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Introduction

Scott R. Ward, Chairman, President & Chief Executive Officer
Driving Sustainable Growth

Broaden Our Value Streams

**Financial Goal:** FY19-FY23 CAGR of 15% - 18%
Revenue of $435M - $500M in FY23

<table>
<thead>
<tr>
<th>Grow and Protect the Core Business</th>
<th>Innovation Drives Incremental Growth</th>
<th>Global Expansion Accelerates Growth of Core Business</th>
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<tbody>
<tr>
<td>Sustain Market Leadership</td>
<td>Launch 20+ New Products</td>
<td>OrbusNeich and Medikit</td>
</tr>
<tr>
<td>10+% Growth in Core Business</td>
<td>$70M - $100M in FY23</td>
<td>$25M - $50M in FY23</td>
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Financial strength and the talent to execute
Fiscal 2019 Revenue Growth of 14.3%

$248 Million

Core OAS Revenue
$236.2 million
10% increase

New Product Revenue
$3.9 million

Drivers
Sapphire II 1.0 mm PTCA
Teleport Microcatheter
Zilient Peripheral Guidewire

International Revenue
$7.9 million

Drivers
Launched OAS in 10 countries
Over 2,000 OAS procedures
Portfolio Update

Rhonda J. Robb, Chief Operating Officer
Current Market Dynamics Favor Innovation

Large Under-Served and Under-Treated Disease States

Peripheral Artery Disease
Significantly under-diagnosed and under-treated patient populations

- 18-20 million People living with peripheral artery disease in the U.S.
- 2 million+ patients suffering from critical limb ischemia
- >740K Lower extremity PVIs
- 160K Amputations per year

Coronary Artery Disease
Growing proportion of coronary interventions represented by complex or complex high-risk PCIs

- 16-18 million People living with coronary artery disease
- 370,000 Deaths annually from coronary artery disease
- 525K Complex or complex high-risk PCIs

Diversification Accelerates Growth

*Broadens Value Streams*

**CSI’s Addressable Markets (US)**

- **Hemodynamic Support**
- **Interventional Support Devices**
- **Atherectomy**

Portfolio expansion will drive a **>4X increase** in CSI’s addressable market

- **~$3.7B**
- **$650M**

**FY19**

**FY23**

*Coronary markets include device revenue attributed to PTCA balloon catheters, microcatheters / guidecatheters, PTCA guidewires, CTO / STO devices, and hemodynamics pumps. Peripheral markets include device revenue attributed to lower extremity (iliac, fempop, infrapop) endovascular procedures for PTA guidewires, catheters / sheaths, embolic protection devices, CTO / STO devices, and PTA balloon catheters.*

**References:**
- CSI Internal Estimates
Differentiated Pipeline of Key Value Drivers
Supports Diversified and Sustainable Growth

<table>
<thead>
<tr>
<th>Portfolio</th>
<th>FY19 Market</th>
<th>FY23 Market</th>
<th>FY23 TAM</th>
<th>FY20</th>
<th>FY21/22</th>
<th>FY23+</th>
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<tbody>
<tr>
<td>Atherectomy</td>
<td>$650M</td>
<td>$900M+</td>
<td>$1.9B+</td>
<td>CAD ViperWire Advance with Flex Tip</td>
<td>Next gen Coronary OAS</td>
<td>PAD Directional Atherectomy</td>
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<td>Peripheral Diamondback 360® and Stealth® with GlideAssist</td>
<td>ECLIPSE</td>
<td>Japan ATK Pivotal Study</td>
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<td>Exchangeable OAS Platform</td>
<td>Small Vessel (BTA) + Evidence</td>
<td>PAD Post Market Study</td>
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<td>LIBERTY 360 3-Year Data</td>
<td>Large Vessel (CFA/iliac)</td>
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<tr>
<td>Interventional Support Devices</td>
<td>$1.6B+</td>
<td>$3.3B+</td>
<td></td>
<td>PTA Balloons</td>
<td>Radial toolkit (guide wire, sheath and balloons)</td>
<td>CTO Portfolio (CAD/PAD)</td>
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<td>Scoring balloons (CAD/PAD)</td>
<td>Specialty Catheters and Wires (CAD/PAD)</td>
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<tr>
<td>Hemodynamic Support</td>
<td>$1.2B+</td>
<td>$6.0B+</td>
<td></td>
<td>pVAD FIH and IDE 1st enrollments</td>
<td>pVAD Gen 1 for Complex PCI</td>
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<td>pVAD Gen 2 for Complex PCI</td>
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<tr>
<td>TOTAL</td>
<td>$650M</td>
<td>$3.7B+</td>
<td>$11.2B+</td>
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<td>Cardiogenic Shock</td>
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Expanding CSI's Served Markets
Peripheral
Radial is a Core Competitive Advantage

Enabling a Complete Peripheral Intervention from the Radial Artery

Exclusive route of access for CSI complementary to tibial/pedal

Expansion in portfolio of radial support devices

Radial peripheral interventions expand access to care and can improve procedural recovery time

Launched Q1 FY19

Extended length Orbital Atherectomy System with Low 5Fr Profile

Launched Q2 FY19

Extended length Exchange Catheters

Extended length Radial Access Sheaths

Expected Launch Early FY21

Extended length PTA Balloons

Extended length PTX Balloons

Expected Launch Early FY21

Extended length Guidewires

Expected Launch Early FY21
Supporting Complete Leg Revascularization

Exchangeable Series with GlideAssist® – Our Most Advanced OAS on the Market

- GlideAssist to facilitate tracking, repositioning and removal of OAD through challenging anatomy

- **Ease-of-Use** Enhancements to Handle: Backloadable system facilitating easier wire exchanges and improved tactile feel

- Exchangeable cartridges with different catheter lengths and crown options to optimally treat patients with multi-level disease (seen ~50% of the time) within the same procedure

- Patient and economic benefits with more efficient procedures aligned to market dynamics

- **Future Portfolio**: New 1.0 mm crown for small vessel / below-the-ankle lesions and a larger crown intended for larger vessels like the common femoral and iliac arteries
Exchangeable is a Competitive Advantage

Exchangeable Series OAS live case, including feature of Teleport® Microcatheter and Zilient® Guidewire
Compelling Clinical Evidence
Supporting Atherectomy; OAS Short- and Long-Term Safety

Atherectomy provides a benefit for CLI patients—in this study, there were lower rates of 4-year major amputation and all-cause mortality in atherectomy group compared to PTA, stenting, or surgical bypass.

Surgical bypass-first treatment was associated with worse amputation-free survival (AFS) compared to endovascular-first treatment (HR, 1.16; 95% CI, 1.13—1.20).
Directional Atherectomy

Expanding the Treatment Options for Soft and Fibrotic Mixed Plaque Lesions

Extend CSI’s peripheral atherectomy toolkit to better target soft and fibrotic mixed plaque lesions more common in above-the-knee (ATK) vessels

CSI will provide a full product line to address the heterogeneity of disease burden, sites of service and economic requirements

- Broaden value streams in a $300M-$400M existing ATK atherectomy market
- Deliver novel cutter design to improve lesion entry, engagement, and treatment, with greater control over cutting depth
- Aspiration provides improved procedural efficiency over alternative devices on the market
- Future extensibility to treat larger vessels; potential to pursue additional indications
- Potential to meet unique needs of sites of service and geographical requirements
- Focus on directional atherectomy. Laser program discontinued.

* CSI Internal Estimates
WIRION® Embolic Protection System

Supporting Our Commitment to Complex Patients

Protecting Patients During PVIs

- Embolic debris can be associated with all types of peripheral vascular intervention procedures
- EPDs are typically used when treating vessels located above the knee with long lesions, high plaque burden, and poor run off
- Can provide additional assurance when treating complex peripheral interventions and lesions

Synergistic with CSI Strategy and Mission

- Broadens value streams in $50M market, 50,000 devices used in the U.S.
- Complements CSI’s future directional atherectomy platform
- Provides assurance to physicians not using atherectomy today due to concern of distal emboli

Share-Taking Differentiated Technology

- Easier to use and more versatile than competing EPDs with clearance for use with any peripheral atherectomy device and any 0.014” guidewire
- Demonstrated safety and non-inferiority to pre-specified performance goals in capturing debris with low adverse event rates in WISE LE study
- Platform enables future innovation for potential BTK and Radial applications

Commercialization expected in FY21 following completion of the manufacturing transfer from Gardia Medical

- CSI Internal Estimates
Coronary
Near-Term Expansion of the Complex Coronary Toolkit

*Drives Incremental Revenue Opportunity Per Case*

Adding Essentials of the Complex PCI Toolkit

- Sapphire Balloons
  - Sapphire SC II PRO 1.0-4.0mm
  - Sapphire NC Plus 2.0-4.0mm

Increasing the Clinical Utility of the Sapphire Portfolio in the Near-Term

- Teleport Microcatheter
- Coronary Diamondback 360° with GlideAssist®

Launching Now

- ViperWire Advance® with Flex Tip

Continuing to Innovate around the Complex Patient Long-Term

- Expected Launches FY20
  - Sapphire SC II PRO 1.0mm OTW
  - Sapphire NC Plus 4.5-5.0mm

- Expected Launch FY21
- ScoreFlex NC
ECLIPSE Trial
Generating Level One Evidence to Impact Guidelines

2000 Patients with Severely Calcified Lesions

Orbital Atherectomy Strategy
1.25 mm Classic Crown followed by balloon pre-dilation
2nd generation DES implantation and optimization

Conventional Angioplasty Strategy
Conventional and/or specialty balloons per operator discretion
2nd generation DES implantation and optimization

Primary Endpoints

1. Post-PCI in-stent MSA by OCT (N=~500 in imaging sub-study)
2. 1-year TVF (all subjects)

1º Endpoints

2º Endpoints
1. Procedural Success: Successful stent delivery (all subjects)
2. Strategy Success: Procedural success without crossover

Principal Investigators
Ajay Kirtane, MD; Philippe Généreux, MD; Gregg W. Stone, MD

Study Chairman

Randomize 1:1

~500 subjects in OCT cohort
OAS >1 mm² superior MSA vs. POBA

All subjects
OAS >5% reduction in TVF vs. POBA
Percutaneous Ventricular Assist Device (pVAD) System

Multi-Generational Platform Highly Synergistic with Our Strategy and Competency

Generation 1 Overview

- Leverages CSI core competency in motor control and spinning cables
- Easy setup and use
- Flow: 3-5 LPM
- Crossing Profile: 10-14 Fr
- Catheter Profile: 6-8 Fr
- Improved deliverability
- Physician control in the sterile field
- Simplified touch screen display
- Compact console design (<15 lbs.)

IDE clinical studies planned to highlight procedural safety and perfusion metrics/endpoints

Entering a High Growth pVAD Market*

- 16% CAGR

Recent Accomplishments / Status

- Multiple animal studies completed successfully
- Pre-submission meetings completed and underway with the FDA
- First-in-human in FY21

* Includes Complex PCI and Cardiogenic Shock

Closing Remarks

Scott R. Ward, Chairman, President & Chief Executive Officer
Platform for Growth

~$250M FY19-FY23 R&D Investments

Maintain focus on current customer, vessel preparation and procedure support

Organic growth and opportunistic portfolio management

Gross margins in the range of 78%-80% in FY21

R&D investments increase to 14%-17% of revenues in FY21

Launch 20 new products by FY23
Driving Sustainable Long-Term Growth

### Product Launches

<table>
<thead>
<tr>
<th>Peripheral</th>
<th>FY19</th>
<th>FY20</th>
<th>FY21-FY23</th>
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<tbody>
<tr>
<td>• Radial OAS</td>
<td>• Exchangeable OAS</td>
<td>• Radial toolkit</td>
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<tr>
<td>• Peripheral Guidewires</td>
<td>• Next generation OAS with GlideAssist</td>
<td>• Scoring balloons</td>
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<td>• ViperCath XC</td>
<td>• PTA balloons</td>
<td>• WIRION embolic protection device</td>
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<td>• Small vessel OAS</td>
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<td>• Large vessel OAS</td>
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<td>• Directional atherectomy</td>
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<tr>
<th>Coronary</th>
<th>FY19</th>
<th>FY20</th>
<th>FY21-FY23</th>
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<tbody>
<tr>
<td>• Coronary Diamondback 360 OAS with GlideAssist</td>
<td>• ViperWire with Flex Tip</td>
<td>• Scoring balloons</td>
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<tr>
<td>• PTCA Balloons</td>
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<tr>
<td>• Teleport Microcatheter (CAD/PAD)</td>
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<td>• Hemodynamic pump platform</td>
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<td>• Specialty wires and catheters</td>
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### FY19 - FY23 Revenue Growth

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<tr>
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<th>5 - Year CAGR: 15% – 18%</th>
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<tr>
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<td>$340M - $350M</td>
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<tr>
<td>Core Orbital Atherectomy Revenue: 10%+ Annual Growth</td>
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<td>$70M - $100M</td>
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<td>New Product Revenue in FY23</td>
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<td>$25M - $50M</td>
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<td>International Revenue in FY23</td>
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<td>$435M - $500M</td>
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<td>Consolidated Revenue in FY23</td>
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## Cardiovascular Systems, Inc.

**Creating Shareholder Value**

### Leveraging a Strong Core Business
- Improving outcomes for complex coronary and peripheral artery disease
- Proprietary core technology
- Serving large and growing markets

### A Compelling Growth Strategy
- Driving market leading performance in orbital atherectomy
- Expanding into new geographic markets
- Launching an innovative portfolio of new products

### Creating Competitive Advantage
- Highest quality products, services and relationships
- Innovation and robust medical evidence
- Medical education and superior clinical support

### Financially Strong with the Team and Talent to Win
- Sustaining double digit growth with strong gross margins
- Positive cash flow, strong cash position and no long-term debt
- Positioned to invest in organic growth
- A Mission driven organization with the leadership and talent to succeed