INTEVAC INC Form 10-K March 17, 2008

# SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

#### Form 10-K

(Mark One)

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 2007 or
  TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIE
  - oTRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIESEXCHANGE ACT OF 1934For the transition period fromto

Commission file number 0-26946

INTEVAC, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

94-3125814

(I.R.S. Employer Identification No.)

3560 Bassett Street

Santa Clara, California 95054 (Address of principal executive office, including Zip Code) Registrant s telephone number, including area code: (408) 986-9888 Securities registered pursuant to Section 12(b) of the Act:

**Title of Each Class** 

Name of Each Exchange on Which Registered

Common Stock (\$0.001 par value)

The Nasdaq Stock Market LLC (NASDAQ Global Select)

Securities registered pursuant to Section 12(g) of the Act:

None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. o Yes b No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. o Yes b No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. b Yes o No

Indicate by a check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer þ	Non-accelerated filer o	Smaller reporting
		(Do not check if a smaller reporting	company o
		company)	

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). o Yes b No

The aggregate market value of voting stock held by non-affiliates of the Registrant, as of June 30, 2007 was approximately \$356,923,914 (based on the closing price for shares of the Registrant s Common Stock as reported by the Nasdaq Stock Market for the last trading day prior to that date). Shares of Common Stock held by each executive officer, director, and holder of 5% or more of the outstanding Common Stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

On March 7, 2008, 21,676,698 shares of the Registrant s Common Stock, \$0.001 par value, were outstanding.

# DOCUMENTS INCORPORATED BY REFERENCE.

Portions of the Registrant s Proxy Statement for the 2008 Annual Meeting of Stockholders are incorporated by reference into Part III. Such proxy statement will be filed within 120 days after the end of the fiscal year covered by this Annual Report on Form 10-K.

Except for historical information contained in this Form 10-K, certain statements set forth herein, including statements regarding growth in industry shipments of hard disk drives; trends in semiconductor manufacturing equipment including line width dimensions, wafer size and market size; timing of shipment and revenue recognition for our new semiconductor equipment products; projected growth in Imaging Instrumentation product sales as a percentage of Imaging Instrumentation revenues; timing of volume production for our night-vision sensor modules for rifle sights and our LIVAR<sup>®</sup> cameras; the expectation that a significant portion of our revenue will continue to be concentrated with a small number of international customers; continued government and internal funding for

development of Digital Enhanced Night Vision Goggles; the estimated cost of compliance with environmental regulations; projected reduction in new 200 Lean<sup>®</sup> shipments in 2008 relative to 2007; expected fluctuations in our quarterly and annual revenues and operating margins; and our expectation that we will continue to retain our earnings, rather then paying dividends are forward-looking statements that are dependant on certain risks and uncertainties including such factors, among others, as hard disk drive industry conditions; our ability to forecast and meet the equipment needs of semiconductor manufacturers and deliver our Lean Etch systems as planned; our ability to design and market new Imaging Instrumentation products and sell increasing levels of those products to military and commercial customers; our ability to continue to rate external funding and provide internal funding for development of our Imaging Instrumentation products; our ability to maintain compliance with environmental regulations on a cost-effective basis; our ability to cost-effectively manage significant fluctuations in our business levels from quarter to quarter and other factors described below. Therefore, actual outcomes and result may differ materially from what is expressed or forecast in such forward-looking statements. Words such as expect , anticipate , intend , plan , believe , seek , estimate and variations of such words and similar expressions are intended to identify forward looking statements. See Risk Factors in the Business section of this Annual Report on Form 10-K for a more thorough list of potential risks and uncertainties.

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# PART I

#### Item 1. Business

#### Overview

Intevac s business consists of two reportable segments:

*Equipment:* Intevac is a leader in the design, manufacture and marketing of high-productivity lean manufacturing systems and has been producing Lean Thinking platforms since 1994. We are the leading supplier of magnetic media sputtering equipment to the hard disk drive industry and offer leading-edge, high-productivity etch systems to the semiconductor industry.

*Imaging Instrumentation:* Intevac is a leader in the development of compact, cost-effective, high-sensitivity digital-optical products for the capture and display of low-light images and the optical analysis of materials. We provide sensors, cameras and systems for commercial applications in the inspection, medical, scientific and security industries and for government applications such as night vision and long-range target identification.

Intevac was incorporated in October 1990 in California and completed a leveraged buyout of a number of divisions of Varian Associates in February 1991. Intevac was reincorporated in Delaware in 2007. Our principal executive offices are located at 3560 Bassett Street, Santa Clara, California 95054, and our phone number is (408) 986-9888.

#### **Equipment Segment**

#### Hard Disk Drive Equipment Market

We design, manufacture, market and service complex capital equipment used to deposit, or sputter, thin films of material onto magnetic disks that are used in hard disk drives, and also equipment to lubricate these disks. Disk and disk drive manufacturers produce magnetic disks in a sophisticated manufacturing process involving many steps, including plating, annealing, polishing, texturing, sputtering and lubrication. We believe our systems represent approximately 60% of the installed capacity of disk sputtering systems worldwide. Our systems are used by manufacturers such as Fuji Electric, Hitachi Global Storage Technologies, Seagate Technology and Western Digital.

Hard disk drives are a primary storage medium for digital data and are used in products and applications such as personal computers, enterprise data storage, streaming video, personal audio and video players and video game platforms. We believe that hard disk drive shipments will continue to grow, driven by these products, by other new and emerging applications, by the proliferation of personal computers into emerging markets in Asia and Eastern Europe and by technology advances in the industry. As a result of these and other factors, TrendFocus has projected that hard disk drive unit shipments will increase from 435 million units in 2006 to 785 million units in 2011, equivalent to a 12.5% cumulative annual growth rate. Continued growth in hard disk drive shipments is a key factor in determining demand for magnetic disks used in hard disk drives. TrendFocus also has projected that unit shipments of magnetic disks for hard disk drives will increase from 786 million units in 2006 to 1.2 billion units in 2011, equivalent to a 9.3% cumulative annual growth rate.

Demand for our disk manufacturing products is driven by a number of factors, including demand for hard disk drives, market share, the average number of magnetic disks used in each hard drive, utilization and productivity of disk manufacturers installed base of magnetic disk manufacturing equipment, and obsolescence of the installed base as new recording technologies are introduced. The introduction of perpendicular recording technology by disk manufacturers in recent years had a significant impact on the equipment market, and has increased demand both for new equipment, such as our 200 Lean<sup>®</sup> disk sputtering system, and for technology upgrades to the installed base of our legacy MDP-250 systems. However, in 2007, relative to 2006, shipments of new systems declined, while technology upgrades became a larger percentage of our Equipment revenues.

# Hard Disk Drive Equipment Products

# Disk Sputtering Systems

The 200 Lean is our latest generation disk sputtering system. The first 200 Lean shipped in late 2003, and the installed base totaled 110 systems as of the end of 2007. We believe approximately 90% of these systems are used in production, and the balance are used in research and development. The 200 Lean was designed to provide enhanced capabilities relative to our MDP-250 system and to lower overall cost of ownership for disk manufacturers. The 200 Lean provides higher disk throughput from a smaller footprint, which enables more disks to be manufactured per square-foot of factory floor space. The 200 Lean s modular architecture enables our customers to incorporate any number of disk manufacturing process steps required by their evolving technology roadmaps. Most 200 Leans have been delivered with the capability to perform up to 20 process steps versus the 12 process step maximum on the MDP-250. The 200 Lean also allows rapid reconfiguration to accommodate varying process recipes, disk sizes and disk materials.

We shipped approximately 110 of our previous generation MDP-250 disk sputtering systems from 1994 through 2005. We believe approximately 65% of these systems were still being used for production as of the end of 2007 and that the balance were in storage, in use in research and development or permanently retired from service.

# Disk Lubrication Systems

Disk lubrication is the manufacturing step that immediately follows deposition of magnetic films. During lubrication, a microscopic layer of lubricant is applied to the disk s surface to improve durability and reduce surface friction between the disk and the read/write head assembly.

The Intevac AccuLuber<sup>tm</sup> disk lubrication system lubricates disks by depositing a thin film of lubricant on the disk while it is under vacuum. This eliminates the use of large amounts of solvents during the lubrication process, which are environmentally hazardous and are expensive to procure, store and dispose of. The AccuLuber s vapor process capability creates a uniform lubricant coating, and two lubricating process chambers provide high throughput and

redundancy. The first AccuLuber was shipped and accepted by the customer during 2007, and production units are expected to begin shipping in 2008.

The Intevac DLS-100 disk lubrication system provides our customers with an alternate lubrication process by dipping disks into a lubricant/solvent mixture. Intevac has been manufacturing dip lubrication systems similar to the DLS-100 since 1996.

#### Non-Systems Business

We also provide installation, maintenance and repair services, technology upgrades, spare parts and consumables to our system customers. An increased level of technology upgrades caused non-systems business to increase significantly from 2006 to 2007, both in absolute terms and as a percentage of Equipment revenues.

# Semiconductor Equipment Market

A wide range of manufacturing equipment is used to fabricate semiconductor chips including: atomic layer deposition (ALD), chemical vapor deposition (CVD), physical vapor deposition (PVD), electrochemical plating (ECP), etch, i implantation, rapid thermal processing (RTP), chemical mechanical planarization (CMP), wafer wet cleaning, wafer metrology and inspection, and systems that etch, measure and inspect circuit patterns on masks used in the photolithography process.

Most chips are built on a silicon wafer base and include a variety of circuit components, such as transistors and other devices, that are connected by multiple layers of wiring (interconnects). To build a chip, the transistors, capacitors and other circuit components are first created on the surface of the wafer by performing a series of processes to deposit and selectively remove successive film layers. Similar processes are then used to build the layers of wiring structures on the wafer.

Most chips are currently fabricated using 65 nanometer (nm) and larger linewidth dimensions. Over time, we believe the 45 nm, and then 32 nm, are likely to be the next line width nodes to be implemented as manufacturers work to squeeze more and more components onto each chip. As the density of the circuit components increases to enable greater computing power in the same or smaller area, the complexity of building the chip also increases, necessitating more process steps to form smaller structures and more intricate wiring schemes.

Over time, the semiconductor industry has also migrated to increasingly larger wafers to build chips. The predominant wafer size used for volume production today is 200 millimeter (mm), or eight-inch, wafers, but a substantial number of advanced fabrications now use 300mm, or 12-inch, wafers to gain the economic advantages of a larger surface area. The majority of new fabrication capacity is 300mm.

We are utilizing our expertise in the design, manufacturing, marketing and support of complex manufacturing equipment and the prior experience of our management team in the semiconductor manufacturing equipment business to develop products for the semiconductor manufacturing market, which we believe is substantially larger than the hard disk drive equipment market that we currently serve.

# Semiconductor Manufacturing Products

We announced our new etch semiconductor manufacturing system, the Lean Etch<sup>tm</sup>, during 2007. The Lean Etch is a 300 mm system designed to address the need for significant productivity improvement and provide enabling etch technology at 45 nanometer nodes and below. We plan to deliver evaluation systems to customers during 2008 and begin production shipments during 2009. We do not expect to recognize any revenue from Lean Etch shipments until 2009.

# **Imaging Instrumentation Segment**

#### Imaging Instrumentation Market

We develop, manufacture and sell compact, cost-effective, high-sensitivity digital-optical products for the capture and display of low-light images and the optical analysis of materials. We provide sensors, cameras and systems for commercial applications in the inspection, medical, scientific and security industries and for government applications such as night vision and long-range target identification. The majority of our imaging revenue has historically been derived from contracts related to the development of electro-optical sensors, cameras and systems and funded by the U.S. Government, its agencies and contractors. However, the percentage of Imaging Instrumentation revenue derived from product sales grew from 15% in 2006 to 27% in 2007 and is expected to continue to increase in 2008.

# **Imaging Instrumentation Products**

*Raman Spectrometers* On January 31, 2007, we completed an acquisition of the assets and certain liabilities of DeltaNu, LLC, a Laramie, Wyoming company that pioneered development of miniature Raman spectrometer systems. Raman spectrometer systems are used to identify materials by illuminating the material with a laser and measuring the characteristic spectrum of light scattered from the material. The process enables real-time, non-destructive identification of liquids and solids outside of the laboratory, and is well suited to applications such as hazmat, forensics, homeland security, geology, gemology, medical, pharmaceutical and industrial quality assurance. DeltaNu s products include the Advantage Series of low-cost, high-performance bench-top spectrometers, the Inspector series of hand-held field analysis spectrometers, the ExamineR<sup>tm</sup> high-performance Raman microscope, and a new series of near-infrared Raman instruments which incorporate our core technology in near-infrared sensors into the Advantage and ExamineR product lines.

*Near Infrared Cameras* Our MOSIR line of cameras provide previously unavailable high sensitivity in the near infrared portion of the spectrum and are well suited for low-light spectroscopy, physical science, life science and industrial applications within the commercial imaging market.

*Near-Eye Display Systems* On November 9, 2007, we completed an acquisition of the assets and certain liabilities of Creative Display Systems, LLC, (CDS) a Carlsbad, California company that specializes in high-performance, micro-display products for near-eye and portable viewing of video in defense and commercial markets. CDS s portfolio of intellectual property includes key patent applications relating to CDS s innovative eyeglass-mounted display systems, which provide high definition and a wide field-of-view in miniaturized light-weight and portable designs.

*Low-Light Cameras* Our CMOS-based cameras include our NightVista line of day/night digital video cameras for low light level surveillance applications and our MicroVista<sup>®</sup> line of cameras for microscopy, medical imaging, and inspection applications between wavelengths of 200 and 1100 nanometers.

*Night Vision Rifle Sights* In 2007, we completed development and began pilot production of night vision sensor modules for use in a digital rifle-sight system by the military of a NATO country. We expect to begin volume production deliveries during 2008.

*Head Mounted Night Vision Systems* The U.S. military has funded development of various night vision technologies at multiple companies, which has evolved to today s widely deployed Generation-III night vision tubes. The U.S. military is now funding development of a compact head mounted digital imaging system, or Digital Enhanced Night Vision Goggle (DENVG). DENVG integrates a visible imager, an infrared imager and a video display. This approach allows low light and infrared imagery to be viewed individually, or to be overlaid (digitally fused), and also enables connectivity to a wireless network for distribution of the imagery and other information. The U.S. Army plans to begin production of this type of system in 2011. During 2007, we completed joint development, with DRS Technologies, Inc. (DRS), of a prototype DENVG night vision goggle for the U.S. Army. The prototype used our low-light night vision sensors in combination with a DRS thermal imaging sensor. We have delivered multiple prototype units and have completed extensive field testing with the Army. We expect to continue funded development of DENVG technology during 2008, and we expect to deliver enhanced-performance prototypes for field testing within the year.

*Long-Range Target Identification* Current long-range military nighttime surveillance systems are based on expensive thermal imaging camera systems. These systems are relatively large, which is a disadvantage for airborne and portable applications. Accordingly, there is a need for a cost-effective, compact, long-range imaging solution that identifies targets at a distance greater than an adversary s detection range capability. Our Laser Illuminated Viewing and

Ranging (  $LIVA\mathbb{R}$  ) system can be used to identify targets at distances of up to twenty kilometers and has been incorporated into U.S. weapons development programs, such as the Airborne Laser, the Cost Effective Targeting System, and the Long-Range Identification System programs. We expect to deliver pre-production LIVAR cameras for both land-based and airborne applications during 2008, and we expect initial production deliveries to commence in late 2008.

*Intensified Photodiodes* We have developed, under a number of research and development contracts, intensified photodiode technology that enables single photon detection at extremely high data rates, which is designed for use in target identification and other military applications.

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# Backlog

Our backlog of orders at December 31, 2007 was \$34.2 million, as compared to a December 31, 2006 backlog of \$125.0 million. The \$34.2 million of backlog at December 31, 2007 consisted of \$28.4 million of Equipment backlog and \$5.8 million of Imaging Instrumentation backlog. The \$125.0 million of backlog at December 31, 2006 consisted of \$119.4 million of Equipment backlog and \$5.6 million of Imaging Instrumentation backlog. The decrease in Equipment backlog was primarily the result of reduced orders for 200 Lean disk sputtering systems. Backlog at December 31, 2007 includes two 200 Lean systems, as compared to twenty-four 200 Lean systems in backlog at December 31, 2006. Backlog includes only customer orders with scheduled delivery dates that are not subject to any customer contingencies.

# **Customer Concentration**

Historically, a significant portion of our revenue in any particular period has been attributable to sales to a small number of customers. In 2007, Seagate; Matsubo, our Japanese equipment distributor; Fuji Electric and Hitachi Global Storage Technology each accounted for more than 10% of our revenues, and in aggregate accounted for 90% of revenues. In 2006, Seagate, Matsubo, and Hitachi Global Storage Technology each accounted for 93% of revenues. In 2005, Seagate, Matsubo, Hitachi Global Storage Technology and Maxtor each accounted for more than 10% of our revenues, and in aggregate accounted for more than 10% of our revenues, and in aggregate accounted for 93% of revenues. In 2005, Seagate, Matsubo, Hitachi Global Storage Technology and Maxtor each accounted for more than 10% of our revenues, and in aggregate accounted for 90% of revenues. We expect that sales of our products to relatively few customers will continue to account for a high percentage of our revenues in the foreseeable future.

Foreign sales accounted for 82% of revenue in 2007, 90% of revenue in 2006 and 71% of revenues in 2005. The majority of our foreign sales are to companies in Asia or to U.S. companies for use in their Asian manufacturing or development operations. We anticipate that sales to these international customers will continue to be a significant portion of our Equipment revenues. Our disk sputtering equipment customers include magnetic disk manufacturers, such as Fuji Electric, and vertically integrated hard disk drive manufacturers, such as Hitachi Global Storage Technology and Seagate. Our customers manufacturing facilities are primarily located in California, China, Japan, Malaysia and Singapore.

Our Equipment customers businesses tend to be cyclical, with their peak sales occurring during the second half of the year. As a result, our customers have a tendency to order equipment for delivery and installation by midyear, so that they have new capacity in place for their peak production period. However, while this pattern applied during 2007, during both 2005 and 2006 our customers were capacity constrained, demand did not follow normal seasonal patterns, and we realized our highest revenues during the fourth fiscal quarter.

# Competition

The principal competitive factors affecting the markets for our equipment products include price, product performance and functionality, ease of integration, customer support and service, reputation and reliability. We have historically experienced intense competition worldwide for magnetic disk sputtering equipment from competitors including Anelva Corporation, Ulvac and Oerlikon, (formerly Unaxis Holdings, Ltd.), each of which has sold substantial numbers of systems worldwide. In addition, as we enter the semiconductor equipment market, we anticipate that we will experience competitors from competitors such as Applied Materials, LAM Research and Tokyo Electron, Ltd. Our Equipment competitors all have substantially greater financial, technical, marketing, manufacturing and other resources than we do. There can be no assurance that any of our competitors will not develop enhancements to, or future generations of, competitive products that offer superior price or performance features, or that new competitors will not enter our markets and develop such enhanced products.

The principal competitive factors affecting our Imaging Instrumentation products include price, extreme low light level sensitivity, power consumption, resolution, size, ease of integration, reliability, reputation and customer support and service. We face substantial competition for our Imaging Instrumentation products, and many of our competitors have greater resources than we do. In the military market, ITT Industries, Inc. and Northrop Grumman Corporation, who are large and well-established defense contractors, are the primary U.S. manufacturers of image intensifier tubes used in Generation-III night vision devices and their derivative products. Our low-light digital cameras are intended to displace Generation-III night vision based products. We expect that ITT, Northrop

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Grumman, BAE and other companies will develop digital night vision products and aggressively promote their sales. Furthermore, CMC Electronics, DRS, FLIR Systems and Raytheon manufacture cooled infrared sensors and cameras which are presently used in long-range target identification systems, and with which our LIVAR target identification sensors and cameras compete. In the commercial markets, companies such as Andor, E2V, Goodrich, Hamamatsu, Texas Instruments and Roper Scientific offer competitive sensor and camera products, and companies such as Ahura, B&W Tek, Horiba Jobin Yvon, InPhotonics, Ocean Optics, Renishaw and Smiths Detection offer competitive portable Raman spectrometer products.

# **Marketing and Sales**

Equipment sales are made through our direct sales force, with the exception of in Japan and Malaysia, where we sell our products through our distributor, Matsubo. The selling process for our Equipment products is multi-level and long-term, involving individuals from marketing, engineering, operations, customer service and senior management. The process involves making sample disks or wafers for the prospective customer and responding to their needs for moderate levels of machine customization. Customers often require a significant number of product presentations and demonstrations before making a purchasing decision.

Installing and integrating new equipment requires a substantial investment by a customer. Sales of our systems depend, in significant part, upon the decision of a prospective customer to replace obsolete equipment or to increase manufacturing capacity by upgrading or expanding existing manufacturing facilities or by constructing new manufacturing facilities, all of which typically involve a significant capital commitment. After making a decision to select our equipment, our customers typically purchase one or more engineering systems to develop and qualify their production process prior to ordering and taking delivery of multiple production systems. Accordingly, our systems have a lengthy sales cycle, during which we may expend substantial funds and management time and effort with no assurance that a sale will result.

The production of large complex systems requires us to make significant investments in inventory both to fulfill customer orders and to maintain adequate supplies of spare parts to service previously shipped systems. In some cases we manufacture subsystems and/or complete systems prior to receipt of a customer order to smooth our production flow and/or reduce our lead time. We maintain inventories of spare parts in California, Singapore and Shenzhen, China to support our customers. We often require our customers to pay for systems in three installments, with a portion of the system price billed upon receipt of an order, a portion of the price billed upon shipment, and the balance of the price and any sales tax due upon completing installation and acceptance of the system at the customer s factory. All customer product payments are recorded as customer advances, which are released into revenue in accordance with our revenue recognition policy.

We provide process and applications support, customer training, installation, start-up assistance and emergency service support to our equipment customers. We conduct training classes for our customers process engineers, machine operators and machine service personnel. Additional training is also given to our customers during equipment installation. We have field offices in Singapore, China, Korea, Malaysia and Japan to support our customers in Asia. We generally add additional support centers as necessary to maintain close proximity to our customers factories as they deploy our systems.

Warranty for our equipment typically ranges between 12 and 24 months from customer acceptance. During this warranty period any necessary non-consumable parts are supplied and installed without charge. Our employees provide field service support in the United States, Singapore, Malaysia, China and Japan. In Japan, field service support is also supplemented by our distributor, Matsubo.

Sales of our Imaging Instrumentation products for military applications are primarily made to the end user through our direct sales force. In cases where our products are enabling technology for more complex systems, we also sell to leading defense contractors such as Boeing, Lockheed Martin Corporation, Northrop Grumman Corporation, Raytheon, DRS Technologies and Sagem.

We are subject to long sales cycles in our Imaging Instrumentation segment because many of our products, such as our night vision systems, typically must be designed into our customers products, which are often complex and state-of-the-art. These development cycles are often multi-year, and our sales are contingent on our customer successfully integrating our product into its product, completing development of its product and then obtaining

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production orders for its product. Sales of these products are also often dependent on ongoing funding of defense programs by the U.S. government and its allies. Additionally, sales to international customers are subject to issuance of export licenses by the United States government, which cannot always be obtained.

Sales of our commercial Imaging Instrumentation products are made through a combination of direct sales, system integrators, distributors and value added resellers and can also be subject to long sales cycles.

Imaging Instrumentation generally invoices its research and development customers either as costs are incurred, or as program milestones are achieved, depending upon the particular contract terms. As a government contractor, we invoice customers using estimated annual rates approved by the Defense Contracts Audit Agency (DCAA). A majority of our contracts are Cost Plus Fixed Fee (CPFF) contracts. On any CPFF contract, 15% of the fee is withheld pending completion of the program and DCAA s annual audit of our actual rates. The withheld portion of the fee is included in revenue and in unbilled accounts receivable until paid.

# **Research and Development and Intellectual Property**

Our long-term growth strategy requires continued development of new products. We work closely with our global customers to design products that meet their planned technical and production requirements. Product development and engineering organizations are located primarily in the United States and Singapore.

We invested \$40.1 million (18.6% of net sales) for fiscal 2007, \$30.0 million (11.6% of net sales) for fiscal 2006, and \$14.4 million (10.5% of net sales) for fiscal 2005 for product development and engineering programs to create new products and to improve existing technologies and products. We have spent an average of 15.0% of net sales on product development and engineering over the last five years.

We believe our competitive position significantly depends on our research, development, engineering, manufacturing and marketing capabilities, and not just on our patent position. However, protection of Intevac s technological assets by obtaining and enforcing intellectual property rights, including patents, is important. Therefore, our practice is to file patent applications in the United States and other countries for inventions that we consider important. We have a substantial number of patents in the United States and other countries, and additional applications are pending for new inventions. Although we do not consider our business materially dependent upon any one patent, the rights of Intevac and the products made and sold under our patents along with other intellectual property, including trademarks, know-how, trade secrets and copyrights, taken as a whole, are a significant element of our business.

We enter into patent and technology licensing agreements with other companies when management determines that it is in our best interest to do so. We pay royalties under existing patent license agreements for use, in several of our products, of certain patented technologies. We also receive, from time to time, royalties from licenses granted to third parties. Royalties received from or paid to third parties have not been, and are not expected to be, material to our consolidated results of operations.

In the normal course of business, we periodically receive and make inquiries regarding possible patent infringement. In dealing with such inquiries, it may be necessary or useful for us to obtain or grant licenses or other rights. However, there can be no assurance that such licenses or rights will be available to us on commercially reasonable terms, or at all. If we are not able to resolve or settle claims, obtain necessary licenses and/or successfully prosecute or defend our position, our business, financial condition and results of operations could be materially and adversely effected.

# Manufacturing

We manufacture our Equipment products at our facilities in California and Singapore. Our Equipment manufacturing operations include electromechanical assembly, mechanical and vacuum assembly, fabrication of sputter sources, and system assembly, alignment and testing. We make extensive use of the local supplier infrastructure serving the semiconductor equipment business. We purchase vacuum pumps, valves, instrumentation and fittings, power supplies, printed wiring board assemblies, computers and control circuitry, and custom mechanical parts made by forging, machining and welding. We also have our own small fabrication center that supports our engineering departments and makes some of the machined parts used in our products.

We manufacture our Imaging Instrumentation products at our facilities in California and Wyoming. Imaging Instrumentation manufacturing includes production of advanced photo-cathodes and sensors, lasers, cameras, integrated camera systems, compact Raman spectrometry instruments and micro-displays. We make extensive use of advanced manufacturing techniques and equipment, and our operations include vacuum, electromechanical and optical system assembly. We make use of the supplier infrastructure serving the semiconductor, camera and optics manufacturing industries. In manufacturing our sensors, we purchase wafers, components, processing supplies and chemicals. In manufacturing our camera systems, we purchase printed circuit boards, electromechanical components and assemblies, mechanical components and enclosures, optical components and computers.

# **Employees**

At December 31, 2007, we had 480 employees, including 38 contract employees. Of these 480 employees, 141 were in research and development, 228 in operations, and 111 in administration, customer support and marketing. Of the 480 employees, 338 were in the Equipment segment, 101 were in the Imaging Instrumentation segment, and 41 were in Corporate.

#### **Compliance with Environmental Regulations**

We are subject to a variety of governmental regulations relating to the use, storage, discharge, handling, emission, generation, manufacture, treatment and disposal of toxic or otherwise hazardous substances, chemicals, materials or waste. We treat the cost of complying with government regulations and operating a safe workplace as a normal cost of business and allocate the cost of these activities to all functions, except where the cost can be isolated and charged to a specific function. The environmental standards and regulations promulgated by government agencies in Santa Clara, California, Fremont, California and Singapore are rigorous and set a high standard of compliance. We believe our costs of compliance with these regulations and standards are comparable to other companies operating similar facilities in Santa Clara, California, Fremont, California, Fremont, California and Singapore.

# **Executive Officers of the Registrant**

Certain information about our executive officers as of March 14, 2008 is listed below:

Name	Age	Position
Executive Officers:		
Norman H. Pond	69	Chairman of the Board
Kevin Fairbairn	54	President and Chief Executive Officer
Jeffrey Andreson	46	Vice President, Finance and Administration, Chief
		Financial Officer, Treasurer and Secretary
Michael Barnes	49	Vice President and Chief Technical Officer
Kimberly Burk	42	Sr. Director, Human Resources
Ralph Kerns	61	Vice President, Business Development, Equipment
-		Products
Luke Marusiak	45	Chief Operating Officer
Joseph Pietras	53	Vice President and General Manager, Imaging
_		Instrumentation
Other Key Officers:		
Verle Aebi	53	Chief Technology Officer, Imaging Instrumentation
James Birt	43	Vice President, Customer Support, Equipment Products

Terry Bluck Jerry Carollo

Keith Carron Timothy Justyn Dave Kelly

- 48 Vice President, Technology, Equipment Products
- 55 Vice President and General Manager, Creative Display Systems
- 49 Managing Director and General Manager, DeltaNu
- 45 Vice President, Manufacturing, Equipment Products
- 45 Vice President, Engineering, Imaging Instrumentation

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*Mr. Pond* is a founder of Intevac and has served as Chairman of the Board since February 1991. Mr. Pond served as President and Chief Executive Officer from February 1991 until July 2000 and again from September 2001 through January 2002. Mr. Pond holds a BS in physics from the University of Missouri at Rolla and an MS in physics from the University of California at Los Angeles.

*Mr. Fairbairn* joined Intevac as President and Chief Executive Officer in January 2002 and was appointed a director in February 2002. Before joining Intevac, Mr. Fairbairn was employed by Applied Materials from July 1985 to January 2002, most recently as Vice-President and General Manager of the Conductor Etch Organization with responsibility for the Silicon and Metal Etch Divisions. From 1996 to 1999, Mr. Fairbairn was General Manager of Applied Materials Plasma Enhanced Chemical Vapor Deposition Business Unit and from 1993 to 1996, he was General Manager of Applied Materials Plasma Silane CVD Product Business Unit. Mr. Fairbairn holds an MA in engineering sciences from Cambridge University.

*Mr. Andreson* joined Intevac in June 2007 and has served as Vice President, Finance and Administration, Chief Financial Officer, Treasurer and Secretary since August 2007. Before joining Intevac Mr. Andreson served as managing director and controller of Applied Materials, Inc. s Global Services product group. Since joining Applied Materials in 1995, Mr. Andreson held a number of senior financial positions, including managing director, Global Financial Planning and Analysis; Controller, Metron subsidiary; controller, North American Sales and Service; and Controller, Volume Manufacturing. From 1989 through 1995, Mr. Andreson held various roles at Measurex Corporation. Mr. Andreson holds an M.B.A. from Santa Clara University and a B.S. in Finance from San Jose State University.

*Dr. Barnes* joined Intevac as Vice President and Chief Technical Officer in February 2006. Before joining Intevac, Dr. Barnes was General Manager of the High Density Plasma Chemical Vapor Deposition Business Unit at Novellus Systems from March 2004 to February 2006. From January 2004 to March 2004, he was Vice President, Technology at Nanosys, and from August 2003 to January 2004, he was Vice President, Engineering at OnWafer Technologies. Dr. Barnes was employed by Applied Materials from April 1998 to August 2003, first as a Managing Director and subsequently as Vice President, Etch Engineering and Technology. Dr. Barnes holds a BS, MS and PhD in electrical engineering from the University of Michigan.

*Ms. Burk* has served as Human Resources Director since May 2000. Prior to joining Intevac, Ms. Burk served as Human Resources Manager of Moen, Inc. from 1999 to 2000 and as Human Resources Manager of Lawson Mardon from 1994 to 1999. Ms. Burk holds a BS in sociology from Northern Illinois University.

*Mr. Kerns* joined Intevac as Vice President, Business Development of the Equipment Products Division in August 2003. Before joining Intevac, Mr. Kerns was employed by Applied Materials from April 1997 to November 2002, most recently as Managing Director for Business Development for the Process Modules Group. Previously, Mr. Kerns was General Manager of Applied Materials Metal Etch Division from 2000 to 2002. From 1998 to 2000, Mr. Kerns was Senior Director for Applied Materials North America Multinational Accounts, and from 1997 to 1998, he was General Manager of Applied Materials Dielectric Etch Division. Mr. Kerns holds a BS in chemistry from the University of Idaho and a PhD in theoretical chemistry from Princeton University.

*Mr. Marusiak* joined Intevac as Chief Operating Officer in April 2004. Before joining Intevac, Mr. Marusiak was employed by Applied Materials from July 1991 to April 2004, most recently as Senior Director of North American Operations. Previously, Mr. Marusiak managed Applied Materials Field Operations in North America. Mr. Marusiak holds a BS in electrical engineering from Gannon University and an MS in teleprocessing science from the University of Southern Mississippi.

*Mr. Pietras* joined Intevac as Vice President and General Manager of the Imaging Instrumentation Business in August 2006. Before joining Intevac, Mr. Pietras was employed by the Sarnoff Corporation from March 2005 to July 2006 as General Manager of Sarnoff Imaging Systems. From September 1998 to March 2005, he was employed by Roper Scientific as Vice President, Operations. Mr. Pietras holds a BS in Physics from the Stevens Institute of Technology and a MA and PhD in Physics from Columbia University.

*Mr. Aebi* has served as Chief Technology Officer of our Imaging Instrumentation business since August 2006. Previously, Mr. Aebi served as President of the Photonics Division from July 2000 to July 2006 and as General Manager of the Photonics Division since May 1995. Mr. Aebi was elected as a Vice President of the Company in

September 1995. From 1988 through 1994, Mr. Aebi was the Engineering Manager of the night vision business we acquired from Varian Associates in 1991, where he was responsible for new product development in the areas of advanced photocathodes and image intensifiers. Mr. Aebi holds a BS in physics and an MS in electrical engineering from Stanford University.

*Mr. Birt* joined Intevac as Vice President, Customer Support of the Equipment Products Division in September 2004. Before joining Intevac, Mr. Birt was employed by Applied Materials from July 1992 to September 2004, most recently as Director, Field Operations/Quality North America. Mr. Birt holds a BS in electrical engineering from Texas A&M University.

*Mr. Bluck* rejoined Intevac as Vice President, Technology of the Equipment Products Division in August 2004. Mr. Bluck had previously worked at Intevac from December 1996 to November 2002 in various engineering positions. The business unit Mr. Bluck worked for was sold to Photon Dynamics in November 2002, and he was employed there as Vice President, Rapid Thermal Process Product Engineering until August 2004. Mr. Bluck holds a BS in physics from San Jose State University.

*Mr. Carollo* joined Intevac in November 2007 as Vice President and General Manager of Intevac s Creative Display Systems subsidiary. Prior to joining Intevac, Mr. Carollo was founder, president and CEO of Creative Display Systems. Prior to founding Creative Display Systems Mr. Carollo worked for Rockwell-Collins Optronics Electro-Optics from 1993 to 2006 where his most recent position was General Manager. Mr. Corollo holds numerous patents in the area of optics, display systems and optical communications, a MS in Optics from the University of Rochester and a BS in Physics from the State University of New York.

*Dr. Carron* joined Intevac in January 2007 as Managing Director and General Manager of Intevac s DeltaNu, Inc. subsidiary. Prior to joining Intevac, Dr. Carron was the CEO of DeltaNu, LLC from March 2002 until January 2007. Dr. Carron was also a professor of Chemistry at the University of Wyoming from 1988 to 2006. Dr. Carron holds a BA in Chemistry from Washington University and a PhD in Chemistry from Northwestern University.

*Mr. Justyn* has served as Vice President, Equipment Manufacturing since April 1997. Mr. Justyn joined Intevac in February 1991 and has served in various roles in our Equipment Products Division and our former night vision business. Mr. Justyn holds a BS in chemical engineering from the University of California, Santa Barbara.

*Mr. Kelly* joined Intevac in December 2006 as Vice President, Engineering of the Imaging Instrumentation business. Before joining Intevac, Mr. Kelly was employed by Redlake MASD LLC, a division of Roper Industries from January 2004 to December 2006, most recently as Vice President, Engineering and Custom Service. From November 2000 to December 2003, he was employed by Fast Technology AG as Vice President, Engineering. Mr. Kelly holds a BS and a MS in mechanical engineering from the University of Michigan.

# **Available Information**

Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to such reports are available, free of charge, on or through our Internet home page as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission. The public may also read and copy any materials we file with the SEC at the SEC s Public Reference Room at 100 F Street, N.E., Washington D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website (*www.sec.gov*) that contains reports, proxy and information statements and other information regarding us that we file electronically with the SEC. Our Internet home page is located at <u>www.intevac.com</u>; however, the information in, or that can be accessed through, our home page is not part of this report.

# **Trade Marks**

200 Leaft , AccuLuber, Examiner  $R^{TM}$ , Lean Etcht, LIVAR, MicroVista, NightVista and MOSIR among others, are our trademarks.

# Item 1A. Risk Factors

# Demand for capital equipment is cyclical, which subjects our business to long periods of depressed revenues interspersed with periods of unusually high revenues.

Our Equipment business sells equipment to capital-intensive industries, which sell commodity products such as disk drives and semiconductors. When demand for these commodity products exceeds capacity, demand for new capital equipment such as ours tends to be amplified. Conversely, when supply of these commodity products exceeds demand, the demand for new capital equipment such as ours tends to be depressed. For example, the hard disk drive industry has been historically subject to multi-year cycles because of the long lead times and high costs involved in adding capacity, and to seasonal cycles driven by consumer purchasing patterns, which tend to be heaviest in the third and fourth quarters of each year.

The cyclical nature of the capital equipment industry means that in some years we will have unusually high sales of new systems, and that in other years our sales of new systems will be severely depressed. The timing, length and volatility of these cycles are difficult to predict. These cycles have affected the timing and amounts of our customers capital equipment purchases and investments in new technology. For example, sales of systems for magnetic disk production were severely depressed from mid-1998 until mid-2003 and grew rapidly from 2004 through 2006. The number of new systems delivered or scheduled for delivery in the second half of 2007 was significantly lower than the number of systems delivered in the first half of the year, and we are projecting that new system shipments will be significantly lower in 2008 than 2007. We cannot predict with any certainty when these cycles will begin or end.

# If demand for hard disk drives does not continue to grow and our customers do not replace or upgrade their installed base of disk sputtering systems, then future sales of our disk sputtering systems will suffer.

From mid-1998 until mid-2003, there was very little demand for new disk sputtering systems, as magnetic disk manufacturers were burdened with over-capacity and were not investing in new disk sputtering equipment. By 2003, however, over-capacity had diminished, and orders for our 200 Lean began to increase. From 2004 through the end of 2006, there was strong demand for new disk sputtering systems.

Sales of our equipment for capacity expansions are dependent on the capacity expansion plans of our customers and upon whether our customers select our equipment for their capacity expansions. We have no control over our customers expansion plans, and we cannot be sure that they will select our equipment if they do expand their capacity. Our customers may not implement capacity expansion plans, or we may fail to win orders for equipment for those capacity expansions, which could have a material adverse effect on our business and our operating results. In addition, some manufacturers may choose to purchase used systems from other manufacturers or customers rather than purchasing new systems from us.

Sales of our 200 Lean disk sputtering systems are also dependent on obsolescence and replacement of the installed base of disk sputtering equipment. If technological advancements are developed that extend the useful life of the installed base of systems, then sales of our 200 Lean will be limited to the capacity expansion needs of our customers, which would significantly decrease our revenue. For example, during 2007 some of our customers decided to use legacy systems for the production of first generation perpendicular media, which delayed the replacement of such legacy systems with new 200 Lean systems.

Our customers have experienced competition from companies that produce alternative storage technologies like flash memory, where increased capacity, improving cost, lower power consumption and performance ruggedness have resulted in competition with lower capacity, smaller form factor disk drives in handheld applications. While this

competition has traditionally been in the markets for handheld consumer electronics applications like personal media players, these competitors have recently announced products for notebook and enterprise computer applications. If alternative technologies, such as flash memory, replace hard disk drives as a primary method of digital storage, then demand for our products would likely decrease.

# We are exposed to risks associated with a highly concentrated customer base.

Historically, a significant portion of our revenue in any particular period has been attributable to sales of our disk sputtering systems to a limited number of customers. In 2007, one of our customers accounted for 31% of our

revenues, and four customers in the aggregate accounted for 90% of our revenues. The same four customers, in the aggregate, accounted for 31% of our net accounts receivable at December 31, 2007. During 2006, Seagate acquired Maxtor, and in June 2007, Western Digital announced the acquisition of Komag. This consolidation in the industry limits the number of potential customers for our products. Orders from a relatively limited number of magnetic disk manufacturers have accounted for, and likely will continue to account for, a substantial portion of our revenues. The loss of, or delays in purchasing by, any one of our large customers would significantly reduce potential future revenues. In addition, the concentration of our customer base may enable customers to demand pricing and other terms unfavorable to us, and makes us more vulnerable to any changes in demand by a given customer. Furthermore, the concentration of customers can lead to extreme variability in revenue and financial results from period to period. For example, during 2007 revenues ranged between \$76.4 million in the first quarter and \$16.8 million in the fourth quarter.

# Our operating results fluctuate significantly from quarter to quarter, which may cause the price of our stock to decline.

Over the last eight quarters, our revenues per quarter have fluctuated between \$16.8 million and \$95.9 million. Over the same period our operating income (loss) as a percentage of revenues has fluctuated between approximately 23% and (42%) of revenues. We anticipate that our revenues and operating margins will continue to fluctuate. We expect this fluctuation to continue for a variety of reasons, including:

changes in the demand, due to seasonality, cyclicality and other factors in the markets, for computer systems, storage subsystems and consumer electronics containing disks our customers produce with our systems;

delays or problems in the introduction and acceptance of our new products, or delivery of existing products;

timing of orders, acceptance of new systems by our customers or cancellation of those orders; and

new products, services or technological innovations by our competitors or us.

Additionally, because our systems are priced in the millions of dollars and we sell a relatively small number of systems, we believe that quarter-to-quarter comparisons of our revenues and operating results may not be an accurate indicator of our future performance. Our operating results in one or more future quarters may fail to meet the expectations of investment research analysts or investors, which could cause an immediate and significant decline in the trading price of our common shares.

# Our long-term revenue growth is dependent on new products. If these new products are not successful, then our results of operations will be adversely affected.

We have invested heavily, and continue to invest, in the development of new products, especially our new Lean Etch system. Our success in developing and selling new products depends upon a variety of factors, including our ability to predict future customer requirements accurately, technological advances, total cost of ownership of our systems, our introduction of new products on schedule, our ability to manufacture our products cost-effectively and the performance of our products in the field. Our new product decisions and development commitments must anticipate continuously evolving industry requirements significantly in advance of sales.

The majority of our revenues in both fiscal 2007 and fiscal 2006 were from sales of our 200 Lean disk sputtering system and related parts and services. The 200 Lean was first delivered in December 2003. When first introduced, advanced vacuum manufacturing equipment, such as the 200 Lean, is subject to extensive customer acceptance tests after installation at the customer s factory. These acceptance tests are designed to validate reliable operation to

specifications in areas such as throughput, vacuum level, robotics, process performance and software features and functionality. These tests are generally more comprehensive for new systems than for mature systems, and are designed to highlight problems encountered with early versions of the equipment. For example, initial builds of the 200 Lean experienced high production and warranty costs in comparison to our more established product lines. Failure to promptly address any of the problems uncovered in these tests could have adverse effects on our business, including rescheduling of backlog, failure to achieve customer acceptance and therefore revenue recognition as anticipated, unanticipated product rework and warranty costs, penalties for non-performance, cancellation of orders, or return of products for credit.

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We are making a substantial investment to develop our new Lean Etch system for semiconductor manufacturing. We spent a substantial portion of our research and development costs on this new product in 2006 and increased our level of spending on this project in 2007. We may experience problems with the Lean Etch similar to the startup problems encountered with the 200 Lean. Moreover, we have not developed or sold products for this market previously. Failure to correctly assess the size of the market, to successfully develop a cost effective product to address the market, or to establish effective sales and support of the new product would have a material adverse effect on our future revenues and profits, and could include loss of our entire investment in the project.

We are jointly developing a next generation head mounted night-vision system with another defense contractor. This system is planned for sale to the U.S. military and will compete with head-mounted systems developed by our competitors. The U.S. military does not intend to initiate production of this system until 2011. We plan to make a significant investment in this type of product and cannot be assured when, or if, we will be awarded any production contracts for these night vision systems.

We have developed a night-vision sensor and camera module for use in a NATO customer s digital rifle-sight system. We cannot guarantee that we will achieve the yield improvements and cost reductions necessary for this program to be successful. Shipments under this program are subject to export approval by the U.S. government.

Products based on our LIVAR target identification and low light level camera technologies are designed to offer significantly improved capability to military customers. We are also developing commercial products in our Imaging Instrumentation business. None of our Imaging Instrumentation products are currently being manufactured in high volume, and we may encounter unforeseen difficulties when we commence volume production of these products. Our Imaging Instrumentation business will require substantial further investment in sales and marketing, in product development and in additional production facilities in order to expand our operations. We may not succeed in these activities or generate significant sales of these new products. In 2007, sales of our Imaging Instrumentation products were \$5.2 million out of a total of \$19.1 million of Imaging Instrumentation revenues.

Failure of any of these new products to perform as intended, to penetrate their markets and develop into profitable product lines or to achieve their production cost objectives would have a material adverse effect on our business.

# Our sales cycle is long and unpredictable, which requires us to incur high sales and marketing expenses with no assurance that a sale will result.

The sales cycle for our Equipment systems can be a year or longer, involving individuals from many different areas of our company and numerous product presentations and demonstrations for our prospective customers. Our sales process for these systems also commonly includes production of samples, customization of our product and installation of evaluation systems in the factories of our prospective customers. We do not enter into long-term contracts with our customers, and therefore until an order is actually submitted by a customer there is no binding commitment to purchase our systems.

Our Imaging Instrumentation business is also subject to long sales cycles because many of our products, such as our LIVAR system, often must be designed into our customers products, which are often complex state-of-the-art products. These development cycles are often multi-year, and our sales are contingent on our customers successfully integrating our product into their product, completing development of their product and then obtaining production orders for their product from the U.S. government or its allies.

As a result, we may not recognize revenue from our products for extended periods of time after we have completed development and made initial shipments of our products, during which time we may expend substantial funds and management time and effort with no assurance that a sale will result.

# We operate in an intensely competitive marketplace, and our competitors have greater resources than we do.

In the market for our disk sputtering systems, we have experienced competition from competitors such as Anelva Corporation, which is a subsidiary of Canon, and Oerlikon, each of which has sold substantial numbers of systems worldwide. In the market for semiconductor equipment, we expect to experience competition from competitors such

as Applied Materials, LAM Research and Tokyo Electron, Ltd. In the market for our military Imaging Instrumentation products, we experience competition from companies such as ITT Industries, Inc., Northrop Grumman Corporation and BAE. In the markets for our commercial Imaging Instrumentation products, we compete with companies such as Andor, E2V, Hamamatsu, Texas Instruments and Roper Scientific for sensor and camera products, and with companies such as Ahura, B&W Tek, Horiba Jobin Yvon, InPhotonics, Ocean Optics, Renishaw, and Smiths Detection for portable Raman spectrometer products. Our competitors have substantially greater financial, technical, marketing, manufacturing and other resources than we do, especially in the semiconductor equipment market where we have not previously offered a product. We cannot assure you that our competitors will not develop enhancements to, or future generations of, competitors will not enter our markets and develop such enhanced products. Moreover, competition for our customers is intense, and our competitors have historically offered substantial pricing concessions and incentives to attract our customers or retain their existing customers.

# We may not be successful in maintaining and obtaining the necessary export licenses to conduct operations abroad, and the United States government may prevent proposed sales to foreign customers.

Many of our Imaging Instrumentation products require export licenses from United States Government agencies under the Export Administration Act, the Trading with the Enemy Act of 1917, the Arms Export Act of 1976 and the International Traffic in Arms Regulations. This limits the potential market for our products. We can give no assurance that we will be successful in obtaining all the licenses necessary to export our products. Recently, heightened government scrutiny of export licenses for products in our market has resulted in lengthened review periods for our license applications. Export to countries which are not considered by the United States Government to be allies is likely to be prohibited, and even sales to U.S. allies may be limited. Failure to obtain, delays in obtaining, or revocation of previously issued licenses would prevent us from selling our products outside the United States, may subject us to fines or other penalties, and would have a material adverse effect on our business, financial condition and results of operations.

#### Our products are complex, constantly evolving and often must be customized to individual customer requirements.

The systems we manufacture and sell in our Equipment business have a large number of components and are complex, which requires us to make substantial investments in research and development. This is especially true with the new Lean Etch system. If we were to fail to develop, manufacture and market new systems or to enhance existing systems, that failure would have an adverse effect on our business. We may experience delays and technical and manufacturing difficulties in future introduction, volume production and acceptance of new systems or enhancements. In addition, some of the systems that we manufacture must be customized to meet individual customer site or operating requirements. In some cases, we market and commit to deliver new systems, modules and components with advanced features and capabilities that we are still in the process of designing. We have limited manufacturing capacity and engineering resources and may be unable to complete the development, manufacture and shipment of these products, or to meet the required technical specifications for these products, in a timely manner. Failure to deliver these products on time, or failure to deliver products that perform to all contractually committed specifications, could have adverse effects on our business, including rescheduling of backlog, failure to achieve customer acceptance and therefore revenue recognition as anticipated, unanticipated rework and warranty costs, penalties for non-performance, cancellation of orders, or return of products for credit. In addition, we may incur substantial unanticipated costs early in a product s life cycle, such as increased engineering, manufacturing, installation and support costs, that we may be unable to pass on to the customer and that may affect our gross margins. Sometimes we work closely with our customers to develop new features and products. In connection with these transactions, we sometimes offer a period of exclusivity to these customers.

Our Imaging Instrumentation business depends heavily on government contracts, which are subject to immediate termination and are funded in increments. The termination of or failure to fund one or more of these contracts could have a negative impact on our operations.

We sell many of our Imaging Instrumentation products and services directly to the U.S. government, as well as to prime contractors for various U.S. government programs. Our revenues from government contracts totaled

\$14.1 million, \$10.2 million, and \$6.9 million in 2007, 2006, and 2005, respectively. Generally, government contracts are subject to oversight audits by government representatives and contain provisions permitting termination, in whole or in part, without prior notice at the government s convenience upon the payment of compensation only for work done and commitments made at the time of termination. We cannot assure you that one or more of the government contracts under which our customers or we operate will not be terminated under these circumstances. Also, we cannot assure you that we or our customers would be able to procure new government contracts to offset the revenues lost as a result of any termination of existing contracts, nor can we assure you that we or our customers will continue to remain in good standing as federal contractors.

Furthermore, the funding of multi-year government programs is subject to congressional appropriations, and there is no guarantee that the U.S. government will make further appropriations. The loss of funding for a government program would result in a loss of future revenues attributable to that program.

In addition, sales to the U.S. government and its prime contractors may be affected by changes in procurement policies, budget considerations and political developments in the United States or abroad. The influence of any of these factors, which are beyond our control, could also negatively impact our financial condition. We also may experience problems associated with advanced designs required by the government, which may result in unforeseen technological difficulties and cost overruns. Failure to overcome these technological difficulties or occurrence of cost overruns would have a material adverse effect on our business.

# Unexpected increases in the cost to develop or manufacture our products under fixed-price contracts may cause us to experience un-reimbursed cost overruns.

A portion of our revenue is derived from fixed-price development and production contracts. Under fixed-price contracts, unexpected increases in the cost to develop or manufacture a product, whether due to inaccurate estimates in the bidding process, unanticipated increases in material costs, reduced production volumes, inefficiencies or other factors, are borne by us. We have experienced cost overruns in the past that have resulted in losses on certain contracts, and may experience additional cost overruns in the future. We are required to recognize the total estimated impact of cost overruns in the period in which they are first identified. Such cost overruns could have a material adverse effect on our results of operation and financial condition.

# Our sales of Equipment products are dependent on substantial capital investment by our customers, far in excess of the cost of our products.

Our customers must make extremely large capital expenditures in order to purchase our systems and other related equipment and facilities. These costs are far in excess of the cost of our systems alone. The magnitude of such capital expenditures requires that our customers have access to large amounts of capital and that they be willing to invest that capital over long periods of time to be able to purchase our equipment. The magnetic disk and semiconductor manufacturing industries have made significant additions to their production capacity in the last few years. Our customers may not be willing or able to continue this level of capital investment, especially during a downturn in the overall economy, the hard disk drive industry, or the semiconductor industry.

# Our stock price is volatile.

The market price and trading volume of our common stock has been subject to significant volatility, and this trend may continue. During 2007, the closing price of our common stock, as traded on The Nasdaq National Market, fluctuated from a low of \$13.23 per share to a high of \$30.57 per share. More recently, our stock price has closed as low as \$10.14 per share. The value of our common stock may decline regardless of our operating performance or prospects. Factors affecting our market price include:

our perceived prospects;

hard disk drive market expectations;

variations in our operating results and whether we achieve our key business targets;

sales or purchases of large blocks of our stock;

changes in, or our failure to meet, our revenue and earnings estimates;

changes in securities analysts buy or sell recommendations;

differences between our reported results and those expected by investors and securities analysts;

announcements of new contracts, products or technological innovations by us or our competitors;

market reaction to any acquisitions, joint ventures or strategic investments announced by us or our competitors;

our high fixed operating expenses, including research and development expenses;

developments in the financial markets; and

general economic, political or stock market conditions in the United States and other major regions in which we do business.

In addition, the general economic, political, stock market and industry conditions that may affect the market price of our common stock are beyond our control. The market price of our common stock at any particular time may not remain the market price in the future. In the past, securities class action litigation has been instituted against companies following periods of volatility in the market price of their securities. Any such litigation, if instituted against us, could result in substantial costs and a diversion of management s attention and resources.

# The liquidity of our Auction Rate Securities may be impaired, which may impact our ability to meet our cash requirements and require additional debt funding.

At December 31, 2007, we held \$81.5 million of Auction Rate Securities. These securities have long-term underlying maturities (ranging from 20 to 40 years), but the market has historically been highly liquid and the interest rates reset every 7 or 28 days. We do not intend to hold these securities to maturity, but rather to use the interest rate reset feature to sell the securities as needed to provide liquidity. Beginning in mid-February of 2008, certain of these Auction Rate Securities failed auction due to sell orders exceeding buy orders. The funds associated with failed auctions will not be accessible until a successful auction occurs or a buyer is found outside of the auction process. We do not know when, or if, one of these circumstances will occur. All of our Auction Rate Securities are student loan structured issues. where the loans have been originated under the Department of Education s Federal Family Education Loan Program and the principal and interest is 97% reinsured by the U.S. Department of Education. At this time, there has been no change in the AAA rating of these securities, but we cannot be certain that no change will occur in the future. We may also be required to reclassify all or a part of these securities from short-term to long-term investments. If the issuer of the auction rate securities is unable to successfully close future auctions or does not redeem the auction rate securities, or the United States government fails to support its guaranty of the obligations, the Company may be required to adjust the carrying value of the auction rate securities and record an other-than-temporary impairment charge. We have entered into a line of credit with Citigroup Global Markets Inc. under which approximately \$20 million is available to us to help secure our ability to fund our cash requirements until we are able to liquidate our Auction Rate Securities, but if we are unable to maintain the line of credit, or if the interest rate of the line of credit is prohibitive or the amount of the line of credit is insufficient, we could experience difficulties in meeting our cash requirements until the market for the Auction Rate Securities becomes liquid again and we may have to seek additional debt funding to finance our operations.

Changes in tax rates or tax liabilities could affect future results.

As a global company, we are subject to taxation in the United States and various other countries. Significant judgment is required to determine and estimate worldwide tax liabilities. Our future tax rates could be affected by changes in the applicable tax laws, composition of earnings in countries with differing tax rates, changes in the valuation of our deferred tax assets and liabilities, or changes in the tax laws. Although we believe our tax estimates are reasonable, there can be no assurance that any final determination will not be materially different from the treatment reflected in our historical income tax provisions and accruals, which could materially and adversely affect our results of operations.

Our effective tax rate in both 2007 was well below the applicable statutory rates due primarily to permanent differences and the utilization of research and development credits. In 2006, our effective tax rate was well below the applicable statutory rates due primarily to the utilization of net operating loss carry-forwards and deferred credits.

# We have experienced significant growth and contraction in our business and operations and if we do not appropriately manage this growth and contraction, now and in the future, then our operating results will be negatively affected.

Our business has both grown and contracted significantly in recent years, in both operations and headcount, and this growth and contraction causes significant strain on our infrastructure, internal systems and managerial resources. To manage our growth and contraction effectively, we must continue to improve and enhance our infrastructure, including information technology and financial operating and administrative systems and controls, and continue managing headcount, capital and processes in an efficient manner. Our productivity and the quality of our products may be adversely affected if we do not integrate and train our new employees quickly and effectively and coordinate among our executive, engineering, finance, marketing, sales, operations and customer support organizations, all of which add to the complexity of our organization and increase our operating expenses. We also may be less able to predict and effectively control our operating expenses due to the growth and increasing complexity of our business. In addition, our information technology systems may not grow at a sufficient rate to keep up with the processing and information demands placed on them by a much larger company. The efforts to continue to expand our information technology systems or our inability to do so could harm our business. Further, revenues may not grow at a sufficient rate to absorb the costs associated with a larger overall headcount.

Our future growth may require significant additional resources, given that, as we increase our business operations in complexity and scale, we may have insufficient management capabilities and internal bandwidth to manage our growth and business effectively. We cannot assure you that resources will be available when we need them or that we will have sufficient capital to fund these potential resource needs. If we are unable to manage our growth effectively or if we experience a shortfall in resources, our results of operations will be harmed.

#### Our current and future success depends on international sales and the management of global operations.

In 2007, approximately 82% of our revenues came from regions outside the United States. Substantially all of our international sales are to customers in Asia, which includes products shipped to overseas operations of U.S. companies. We currently have international customer support offices in Singapore, China, Malaysia, Korea and Japan. We expect that international sales will continue to account for a significant portion of our total revenue in future years. Certain of our manufacturing facilities and suppliers are also located outside the United States. Managing our global operations presents challenges including, but not limited to, those arising from:

varying regional and geopolitical business conditions and demands;

global trade issues;

variations in protection of intellectual property and other legal rights in different countries;

rising raw material and energy costs;

variations in the ability to develop relationships with suppliers and other local businesses;

changes in laws and regulations of the United States (including export restrictions) and other countries, as well as their interpretation and application;

fluctuations in interest rates and currency exchange rates, particularly with the recent decline in the value of the U.S. dollar;

the need to provide sufficient levels of technical support in different locations;

political instability, natural disasters (such as earthquakes, hurricanes or floods), pandemics, terrorism or acts of war where we have operations, suppliers or sales;

cultural differences; and

shipping delays.

# Changes in existing financial accounting standards or practices or taxation rules or practices may adversely affect our results of operations.

Changes in existing accounting or taxation rules or practices, new accounting pronouncements or taxation rules, or varying interpretations of current accounting pronouncements or taxation practice could have a significant adverse effect on our results of operations or the manner in which we conduct our business. Further, such changes could potentially affect our reporting of transactions completed before such changes are effective. In June 2006, the FASB issued Interpretation No. 48, Accounting for Uncertainty in Income Taxes (FIN 48). FIN 48, which was effective January 1, 2007, clarifies the accounting for uncertainty in income taxes recognized in an enterprise s financial statements in accordance with FASB Statement No. 109, Accounting for Income Taxes. We adopted FIN 48 in the first quarter of fiscal year 2007.

# We are required to evaluate our internal control over financial reporting under Section 404 of the Sarbanes-Oxley Act of 2002, and any adverse results from such evaluation could result in a loss of investor confidence in our financial reports and have an adverse effect on our stock price.

Pursuant to Section 404 of the Sarbanes-Oxley Act of 2002, our management must perform evaluations of our internal control over financial reporting. Beginning in 2004, our Form 10-K has included a report by management of their assessment of the adequacy of such internal control. Additionally, our independent registered public accounting firm must publicly attest to the effectiveness of our internal control.

We have completed the evaluation of our internal controls over financial reporting as required by Section 404 of the Sarbanes-Oxley Act. Although our assessment, testing, and evaluation resulted in our conclusion that as of December 31, 2007, our internal controls over financial reporting were effective, we cannot predict the outcome of our testing in future periods. If our internal controls are ineffective in future periods, our financial results or the market price of our shares could be adversely affected. We will incur additional expenses and commitment of management s time in connection with further evaluations.

# Our dependence on suppliers for certain parts, some of them sole-sourced, makes us vulnerable to manufacturing interruptions and delays, which could affect our ability to meet customer demand.

We are a manufacturing business. Purchased parts constitute the largest component of our product cost. Our ability to manufacture depends on the timely delivery of parts, components and subassemblies from suppliers. We obtain some of the key components and sub-assemblies used in our products from a single supplier or a limited group of suppliers. If any of our suppliers fail to deliver quality parts on a timely basis, we may experience delays in manufacturing, which could result in delayed product deliveries or increased costs to expedite deliveries or develop alternative suppliers. Development of alternative suppliers could require redesign of our products.

# Our business depends on the integrity of our intellectual property rights and failure to protect our intellectual property rights adequately could have a material adverse effect on our business.

The success of our business depends upon the integrity of our intellectual property rights, and we cannot assure you that:

any of our pending or future patent applications will be allowed or that any of the allowed applications will be issued as patents or will issue with claims of the scope we sought;

any of our patents will not be invalidated, deemed unenforceable, circumvented or challenged;

the rights granted under our patents will provide competitive advantages to us;

other parties will not develop similar products, duplicate our products or design around our patents; or

our patent rights, intellectual property laws or our agreements will adequately protect our intellectual property or competitive position.

#### We may be subject to claims of intellectual property infringement.

From time to time, we have received claims that we are infringing third parties intellectual property rights or seeking to invalidate our rights. We cannot assure you that third parties will not in the future claim that we have infringed current or future patents, trademarks or other proprietary rights relating to our products. Any claims, with or without merit, could be time-consuming, result in costly litigation, cause product shipment delays or require us to enter into royalty or licensing agreements. Such royalty or licensing agreements, if required, may not be available on terms acceptable to us.

#### Our success is dependent on recruiting and retaining a highly talented work force.

Our employees are vital to our success, and our key management, engineering and other employees are difficult to replace. We generally do not have employment contracts with our key employees. Further, we do not maintain key person life insurance on any of our employees. The expansion of high technology companies worldwide has increased demand and competition for qualified personnel, and has made companies increasingly protective of prior employees. It may be difficult for us to locate employees who are not subject to non-competition agreements and other restrictions.

The majority of our U.S. operations are located in Santa Clara, California and Fremont, California, where the cost of living and of recruiting employees is high. Additionally, our operating results depend, in large part, upon our ability to retain and attract qualified management, engineering, marketing, manufacturing, customer support, sales and administrative personnel. Furthermore, we compete with similar industries, such as the semiconductor industry, for the same pool of skilled employees. If we are unable to retain key personnel, or if we are not able to attract, assimilate or retain additional highly qualified employees to meet our needs in the future, our business and operations could be harmed.

# Changes in demand caused by fluctuations in interest and currency exchange rates may reduce our international sales.

Sales and operating activities outside of the United States are subject to inherent risks, including fluctuations in the value of the U.S. dollar relative to foreign currencies, tariffs, quotas, taxes and other market barriers, political and economic instability, restrictions on the export or import of technology, potentially limited intellectual property protection, difficulties in staffing and managing international operations and potentially adverse tax consequences. We earn a significant portion of our revenue from international sales, and there can be no assurance that any of these factors will not have an adverse effect on our ability to sell our products or operate outside the United States.

We currently quote and sell the majority of our products in U.S. dollars. From time to time, we may enter into foreign currency contracts in an effort to reduce the overall risk of currency fluctuations to our business. However, there can be no assurance that the offer and sale of products denominated in foreign currencies, and the related foreign currency hedging activities, will not adversely affect our business.

Our principal competitor for disk sputtering equipment is based in Japan and has a cost structure based on the Japanese yen. Accordingly, currency fluctuations could cause the price of our products to be more or less competitive

than our principal competitor s products. Currency fluctuations will decrease or increase our cost structure relative to those of our competitors, which could lessen the demand for our products and affect our competitive position.

# Difficulties in integrating past or future acquisitions could adversely affect our business.

We have completed a number of acquisitions during our operating history. In early 2007, we completed the acquisition of certain assets of DeltaNu, LLC, and in the fourth quarter of 2007 we completed the acquisition of certain assets of Creative Display Systems, LLC. We have spent and will continue to spend significant resources

identifying and acquiring businesses. The efficient and effective integration of our acquired businesses into our organization is critical to our growth. Any future acquisitions involve numerous risks including difficulties in integrating the operations, technologies and products of the acquired companies, the diversion of our management s attention from other business concerns and the potential loss of key employees of the acquired companies. Failure to achieve the anticipated benefits of these and any future acquisitions or to successfully integrate the operations of the companies we acquire could also harm our business, results of operations and cash flows. Any future acquisitions may also result in potentially dilutive issuance of equity securities, acquisition- or divestiture-related write-offs or the assumption of debt and contingent liabilities.

# We use hazardous materials and are subject to risks of non-compliance with environmental and safety regulations.

We are subject to a variety of governmental regulations relating to the use, storage, discharge, handling, emission, generation, manufacture, treatment and disposal of toxic or otherwise hazardous substances, chemicals, materials or waste. If we fail to comply with current or future regulations, such failure could result in suspension of our operations, alteration of our manufacturing process, or substantial civil penalties or criminal fines against us or our officers, directors or employees. Additionally, these regulations could require us to acquire expensive remediation or abatement equipment or to incur substantial expenses to comply with them. Failure to properly manage the use, disposal or storage of, or adequately restrict the release of, hazardous or toxic substances could subject us to significant liabilities.

# Future sales of shares of our common stock by our officers, directors and affiliates could cause our stock price to decline.

Substantially all of our common stock may be sold without restriction in the public markets, although shares held by our directors, executive officers and affiliates may be subject to volume and manner of sale restrictions. Sales of a substantial number of shares of common stock in the public market by our officers, directors or affiliates or the perception that these sales could occur could materially and adversely affect our stock price and make it more difficult for us to sell equity securities in the future at a time and price we deem appropriate.

# Anti-takeover provisions in our charter documents and under Delaware law could prevent or delay a change in control, which could negatively impact the value of our common stock by discouraging a favorable merger or acquisition of us.

Our certificate of incorporation authorizes our board of directors to issue up to 10,000,000 shares of preferred stock and to determine the powers, preferences, privileges, rights, including voting rights, qualifications, limitations and restrictions of those shares, without any further vote or action by the stockholders. The rights of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that we may issue in the future. The issuance of preferred stock could have the effect of delaying, deterring or preventing a change in control and could adversely affect the voting power of your shares. In addition, provisions of Delaware law and our bylaws could make it more difficult for a third party to acquire a majority of our outstanding voting stock by discouraging a hostile bid, or delaying or deterring a merger, acquisition or tender offer in which our stockholders could receive a premium for their shares or a proxy contest for control of our company or other changes in our management.

# We could be involved in litigation.

From time to time we may be involved in litigation of various types, including litigation alleging infringement of intellectual property rights and other claims. For example, in July 2006, we filed a patent infringement lawsuit against Unaxis USA, Inc. and its affiliates Unaxis Balzers AG and Unaxis Balzers, Ltd. alleging infringement by Unaxis of a

patent relating to our 200 Lean system. See Part I, Item 3 of this Form 10-K for further information regarding this lawsuit. Litigation is expensive and can require significant management time and attention and could have a negative effect on our results of operations or business if we lose or have to settle a case on significantly adverse terms.

#### Business interruptions could adversely affect our operations.

Our operations are vulnerable to interruption by fire, earthquake or other natural disaster, quarantines or other disruptions associated with infectious diseases, national catastrophe, terrorist activities, war, disruptions in our computing and communications infrastructure due to power loss, telecommunications failure, human error, physical or electronic security breaches and computer viruses, and other events beyond our control. We do not have a fully implemented detailed disaster recovery plan. Despite our implementation of network security measures, our tools and servers are vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our computer systems and tools located at customer sites. Political instability could cause us to incur increased costs in transportation, make such transportation unreliable, increase our insurance costs and cause international currency markets to fluctuate. This same instability could have the same effects on our suppliers and their ability to timely deliver their products. In addition, we do not carry sufficient business interruption insurance to compensate us for all losses that may occur, and any losses or damages incurred by us could have a material adverse effect on our business and results of operations. For example, we self-insure earthquake risks, because we believe this is the prudent financial decision based on the high cost of the limited coverage available in the earthquake insurance market. An earthquake could significantly disrupt our operations, most of which are conducted in California. It could also significantly delay our research and engineering effort on new products, most of which is also conducted in California. We take steps to minimize the damage that would be caused by an earthquake, but there is no certainty that our efforts will prove successful in the event of an earthquake.

#### Item 1B. Unresolved Staff Comments

None.

#### Item 2. Properties

We maintain our corporate headquarters in Santa Clara, California. The location, approximate size and type of facility of our principal properties are listed below. We lease all of our properties and do not own any real estate.

Location	Square Footage	Lease Expire	Principal Use
Santa Clara, CA	169,583	Mar 2012	Corporate Headquarters; Equipment and Imaging Instrumentation Marketing, Manufacturing, Engineering and Customer Support
Fremont, CA	9,505	Feb 2013	Imaging Instrumentation Sensor Fabrication
Laramie, WY	4,000	Feb 2009	Imaging Instrumentation Raman Spectrometer Mfg
Carlsbad, CA	10,360	May 2010	Imaging Instrumentation Micro Display Product Mfg
Chicago, IL	120	Aug 2008	Imaging Instrumentation Micro Display Product Sales
Singapore	31,947	Jun 2010	Equipment Manufacturing and Customer Support
Korea	1,558	May 2008	Equipment Customer Support
Malaysia	1,291	Aug 2008	Equipment Customer Support
Japan	1,507	Nov 2008	Equipment Customer Support

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Shenzhen, China2,568Jul 2008Equipment Customer Support

We consider these properties adequate to meet our current and future requirements. We regularly assess the size, capability and location of our global infrastructure and periodically make adjustments based on these assessments.

# Item 3. Legal Proceedings

# Patent Infringement Complaint against Unaxis

On July 7, 2006, we filed a patent infringement lawsuit against Unaxis USA, Inc. (a wholly owned subsidiary of Oerlikon) and its affiliates, Unaxis Balzers AG and Unaxis Balzers, Ltd., in the United States District Court for the Central District of California. Our lawsuit against Unaxis asserts infringement by Unaxis of United States Patent 6,919,001, which relates to our 200 Lean system. Our complaint seeks monetary damages and an injunction that bars Unaxis from making, using, offering to sell or selling in the United States, or importing into the United States, Unaxis allegedly infringing product. In the suit, we seek damages and a permanent injunction for infringement of the same patent. We believe we have meritorious claims, and we intend to pursue them vigorously.

On September 12, 2006, Unaxis filed a response to our lawsuit in which it asserted non-infringement, invalidity of our patent, inequitable conduct by Intevac, patent misuse by Intevac, and lack of jurisdiction by the court as defenses. Additionally, Unaxis requested a declaratory judgment of patent non-infringement, invalidity and unenforceability; asserted our violation of the California Business and Professional Code; requested that we be enjoined from engaging in any unfair competition; and requested that we be required to pay Unaxis attorney fees. We believe such claims lack merit, and we intend to defend ourselves vigorously.

We replied to Unaxis response on October 3, 2006, denying the assertions of non-infringement, invalidity and unenforceability of the Intevac patent, and denying any unfair competition. With the approval of the Court, we amended our complaint on February 6, 2007 to assert an additional ground for our infringement claim and to add a request for a declaratory judgment of infringement. Unaxis filed a response on February 21, 2007, in which it repeated the assertions of its September 12, 2006 response.

On May 21, 2007, the Court granted Unaxis request to stay the litigation pending reexamination of our United States Patent 6,919,001, after the U.S. Patent Office granted Unaxis February 27, 2007 reexamination request and issued an initial office action rejecting the claims of the patent. The Court also ordered the parties to file a joint report every 120 days to keep it appraised of the reexamination status. Intevac had no input to the initial office action determination by the U.S. Patent Office.

On June 20, 2007, we filed a reply to the initial office action reexamination. Our reply addresses the office action s rejections of the patent s original claims and proposes amended claims that we believe are supported by the original patent s specification. Unaxis responded to our reply, and the U.S. Patent Office is now considering both parties submissions. During the reexamination process, the patent remains valid.

# **Other Legal Matters**

From time to time, we are involved in claims and legal proceedings that arise in the ordinary course of business. We expect that the number and significance of these matters will increase as our business expands. Any claims or proceedings against us, whether meritorious or not, could be time consuming, result in costly litigation, require significant amounts of management time, result in the diversion of significant operational resources, or require us to enter into royalty or licensing agreements which, if required, may not be available on terms favorable to us or at all. We are not presently party to any lawsuit or proceeding that, in our opinion, is likely to seriously harm our business.

#### Item 4. Submission of Matters to a Vote of Security-Holders

No matters were submitted to a vote of security-holders during the fourth quarter of the fiscal year covered by this Annual Report on Form 10-K.

# PART II

# Item 5. Market for Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

#### **Price Range of Common Stock**

Our common stock is listed on The Nasdaq National Market (NASDAQ Global Select) under the symbol IVAC. As of March 10, 2008, there were approximately 124 holders of record of our common stock. Because many of our shares of common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of stockholders represented by these record holders.

The following table sets forth the high and low closing sale prices per share as reported on The Nasdaq National Market for the periods indicated.

	High	Low
Fiscal 2006:		
First Quarter	\$ 28.80	\$ 13.42
Second Quarter	30.60	18.86
Third Quarter	25.35	14.81
Fourth Quarter	27.94	16.29
Fiscal 2007:		
First Quarter	\$ 30.57	\$ 22.00
Second Quarter	26.77	18.92
Third Quarter	22.37	13.23
Fourth Quarter	18.12	14.01

#### **Dividend Policy**

We currently anticipate that we will retain our earnings, if any, for use in the operation of our business and do not expect to pay cash dividends on our capital stock in the foreseeable future.

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# **Performance Graph**

The following graph compares the cumulative total stockholder return on our Common Stock with that of the NASDAQ Stock Market Total Return Index, a broad market index published by the Center for Research in Security Prices (CRSP), and the NASDAQ Computer Manufacturers Stock Total Return Index compiled by CRSP. The comparison for each of the periods assumes that \$100 was invested on December 31, 2002 in our Common Stock, the stocks included in the NASDAQ Stock Market Total Return Index and the stocks included in the NASDAQ Computer Manufacturers Stock Total Return Index. These indices, which reflect formulas for dividend reinvestment and weighting of individual stocks, do not necessarily reflect returns that could be achieved by individual investors.

# COMPARISON OF CUMULATIVE TOTAL RETURN SINCE DECEMBER 31, 2002 AMONG INTEVAC, NASDAQ STOCK MARKET TOTAL RETURN INDEX AND NASDAQ COMPUTER MANUFACTURERS TOTAL RETURN INDEX

	12/	31/02	12/	31/03	12/	/31/04	12/	/30/05	12/	29/06	12/	31/07
Intevac, Inc.	\$	100	\$	353	\$	190	\$	331	\$	650	\$	364
Nasdaq Stock Market Total Return		100		150		1.(2)		1.66		102		100
Index Needea Computer Menufacturers Total		100		150		163		166		183		198
Return Index		100		139		181		185		189		277

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#### Item 6. Selected Consolidated Financial Data

The following table presents our selected financial data and is qualified by reference to, and should be read in conjunction with, the consolidated financial statements of Intevac, including the notes thereto, and Management s Discussion and Analysis of Financial Condition and Results of Operations, each appearing elsewhere in this report.

				Year H	Ende	d Decemb	er 3	1,		
		2007		2006		2005		2004		2003
	(In thousands, except per share data)									
Consolidated Statement of Operations										
Data:										
Net revenues:										
Systems and components	\$	202.292	\$	250.158	\$	130.168	\$	61.326	\$	27.738
Technology development	Ŷ	13,542	Ŷ	9,717	Ŷ	7,061	Ŧ	8,289	Ŧ	8,556
Total net revenues		215,834		259,875		137,229		69,615		36,294
Cost of net revenues:										
Systems and components		111,514		151,287		87,525		45,528		19,689
Technology development		7,415		6,102		5,253		6,856		6,032
Inventory provisions		862		1,527		873		1,375		743
Total cost of net revenues		119,791		158,916		93,651		53,759		26,464
Gross profit		96,043		100,959		43,578		15,856		9,830
Operating expenses:										
Research and development		40,137		30,036		14,384		11,580		12,037
Selling, general and administrative		28,470		22,924		14,477		9,525		8,448
Total operating expenses		68,607		52,960		28,861		21,105		20,485
Operating income (loss)		27,436		47,999		14,717		(5,249)		(10,655)
Interest income		6,544		3,501		1,303		634		269
Other income (expense), net		1,598		277		552		381		(1,879)
Income (loss) before income taxes		35,578		51,777		16,572		(4,234)		(12,265)
Provision for (benefit from) income taxes		8,233		5,079		421		110		38
Net income (loss)	\$	27,345	\$	46,698	\$	16,151	\$	(4,344)	\$	(12,303)
Basic earnings (loss) per share:										
Net income (loss)	\$	1.28	\$	2.22	\$	0.79	\$	(0.22)	\$	(0.95)
Shares used in per share calculations		21,447		21,015		20,462		19,749		12,948
Diluted earnings (loss) per share:										
Net income (loss)	\$	1.23	\$	2.13	\$	0.76	\$	(0.22)	\$	(0.95)
Shares used in per share calculations		22,150		21,936		21,202		19,749		12,948
Consolidated Balance Sheet Data:										

Cash, cash equivalents and short-term					
Investments	\$ 138,658	\$ 95,035	\$ 49,731	\$ 42,034	\$ 19,507
Working capital	154,630	118,061	77,353	53,100	22,638
Total assets	215,413	206,003	130,444	79,622	55,975
Long-term debt	1,898				
Total stockholders equity	185,163	144,310	87,874	69,375	30,869
	2	5			

#### Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis contains forward-looking statements which involve risks and uncertainties. Words such as believes, expects, anticipates and the like indicate forward-looking statements. These forward looking statements include comments related to our projected revenue, gross margin, operating expense, profitability, income tax expense, effective tax rate, capital spending and cash balances; the adequacy of our cash balances to fund our operations; projected volatility in our financial results; projected customer requirements for new capacity and technology upgrades for our installed base of magnetic disk manufacturing equipment and when, and if, our customers will place orders for these products; projected change from period to period in the customers, and location of customers, that constitute the majority of our revenues; the length of development, marketing and deployment cycles for military customers; Imaging Instrumentation s ability to proliferate its technology into major military weapons programs and to develop and introduce commercial products; and the timing of delivery and/or acceptance of our backlog for revenue. Our actual results may differ materially from the results discussed in the forward-looking statements for a variety of reasons, including those set forth under Risk Factors and should be read in conjunction with the Consolidated Financial Statements and related Notes contained elsewhere in this Annual Report on Form 10-K.

#### Overview

Intevac s business consists of two reportable segments:

*Equipment:* Intevac is a leader in the design, manufacture and marketing of high-productivity lean manufacturing systems and has been producing Lean Thinking platforms since 1994. We are the leading supplier of magnetic media sputtering equipment to the hard disk drive industry and offer leading-edge, high-productivity etch systems to the semiconductor industry.

*Imaging Instrumentation:* Intevac is a leader in the development of compact, cost-effective, high-sensitivity digital-optical products for the capture and display of low-light images and the optical analysis of materials. We provide sensors, cameras and systems for commercial applications in the inspection, medical, scientific and security industries and for government applications such as night vision and long-range target identification.

#### **Equipment Business**

In the early 1990s we developed a system, the MDP-250, to deposit magnetic films and protective overcoats onto magnetic disks used in hard disk drives. This system gained wide acceptance and by the late 1990s was being used to manufacture approximately half of the disks used in hard disk drives worldwide. In late 2003, we introduced a new system, the 200 Lean. The hard disk drive industry has gone through significant consolidation, and there are now only seven significant manufacturers of magnetic disks, some of whom also manufacture hard disk drives. As a result of the small number of customers and the high average selling price of our products, our Equipment revenues tend to be volatile from quarter to quarter. In addition, our Equipment business has historically been subject to capital spending cycles. For example, in the period from 1995 through the middle of 1998, we sold \$300 million of disk manufacturing equipment. In the period from the middle of 1998 thru 2003, our disk equipment revenues averaged approximately \$20 million per year and consisted of the sale of a limited number of systems, technology upgrades, parts and service for the installed base of our systems. In 2006, our sales of disk manufacturing equipment grew to \$248 million in annual revenues. In 2007, shipments of new disk sputtering systems declined and our revenue from sales of disk manufacturing equipment dropped to \$197 million.

In the past we also manufactured both deposition and rapid thermal processing equipment used in the manufacture of flat panel displays. In late 2002, we sold our rapid thermal processing product line and stopped actively marketing our flat panel deposition product line. From 2000 through 2004, cumulative revenues from sales of flat panel display manufacturing systems totaled \$36.8 million. 2005 revenues included \$5 million from selling a license to one of our flat panel patents and recognizing revenue on the last flat panel system we shipped.

#### **Imaging Instrumentation Business**

Developing advanced products for the military involves long development cycles, as products move through successive multi-year stages of technology demonstration, engineering and manufacturing product development, prototype production and then product deployment. Each stage in this process requires ongoing government funding. Historically, much of our Imaging Instrumentation business revenues have been derived from contract research and development, rather than product sales. In 2002, in order to shorten the time to market and to increase the number of markets for our imaging products, we began to fund development of imaging products for commercial markets. In January 2007, we completed the acquisition of the assets and certain liabilities of DeltaNu, LLC, a company that pioneered development of miniature Raman spectrometer systems. In November 2007 we completed and acquisition of the assets and certain liabilities in high-performance, micro-display products for near-eye and portable applications in defense and commercial markets. As a result of these activities and the internal development of new products for military and commercial applications, the percentage of Imaging Instrumentation revenues derived from product sales grew from 15% in 2006 to 27% in 2007 and is expected to continue to increase in 2008.

# **Critical Accounting Policies**

The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America (US GAAP) requires management to make judgments, assumptions and estimates that affect the amounts reported. Our significant accounting policies are described in Note 2 to the consolidated financial statements included in Item 8 of our Annual Report on Form 10-K. Certain of these significant accounting policies, as defined below.

A critical accounting policy is defined as one that is both material to the presentation of our financial statements and requires management to make difficult, subjective or complex judgments that could have a material effect on our financial conditions and results of operations. Specifically, critical accounting estimates have the following attributes: 1) We are required to make assumptions about matters that are highly uncertain at the time of the estimate; and 2) different estimates we could reasonably have used, or changes in the estimate that are reasonably likely to occur, would have a material effect on our financial condition or results of operations.

Estimates and assumptions about future events and their effects cannot be determined with certainty. We base our estimates on historical experience and on various other assumptions believed to be applicable and reasonable under the circumstances. These estimates may change as new events occur, as additional information is obtained and as our operating environment changes. These changes have historically been minor and have been included in our consolidated financial statements as soon as they become known. In addition, management is periodically faced with uncertainties, the outcomes of which are not within its control and will not be known for prolonged periods of time. Many of these uncertainties are discussed in the section above entitled Risk Factors. Nonetheless, based on a critical assessment of our accounting policies and the underlying judgments and uncertainties affecting the application of those policies, management believes that our consolidated financial statements are fairly stated in accordance with US GAAP, and provide a meaningful presentation of our financial condition and results of operation.

We believe the following critical accounting policies affect the more significant judgments and estimates we make in preparing our consolidated financial statements. We also have other key accounting policies and accounting estimates related to the collectibility of trade receivables, customer advances, cash, cash equivalents and investments, and prototype product costs. We believe that these other accounting policies and other accounting estimates either do not generally require us to make estimates and judgments that are as difficult or subjective, or are less likely to have a material impact on our reported results of operation for a given period.

# **Revenue Recognition**

Certain of our system sales with customer acceptance provisions are accounted for as multiple-element arrangements. If we have previously met defined customer acceptance levels with the specific type of system, then we recognize revenue for the fair market value of the system upon shipment and transfer of title, and recognize revenue for the fair market value of installation and acceptance services when those services are completed. We

estimate the fair market value of the installation and acceptance services based on our actual historical experience of the relative cost of such installation and acceptance services. For systems that have generally not been demonstrated to meet a particular customer s product specifications prior to shipment, revenue recognition is typically deferred until customer acceptance. For example, while initial shipments of our 200 Lean System were recognized as revenue upon customer acceptance during 2004, revenue was recognized upon shipment for the majority of 200 Leans shipped in 2005, 2006 and 2007. The systems in backlog at December 31, 2007 are for a customer for whom we have met defined customer acceptance levels, and we expect to recognize revenue upon shipment. We anticipate that we will recognize revenue on our newly developed systems in 2008 upon customer acceptance, until such systems meet defined customer acceptance levels.

In some instances, hardware that is not essential to the functioning of the system may be delivered after acceptance of the system. In these cases, we estimate the fair market value of the non-essential hardware as if it had been sold on a stand-alone basis, and defer recognizing revenue on that value until the hardware is delivered.

Revenues for systems without installation and acceptance provisions, as well as revenues from technology upgrades, spare parts, consumables and products built by the Imaging Instrumentation business are recognized when title passes to our customer. In certain cases, technology upgrade sales are accounted for as multiple-element arrangements, usually split between delivery of the parts and installation on the customer s systems. In these cases, we recognize revenue for the fair market value of the parts upon shipment and transfer of title, and recognize revenue for the fair market value of installation services when those services are completed.

In certain cases, we sell limited rights to our intellectual property. Revenue from the sale of any intellectual property license will generally be recognized at the inception of the license term.

We perform best efforts research and development work under various government-sponsored research contracts. These contracts are a mixture of cost-plus-fixed-fee (CPFF) and firm fixed-price (FFP). Revenue on CPFF contracts is recognized in accordance with contract terms, typically as costs are incurred. Revenue on FFP contracts is generally recognized on the percentage-of-completion method based on costs incurred in relation to total estimated costs. Provisions for estimated losses on government-sponsored research contracts are recorded in the period in which such losses are determined.

#### Inventories

Inventories are priced using average actual costs and are stated at the lower of cost or market. The carrying value of inventory is reduced for estimated excess and obsolescence by analyzing historical and anticipated demand. In addition, inventories are evaluated for potential obsolescence due to the effect of known and anticipated engineering changes and new products. If actual demand were to be substantially lower than estimated, additional inventory adjustments would be required, which could have a material adverse effect on our business, financial condition and results of operation. A cost-to-market reserve is established for work-in-progress and finished goods inventories when the value of the inventory plus the estimated cost to complete exceeds the net realizable value of the inventory.

#### Warranty

We provide for the estimated cost of warranty when revenue is recognized. Our warranty is per contract terms and for our systems the warranty typically ranges between 12 and 24 months from customer acceptance. For systems sold through our distributor, we offer a 3 month warranty. The remainder of any warranty period is the responsibility of the distributor. During this warranty period any defective non-consumable parts are replaced and installed at no charge to the customer. The warranty period on consumable parts is limited to their reasonable usable lives. We use estimated repair or replacement costs along with our historical warranty experience to determine our warranty obligation. We

exercise judgment in determining the underlying estimates. We also provide for estimated retrofit costs, which typically relate to design changes or improvements we identify. On a case-by-case basis, we determine whether or not to retrofit systems in the field at no charge to the customer. Should actual warranty costs differ substantially from our estimates, revisions to the estimated warranty liability would be required, which could have a material adverse effect on our business, financial condition and results of operations.

# Income Taxes

We account for income taxes in accordance with Statement of Financial Accounting Standard No. 109, Accounting for Income Taxes, (SFAS 109), which requires that deferred tax assets and liabilities be recognized using enacted tax rates for the effect of temporary differences between book and tax bases of recorded assets and liabilities. SFAS 109 also requires that deferred tax assets be reduced by a valuation allowance if it is more likely than not that a portion of the deferred tax asset will not be realized. As of December 31, 2007, \$7.3 million of the deferred tax asset was valued on the balance sheet, net of a valuation allowance of \$2.7 million. This represents the amount of the deferred tax asset from which we expect to realize a benefit. We cannot predict with certainty when, or if, we will realize the benefit of the portion of the deferred tax asset currently offset with a valuation allowance.

On a quarterly basis, we provide for income taxes based upon an annual effective income tax rate. The effective tax rate is highly dependent upon the level of our projected earnings, the geographic composition of worldwide earnings, tax regulations governing each region, net operating loss carry-forwards, availability of tax credits and the effectiveness of our tax planning strategies. We carefully monitor the changes in many factors and adjust our effective income tax rate on a timely basis. If actual results differ from the estimates, this could have a material effect on our business, financial condition and results of operations. For example, as our projected level of earnings changed throughout 2007 and we benefited from various tax planning strategies, we decreased the annual effective tax rate from 31.6% at the end of the first quarter, to 26.9% at the end of the second quarter, to 24.0% at the end of the third quarter and to 23.1% at the end of the fourth quarter.

The calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with our expectations could have a material effect on our business, financial condition and results of operations.

#### **Results of Operations**

#### Net revenues

	Year	Ended December	% Change	% Change							
	2007	2006	2007 vs. 2006 2005 2006		2006 vs. 2005						
		(In thousands, except percentages)									
Equipment net revenues	\$ 196,686	\$ 248,482	\$ 129,280	(21)%	92%						
revenues	19,148	11,393	7,949	68%	43%						
Total net revenues	\$ 215,834	\$ 259,875	\$ 137,229	(17)%	89%						

Net revenues consist primarily of sales of equipment used to manufacture thin-film disks, and, to a lesser extent, related equipment and system components; flat panel equipment technology license fees; contract research and development related to the development of electro-optical sensors, cameras and systems; and low light imaging products.

The decrease in Equipment revenues in 2007 was due primarily to a reduction in the number of 200 Lean systems delivered. In 2007 we delivered twenty-nine 200 Lean systems versus forty-six 200 Lean systems delivered in 2006.

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Equipment revenue in 2007 also included four disk lubrication systems and a significant increase in revenue from disk equipment technology upgrades and spare parts. We sold a D-Star<sup>®</sup> flat panel technology license for \$1.3 million. During 2006, we also sold thirteen disk lubrication systems and had significant sales of disk equipment technology upgrades and spare parts. During 2005, we sold twenty-three 200 Lean systems, six MDP-250 systems and fourteen disk lubrication systems. 2005 revenues also included \$5.0 million of flat panel equipment and license sales.

The magnetic disk manufacturing industry consists of a small number of large manufacturers. In 2006 Seagate acquired Maxtor, and in June 2007, Western Digital announced the acquisition of Komag, both of which further concentrated our customer base. We currently have seven 200 Lean systems either shipped or in backlog, which are scheduled for revenue recognition during 2008. We expect Equipment revenues in 2008 to be significantly lower than in 2007, due to fewer shipments of 200 Lean systems.



Imaging Instrumentation revenues increased by 68% to \$19.1 million in 2007, which consisted of \$5.2 million of product revenue and \$13.9 million of contract research and development revenue. The \$11.4 million in 2006 Imaging Instrumentation revenue consisted of \$1.7 million of product revenue and \$9.7 million of contract research and development revenue. The increase in product revenue resulted from higher sales of digital night vision camera modules and commercial products. Product revenue included contributions from DeltaNu, which was acquired on January 31, 2007, and Creative Display Systems, which was acquired on November 9, 2007. The increase in contract research and development revenue was the result of a higher volume of contracts and incremental revenue generated from contract close-outs. The \$7.9 million in 2005 Imaging Instrumentation revenues consisted of \$888,000 of product revenue and \$7.0 million of contract research and development revenue to grow significantly, due primarily to increased product sales. During 2008, we expect over 50% of our revenue to come from product sales. Substantial growth in future Imaging Instrumentation revenues is dependent on proliferation of our technology into major military weapons programs, the ability to obtain export licenses for foreign customers, obtaining production subcontracts for these programs, and development and sale of commercial products.

Our backlog of orders at December 31, 2007 was \$34.2 million, as compared to a December 31, 2006 backlog of \$125.0 million. The \$34.2 million of backlog at December 31, 2007 consisted of \$28.4 million of Equipment backlog and \$5.8 million of Imaging Instrumentation backlog. The \$125.0 million of backlog at December 31, 2006 consisted of \$119.4 million of Equipment backlog and \$5.6 million of Imaging Instrumentation backlog. Backlog at December 31, 2007 includes two 200 Lean systems, as compared to twenty-four 200 Lean systems in backlog at December 31, 2006. During the first two months of 2008, we have received orders for five additional 200 Lean systems.

Significant portions of our revenues in any particular period have been attributable to sales to a limited number of customers. In 2007 sales to Seagate, our Japanese distributor, Matsubo, Hitachi Global Storage Technologies, and Fuji Electric each accounted for more than 10% of our revenues, and in aggregate accounted for 90% of revenues. In 2006, Seagate, Matsubo, and Hitachi Global Storage Technologies each accounted for more than 10% of our revenues. In 2005, Seagate, Matsubo, Hitachi Global Storage Technologies and Maxtor each accounted for more than 10% of our revenues, and in aggregate accounted for 90% of revenues.

International sales totaled \$177.0 million, \$233.4 million, and \$97.5 million in 2007, 2006, and 2005, respectively, accounting for 82%, 90%, and 71% of net revenues. The decrease in international sales in 2007 was primarily due to a decrease in net revenues from disk sputtering systems. The increase in international sales in 2006 was primarily due to an increase in net revenues from disk sputtering systems. Substantially all of our international sales are to customers in Asia, which includes products shipped to overseas operations of U.S. companies. Our mix of domestic versus international sales will change from period to period depending on the location of our largest customers in each period.

# Gross margin

	Year ]	Ende	ed Decembe	er 31	l,	% Change 2007 vs.	% Change 2006 vs.
	2007		2006		2005	2006	2005
			(In thousa	nds,	, except per	centages)	
Equipment gross profit	\$ 87,885	\$	97,161	\$	42,623	(10)%	128%
% of Equipment net revenues	44.7%		39.1%		33.0%		
	\$ 8,158	\$	3,798	\$	955	115%	298%

Imaging Instrumentation gross					
profit					
% of Imaging Inst. net revenues	42.6%	33.3%	12.0%		
Total gross profit \$	96,043	\$ 100,959	\$ 43,578	(5)%	132%
% of net revenues	44.5%	38.8%	31.8%		

Cost of net revenues consists primarily of purchased materials and costs attributable to contract research and development, and also includes fabrication, assembly, test and installation labor and overhead, customer-specific

engineering costs, warranty costs, royalties, provisions for inventory reserves and scrap. Cost of net revenues for 2007 and 2006 included \$638,000 and \$428,000 of equity-based compensation expense, respectively.

Equipment gross margin improved to 44.7% in 2007 from 39.1% in 2006. Our product mix, higher average selling prices and cost reduction programs all contributed to the higher gross margin for the year. Equipment gross margin in 2006 improved over the gross margin achieved in 2005 due primarily to product mix, higher average selling prices, cost reduction programs and increased volume. We expect the gross margin for the Equipment business in 2008 to be somewhat lower than in 2007, primarily as a result of a reduction in volume. Gross margins in the Equipment business will vary depending on a number of additional factors, including product mix, product cost, system configuration and pricing, factory utilization, and provisions for excess and obsolete inventory.

Imaging Instrumentation gross margin improved to 42.6% in 2007 from 33.3% in 2006. The increase in gross margin resulted primarily from higher margins on development contracts, favorable adjustments related to contract closeouts and increased product sales. The improvement in Imaging Instrumentation gross margin in 2006 as compared to 2005 was primarily due to a higher percentage of contract research and development revenue being derived from fully funded contracts, favorable adjustments related to closing out prior year government rate audits and increased product shipments. We expect the gross margin for the Imaging Instrumentation business in 2008 to improve over 2007, primarily as a result of the projected increase in product sales, which typically carry higher gross margins.

# Research and development

	Year	Ended December	% Change 2007 vs.	% Change 2006 vs.						
	2007	2006	2005	2006	2005					
	(In thousands, except percentages)									
Research and development expense	\$ 40,137	\$ 30,036	\$ 14,384	34%	109%					
% of net revenues	18.6%	11.6%	10.5%							

Research and development expense consists primarily of prototype materials, salaries and related costs of employees engaged in ongoing research, design and development activities for disk sputtering equipment, semiconductor equipment and Imaging Instrumentation products. Research and development costs for 2007 and 2006 included \$2.1 million and \$1.4 million of equity-based compensation expense, respectively.

Research and development spending increased in Equipment during 2007 as compared to 2006 and in 2006 as compared to 2005. The increase in Equipment spending was due primarily to spending on the development of our Lean Etch<sup>tm</sup> product line to serve the semiconductor market and, to a lesser extent, spending for continuing development of our disk sputtering products. Imaging Instrumentation research and development spending declined slightly in 2007 after a significant increase in 2006 as compared to 2005.

Engineering headcount has grown from 89 at the end of 2005 to 129 at the end of 2006, and to 141 at the end of 2007. We expect that research and development spending will decrease slightly in 2008 due primarily to a reduction in expenditures related to the development of our Lean Etch<sup>tm</sup> product line.

Research and development expenses do not include costs of \$7.4 million, \$6.1 million, and \$5.3 million, in 2007, 2006, and 2005, respectively, which are related to contract research and development and included in cost of net revenues.

# Selling, general and administrative

	Year	Ended December	% Change 2007 vs.	% Change 2006 vs.			
	2007	2006	2005	2006	2005		
	(In thousands, except percentages)						
Selling, general and administrative							
expense	\$ 28,470	\$ 22,924	\$ 14,477	24%	58%		
% of net revenues	13.2%	8.8%	10.5%				

Selling, general and administrative expense consists primarily of selling, marketing, customer support, financial and management costs and also includes production of customer samples, travel, liability insurance,

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legal and professional services and bad debt expense. All domestic sales and international sales of disk sputtering products in Asia, with the exception of Japan, are typically made by Intevac s direct sales force, whereas sales in Japan of disk sputtering products and other products are typically made by our Japanese distributor, Matsubo, who provides services such as sales, installation, warranty and customer support. We also have subsidiaries in Singapore and in Hong Kong, along with field offices in Japan, Malaysia, Korea and Shenzhen, China to support our equipment customers in Asia. Selling, general and administrative costs for 2007 and 2006 included \$3.5 million and \$1.5 million of equity-based compensation expense, respectively.

The increase in selling, general and administrative spending in 2007 was primarily the result of increases in costs related to business development, customer service and support in both the Equipment and Imaging Instrumentation businesses, legal expenses associated with the Unaxis litigation and higher equity-based compensation expense. Our selling, general and administrative headcount increased from 63 at the end of 2005 to 77 at the end of 2006, and to 111 at the end of 2007. The increase in selling, general and administrative spending in 2006 was primarily the result of increases in costs related to business development, customer service and support in the Equipment business, legal expenses associated with the Unaxis litigation and provisions for employee profit sharing and bonus plans. We expect that selling, general and administrative expenses will increase in 2008 over the amount spent in 2007 due primarily to a projected increase in costs related to customer service and support for the Equipment business and the addition of key business development personnel in the Imaging Instrumentation business. This will be partially offset by lower provisions for employee profit sharing and bonus plans, resulting from our expectations of lower profits in 2008.

#### Interest income and other, net

	Year E	Year Ended December 31,			% Change 2006 vs.		
	2007	2006	2005	2006	2005		
		(In thousands, except percentages)					
Interest income and other, net	\$ 8,142	\$ 3,778	\$ 1,855	116%	104%		

Interest income and other, net in 2007 included a \$1.5 million gain on the redemption of our preferred interest in 601 California Avenue LLC, \$6.5 million of interest income on investments and \$129,000 in net other income. The increase in interest income in 2007 was driven by higher interest rates on our investments and a higher average invested balance. Interest income and other, net in 2006 consisted of \$390,000 of dividends from 601 California Avenue LLC, \$3.5 million of interest income on investments and \$113,000 in net other expense. Interest income and other, net in 2005 consisted of \$390,000 of dividends from 601 California Avenue LLC, \$1.3 million of interest income and other, net in 2005 consisted of \$155,000 of foreign currency gains and losses and other income. We expect interest income and other, net to decrease in 2008 due to the absence of the one-time real estate gain in 2007 and a reduction in interest income due primarily to a reduction in interest rates.

# Provision for income taxes

	Year Ended December 31,			% Change 2007 vs.	% Change 2006 vs.	
	2007	2006 (In the	2005 usands avo	2006	2005	
	(in thousands, except percentages)					
Provision for income taxes	\$ 8,233	\$ 5,079	\$ 421	62%	1106%	

In 2007, we accrued income tax using an effective tax rate of 23.1% of pretax income. This rate is based on an estimate of our annual tax rate calculated in accordance with Statement of Financial Accounting Standards No. 109,

Accounting for Income Taxes. Our tax rate differs from the applicable statutory rates due primarily to the utilization of deferred and current credits and the effect of permanent differences and adjustments of prior permanent differences. Our deferred tax asset of \$10.1 million is partially offset by a valuation allowance, resulting in a net deferred tax asset of \$7.3 million at December 31, 2007. The valuation allowance is attributable to state temporary differences and deferred research and development credits that are not realizable in 2008. We expect our effective tax rate to decrease in 2008 due to research and development credits generated in 2008, which will be utilized against a lower level of pre-tax profits.

In 2006, we accrued income tax using an effective tax rate of 12% of pretax income. Our net deferred tax asset totaled \$4.6 million at December 31, 2006, net of a valuation allowance of \$2.8 million.

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For 2005, we accrued income tax using an effective tax rate of 2.5% of pretax income. Our net deferred tax asset totaled zero at December 31, 2005, net of a \$15.0 million valuation allowance.

# Liquidity and Capital Resources

At December 31, 2007, we had \$140.7 million in cash, cash equivalents, and investments compared to \$103.0 million at December 31, 2006. During fiscal 2007, cash and cash equivalents decreased by \$11.8 million, due to the net purchase of investments and fixed assets, and the acquisitions of the assets and certain liabilities of DeltaNu, LLC and Creative Display Systems, LLC, partially offset by the cash provided by operating and financing activities.

Cash provided by operating activities in 2007 totaled \$40.5 million compared to \$55.2 million in 2006. The decrease in cash provided from operating activities was due primarily to the reduction in net income in 2007, adjusted to exclude the effect of non-cash charges including depreciation and equity-based compensation, and to decreases in accounts payable and customer advances, partially offset by decreases in accounts receivable and inventory. Accounts receivable totaled \$14.1 million at December 31, 2007 compared to \$40.0 million at December 31, 2006. The decrease of \$25.8 million in the receivable balance was due primarily to the reduction in revenue in the second half of 2007 as compared to 2006. Net inventories decreased by \$15.8 million during 2007 due primarily to decreases in both raw materials and work-in-progress. The higher level of net inventory at December 31, 2006 was used to support the twenty-four systems in backlog at that time. Accounts payable totaled \$7.7 million at December 31, 2007 compared to \$16.0 million at December 31, 2006. The decrease of \$8.3 million relates to the decrease in inventory purchases and a slowdown in our business. Accrued payroll and related liabilities decreased by \$3.2 million during 2007 due to a decrease in accruals for bonuses and employee profit-sharing. Other accrued liabilities totaled \$5.5 million at December 31, 2007 compared to \$6.6 million at December 31, 2007. The decrease of \$1.2 million relates primarily to reductions in accruals for our warranty and tax obligations. Customer advances decreased by \$21.9 million during 2007. The decrease days at December 31, 2007.

Investing activities in 2007 used cash of \$59.2 million. Purchases of investments, net of proceeds from sales and maturities, totaled \$49.2 million, and capital expenditures in 2007 totaled \$5.7 million. During 2007, we invested \$6.7 million in the acquisitions of DeltaNu, LLC and Creative Display Systems, LLC, and we sold our investment in 601 California Avenue LLC. Our investing activities in 2006 used cash of \$37.3 million as the result of the \$28.9 million net purchase of investments and \$8.4 million in capital expenditures.

Financing activities provided cash of \$6.9 million in 2007. The sale of Intevac common stock to our employees through our employee benefit plans provided \$3.9 million and we realized tax benefits of \$3.0 million from equity-based compensation. Financing activities provided cash of \$6.2 million in 2006 due to the sale of Intevac common stock to our employees through our employee benefit plans and tax benefits from equity-based compensation.

We issued \$4.0 million in notes payable related to the acquisition of DeltaNu, LLC, which are discounted to \$3.9 million on the accompanying Consolidated Balance Sheet. \$2 million of the notes are scheduled to be repaid on each of January 31, 2008 and 2009.

We have generated operating income for the last three years, after incurring annual operating losses from 1998 through 2004. We currently expect to incur a slight operating loss in 2008.

We believe that our existing cash, cash equivalents and short-term investments will be sufficient to meet our cash requirements for the foreseeable future. We intend to undertake approximately \$8 million in capital expenditures during the next 12 months.

# **Contractual Obligations**

In the