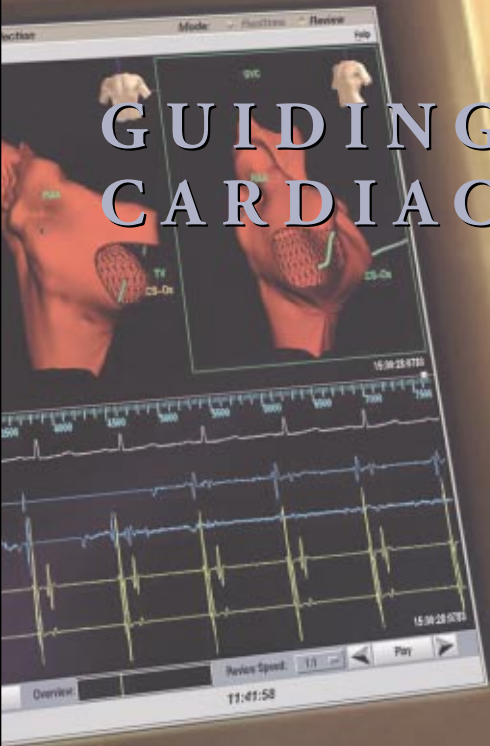




ENDOCARDIAL  
SOLUTIONS

# GUIDING THE DIRECTION OF CARDIAC THERAPIES

ANNUAL REPORT 2002

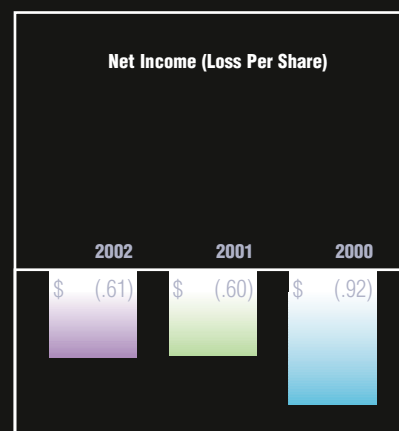
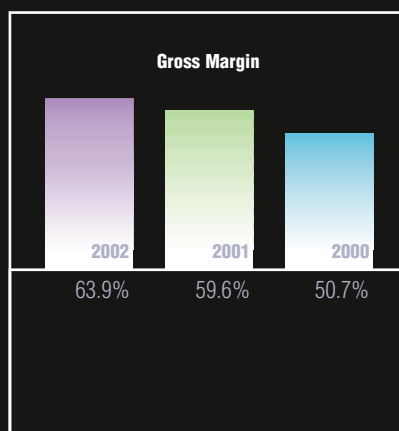
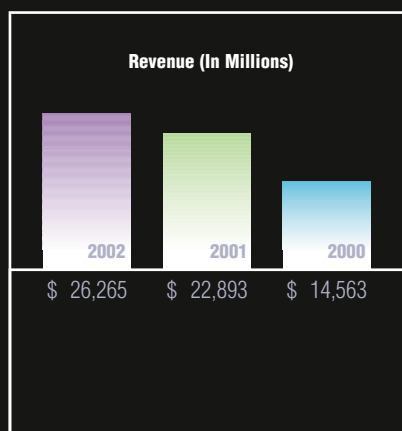


## FINANCIAL HIGHLIGHTS

In thousands, except per share amounts

As of December 31,	2002	2001	2000
<b>Statements of Operations</b>			
Net Sales	\$ 26,265	\$ 22,893	\$ 14,563
Net Income (Loss)	\$ (9,961)	\$ (8,479)	\$ (10,311)
Net Income (Loss Per Share)-Basic and Diluted	\$ (0.61)	\$ (0.60)	\$ (0.92)
Weighted Average Shares Outstanding	16,324,066	14,211,318	11,212,420

As of December 31,	2002	2001	2000
<b>Balance Sheet</b>			
Cash and Cash Equivalents	\$ 1,348	\$ 4,550	\$ 10,759
Total Assets	\$ 17,864	\$ 15,797	\$ 21,356
Total Liabilities	\$ 8,906	\$ 7,081	\$ 11,492
Stockholder's Equity	\$ 8,958	\$ 8,716	\$ 9,864



**ABOUT THE COMPANY** Endocardial Solutions develops, manufactures and markets innovative diagnostic technology that is rapidly changing the way patients are treated for cardiac arrhythmias. The EnSite® System allows physicians to map arrhythmias and guide catheter ablation with two different technologies: EnSite® noncontact mapping permits simultaneous recording and 3D display of cardiac electrical activity; EnSite NavX technology allows real-time catheter navigation of up to 64 intracardiac electrodes on eight catheters.

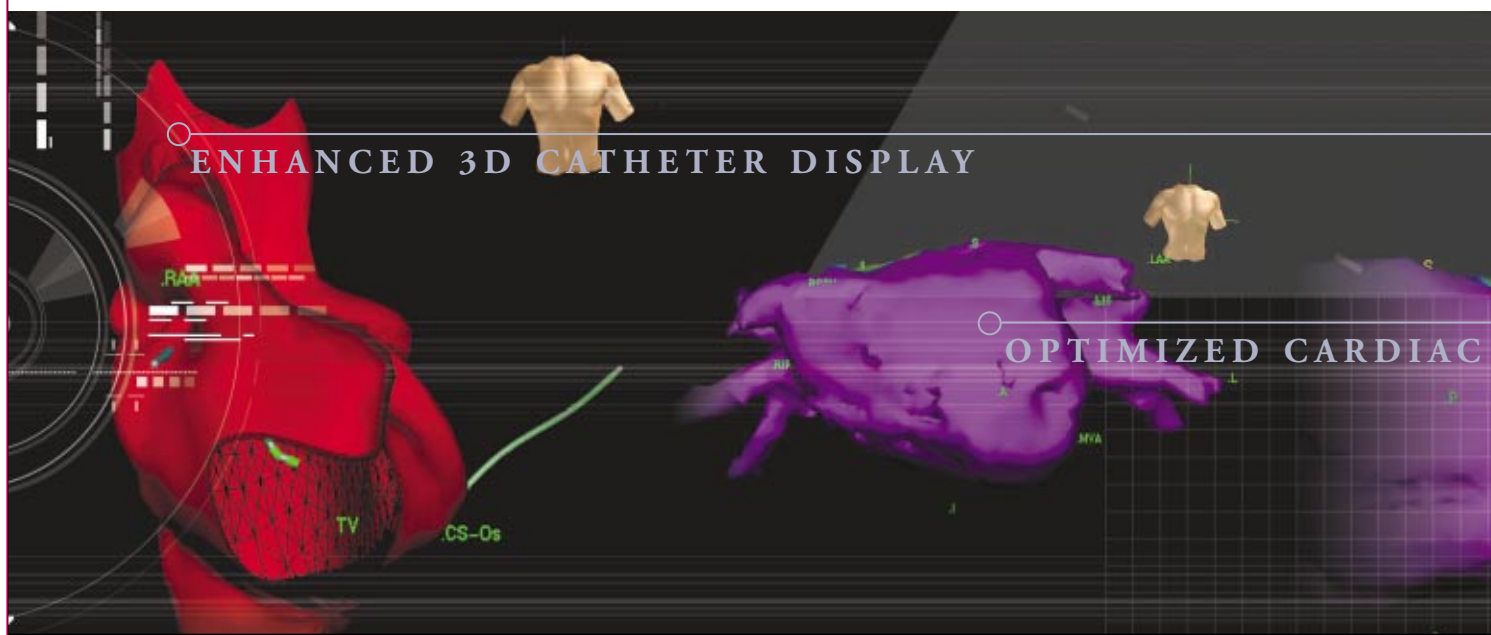
## LETTER TO SHAREHOLDERS

As I reflect on the continuing evolution of Endocardial Solutions over the past year, 2002 was one of the most challenging and rewarding years in our company's history. I am especially proud of two major accomplishments. The first was completion of a multi-year development effort for EnSite NavX™, the most advanced non-fluoroscopic cardiac navigation and guidance system available today. The second was a complete realignment and refocus of our field sales and clinical organization which was designed to expand clinical utilization of the EnSite 3000® System (the "EnSite System"), while concurrently reducing the operating costs of our field organization. The implementation of these two initiatives will enable the Company to dramatically improve and expand the navigation and delivery of therapies for the treatment of cardiac arrhythmias and electromechanical disorders in 2003 and beyond.

**FINANCIAL RESULTS** The Company delivered record revenue during 2002, increasing the number of EnSite Systems installed worldwide to over 300 systems in more than 30 countries, while increasing EnSite catheter sales by nearly 38% over 2001. For the first time in our Company's history, the percentage of revenue from the sale of EnSite catheters exceeded revenue from the sale of EnSite Systems. We expect this trend to continue and accelerate in 2003 with increased EnSite catheter utilization and the introduction of EnSite NavX surface electrodes to navigate and guide catheters during conventional cardiac ablation procedures. In addition, our gross margins of nearly 64% will continue to increase as we implement planned improvements in both components and manufacturing processes for EnSite Systems and catheters throughout 2003.

**PREPARING FOR GROWTH** In September, we realigned our field sales and clinical organization to drive increased clinical use of EnSite Systems, assign account-specific responsibilities to our clinical support personnel, and dramatically reduce the overall operating costs of our field organization. We improved both the consistency and reliability of our field organization by creating regional teams, with each clinical person assigned to support designated accounts within their respective territories. This realignment not only improved customer satisfaction and increased EnSite catheter sales, but also dramatically reduced the travel costs of our field clinical organization. This reorganization revitalized our field sales and clinical organization, and we are well-positioned to support accelerated growth in EnSite System and catheter sales and the introduction of EnSite NavX in 2003.

**ENSITE NAVX: THE FUTURE OF CATHETER NAVIGATION** In late summer of 2002, we completed the first human tests of our EnSite NavX navigation system. EnSite NavX is comprised of a system of body surface electrodes that enable the non-fluoroscopic visualization and navigation of up to 64 electrodes on as many as 8 catheters in any chamber of the heart. Based on the extraordinary initial clinical response to this innovative and exciting technology, we expect EnSite NavX to become the system of choice for guiding the delivery of any number of different cardiac therapies to treat a wide variety of clinical indications from simple arrhythmias to more complex arrhythmias such as atrial fibrillation. EnSite NavX has several fundamental advantages over existing navigation technologies,



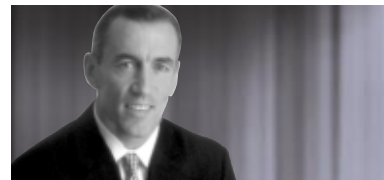
including (a) the ability to navigate catheters without the use of fluoroscopy, (b) dramatically expanding the number of catheters that can be simultaneously displayed in the heart, (c) giving physicians the ability to use any diagnostic or ablation catheter during a procedure, and (d) providing considerable cost advantages over alternative systems. We expect EnSite NavX will be commercially introduced globally in the spring of 2003.

**ENSITE DIF: FULL-VISION ELECTROPHYSIOLOGY** One of the principal challenges for clinical electrophysiologists is to understand cardiac electrical function in the context of highly variable patient anatomy. In September of 2002, we began clinical testing of another exciting new application for the EnSite System, Digital Image Fusion (DIF). EnSite DIF™ will allow physicians to integrate and register electrical activation images from a patient's EnSite study with three-dimensional CT or MRI anatomical images of the patient's heart, thereby providing physicians with an understanding of integrated patient-specific cardiac anatomy and electrical function. We expect to release EnSite DIF at the end of 2003.

**OPTIMIZING THE DELIVERY OF NEW CARDIAC THERAPIES** As we prepare to commercially release EnSite NavX globally, we look forward to the North American Society of Pacing and Electrophysiology meeting in May—the largest annual meeting for electrophysiologists. This year's meeting will feature a record number of accepted abstracts and physician presentations on EnSite clinical applications, bringing the total number of published EnSite abstracts and manuscripts to over 300. In addition, we expect some of the most significant and exciting research to-date on new clinical applications for the EnSite system will be presented at this meeting, including the use of EnSite technology to characterize and localize pacing sites for the latest generation of congestive heart failure devices.

**GLOBAL EXPANSION** We continue to see strong growth in EnSite systems and catheters throughout the Pacific Rim region. We anticipate commercial release of EnSite in Japan in 2003 through our distribution partner, Nihon Kohden, and there appears to be strong clinical interest in EnSite that will enable EnSite to play an important role in this significant market. 2002 was the first full year for our direct sales and clinical support organization in Europe, and EnSite system and catheter sales continued to increase throughout the year.

**THE FUTURE** I expect 2003 to be a landmark year for Endocardial Solutions. We will continue to make significant investments in the development and clinical study of advanced cardiac mapping and navigation applications designed to expand and improve the delivery of cardiac therapies. On behalf of our entire Endocardial Solutions organization, we appreciate the continued confidence and commitment from our physician customers and shareholders, and we are thankful for the opportunity to play a supporting role in the treatment of patients who benefit from the use of our EnSite products.



*James W. Bullock*  
James W. Bullock  
President, Chief Executive Officer  
and Director

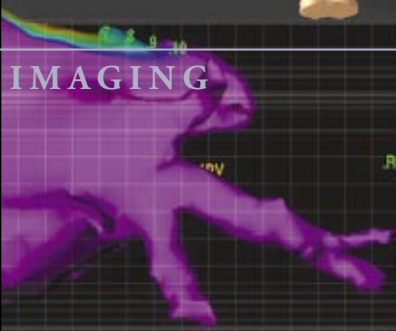


*EnSite NavX: Newly released in Spring 2003, EnSite NavX allows physicians to guide catheters and landmark sites of interest for cardiac ablation procedures with great accuracy and flexibility. Any*

*diagnostic or therapeutic catheter can be navigated with EnSite NavX, and up to 64 electrodes can be displayed in three dimensions on as many as eight catheters.*

*EnSite DIF: Expected to be available in late 2003, EnSite DIF (Digital Image Fusion) will integrate three dimensional CT or MRI images of cardiac chamber anatomy with real-time activation maps.*

IMAGING



## CORPORATE INFORMATION

### EXECUTIVE OFFICERS

**James W. Bullock**  
*President,  
Chief Executive Officer  
and Director*

**Graydon E. Beatty**  
*Chief Technical Officer  
and Director*

**Richard J. Omilanowicz**  
*Vice President,  
Manufacturing and Operations*

**J. Robert Paulson, Jr.**  
*Chief Financial Officer*

**Patrick J. Wethington**  
*Vice President,  
Sales, North America*

### BOARD OF DIRECTORS

**James W. Bullock**  
*President and  
Chief Executive Officer*  
Endocardial Solutions, Inc.

**Graydon E. Beatty**  
*Chief Technical Officer*  
Endocardial Solutions, Inc.

**Robert G. Hauser, M.D.**  
*Cardiologist*  
Minneapolis Cardiology  
Associates

**Richard J. Nigon**  
*Executive Vice President*  
Miller Johnson Steichen  
Kinnard, Inc.

**Jean-Paul (J.P.) Peltier**  
*Vice President,  
Business Development*  
HomeServices of America, Inc.

**Richard D. Randall**  
*President and  
Chief Executive Officer*  
TranS1, Inc.

**Mark T. Wagner**  
*President and  
Chief Executive Officer*  
ProVation Medical

**Warren S. Watson**  
*Vice President of Arrhythmia  
Business Operations*  
Medtronic Cardiac Rhythm  
Management

### TRANSFER AGENT AND REGISTRAR

Wells Fargo Bank  
Minnesota, N.A.  
South Saint Paul, MN  
800-689-8788

### AUDITORS

Ernst & Young LLP  
Minneapolis, MN

### LEGAL COUNSEL

Dorsey & Whitney LLP  
Minneapolis, MN

### ANNUAL MEETING

The Company's Annual Meeting  
of Stockholders will be held on  
May 21, 2003 at 9:00 A.M. at:

Hilton Minneapolis & Towers  
1001 Marquette Avenue  
Minneapolis, MN 55403

### FORM 10-K

A copy of the Company's Form  
10-K filed with the Securities  
and Exchange Commission  
is available free of charge by  
calling Investor Relations at  
the number below.

### CORPORATE HEADQUARTERS

1350 Energy Lane, Suite 110  
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Facsimile: 651-644-7897*

### INVESTOR INQUIRIES

*Telephone: 651-523-6959  
e-mail: investor@endocardial.com*

### LISTING

Trades on Nasdaq Stock Market®  
under the symbol "ECST"



**ENDOCARDIAL**  
SOLUTIONS

**WORLD HEADQUARTERS**

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*Internet:* [www.endocardial.com/europe](http://www.endocardial.com/europe)