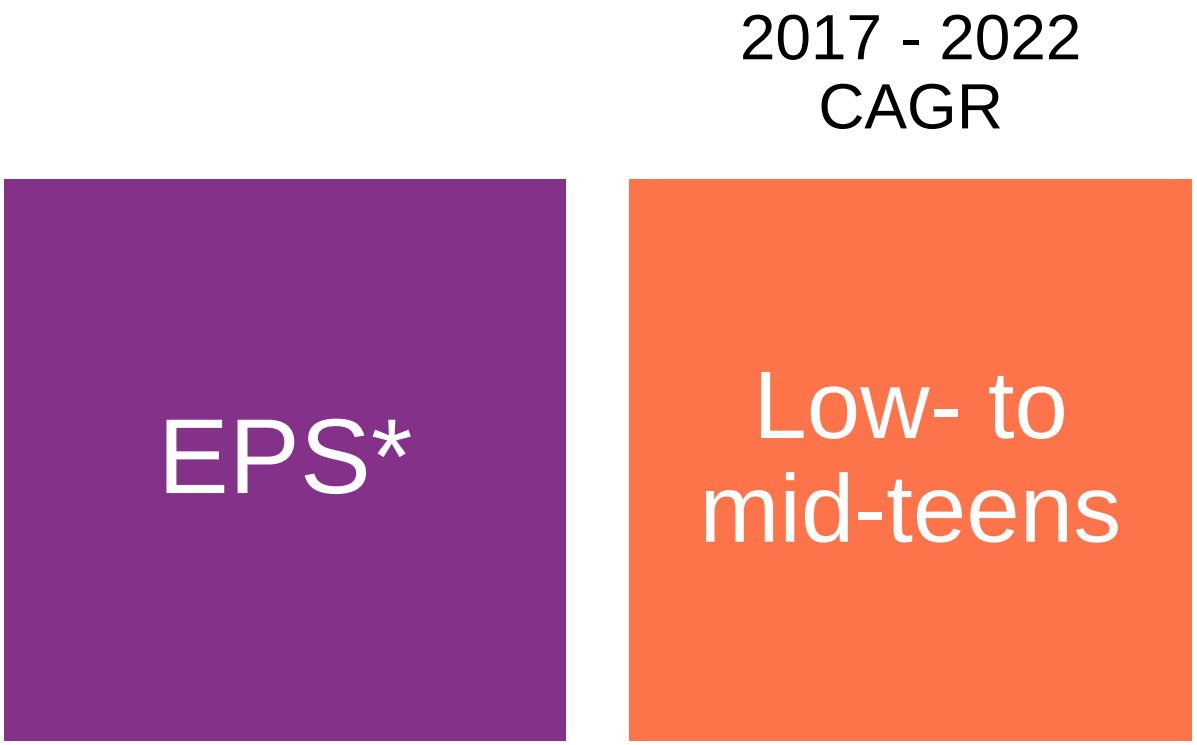

Gross margin expansion

SG&A reduction

R&D investment

* Operating Income is an adjusted non-GAAP measure; all numbers include CRM business

# Projecting strong growth in earnings per share




LivaNova * EPS is an adjusted non-GAAP measure; all numbers include CRM business

# Focused capital allocation strategy

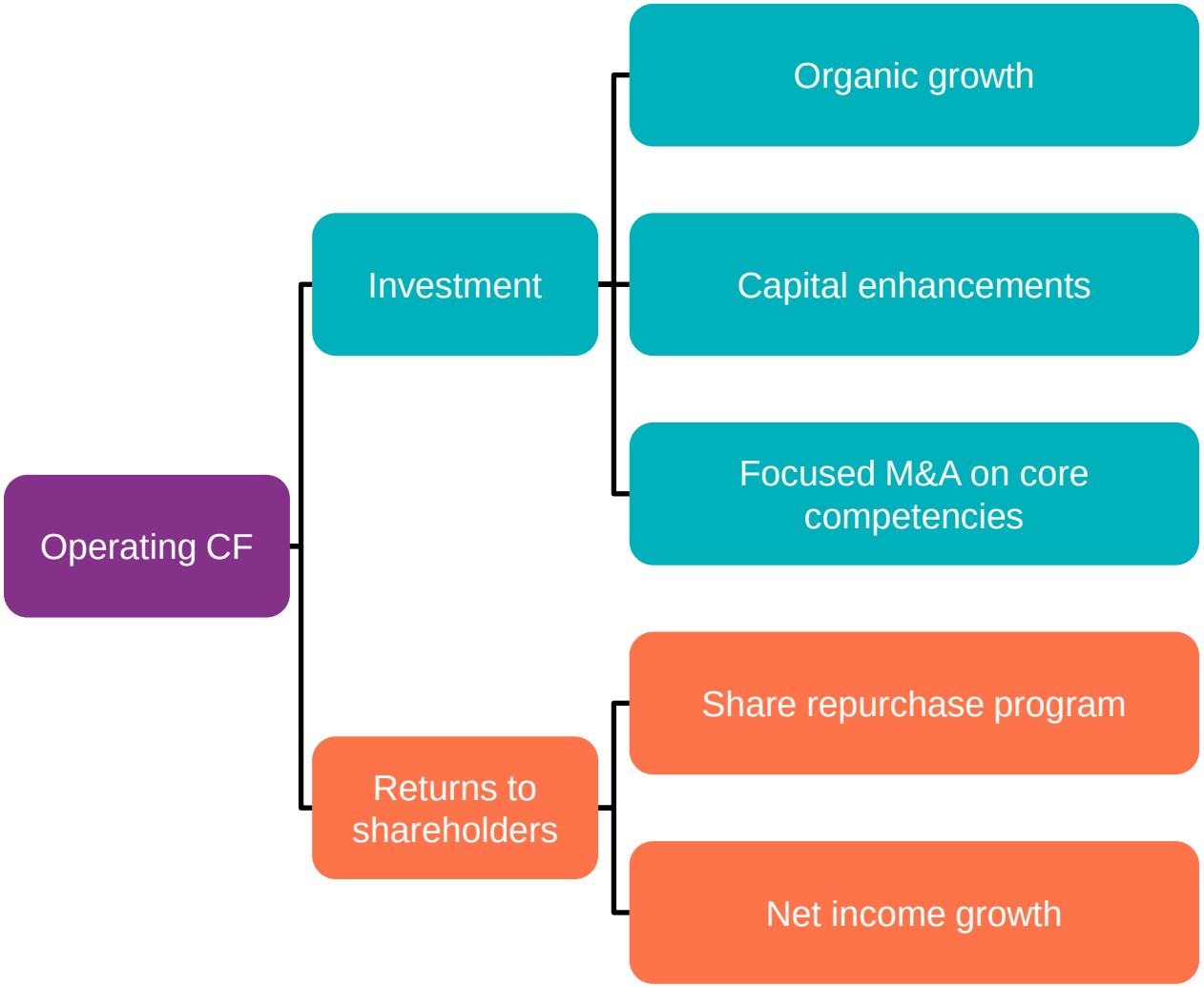
## PRIORITIES

Liquidity to support the strategy

Capital structure that adapts to business needs

Drive increased shareholder returns

Target leverage* in line with strong CF generation: ~2-3x

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* Target leverage is net debt / EBITDA; EBITDA is an adjusted non-GAAP measure

# Driving shareholder value creation

| | | |
|---|---|---|
| REVENUE GROWTH | Mid- to high-single-digit CAGR | • Large, globally expanding markets<br>• Broad geographic presence<br>• Accelerating growth through execution, innovation and M&A |
| EPS GROWTH | Low- to mid-teens CAGR | • Executing initiatives to improve profitability<br>• R&D investments drive future growth<br>• Driving toward peer margin benchmark levels longer term |
| CAPITAL ALLOCATION | Disciplined, focused deployment | • Plan to improve working capital<br>• Leveraging strong balance sheet<br>• Disciplined, focused M&A strategy |

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# Appendix

## RECONCILIATION OF GAAP TO NON-GAAP FINANCIAL MEASURES (UNAUDITED)

**(U.S. dollars in millions, except per share amounts)**

| Nine Months Ended September 30, 2017 | Sales | Gross Profit | Income from Operations | Net Income | Diluted EPS |
|---|---|---|---|---|---|
| GAAP Financial Measures | $916.2 | $595.0 | $81.8 | $86.6 | $1.79 |
| Specified Items | | | | | |
| Merger and integration expenses (A) | | | 7.0 | 5.7 | 0.12 |
| Restructuring expenses (B) | | | 12.1 | 9.8 | 0.20 |
| Depreciation and amortization (C) | | 4.0 | 40.3 | 30.8 | 0.64 |
| Product remediation (D) | | 2.6 | 2.6 | 1.8 | 0.04 |
| Caisson acquisition (E) | | 0.2 | 13.6 | (29.1) | (0.60) |
| Highlife impairment (F) | | | | 13.0 | 0.27 |
| Other income / (expenses) & litigations (G) | | 0.1 | 7.9 | 1.5 | 0.03 |
| Equity compensation (H) | | 0.2 | 14.3 | 10.6 | 0.22 |
| Certain interest adjustments (I) | | | | 0.8 | 0.02 |
| Certain tax adjustments (J) | | | | (3.4) | (0.07) |
| Adjusted financial measures | $916.2 | $602.1 | $179.4 | $128.0 | $2.65 |

**GAAP results for the nine months ended September 30, 2017 include:**

(A) Merger and integration expenses related to our legacy companies

(B) Restructuring expenses related to organizational changes and the shutdown of our CP plant in China

(C) Includes depreciation and amortization associated with final purchase price accounting

(D) Costs related to the 3T Heater-Cooler remediation plan

(E) Impact of Caisson related acquisition costs

(F) Impairment of investment and notes receivables

(G) Contingent consideration related to acquisitions and legal expenses mostly related to 3T Heater-Cooler defense and other matters

(H) Includes $13.2m related to SG&A, $0.9m related to R&D and less than $0.2m related to COGS

(I) Primarily interest related to intellectual property migration and other non-recurring impacts to interest expense

(J) Primarily relates to discrete tax items and the tax impact of intercompany transactions



* Numbers may not add up precisely due to rounding

# Appendix

## RECONCILIATION OF GAAP TO NON-GAAP FINANCIAL MEASURES (UNAUDITED)

**(U.S. dollars in millions, except per share amounts)**

| Nine Months Ended September 30, 2016 | Sales | Gross Profit | Income from Operations | Net Income (Loss) | Diluted EPS |
|---|---|---|---|---|---|
| GAAP Financial Measures | $903.3 | $540.4 | $8.8 | ($33.0) | ($0.67) |
| Specified Items | | | | | |
| Merger and integration expenses (A) | | | 20.5 | 16.9 | 0.35 |
| Restructuring expenses (B) | | | 37.2 | 33.4 | 0.68 |
| Depreciation and amortization (C) | | 5.9 | 39.5 | 29.2 | 0.59 |
| Product remediation (D) | | 2.2 | 2.2 | 0.9 | 0.02 |
| Other income/ (expenses) & litigations (E) | | | 2.7 | 1.2 | 0.02 |
| Write-off of investments in minorities (F) | | | | 9.1 | 0.18 |
| Impact of inventory step-up (G) | | 35.2 | 35.2 | 24.1 | 0.49 |
| Equity compensation (H) | | 0.8 | 15.3 | 12.9 | 0.26 |
| Certain tax adjustments (I) | | | | 13.2 | 0.27 |
| Adjusted financial measures | $903.3 | $584.5 | $161.5 | $107.8 | $2.20 |

**GAAP results for the nine months ended September 30, 2016 include:**

(A) Merger and integration expenses related to our legacy companies

(B) Restructuring expenses, including CRM restructuring announced March 10, 2016, severance related to corporate and shared service synergies and organizational changes

(C) Includes depreciation and amortization associated with final purchase price accounting

(D) Costs related to the 3T Heater-Cooler remediation plan

(E) $5.0m write-off of receivables from Greece distributor, $4.7m reimbursement of damages related to 2012 earthquake in Mirandola (Italy), and $2.5m legal expenses primarily associated with litigation related to 3T Heater-Cooler devices

(F) $9.2m related to the impairment of Respicardia buy-out option; $0.7m related to increasing amortization following final PPA

(G) Amortization of inventory step-up associated with final purchase price accounting

(H) Includes $13.7m related to SG&A, $0.8m related to R&D and $0.8m related to COGS

(I) Relates to the impact of restructuring initiatives and IP migration

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