



**INTEVAC**

ANNUAL REPORT 2004



2004

## COMPANY PROFILE

We are the world's leading provider of disk sputtering equipment to manufacturers of magnetic media used in hard disk drives and a developer and provider of leading technology for extreme low light imaging sensors, cameras and systems. We operate two businesses: Equipment and Imaging.

Our Equipment business designs, manufactures, markets and services complex capital equipment which deposits, or sputters, highly engineered thin-films onto magnetic disks used in hard disk drives. We believe our systems represent approximately 60% of the installed capacity of disk sputtering systems worldwide. Our

customers include the world's leading manufacturers of magnetic disks for hard disk drives, such as Hitachi Global Storage Technologies, Komag, Maxtor and Seagate Technology. We believe the rapid growth of digital data, the transition from videocassette recorders to digital video recorders and the growth of new consumer applications, such as personal video recorders, video game consoles and MP3 players, along with new technology advances in the industry, will provide us with a significant growth opportunity.

Our Imaging business develops and manufactures electro-optical sensors, cameras, and systems that permit highly

sensitive detection of photons in the visible and near infrared portions of the spectrum, allowing vision in extreme low light situations. We currently develop night-vision technology and equipment for military and commercial applications. To date, our revenues have been derived primarily from research and development contracts funded by the U.S. government. Applications for our imaging technology include sensors and cameras for use in extreme low light situations and systems for positive identification of targets at long range. More recently, we began developing products for use in the commercial sector, specifically the security, life science and physical science markets.

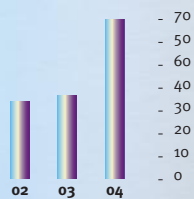
### FORWARD LOOKING STATEMENTS

This annual shareholder letter comments upon future events and expectations and makes projections about our future performance, including statements related to projected market size, market share, product plans, 2005 Lean gross margins, sensor and camera costs, future orders, technology trends, capabilities and features of our products, projected demand for our products, outlook and priorities. We wish to caution you that these are forward looking statements that are based upon our current expectations, and that actual results could differ materially as a result of various risks and uncertainties, including, without limitation, the following: inability to develop and deliver new products as planned, such as cameras for military and commercial markets; inability to accurately forecast and develop new markets for our products; inability to achieve significant growth in 2005 equipment revenues, inability to reduce costs on our products as planned, the timing of the introduction of perpendicular technology, and the rate of growth in the market for hard disk drives, each of which could have a material impact on our business, our financial results and our stock price. These risks and other factors are detailed in our regular filings with the U.S. Securities and Exchange Commission, including our Annual Report on Form 10-K, which should be read together with this letter. Intevac undertakes no obligation to update these forward-looking statements.

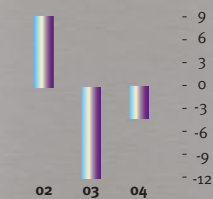
## LETTER TO OUR SHAREHOLDERS

# RESULTS

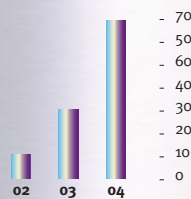
REVENUE (\$ Millions)



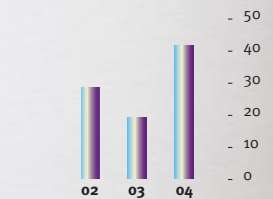
NET INCOME/LOSS (\$ Millions)



NET WORTH (\$ Millions)



CASH & SHORT TERM INVESTMENTS (\$ Millions)



**2004** was an exciting year for Intevac with annual revenue growing by 92% to \$70 million. Revenue growth was driven by the initial production deployment of our next-generation magnetic media sputtering system, the Intevac® 200 Lean. We believe the total market opportunity for systems like the 200 Lean is in excess of one billion dollars over the next three to five years as the hard drive industry adds capacity to meet market growth and retools the installed base to support transition to next generation magnetic media technology.

The major achievement of the year in our Imaging business was the selection of our extreme low-light camera for the first large-scale deployment of a military head-mounted night-vision video system. We expect deployment of these systems to the armed forces of a NATO country to begin in 2006.

Net loss was \$4.3 million, significantly lower than the \$12.2 million in 2003 as a result of improved financial performance in our Equipment business and an increase in net interest income. The increase in interest income related to conversion of our convertible notes to equity in late 2003 and cash received from our secondary offering early in 2004. Our gross margin of 23% was depressed due to high initial costs associated with production and installation of the first batch of 200 Lean systems. We spent the latter half of 2004 refining our 200 Lean production methods and completing a number of product cost reduction programs. We are now ready to quickly respond to market demand and expect to achieve significantly higher gross margins on 2005 shipments of our 200 Lean.

We raised \$42 million in cash in a secondary offering early in 2004 and exited the year with a solid balance sheet including \$50 million of cash and investments, no debt and no intangibles.

## EQUIPMENT

The major achievement of our Equipment group was the rapid introduction and ramp of the Intevac® 200 Lean, our next-generation magnetic media sputtering system. After delivering the first 200 Lean to our customer's R & D facility in December 2003, we completed delivery of nine production systems during the second quarter of 2004. Our customer rapidly ramped these systems into high volume production during the third quarter of 2005. We also started qualification of the 200 Lean at a second large customer during the second quarter of 2004, which we hope will lead to further production system orders in 2005.

The 200 Lean provides significantly enhanced capabilities relative to our installed base of approximately 105 MDP-250 systems. The 200 Lean provides higher throughput from a smaller footprint in a flexible modular system, which enables more magnetic disks to be manufactured per square foot of factory space. With the 12 200 Leans delivered as of the end of 2004, we believe that Intevac systems now represent approximately 60% of the installed capacity of magnetic disk sputtering systems worldwide.



## IMAGING

Late in 2004 we began shipping our Night Vista® cameras to multiple customers. The NightVista is a day/night video camera using our unique extreme low-light CMOS based sensor. It offers VGA resolution, is extremely compact with a camera body the size of a two-inch cube and is easily integrated with other technologies. We plan to introduce higher performance versions of the NightVista during 2005.

We also introduced our Model 400 LIVAR® camera in 2004. The Model 400 is a standalone LIVAR camera that we sell to developers of long-range imaging systems. The Model 400 benefited from extensive cost reduction and is priced at approximately one-third the price of the camera it replaced, the Model 120. This enables LIVAR deployment into larger, more cost sensitive programs. As our customers complete their product development programs, we expect them to become volume purchasers of LIVAR cameras.

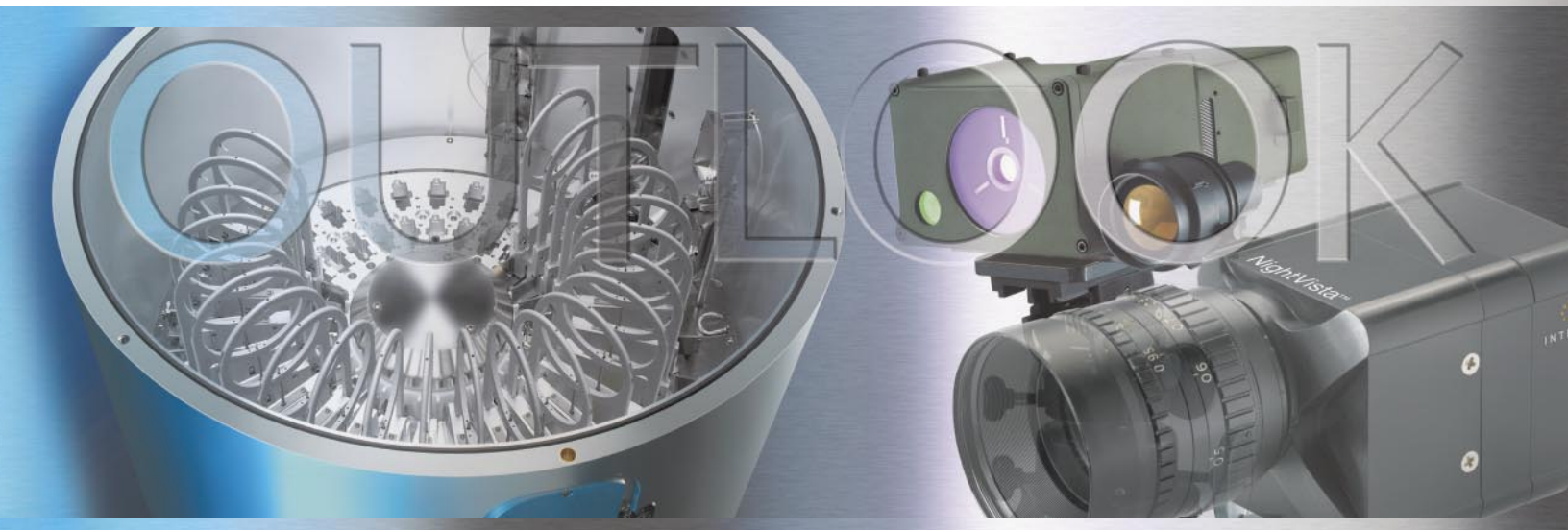


Demand for hard disk drives is robust and projected to increase 13% per year to 429 million units in 2007, according to TrendFocus. This growth is mainly driven by the introduction of consumer products using hard drives, such as digital video recorders and music players. Mobile consumer applications are also leading to the emergence of small form factor drives utilizing disks that are an inch or less in diameter. These trends all create demand for more disks and more manufacturing systems, such as our 200 Lean.

A technology transition is also looming that will further drive demand for magnetic disk manufacturing systems. Currently, hard disk drive manufacturers use “longitudinal” media technology, where magnetic bits are recorded horizontally on the disk. In order to continue increasing the storage capacity of disks, hard disk manufacturers are expected to introduce “perpendicular” media technology, where magnetic bits will be recorded perpendicular to the surface of the disk. The first product utilizing this new media technology has been announced by a Japanese drive supplier with volume shipments expected to begin in 2005.

Perpendicular media production requires as many as twenty process steps, while most of the industry’s installed base of magnetic media sputtering systems can support only twelve process steps. Our 200 Lean addresses this need with flexible architecture that allows our customers to purchase a system with as many process steps as they need.

We believe our customers will purchase systems in 2005 for two reasons. First, they need to add additional production capacity to keep up with rising demand for hard disk drives. Second, they need to acquire production systems that will allow them to economically manufacture perpendicular media. We also expect that our customers will eventually need to replace the installed base of older style media sputtering systems, such as Intevac’s legacy MDP-250 system, to complete the transition from longitudinal to perpendicular recording over the next three to five years.



## IMAGING

The majority of our Imaging revenues in 2004, and in prior years, derived from contract research and development, rather than from the sale of standard products. In 2005 we expect Imaging focus to transition from technology development to product development and production.

A key activity for 2005 is to complete development of a camera for military head-mounted night-vision systems. We are designing a custom CMOS sensor for this camera to further enhance its performance and expect to enter pilot production in the latter part of 2005. First deployment of this camera will be by a NATO country. We intend to further develop this camera platform and are targeting the US Government and other NATO countries as potential customers. We believe the eventual market size will be large as armed forces transition from today’s bulky direct view night vision to video based products. Forecast International estimated the market size for legacy direct view night-vision products was approximately \$347 million in 2003.

We also will be working to expand distribution and sales of our NightVista line of commercial low-light cameras and are planning to introduce a low-light imaging camera to address the unique requirements of the physical sciences market.

As we transition to production we are focusing on establishing ourselves as the lowest cost producer of extreme low-light video sensors. Our strategy has three key elements; first to achieve economies of scale for all our cameras by securing large military production contracts, second to make use of proven wafer-level semiconductor manufacturing processes to drive low cost CMOS chips for our sensors, and third by use of an in-house developed, high productivity, ultra-high vacuum packaging system to sufficiently lower the cost of our sensors.

## EQUIPMENT

- Win the majority of orders for magnetic media sputtering equipment for capacity expansion and for advanced perpendicular-capable systems.
- Achieve our target gross margins for 200 Lean Systems and achieve significant profitability in the Equipment Division.
- Initiate component sourcing and sub module manufacturing at our facility in Singapore.
- Develop a new product based upon our technology and capabilities to address new market opportunities.

## IMAGING

- Complete development of an extreme-low-light sensor and associated camera electronics for the military head-mounted night vision market.
- Increase sales of our Model 400 LIVAR® and NightVista extreme low-light cameras.
- Production release a low cost wafer level silicon sensor manufacturing process for LIVAR® and extreme low light sensors.
- Continue to proliferate LIVAR® cameras into additional military programs.
- Introduce a low-light imaging camera to address the unique requirements of the physical sciences market.



## SUMMARY

After several difficult years, we are now positioned with uniquely differentiated products that address multiple large and growing markets. We have the right people to execute our business strategy and our solid balance sheet gives us a financial base from which to execute. Our thrust is now to sell this unique array of products to create a growing and profitable Intevac and bring value to our shareholders. We will continue to set clear and achievable priorities in order to pursue the many opportunities we have identified, and we are looking forward to realizing these opportunities in 2005.

Finally, I would like to express my sincere appreciation and thanks to all Intevac employees for their commitment, hard work, and creativity, and I would also like to thank our customers and shareholders for their continuing support.

*Kevin Fairbairn*

Kevin P. Fairbairn

*President and Chief Executive Officer*

# CORPORATE INFORMATION

## CORPORATE HEADQUARTERS

3560 BASSETT STREET  
SANTA CLARA, CA 95054-2704  
408-986-9888

## INVESTOR INFORMATION

THE COMPANY'S ANNUAL REPORT, ITS 10-K AND 10-Q REPORTS TO THE SEC, AND OTHER INFORMATION ABOUT INTEVAC, INC. ARE AVAILABLE AT [WWW.INTEVAC.COM](http://WWW.INTEVAC.COM) AND BY PHONE AT (408) 987-2500 OR BY E-MAIL TO [STHOMPSON@INTEVAC.COM](mailto:STHOMPSON@INTEVAC.COM).

## INVESTOR RELATIONS CONTACT

CHARLES B. EDDY  
(408) 986-9888

EUGENE HELLER, SILVERMAN HELLER ASSOCIATES  
(310) 208-2550

## REGISTRAR AND TRANSFER AGENT

EQUISERVE TRUST COMPANY, N.A.  
P.O. BOX 43023  
PROVIDENCE, RI 02940-3023  
TEL: 1-816-843-4299  
[WWW.EQUISERVE.COM](http://WWW.EQUISERVE.COM)

## INDEPENDENT AUDITORS

GRANT THORNTON LLP  
150 ALMADEN BLVD.  
SUITE 600  
SAN JOSE, CA 95113

## GENERAL COUNSEL

WILSON SONSINI GOODRICH & ROSATI  
650 PAGE MILL ROAD  
PALO ALTO, CA 94304-1050

## COMMON STOCK

THE COMPANY'S COMMON STOCK TRADES ON THE NASDAQ NATIONAL MARKET® TIER OF THE NASDAQ STOCK MARKET® UNDER THE SYMBOL IVAC.

## STOCK PRICE HISTORY

CLOSING PRICES FOR THE QUARTER ENDED:

	3/26/04	6/25/04	9/24/04	12/31/04
HIGH	\$18.31	\$11.97	\$9.78	\$8.00
LOW	\$ 9.48	\$ 8.15	\$3.84	\$4.80

## OFFICERS

VERLE W. AEBI (1991)  
PRESIDENT, PHOTONICS TECHNOLOGY DIVISION

JAMES BIRT (2004)  
VICE PRESIDENT, CUSTOMER SUPPORT, EQUIPMENT

TERRY BLUCK (2004)  
VICE PRESIDENT, TECHNOLOGY, EQUIPMENT

CHARLES B. EDDY (1991)  
VICE PRESIDENT, FINANCE AND ADMINISTRATION,  
CHIEF FINANCIAL OFFICER, TREASURER AND SECRETARY

KEVIN P. FAIRBAIRN (2002)  
CHIEF EXECUTIVE OFFICER AND PRESIDENT

TIMOTHY E. JUSTYN (1991)  
VICE PRESIDENT, MANUFACTURING, EQUIPMENT

RALPH KERNS (2003)  
VICE PRESIDENT, BUSINESS DEVELOPMENT, EQUIPMENT

CHRISTOPHER T. LANE (2002)  
VICE PRESIDENT, GENERAL MANAGER, COMMERCIAL IMAGING

LUKE MARUSIAK (2004)  
CHIEF OPERATING OFFICER

ROBERT WEISS (1991)  
VICE PRESIDENT, CHIEF TECHNOLOGY OFFICER, EQUIPMENT

() INDICATES YEAR JOINED INTEVAC

## BOARD OF DIRECTORS

DAVID S. DURY (2002)<sup>1,3,4</sup>  
CO-FOUNDER MENTOR CAPITAL GROUP LLC

KEVIN P. FAIRBAIRN (2002)  
CHIEF EXECUTIVE OFFICER AND PRESIDENT

STANLEY J. HILL (2004)<sup>3</sup>  
RETIRED CHAIRMAN AND CHIEF EXECUTIVE OFFICER OF  
KAISER AEROSPACE & ELECTRONICS CORPORATION

DAVID N. LAMBETH (1996)<sup>2</sup>  
PROFESSOR OF ELECTRICAL AND COMPUTER ENGINEERING,  
AND PROFESSOR OF MATERIALS SCIENCE AND ENGINEERING  
AT CARNEGIE MELLON UNIVERSITY

ROBERT LEMOS (2002)<sup>1,2</sup>  
RETIRED  
FORMER CHIEF FINANCIAL OFFICER, VARIAN ASSOCIATES

ARTHUR L. MONEY (2003)<sup>1</sup>  
FORMER ASSISTANT SECRETARY OF DEFENSE (ASD/C31)  
FOR COMMAND, CONTROL, COMMUNICATIONS  
AND INTELLIGENCE

NORMAN H. POND (1990)  
CHAIRMAN

<sup>1</sup> MEMBER OF THE AUDIT COMMITTEE

<sup>2</sup> MEMBER OF THE COMPENSATION COMMITTEE

<sup>3</sup> MEMBER OF THE NOMINATING AND GOVERNANCE COMMITTEE

<sup>4</sup> LEAD INDEPENDENT DIRECTOR

() INDICATES YEAR JOINED BOARD OF DIRECTORS

**Intevac, Inc.**  
3560 Bassett Street  
Santa Clara, CA 95054  
Telephone: 408/986-9888  
[www.intevac.com](http://www.intevac.com)

**Intevac Asia Pte., Ltd.**  
25 Tagore Lane  
#03-07  
Singapore 787602  
Telephone: 65-64545-330  
Fax: 65-64545-373