UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

(Mark One)

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2005

o **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____to _____
Commission file number 000-30941

AXCELIS TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Delaware	**34-1818596**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)

108 Cherry Hill Drive
Beverly, Massachusetts 01915
(Address of principal executive offices, including zip code)

(978) 787-4000
(Registrant's telephone number, including area code)

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

Title of class	**Name of each exchange on which registered**
None	None

Securities registered pursuant to Section 12(g) of the Act:
Common Stock, $.001 par value
Preferred Share Purchase Rights

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

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

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. Yes x No o

Indicate by 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. x

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

Large accelerated filer o Accelerated filer x Non-accelerated filer o

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

Aggregate market value of the voting stock held by non-affiliates of the registrant as of June 30, 2005: $511,052,925.

Number of shares outstanding of the registrant's Common Stock, $0.001 par value, as of March 3, 2006: 100,985,641.

Documents incorporated by reference:

Portions of the definitive Proxy Statement for Axcelis Technologies, Inc.'s Annual Meeting of Stockholders to be held on May 3, 2006 are incorporated by reference into Part III of this Form 10-K.

Forward Looking Statements

Certain information contained or incorporated by reference in this Annual Report on Form 10-K is forward-looking in nature. All statements included or incorporated by reference in this Annual Report on Form 10-K or made by management of Axcelis Technologies, Inc., other than statements of historical fact, are forward-looking statements. Examples of forward-looking statements include statements regarding Axcelis' future financial results, operating results, business strategies, projected costs, product development or future sales, competitive positions and plans and objectives of management for future operations. We use terminology such as "anticipates," "believes," "plans," "expects," "future," "intends," "may," "will," "should," "estimates," "predicts," "potential," "continue," and similar expressions to identify such forward-looking statements. Our actual results could differ materially from the results contemplated by these forward-looking statements due to a number of important factors, including those discussed in Item 1A. of this Form 10-K and elsewhere in this Form 10-K. This Form 10-K also contains forward-looking statements attributed to third parties relating to their estimates regarding the growth of our markets. Forward-looking statements are subject to known and unknown risks, uncertainties, and other factors that may cause our actual results, as well as those of the markets we serve, levels of activity, performance, achievements and prospects to be materially different from those expressed or implied by the forward-looking statements. The Company undertakes no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

PART I

Item 1. Business.

Overview of Our Business

Axcelis Technologies, Inc. ("Axcelis," "we," "us," or "our") designs, manufactures and services ion implantation, dry strip, thermal processing and curing equipment used in the fabrication of semiconductor chips. We sell to all of the top 20 semiconductor chip manufacturers worldwide. The ion implantation business comprised approximately 79.8% of our revenues in 2005 with the remaining 20.2% of revenues derived from dry strip, thermal processing and curing businesses. In addition to equipment, we provide extensive aftermarket service and support, including spare parts, equipment upgrades, maintenance services and customer training. We also own 50% of the equity of Sumitomo Eaton Nova Corporation, or SEN, the leading producer of ion implantation equipment in Japan, based on market data reported by Gartner Dataquest. SEN licenses technology from us for ion implantation and has exclusive rights to market these products in the territory of Japan. As reported by Gartner Dataquest, Axcelis, together with SEN, has been the market share leader in ion implantation equipment in 8 of the last 10 years (through 2004, the date of the most recent reported industry statistics) and ranked 12th among wafer fab equipment manufacturers, based on aggregate system sales revenues.

Axcelis was incorporated in the state of Delaware in December 1995 as a subsidiary of Eaton Corporation. After Axcelis' initial public offering in July 2000, Eaton distributed the remaining shares of Axcelis common stock to the Eaton shareholders in December 2000. Axcelis is headquartered in Beverly, Massachusetts. We maintain an Internet site at http://www.axcelis.com. We make available free of charge on and through this website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission. Our website and the information contained therein or connected thereto shall not be deemed to be incorporated into this Form 10-K.

Industry Overview

Semiconductor chips, also known as integrated circuits, are used in personal computers, telecommunication equipment, digital consumer electronics, wireless communication products and other applications. Types of semiconductor chips include memory chips (which store and retrieve information), microprocessors (logic devices which process information) and "system on chip" devices (which have both logic and memory features). Most semiconductor chips are built on a wafer of silicon ranging from 200mm (8 inches) to 300mm (12 inches) in diameter. Each semiconductor chip is made up of millions of tiny transistors or "switches" to control the functions of the device. Transistors are created in the silicon wafer by introducing various precisely placed impurities into the silicon in specific patterns. The process steps where transistors are formed are traditionally referred to as "Front-End-of-Line" (FEOL). The "Back-End-of-Line" (BEOL) process steps connect the transistors and other such components together through several overlapping layers of metal wires, known as interconnect, creating a complete circuit. Each layer of metal interconnect must be separated by a non-conductive or insulating material called inter-level dielectric. Each layer that is added is selectively patterned to all previous layers through a process called photolithography.

Semiconductor chip manufacturers utilize many different types of process tools in the making of integrated circuits. There are over 300 process steps utilizing over 50 different types of process tools required in the making of a single device like a microprocessor. Semiconductor chip manufacturers seek efficiency improvements through increased throughput, equipment utilization and higher manufacturing yields. Capacity is added by increasing the amount of manufacturing equipment in existing fabrication facilities and by constructing new fabrication facilities. Periodically, and historically every seven or eight

years, the semiconductor industry adopts a larger silicon wafer size to achieve lower manufacturing costs. Semiconductor manufacturers can produce more chips on a larger wafer, thus reducing the overall manufacturing cost per chip. The majority of wafer fabrication facilities today are using wafers with a diameter of 200mm (8 inches). Certain newer fabrication facilities process 300mm wafers. In 2005, orders received by Axcelis for 300mm equipment approximated those for 200mm.

The customer base is also changing. Given the magnitude of the investment needed to build a new wafer fabrication facility (often referred to as a "fab"), which today exceeds $1 billion and can be as high as $3 billion for a new 300mm fab, many customers are entering into partnerships to offset the cost of technology development and manufacturing. In addition, many chip developers source all or part of their chip manufacturing requirements to contract manufacturers, otherwise known as foundries. Foundries are predominantly located in Asia (historically Taiwan and Singapore) and are significant purchasers of semiconductor manufacturing equipment. China has seen the construction of many new foundries, which is expected to continue.

Traditionally, the semiconductor industry has grown about 9% annually. However, due to the nature of the industry, cyclicality is inherent. Chip manufacturers' periodic aggressive capitalization has historically led to overcapacity, excess chip inventories, softening chip prices and finally muted capitalization, which in turn results in lower demand for equipment. Therefore, a successful semiconductor equipment manufacturer must not only provide some of the most technically complex products manufactured in the world, but also must design its business to thrive during the inevitable low points in the cycle.

Axcelis' Strategy

Our mission and vision is to:

- Ensure our customers' success by providing enabling semiconductor manufacturing and support solutions and services that deliver the best performance at the lowest total cost of ownership.
- Achieve and maintain market share leadership (#1 or #2) in all served product market segments.
- Deliver profitability and positive cash flow through the industry cycles to maximize shareholder and employee value.

In the late 1990s, Axcelis expanded its product offering beyond implant. Today, in addition to implant, Axcelis currently offers cleaning, curing, and thermal processing systems. Our revenues from these products and related services represented 20.2% of our total 2005 revenues. We intend to continue to maximize the opportunity for these additional product lines, while maintaining our leadership position in ion implantation. Our dry strip, curing and thermal processing products serve process steps in both the FEOL and BEOL semiconductor manufacturing. We believe the use of new materials for interconnects, such as copper conductors and new insulating materials called low-k dielectrics, will increase the demand for our cleaning and curing products for back-end-of-line applications.

Operationally, we manage our business based on three main tenets:

- technology leadership,
- operational excellence, and
- customer partnerships.

We have continued to invest in research and development through the industry cycles to assure our products meet the needs of our customers. We continue to add to our portfolio of patents and unpatented proprietary technology to ensure that our investment in technology leadership is translated into unique product advantages. We take pride in our staff of scientists and engineers that comprise over one-third of

our workforce. We strive for operational excellence by focusing on ways to lower our manufacturing and design costs and to improve our delivery times to our customers. Finally, we have grown and improved our customer support infrastructure and have established Global Customer Teams and a focused account management structure to strengthen our customer relationships and increase customer satisfaction.

Ion Implantation Systems

Ion implantation is a principal step in the transistor formation cycle of the semiconductor manufacturing process. An ion implanter is a large, technically advanced machine that injects dopants such as arsenic, boron or phosphorus, into a silicon wafer. These dopants are ionized and therefore have electric charges. With an electric charge they can be manipulated, moved and accelerated with electric and magnetic fields. Ion implanters use these fields to create a beam of ions with a precisely defined amount of energy (ranging between several hundred and three million electron-volts) and with a precisely defined amount of beam current (ranging from microamps to milliamps). Certain areas of the silicon wafer are blocked off by a polymer material known as photoresist which acts as a "stencil" to pattern devices so that the dopants will only enter the wafer where needed. The dopants change the electrical properties of the silicon wafer to create the active components of a chip, called the transistors. Typical process flows require twenty implant steps with the most advanced processes requiring thirty or more. Each implant step is characterized by four key parameters: dopant type, dose (amount of dopant), energy (depth into the silicon) and tilt (angle of wafer relative to the ion beam).

In order to cover the required range of implant steps, traditionally three different types of implanters have been developed, designed to cover a specific range of applications, primarily defined by dose and energy. The three traditional implanter types are referred to as medium current, high current and high energy:

- Medium current implanters are the original model of ion implanter, with mid-range energy and dose capability. These implanters are single wafer systems in which only one wafer at a time is slowly moved in front of the ion beam.
- High current implanters were the second type of implanter to emerge, having low energy capability and high dose range. High current implanters were initially designed as "multi-wafer" or "batch" tools for maximum productivity. In these tools, thirteen wafers are placed on a high speed spinning disk, which is exposed to the ion beam. To address smaller geometries and provide high tilt, single wafer high current implanters have been introduced in recent years. We expect that single wafer high current implanters will be used for most leading edge chip production in the future
- High energy implanters emerged to address the need for deeper implants, with a high energy range and low dose. High energy implanters are available in both multi-wafer and single wafer architectures.

All implanter types can accommodate the different dopant types

Axcelis is the only company to offer a complete line of high energy, high dose and medium dose implanters for all application requirements. Axcelis has been a market leader with its multi-wafer high current and high energy ion implanters and will continue to sell these tools for many years. Despite this, Axcelis believes that these traditional implant segment definitions of high current, medium current and high energy will change and merge as newer products seek to meet the requirements of emerging applications and to achieve efficiency in our customers' capital investments.

In 2005, in response to these trends, Axcelis introduced a new line of single wafer implanters, known as the Optima platform. Optima products are designed to meet the current and future application

requirements of our customers by combining high productivity, top process performance, technical extendibility and maximum applications overlap. The three Optima products are:

- **The Optima MD**, which was released in 2005. We refer to this product as "mid dose" or "MD," because it has energy and dose capabilities which extend beyond the traditional medium current space into traditional high current and high energy spaces. With the introduction of the Optima MD, Axcelis re-entered the medium current market segment, in which we had not participated since 2001.
- **The Optima HD**, which was released in early 2006. We use the term "high dose" or "HD" in connection with this product because the Optima HD fulfills all traditional high current requirements while extending its capability in two directions. In order to maximize utilization and flexibility, the Optima HD can process some traditional mid current implants. In addition, the Optima HD is extendable into ultra-low energy applications to satisfy future process requirements.
- **The Optima HE** is scheduled for release in 2007. Our multi-wafer high energy tools continue to meet the current market demand, but we anticipate that interest in a single wafer high energy tool will emerge.

We believe the Optima products will meet customer demand for advantages in productivity, simplicity, process performance and technical extendibility. As a result, we expect that the Optima products will supplement Axcelis' multi wafer implanters to continue Axcelis' leadership in ion implant.

Dry Strip and Curing Systems

Axcelis entered the cleaning (dry strip) and curing product markets through our acquisition of Fusion Systems Corporation in August 1997. Fusion pioneered the development of curing in 1993. In the process steps prior to ion implantation, a light sensitive, polymer-based liquid, called photoresist is

spread in a uniformly thin film on the wafer. Through a process known as photolithography, the photoresist is developed into a pattern like a stencil. Curing (also known as photostabilization) uses ultraviolet light to harden, or "cure," the photoresist so that it is more effective in maintaining the desired pattern during the subsequent implant processes and etch steps (in which the top layer of the surface of the wafer not covered by photoresist is removed). After these steps, the photoresist is no longer necessary and must be removed. The primary means of removing photoresist and residue is a process called "dry strip" or "ashing." Our dry strip machines, also called ashers, use microwave and rf energy to turn process gases into plasma, which then acts to "clean" the surface of the wafer by removing the photoresist and unwanted residue.

Stripping photoresist during the front-end-of-line transistor sequence is relatively simple and, therefore, the equipment required is characterized by high throughput and low cost. In July of 2003 we acquired Matrix Integrated Systems, a privately held company that specialized in front-end-of-line dry strip tools and processes. Our dry strip tools are capable of removing bulk photoresist from the wafer, as well as the residue left behind after bulk strip. In addition to the use of photoresist prior to the front-end-of-line implant and etch processes, photoresist is also applied and removed during back-end-of-line processes. Stripping photoresist in the back-end-of-line interconnect sequence requires more complicated tools and cleaning chemistries due to the advanced materials being used at smaller geometries. One key process is the stripping of the photoresist lying on top of the low-k dielectric film used between copper lines. Since the low-k materials are easily damaged during the photoresist removal process, tools must be designed to minimize this damage. We believe that Axcelis offers the only no damage low-k dry strip solution and that the advantages of our technology will drive growth for Axcelis' dry strip tools in this important application space. Our front-end photo resist removal capabilities coupled with our technology for back-end photo resist removal provides a complete solution for our customers.

Our curing systems are used by integrated circuit manufacturers worldwide because of our proprietary ultraviolet light source. Through several joint development efforts with third parties our curing systems also have been used for several applications in the interconnect processes such as for hardening and drying low-k dielectric materials. We believe that as the adoption rate for low-k accelerates, this film curing application provides a significant opportunity for Axcelis.

Thermal Processing Systems

At a number of points during the manufacturing process, silicon wafers need to be heated rapidly, often to 900 degrees centigrade or higher, in order to complete chemical or electronic reactions. This heating process is referred to as rapid thermal processing, or RTP. This step is used in both the transistor formation and interconnect formation processes of semiconductor manufacturing.

We acquired key technology in the area of thermal processing through our 1996 acquisition of High Temperature Engineering Corporation. In 1999, we introduced our first thermal processing products. Our thermal processing machine employs a patented design to process a single wafer in a hot wall vertical reactor. The reactor has three zones that are heated by resistive coils, as well as an actively cooled base, which create a uniform temperature gradient from top to bottom. Rapid heating and cooling of the wafer is achieved by simply adjusting the vertical position of the wafer within the reactor through the use of a lifter. The technology in our thermal processing system differs from most other thermal processing equipment, which regulates temperature through a lamp-based system.

Our Summit series of thermal processing systems has a flexible design, offering both single and dual chamber systems. Its engineering incorporates recent developments in furnace design, temperature measurement, emission correction techniques and wafer handling. The machine is suited particularly well for lower temperature processing where lamp-based systems may have difficulty controlling the temperature. One of the trends in this market segment is the migration to lower temperature nickel silicide formation for advanced devices at 90 nanometers and below. Most logic customers now are looking to migrate to nickel silicide processes from standard cobalt silicide processes over the next couple of years.

Aftermarket Support and Services

We offer our customers extensive aftermarket service and support throughout the lifecycle of the equipment we manufacture. We believe that more than 3,850 of our products, including products shipped by SEN, are in use in 50 countries worldwide. The service and support that we provide include spare parts, equipment upgrades, and maintenance services. We offer service out of 30 field offices in ten countries. Revenues generated through our service and support business represented about 42.3% of revenue in 2005 and 32.9% of revenue in 2004.

Our customer support network consists of over 650 staff, including sales and marketing personnel, field service engineers, and spare parts and applications engineers as well as employees located at our manufacturing facilities who work with our customers to provide customer training and documentation, product, process and applications support.

Most of our customers maintain spare parts inventories for our machines. We use a web-based spare parts management and replenishment tracking program, or SMART, to facilitate internet communication and e-commerce with our customers. The implementation of our SMART program has helped us to achieve reduced order fulfillment costs and cycle times, resulting in an expanded customer base for this service offering. Our Productivity Plus program, launched in 2001, provides equipment optimization capabilities through on-site networking and internet technology.

Sales and Marketing

We primarily sell our equipment and services through our direct sales force. We have 16 sales offices in ten countries. Aftermarket service and support is also offered at all of these offices. In the United States, we conduct sales and marketing activities from seven locations. Outside of the United States, our sales offices are located in Taiwan, South Korea, China, Japan, Germany, Singapore, Netherlands, France and Italy. In addition, isolated sales are made in smaller markets through distributors and manufacturing representatives.

In Japan, we exclusively license our ion implant technology to our unconsolidated joint venture, Sumitomo Eaton Nova Corporation, which manufactures and sells its machines and services directly to semiconductor manufacturers (see "Sumitomo Eaton Nova Corporation" below). We sell our curing systems, dry strip and thermal processing products in Japan through Toda Technologies Service Co., Ltd., an unaffiliated company, which provides sales and support services for these products in the Japanese market.

International revenues, including export sales from our U.S. manufacturing facilities to foreign customers, sales by foreign subsidiaries and branches, and royalties accounted for 70.4% of total revenue in 2005, 77.0% in 2004, and 65.3% in 2003. Substantially all of our sales are denominated in U.S. dollars. SEN's sales are denominated in Japanese yen. See Note 18 to our Consolidated Financial Statements contained in Item 15 of this Form 10-K for a breakdown of our revenues and long-lived assets in the United States, Europe and Asia.

Customers

In 2005, the top 20 semiconductor manufacturers accounted for approximately 77.4% of total semiconductor industry capital spending, up from 71.6% in 2004. These manufacturers are from the four largest semiconductor manufacturing regions in the world: the United States, Asia Pacific (Taiwan, South Korea, Singapore, and China), Japan and Europe. The Company and SEN together serve all of the 20 largest semiconductor manufacturers. We believe that more than 3,850 of our products, including products shipped by SEN, are in use worldwide.

Revenues from our ten largest customers accounted for 60.2%, 55.4%, and 65.6% of revenue in 2005, 2004, and 2003, respectively. We expect that sales of our products to relatively few customers will continue to account for a high percentage of revenue for the foreseeable future. In 2005, one customer, Samsung, accounted for 17.5% of revenue and 11.2% of consolidated accounts receivable at December 31, 2005. In 2004, one customer, ST Microelectronics, accounted for 14.9% of revenue. In 2003, two customers, Samsung and Micron, individually accounted for 11.7% and 10.9% of revenue respectively.

Sumitomo Eaton Nova Corporation

For more than 20 years, we have exclusively licensed our Japanese joint venture, Sumitomo Eaton Nova Corporation ("SEN"), to manufacture and sell specific ion implanter systems covered by our technology in Japan. Effective April 1, 2006 SEN will change its legal name to SEN Corporation, an SHI and Axcelis Company. SEN had 464 full-time and 273 temporary employees based in Tokyo and Toyo, Japan and manufactures, sells and services ion implanters in Japan. We own 50% of the equity of SEN and our senior managers serve as half of the members of SEN's Board of Directors. Sumitomo Heavy Industries, Ltd., a Japanese corporation, holds the other 50% of the equity of SEN. We have granted to SEN an exclusive license to use our patented and unpatented technology to manufacture, use and sell specified ion implant products in Japan. SEN has granted us a royalty-free worldwide (except for Japan) license to use any technology SEN develops that is an improvement to our technology.

SEN pays royalties on its net sales of ion implantation products in accordance with the rates set forth in the license agreement between SEN and Axcelis. The royalty rates vary depending on the type of implanter sold. These royalty amounts were $8.7 million, $13.0 million, and $5.9 million in 2005, 2004, and 2003, respectively. The current license agreement between SEN and Axcelis will continue in effect until terminated by Axcelis or by SEN with the approval of the Axcelis representatives on the SEN Board, on twelve months notice. Axcelis does not expect to terminate the SEN license agreement.

To date, Axcelis has not licensed SEN to sell Axcelis' new single wafer implant systems (the Optima MD, Optima HD and Optima HE), and Axcelis may decide to sell these products in Japan directly or through a distributor.

We have in the past allowed, and may in the future allow, SEN to sell implanters outside of Japan. We allow these sales when they are consistent with Axcelis' marketing policies and procedures. When these sales are allowed, we receive commissions in addition to royalties from SEN on these extra-territorial sales and assume most of the post-installation warranty responsibility. However, the financial benefit to Axcelis from the sale of a SEN implanter is less than the financial benefit of a sale of an Axcelis implanter, so such extra-territorial sales may have an adverse effect on our revenues.

Our trademark license agreement with SEN covering the names "Eaton" and "Nova" terminated on December 31, 2004, and SEN ceased royalty payments thereunder on October 1, 2005. Axcelis will not receive royalties for the use of "Axcelis" in the joint venture's new name.

Research and Development

Our industry continues to experience rapid technological change, requiring us to frequently introduce new products and enhancements. Our ability to remain competitive in this market will depend in part upon our ability to develop new and enhanced systems and to introduce these systems at competitive prices on a timely and cost effective basis.

We devote a significant portion of our personnel and financial resources to research and development programs and seek to maintain close relationships with our customers to remain responsive to their product needs. We have also sought to reduce the development cycle for new products through a collaborative process whereby our engineering, manufacturing and marketing personnel work closely together with one another and with our customers at an earlier stage in the process. We also use 3D, computer-aided design, finite element analysis and other computer-based modeling methods to test new designs.

Our expenditures for research and development were $70.9 million, $63.2 million, and $63.3 million in 2005, 2004, and 2003, respectively, or 19.0%, 12.4%, and 19.3% of revenues, respectively. We expect in future years that research and development expenditures will continue to represent a substantial investment.

Manufacturing

We manufacture ion implant, curing, dry strip and thermal processing products at our 417,000 sq. ft. facility in Beverly, Massachusetts. In addition, SEN manufactures ion implant and flat panel products at its 300,000 square foot facility in Toyo, Japan. Our manufacturing facilities employ advanced manufacturing methods and technologies, including lean manufacturing, Six Sigma controls and processes, and web-enabled inventory purchase systems. We manufacture our products in clean room environments that are similar to the clean rooms used by semiconductor manufacturers for wafer fabrication.

Our Beverly facility is also the location of our Advanced Technology Center, which houses an advanced process development laboratory with 12,500 sq. ft of class 10/100/1000 clean room space for product demonstration and process development and a 34,000 sq. ft. customer training center. These

demonstration facilities are used to facilitate sales and to allow customers to test their processing steps on our systems under conditions that substantially replicate the customer's production environment. These environmental conditions include power requirements, toxic gas usage, air handling requirements including humidity and temperature, equipment bay configuration, wafer characteristics and other factors. These procedures are intended to reduce

installation and production qualification times and the amount of particulates and other contaminants in the assembled system, which in turn improves yield and reduces downtime for the customer.

Most ion implant systems are assembled in five separate modules. The modules are then tested individually using specially developed software and are shipped directly to the customer, bypassing the integration of the modules into a complete implanter. As a result, the implanter system is integrated for the first time on the customer's factory floor and tested for quality assurance. We refer to this process as "ship from cell." Ship from cell manufacturing allows us to more quickly and efficiently ship and install ion implant systems than the traditional manufacturing method involving a full integration of the system in our factory. Ship from cell saves an average of 4 weeks in our manufacturing cycle time, thus improving lead-times for our customers. In 2005, 73% of our ion implantation tools were manufactured using the ship from cell technique, compared with 40% of our tools shipped from cell in the peak of 2000. All of our 200mm and 300mm implanters are qualified for ship from cell manufacturing with the exception of the Optima product line, which we expect to be available for ship from cell in 2007. Ship from cell has become our standard method of implantation manufacturing.

Each system module is packaged to maintain clean room standards during shipment. Installation is itself not a complex process and does not require specialized skills. A team of assemblers from the customer and Axcelis typically performs the installation. The process includes placing and leveling the equipment at its installation site, connecting it to sources of gas, water and electricity and recalibrating it to specifications that had previously been met during module testing.

We purchase materials, components and subassemblies, such as pumps, machine components, power supplies and other electrical components, from various suppliers. These items are either standard products or built to our specifications. Some of the components and subassemblies included in our products are obtained either from a sole source or a limited group of suppliers. Disruption to our source could affect our ability to deliver products to our customers. We have installed a web-based supply chain system in order to increase efficiency and cut costs associated with obtaining materials and components. This system electronically exchanges information with our vendors as to purchase orders, forecasts and automatic delivery updates.

We outsource many of our major sub-assemblies and components. We have several large outsourcing partners that provide this service for assemblies like the frames, power distribution systems, wafer handling systems and vacuum systems. Axcelis will continue to aggressively pursue outsourcing opportunities where the economics are justified, with a goal of enabling factory capacity and margin improvement. We outsource complex assemblies up to and including module build. Critical assemblies will continue to be manufactured in house due to the high level of expertise required.

Competition

The semiconductor wafer fabrication equipment market is highly competitive and is characterized by a small number of medium to large size participants. We compete in four principal product markets in both the front-end and back-end of the semiconductor wafer fabrication process: ion implantation, dry strip, curing and thermal processing. We believe that preexisting relationships have a significant influence on a customer's choice of equipment supplier. Other significant competitive factors in the semiconductor equipment market include price, cost of ownership, equipment performance, customer support, breadth of product line, distribution and financial viability.

Ion Implantation. In ion implantation, our major competitors are Varian Semiconductor Equipment Associates, Inc. and Applied Materials, Inc. In the high-energy equipment segment, where we hold a leading share, we compete with Varian. In the high current segment, where Axcelis has held a leading share, we compete with both Applied Materials and Varian. In the medium current equipment segment, we compete with Nissin Electric Co., Ltd. and Varian. SEN faces the same competitors in the Japanese market.

Dry Strip and Curing Systems. Our principal competitors in the dry strip product market are Mattson Technology Inc. and Novellus Systems, Inc. Our principal competitor in curing is Ushio in Japan. Several other companies, including Novellus Systems, have announced or will announce new products for the curing market. We expect competition in the curing area to increase.

Thermal Processing Systems. Our chief competitors in the thermal processing equipment market are Applied Materials, Inc. and Mattson Technology, Inc.

Intellectual Property

We rely on patent, copyright, trademark and trade secret protection, as well as contractual restrictions, in the United States and in other countries to protect our proprietary rights in our products and our business. As of January 5, 2006, we had 261 patents issued in the United States and 537 patents granted in other countries, as well as 678 patent applications (95 in the United States and 583 in other countries) on file with various patent agencies worldwide.

We intend to file additional patent applications and grow our intellectual property portfolio as appropriate. Although patents are important to our business, we do not believe that we are substantially dependent on any single patent or any group of patents.

We have trademarks, both registered and unregistered, that are maintained to provide customer recognition for our products in the marketplace.

From time to time, we enter into license agreements with third parties under which we obtain or grant rights to patented or proprietary technology. Except for our license agreement with SEN (described above under "Sumitomo Eaton Nova Corporation"), we do not believe that any of our licenses are currently material to us.

There has been substantial litigation regarding patent and other intellectual property rights in semiconductor-related industries. We do not have any currently pending patent litigation.

We can give no assurance that we, our licensors, licensees, customers or suppliers will not be subject to claims of patent infringement or claims to invalidate our patents, or that any such claims will not be successful, requiring us to pay substantial damages or delete certain features from our products or both.

Backlog

As of December 31, 2005, our systems backlog (excluding deferred systems revenue) was $47.3 million, as compared to $78.0 million and $97.7 million, respectively, for December 31, 2004 and 2003. Systems backlog including deferred systems revenue was $88.3 million, $118.4 million, and $113.4 million for December 31, 2005, 2004, and 2003 respectively. We believe it is meaningful to investors to include deferred systems revenue as part of our backlog. Deferred systems revenue represents revenue that will be recognized in future periods based on prior shipments. Our policy is to include in backlog only those system orders for which we have accepted purchase orders and typically are due to ship within 6 months. Backlog does not include orders received

for our service business (spare parts, consumables and service contracts) due to the turn rate associated with that business. Generally, orders for service or parts revenue received during the quarter are performed or shipped within the same quarter. All orders are

subject to cancellations or rescheduling by customers with limited or no penalties. Due to possible changes in system delivery schedules, cancellations of orders, and delays in systems shipments, our backlog at any particular date is not necessarily indicative of our actual sales for any succeeding period. In addition, our backlog at the beginning of a quarter typically does not include all orders required to achieve our sales objectives for that quarter and is not a reliable indicator of our future sales.

Employees

As of December 31, 2005, we had 1,527 employees and 88 temporary staff worldwide, of which 1,270 work in North America, 246 in Asia and 99 in Europe. We consider our relationship with our employees to be good. Our employees are not represented by a labor union and are not subject to a collective bargaining agreement. Some of our European locations have formed work councils, which have certain information and discussion rights under applicable law.

Environmental

We are subject to environmental laws and regulations in the countries in which we operate that regulate, among other things: air emissions; water discharges; and the generation, use, storage, transportation, handling and disposal of solid and hazardous wastes produced by our manufacturing, research and development and sales activities. As with other companies engaged in like businesses, the nature of our operations exposes us to the risk of environmental liabilities, claims, penalties and orders. We believe, however, that our operations are in substantial compliance with applicable environmental laws and regulations and that there are no pending environmental matters that would have a material impact on our business. We are ISO-14001 certified at our Beverly, MA facility.

Executive Officers

Mary G. Puma, 48, has been our President and Chief Executive Officer since January 2002 and Chairman since 2005. From May 2000 until January 2002, Ms. Puma was our President and Chief Operating Officer, prior to which she served as a Vice President of Axcelis from February 1999. In 1998, she became General Manager and Vice President of the Implant Systems Division of Eaton Corporation, a global diversified industrial manufacturer. In May 1996, she joined Eaton as General Manager of the Commercial Controls Division. Prior to joining Eaton, Ms. Puma spent 15 years in various marketing and general management positions for General Electric Company. Ms. Puma is a director of Nordson Corporation.

Stephen G. Bassett, 58, has been our Chief Financial Officer since April 2004 and Executive Vice President, Finance since May 2005, prior to which he was Senior Vice President, Finance since 2004. Prior to that, Mr. Bassett had served as interim Chief Financial Officer for Axcelis beginning in June 2003. From 1999 to 2002, Mr. Bassett served as Chief Financial Officer of Ezenia! Inc., a provider of real-time voice, video and data collaboration solutions for corporate networks and the Internet. From 1996 to 1999, Mr. Bassett worked as an independent financial consultant. From 1981 until 1996, Mr. Bassett served as an audit partner at Ernst & Young LLP, where he managed auditing services for a variety of organizations, ranging from multinational Fortune 500 companies to emerging businesses.

Kevin J. Brewer, 47, is our Senior Vice President, Manufacturing Operations, a position he has held since May 2005, prior to which he was Vice President of Manufacturing Operations since October 2002. Before then, Mr. Brewer was Axcelis' Director of Operations. Prior to joining Axcelis in 1999, Mr. Brewer was Director of Operations, Business Jets at Raytheon Aircraft Company, a leading manufacturer of business and special mission aircraft owned by Raytheon Company, a manufacturer of defense, government and commercial electronics, as well as aircraft. Prior to that, Mr. Brewer held various management positions in operations and strategic planning in Raytheon Company's Electronic Systems and Missile Systems groups.

Lynnette C. Fallon, 46, has been our General Counsel and corporate Secretary since 2001 and Executive Vice President, Human Resources/Legal since May 2005. Prior to that, Ms. Fallon was Senior Vice President HR/Legal since 2002, and Senior Vice President since 2001. Before joining Axcelis, Ms. Fallon was a partner in the Boston law firm of Palmer & Dodge LLP since 1992, where she was head of the Business Law Department from 1997 to 2001.

Matthew P. Flynn, 49, is our Senior Vice President, Global Customer Operations, a position he has held since May 2005, prior to which he was Vice President Global Customer Operations since October 2002. Before then, Mr. Flynn was Director of Sales, Ion Implant and RTP systems. Prior to joining Axcelis in 1996, Mr. Flynn held executive and management roles at Cherry Semiconductor, an integrated circuit manufacturer, and at Teledyne Inc., in its microelectronics business.

Craig Halterman, 42, has been our Chief Information Officer since July 2000 and a Senior Vice President since May 2005, before which he was a Vice President since July 2000 and our Director of Information Technology since the beginning of 2000. Prior to joining us, Mr. Halterman was Information Technology Director at Honeywell/AlliedSignal in its defense and space systems business since 1997. Before that, Mr. Halterman held various information technology positions at The Dow Chemical Co., Thompson Consumer Electronics, General Electric Co. and RCA Consumer Electronics.

Marc S. Levine, 47, has been our Senior Vice President, Product Development since August 2005. From 1980 until he joined Axcelis, Mr. Levine held executive and management roles at Teradyne Inc., a manufacturer of semiconductor test and interconnection products, most recently as Vice President, Worldwide Field Operations, and including Vice President, Enabling Technology Group and Vice President and Division Manager, ITD.

Mark J. Namaroff, 42, has been our Senior Vice President of Marketing since May 2005, prior to which he was Vice President of Marketing since January 2005 and Director of Product Marketing for Ion Implantation products since September 2004. Prior to that, Mr. Namaroff was Director of Investor Relations and Corporate Development from May 2001. Before then, Mr. Namaroff held various marketing positions since 1996, when he joined Axcelis. Before joining Axcelis, Mr. Namaroff held marketing and engineering positions at Materials Research Corporation, a manufacturer of semiconductor processing equipment, from 1990–1996.

Donald W. Palette, 48, is our Senior Vice President, Finance and Controller. He has held the position of Controller since 1999, Treasurer since 2003 and Senior Vice President since May 2005. Prior to that, Mr. Palette was our Vice President since June 2003, prior to which he was Director of Finance since August 2000. Before joining Axcelis in 1999, Mr. Palette was Controller of Financial Reporting/Operations for Simplex, a leading manufacturer of fire protection and security systems. Prior to that, Mr. Palette was Director of Finance for Bell & Howell's Mail Processing Company, a leading manufacturer of high speed mail insertion and sorting equipment.

Item 1A. Risk Factors.

Some of the matters discussed in this filing contain forward-looking statements regarding future events that are subject to risks and uncertainties. From time to time, we may also make other forward-looking public statements, such as statements concerning our then expected future revenues or earnings or concerning the prospects for our markets or our product development, projected plans, performance, order procurement as well as other estimates relating to future operations. Forward-looking statements may be in reports filed under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), in registration statements filed under the Securities Act of 1933, as amended (the "Securities Act"), in press releases or informal statements made with the approval of an authorized executive officer. The words or phrases "will likely result," "are expected to," "will continue," "is anticipated," "estimate," "project," or similar expressions are intended to identify "forward-looking statements" within the meaning of

Section 21E of the Exchange Act and Section 27A of the Securities Act, as enacted by the Private Securities Litigation Reform Act of 1995.

We wish to caution you not to place undue reliance on these forward-looking statements. These statements speak only as of the date on which they are made and represent management's expectations based on information available to them at that time. The factors listed below, as well as other factors that we may or may not have not currently identified, could affect our financial or other performance and could cause our actual results for future periods to differ materially from any opinions or statements expressed with respect to future periods or events in any current statement.

We will not undertake and specifically decline any obligation to publicly release revisions to these forward-looking statements to reflect either circumstances after the date of the statements or the occurrence of events that may cause us to re-evaluate our forward-looking statements.

Important factors that could cause our actual results to differ materially from those projected in forward-looking statements In this Form 10-K or that may otherwise be made by us or on our behalf include, but are not limited to: the cyclical nature of the semiconductor industry, our ability to keep pace with rapid technological changes in the semiconductor manufacturing processes, the highly competitive nature of the semiconductor equipment industry, quarterly fluctuations in operating results attributable to the timing and amount of orders for our products and services, dependence on SEN (our Japanese joint venture) for access to the Japanese semiconductor equipment market, and those risk factors contained in the section titled "Outlook" and below. If any of those risk factors actually occurs, our business, financial condition and results of operations could be seriously harmed and the trading price of our common stock could decline. In addition:

If semiconductor manufacturers do not make sufficient capital expenditures, our sales and profitability will be harmed.

Almost all of our new orders will depend upon demand from semiconductor manufacturers who build or expand fabrication facilities. If the rate of construction or expansion of fabrication facilities declines, demand for our systems will decline, reducing our revenues. This would also hurt our profitability, because of our high fixed cost structure and our continued investments in engineering, research and development and marketing necessary to develop new products and to maintain extensive customer service and support capabilities limit our ability to reduce expenses in proportion to declining sales.

Our financial results may fluctuate significantly.

We derive most of our revenues from the sale of a relatively small number of expensive products to a small number of customers. The list prices on these products range from $200,000 to over $4.0 million. At our current sales level, each sale, or failure to make a sale, could have a material effect on us in a particular quarter. In a given quarter, a number of factors can adversely affect our revenues and results, including changes in our product mix, increased fixed expenses per unit due to reductions in the number of products manufactured, and higher fixed costs due to increased levels of research and development and expansion of our worldwide sales and marketing organization. Axcelis' financial results also fluctuate based on gross profit realized on sales. A variety of factors may cause gross profit as a percentage of revenue to vary, including the mix and average selling prices of products sold, costs to manufacture and customize systems and warranty costs. New product introductions may also affect our gross margins. Due to the foregoing factors, we believe that investors should not rely on period-to-period comparisons of our operating results as an indicator of our future performance.

Our financial results may fall short of anticipated levels; forecasting revenues and profitability is complex and may be inaccurate.

Management typically provides financial forecasts for the subsequent quarter in the earnings release for each quarter. These forecasts are based on assumptions believed to be reasonable when made of shipment timing and contract terms. However, in some cases, the final customer terms may not have been agreed and documented at the time the forecast is made, so the level of revenues recognizable in a particular quarter may vary from the forecast. Our lengthy sales cycle, coupled with customers' competing capital budget considerations, make the timing of customer orders uneven and difficult to predict. In addition, our backlog at the beginning of a quarter typically does not include all orders required to achieve our sales objectives for that quarter and is not a reliable indicator of our future sales. As a result, our revenues and operating results for a quarter depend on our shipping orders as scheduled during that quarter as well as obtaining new orders for products to be shipped in that same quarter. Any delay in, or cancellation of, scheduled shipments or in shipments from new orders could materially and adversely affect our financial results.

The SEC's Staff Accounting Bulletin 104, addressing revenue recognition, has added additional complexity in forecasting quarterly revenues and profitability. Orders for our products usually contain multiple delivery elements that result in revenue deferral under generally accepted accounting principles. Due to the foregoing factors, investors should understand that our actual financial results for a quarter may vary significantly from our forecasts of financial performance for that quarter. Failure to meet forecast financial performance may have an adverse effect on the price of our common stock.

The semiconductor industry is highly cyclical and we expect that demand for our products will regularly increase and decrease, making it difficult to manage the business and potentially causing harm to our sales and profitability.

The semiconductor business is highly cyclical, experiencing upturns when the demand for our products is high and downturns when our customers are not investing in new or expanded fabrication facilities. Our revenues can vary significantly from one point in the cycle to another, making it difficult to manage the business, both when revenues are increasing and when they are decreasing. In addition, a substantial portion of our operating expenses are fixed and do not fluctuate with changes in volume. Significant decreases in revenues can therefore have a disproportionate effect on profitability.

Oversupply in the semiconductor industry reduces demand for capital equipment, including our products.

From time to time, inventory buildups in the semiconductor industry, resulting in part from periodic downturns, produce an oversupply of semiconductors. This will cause semiconductor manufacturers to revise capital spending plans, resulting in reduced demand for capital equipment such as our products. If an oversupply is not reduced by increasing demand from the various electronics industries that use semiconductors, which we cannot accurately predict, our sales and profitability will be harmed.

If we fail to develop and introduce reliable new or enhanced products and services that meet the needs of semiconductor manufacturers, our results will suffer.

Rapid technological changes in semiconductor manufacturing processes require us to respond quickly to changing customer requirements. Our future success will depend in part upon our ability to develop, manufacture and successfully introduce new systems and product lines with improved capabilities and to continue to enhance existing products, including products that process 300 millimeter wafers using a single wafer platform. This will depend upon a variety of factors, including new product selection, timely and efficient completion of product design and development and of manufacturing and assembly processes, product performance in the field and effective sales and marketing. In particular:

- We must develop the technical specifications of competitive new systems, or enhancements to our existing systems, and manufacture and ship these systems or enhancements in volume in a timely manner.
- We will need to accurately predict the schedule on which our customers will be ready to transition to new products, in order to accurately forecast demand for new products while managing the transition from older products.
- We will need to effectively manage product reliability or quality problems that often exist with new systems, in order to avoid reduced orders, higher manufacturing costs, delays in acceptance and payment and additional service and warranty expenses.
- Our new products must be accepted in the marketplace.

Our failure to meet any of these requirements will have a material adverse effect on our operating results and profitability.

If we fail to compete successfully in the highly competitive semiconductor equipment industry, our sales and profitability will decline.

The market for semiconductor manufacturing equipment is highly competitive and includes companies with substantially greater financial, engineering, manufacturing, marketing and customer service and support resources than we have that may be better positioned to compete successfully in the industry. In addition, there are smaller, emerging semiconductor equipment companies that provide innovative systems with technology that may have performance advantages over our systems. We expect our competitors to continue to improve the design and performance of their existing products and processes and to introduce new products and processes with improved price and performance characteristics. If we are unable to improve or introduce competing products when demanded by the markets, our business will be harmed. In addition, if competitors enter into strategic relationships with leading semiconductor manufacturers covering products similar to those sold or being developed by us, our ability to sell products to those manufacturers may be adversely affected. Finally, if we must lower prices to remain competitive without commensurate cost of goods savings, our gross margins and profitability will be adversely affected.

We have been dependent on sales to a limited number of large customers; the loss of any of these customers or any reduction in orders from them could materially affect our sales.

Historically, we have sold a significant proportion of our products and services to a limited number of fabricators of semiconductor products. For example, in 2005, our customer, Samsung, accounted for 17.5% of our net sales. Also, in 2005, our top ten customers accounted for 60.2% of our net sales. None of our customers has entered into a long-term agreement requiring it to purchase our products. Although the composition of the group comprising our largest customers has varied from year to year, the loss of a significant customer or any reduction or delays in orders from any significant customer could adversely

affect us. The ongoing consolidation of semiconductor manufacturers may also increase the harmful effect of losing one or more significant customers.

Our inability to control our Japanese a joint venture may adversely affect our results.

We own 50% of the equity of a Japanese corporation called Sumitomo Eaton Nova Corporation or SEN, to which we have granted an exclusive license to manufacture and sell specified multi-wafer and single wafer ion implanters in Japan. Sumitomo Heavy Industries, Ltd., a Japanese manufacturer of industrial machinery and ships, owns the remaining 50% of the equity. Neither Axcelis nor Sumitomo has the right to buy out the other's interest in SEN and the SEN joint venture is perpetual (although SEN's license to use our technology could be terminated by Axcelis or SEN with the approval of Axcelis representatives on the SEN Board, on twelve months notice). Our joint venture agreement with Sumitomo gives both owners veto rights, so that neither of us alone can effectively control SEN. SEN's business is subject to the same risks as our business. As a result of this joint venture structure, we have less control over SEN management than over our own management. In addition, given the equal balance of ownership, it is possible that the SEN Board may be unable to reach consensus from time to time, which could delay important decisions or create a deadlock, which could lead to liquidation of SEN.

Historically, Japan has represented approximately 20% of the annual worldwide market for ion implanters. Royalties and income from SEN have been a substantial contribution to our earnings, and a substantial decline in SEN's sales and net income could have a material adverse effect on our net income.

Axcelis is subject to the risks of operating internationally and we derive a substantial portion of our revenues from outside the United States, especially from Asia.

We are substantially dependent on sales of our products and services to customers outside the United States. International sales, including export sales from our U.S. manufacturing facilities to non-U.S. customers and sales by our non-U.S. subsidiaries and branches, accounted for 70.4% of total revenue in 2005, 77.0% in 2004, and 65.3% in 2003. In recent years, the percentage of shipments to Asia has been increasing. System shipments to Asian customers represented 68% of total shipment dollars in 2005 in comparison to 74% of total shipment dollars in 2004. We anticipate that international sales will continue to account for a significant portion of our revenue. Because of our dependence upon international sales, our results and prospects may be adversely affected by a number of factors, including:

- unexpected changes in laws or regulations resulting in more burdensome governmental controls, tariffs, restrictions, embargoes or export license requirements;
- difficulties in obtaining required export licenses;
- volatility in currency exchange rates;
- political and economic instability, particularly in Asia;
- difficulties in accounts receivable collections;
- extended payment terms beyond those customarily offered in the United States;
- difficulties in managing distributors or representatives outside the United States;
- difficulties in staffing and managing foreign subsidiary and branch operations; and
- potentially adverse tax consequences.

We may not be able to maintain and expand our business if we are not able to hire, retain and integrate qualified personnel.

Our business depends on our ability to attract and retain qualified, experienced employees. There is substantial competition for experienced engineering, technical, financial, sales and marketing personnel in our industry. In particular, we must attract and retain highly skilled design and process engineers. Competition for such personnel is intense, particularly in the Boston metropolitan area, as well as in other locations around the world. If we are unable to retain our existing key personnel, or attract and retain additional qualified personnel, we may from time to time experience levels of staffing inadequate to develop, manufacture and market our products and perform services for our customers. As a result, our growth could be limited or we could fail to meet our delivery commitments or experience deterioration in service levels or decreased customer satisfaction, all of which could adversely affect our financial results.

Our dependence upon a limited number of suppliers for many components and sub-assemblies could result in increased costs or delays in the manufacture and sale of our products.

We rely to a substantial extent on outside vendors to manufacture many of the components and subassemblies of our products. We obtain many of these components and sub-assemblies from either a sole source or a limited group of suppliers. Accordingly, we may be unable to obtain an adequate supply of required components on a timely basis, on price and other terms acceptable to us, or at all.

In addition, we often quote prices to our customers and accept customer orders for our products before purchasing components and subassemblies from our suppliers. If our suppliers increase the cost of components or subassemblies, we may not have alternative sources of supply and may not be able to raise the price of our products to cover all or part of the increased cost of components.

The manufacture of some of these components and subassemblies is an extremely complex process and requires long lead times. As a result, we have in the past and may in the future experience delays or shortages. If we are unable to obtain adequate and timely deliveries of our required components or subassemblies, we may have to seek alternative sources of supply or manufacture these components internally. This could delay our ability to manufacture or to ship our systems on a timely basis, causing us to lose sales, incur additional costs, delay new product introductions and suffer harm to our reputation.

Our international operations involve currency risk.

Substantially all of our sales are billed in U.S. dollars, thereby reducing the impact of fluctuations in foreign exchange rates on our results. Operating margins of certain foreign operations can fluctuate with changes in foreign exchange rates to the extent revenues are billed in U.S. dollars and operating expenses are incurred in the local functional currency. During the year ended December 31, 2005, approximately 11% of our revenues were derived from foreign operations with this inherent risk. In addition, at December 31, 2005, our operations outside of the United States accounted for approximately 29% of our total assets, the majority of which was denominated in currencies other than the U.S. dollar. Our investment in SEN and our royalty and equity income from SEN are subject to foreign currency exchange risks. We use forward contracts to hedge the risk of currency fluctuation with respect to SEN royalties for which payment is received in Japanese yen.

We may be unable to obtain needed additional capital.

Our capital requirements may vary widely from quarter to quarter, depending on, among other things, capital expenditures, fluctuations in our operating results, financing activities, acquisitions and investments and inventory and receivables management. Our outstanding convertible debt in the principal amount of $125 million becomes due in January 2007. We believe that our existing cash and cash equivalents and marketable securities will be sufficient to satisfy our anticipated cash requirements through the end of

2006. This, of course, depends on the accuracy of our assumptions about levels of sales and expenses, and a number of factors, including those described in these "Risk Factors," could cause us to require additional capital from external sources. In addition, in the future, we may require or choose to obtain additional debt or equity financing in order to finance acquisitions or other investments in our business. Depending on market conditions, future debt or equity financings may not be possible on attractive terms or at all. In addition, future debt or equity financings could be dilutive to the existing holders of our common stock and convertible notes. Moreover, our existing credit agreement, which expires in October 2006, contains restrictive covenants limiting our ability to engage in additional debt financings without the permission of the banks.

Our stock price could be volatile and you could lose the value of your investment.

Our stock price has been volatile and has fluctuated significantly to date. The trading price of our stock is likely to continue to be highly volatile and subject to wide fluctuations. Your investment in our stock could lose value. Some of the factors that could significantly affect the market price of our stock include:

- actual or anticipated variations in results;
- analyst reports or recommendations;
- changes in interest rates; and
- other events and factors, many of which are beyond our control.

The stock market in general and Nasdaq and technology companies in particular have experienced extreme price fluctuations.

Our proprietary technology may be vulnerable to efforts by competitors to challenge or design around, potentially reducing our market share.

We rely on a combination of patents, copyrights, trademark and trade secret laws, non-disclosure agreements and other intellectual property protection methods to protect our proprietary technology. Despite our efforts to protect our intellectual property, our competitors may be able to legitimately ascertain the non-patented proprietary technology embedded in our systems. If this occurs, we may not be able to prevent their use of this technology. Our means of protecting our proprietary rights may not be adequate and our patents may not be sufficiently broad to prevent others from using technology that is similar to or the same as our technology. In addition, patents issued to us have been, or might be challenged, and might be invalidated or circumvented and any rights granted under our patents may not provide adequate protection to us. Our competitors may independently develop similar technology, duplicate features of our products or design around patents that may be issued to us. As a result of these threats to our proprietary technology, we may have to resort to costly litigation to enforce or defend our intellectual property rights. Finally, all patents expire after a period of time (in the U.S., patents expire 20 years from the date of filing of the patent application). Our market share could be negatively impacted by the expiration of a patent which had created a barrier for our competitors.

Axcelis also has agreements with third parties for licensing of patented or proprietary technology with Axcelis as the licensor or the licensee. These agreements include royalty-bearing licenses and technology cross-licenses. Termination of license agreements could have an adverse impact on our financial performance or ability to ship products with existing configurations.

We or customers that we indemnify might face intellectual property infringement claims or patent disputes that may be costly to resolve and, if resolved against us, could be very costly to us and prevent us from making and selling our systems.

From time to time, claims and proceedings have been or may be asserted against us relative to patent validity or infringement matters. We typically agree to indemnify our customers from liability to third parties for intellectual property infringement arising from the use of our products in their intended manner. Therefore, we occasionally receive notification from customers who believe that we owe them indemnification or other obligations related to infringement claims made against the customers by third parties. Our involvement in any patent dispute or other intellectual property dispute or action to protect trade secrets, even if the claims are without merit, could be very expensive to defend and could divert the attention of our management. Adverse determinations in any litigation could subject us to significant liabilities to third parties, require us to seek costly licenses from third parties and prevent us from manufacturing and selling our systems. In addition, infringement indemnification clauses in system sale agreements may require us to take other actions or require us to provide certain remedies to customers who are exposed to indemnified liabilities. Any of these situations could have a material adverse effect on our business results.

If operations were disrupted at Axcelis' primary manufacturing facility it would have a negative impact on our business.

We have one primary manufacturing facility, located in Massachusetts. Its operations could be subject to disruption for a variety of reasons, including, but not limited to natural disasters, work stoppages, operational facility constraints and terrorism. Such disruption could cause delays in shipments of products to our customers and could result in cancellation of orders or loss of customers, which could seriously harm our business.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We have a total of 41 properties, of which 18 are located in the United States and the remainder are located in Asia and Europe, including offices in Taiwan, Singapore, South Korea, China, Japan, Malaysia, Italy, Netherlands, Germany and France. Of these properties, one is owned and 40 are leased.

Our principal facilities are listed below:

Facility Location	Principal Use	Square Footage (Owned/Leased)
Beverly, Massachusetts	Manufacturing, research and development, sales/marketing, customer support, advanced process development, product demonstration, customer-training center and corporate headquarters.	417,000 (owned)
Rockville, Maryland	Research and development, marketing and customer support.	89,000

(leased)

Our Japanese joint venture manufactures ion implantation products in a 300,000 square foot owned facility located in Toyo, Japan.

During 2005, we consolidated the administrative offices, development, and customer support operations of our Cleaning and Curing product group, based in Rockville, Maryland, into our headquarters

and manufacturing facility located in Beverly, Massachusetts. The consolidation is part of our ongoing initiative to reduce our fixed cost infrastructure and to enhance profitability and cash flow. We expect to continue to occupy approximately 22,000 square feet of the Rockville, Maryland facility. At December 31, 2005, approximately 9,000 square feet of the Rockville, Maryland facility has been subleased.

We believe that there is no material long-term, excess capacity in our manufacturing facilities, although utilization is subject to change based on customer demand. We believe that our manufacturing facilities and equipment generally are well maintained, in good operating condition, suitable for our purposes, and adequate for our present operations. Our Beverly, Massachusetts and Rockville, Maryland facilities are ISO 9001 and ISO 14001 certified and all locations are ISO 9001 certified.

Item 3. Legal Proceedings.

We are not a party to any material legal proceedings.

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

None

PART II

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

Our common stock trades on the Nasdaq stock market under the symbol ACLS. The following table sets forth the high and low closing sale prices as reported on the Nasdaq stock market during each of the quarters for the two most recent years. As of March 3, 2006, we had approximately 7,088 stockholders of record. We have not paid any cash dividends in the past five years and do not anticipate paying cash dividends in the future. In any event, we would be restricted from doing so by the terms of our bank credit agreement.

	Common Stock Price	
	High	Low
2004		
First quarter	$13.22	$9.50
Second quarter.	12.44	9.97
Third quarter	11.91	7.26
Fourth quarter	9.12	6.59
2005		
First quarter	$9.35	$6.79
Second quarter.	7.96	5.49
Third quarter	7.48	5.12
Fourth quarter	5.87	4.12

We did not purchase any shares of Axcelis' common stock during the fourth quarter of 2005.

Item 6. Selected Financial Data.

The following selected consolidated statements of operations data for each of the three years ended December 31, 2005, 2004, and 2003 and the consolidated balance sheet data as of December 31, 2005 and 2004 have been derived from the audited consolidated financial statements contained in Item 15 of Part IV of this Form 10-K. The selected consolidated balance sheet data as of December 31, 2003 has been derived from the audited financial statements contained in our Form 10-K filed on March 15, 2005. The selected consolidated statements of operations data for each of the two years ended December 31, 2002 and 2001 and the consolidated balance sheet data as of December 31, 2002 and 2001 has been derived from the audited financial statements contained in our Form 10-K filed on March 28, 2003.

The historical financial information set forth below may not be indicative of our future performance and should be read together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our historical consolidated financial statements and notes to those statements included in Item 7 of Part II and Item 15 of Part IV, respectively of this Form 10-K.

	Years ended December 31,				
	2005	2004	2003	2002	2001
	(in thousands, except per share amounts)				
Consolidated statements of operations data					

Revenue	$ 372,540	$ 507,976	$ 327,990	$ 318,084	$ 371,727
Gross profit	154,431	211,528	110,368	112,344	137,488
Income (loss) before income taxes	(1,982)	75,139	(44,341)	(49,743)	(40,401)
Net income (loss)	(3,855)	74,175	(113,876)	(26,150)	(20,163)
Net income (loss) per share					
Basic	$ (0.04)	$ 0.75	$ (1.16)	$ (0.27)	$ (0.21)
Diluted	$ (0.04)	$ 0.73	$ (1.16)	$ (0.27)	$ (0.21)
Shares used in computing basic and diluted per share amounts					
Basic	100,301	99,528	98,514	97,920	97,215
Diluted	100,301	101,205	98,514	97,920	97,215
Consolidated balance sheet data					
Cash and cash equivalents	$ 71,417	$ 108,295	$ 65,749	$ 146,298	$ 122,200
Working capital	301,143	298,184	231,537	293,340	224,435
Total assets	661,443	688,862	585,244	668,752	551,001
Long-term liabilities	141,176	137,994	134,023	135,063	3,752
Stockholders' equity	426,041	443,473	353,250	452,508	462,861

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

Certain statements in "Management's Discussion and Analysis of Financial Condition and Results of Operations" are forward-looking statements that involve risks and uncertainties. Words such as may, will, should, would, anticipates, expects, intends, plans, believes, seeks, estimates and similar expressions identify such forward-looking statements. The forward-looking statements contained herein are based on current expectations and entail various risks and uncertainties that could cause actual results to differ materially from those expressed in such forward-looking statements. Factors that might cause such a difference include, among other things, those set forth under "Liquidity and Capital Resources" and "Risk Factors" and those appearing elsewhere in this Form 10-K. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management's analysis only as of the date hereof. We assume no obligation to update these forward-looking statements to reflect actual results or changes in factors or assumptions affecting forward-looking statements.

Overview

Axcelis Technologies, Inc. ("Axcelis," "we," "us," or "our"), is a worldwide producer of ion implantation, dry strip, thermal processing and curing equipment used in the fabrication of semiconductors. In addition, we provide extensive aftermarket service and support, including spare parts, equipment upgrades, and maintenance services. We own 50% of the equity of a joint venture known as Sumitomo Eaton Nova Corporation, or "SEN" with Sumitomo Heavy Industries, Ltd. in Japan. SEN licenses technology from us relating to the manufacture of specified ion implantation products and has exclusive rights to manufacture and sell these products in the territory of Japan. SEN is the leading producer of ion implantation equipment in Japan.

The semiconductor capital equipment industry has in the past been subject to significant cyclical swings in capital spending by semiconductor manufacturers. Capital spending is influenced by demand for semiconductors and the products using them, the utilization rate and capacity of existing semiconductor manufacturing facilities and changes in semiconductor technology, all of which are outside of our control. As a result, our revenues and gross margins, to the extent affected by increases or decreases in volume, could fluctuate from year to year and period to period. Our gross margins are also affected by the introduction of new products. We typically become more efficient in manufacturing products as they mature. For example, our gross margins in 2002, 2003 and 2004 were adversely affected in part as a result of the increased proportion of relatively new systems sold to process 300mm wafers. We expect gross margins to decline in 2006 due to sales of our new single wafer implant products. Our expense base is largely fixed and does not vary significantly with changes in volume. Therefore, we could experience fluctuations in operating results and cash flows depending on our revenues as driven by the level of capital expenditures by semiconductor manufacturers.

The substantial expense of building, upgrading or expanding a semiconductor fabrication facility is increasingly causing semiconductor companies to contract with foundries to manufacture their semiconductors. In addition, consolidation and joint venturing within the semiconductor manufacturing industry is increasing. We expect these trends to continue to reduce the number of our potential customers. This growing concentration of Axcelis' customers may increase competitive pricing as higher percentages of our total revenues are tied to the buying decisions of a particular customer or a small number of customers.

The years 2005 and 2006 are transition years in implant products and technology. While customers continue to buy multi-wafer tools, leading edge customers are shifting to single wafer tools. We introduced our single wafer Optima platform in 2005 and have development projects underway to produce and launch our next generation of single wafer products.

Axcelis accesses the important Japanese market for certain ion implant systems through a joint venture (known as SEN) with Sumitomo Heavy Industries, Ltd. that we do not control. The joint venture agreement gives both owners veto rights, so that neither owner alone can effectively control SEN. SEN's business is subject to the same risks as our business. Royalties and equity income from SEN have made a substantial contribution to our earnings, and a substantial decline in SEN's sales and net income could have a material adverse effect on our operating results. As a result of this joint venture structure, we have less control over SEN management than over our own management and may not have timely knowledge of factors affecting SEN's business. In addition, given the equal ownership, it is possible that the SEN Board may be unable to reach consensus on important matters from time to time which could delay important decisions. The license agreement between SEN and Axcelis continues in its existing form on a year-to-year basis, subject to the right of either party to terminate. Under the SEN bylaws, termination of the license agreement by SEN would be an important matter requiring approval of a majority of the SEN directors. Given Axcelis' 50% representation on the SEN Board, the license agreement will be perpetual until such time as Axcelis deems a termination to be in our interest. Axcelis has no present intent to terminate the SEN license agreement. During 2005, Axcelis and SEN sought to agree on amendments to the

license agreement to add additional licensed products and related royalty terms, but no agreement has been reached as of March 8, 2006. As a result the current license agreement between SEN and Axcelis continues in its existing form.

Operating results for the future years presented are not necessarily indicative of the results that may be expected for other interim periods or for the year as a whole.

Critical Accounting Estimates

Management's discussion and analysis of our financial condition and results of operations are based upon Axcelis' consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, we evaluate our estimates, including those related to revenue recognition, income taxes, accounts receivable, inventory and warranty obligations. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe the following accounting policies are critical in the portrayal of our financial condition and results of operations and require management's most significant judgments and estimates in the preparation of our consolidated financial statements.

Revenue Recognition

Axcelis' revenue recognition policy involves significant judgment by management. As described in detail below, we consider a broad array of facts and circumstances in determining when to recognize revenue, including contractual obligations to the customer, the complexity of the customer's post delivery acceptance provisions, payment history, customer creditworthiness and the installation process. In the future, if the post delivery acceptance provisions and installation process become more complex or result in a materially lower rate of acceptance, we may have to revise our revenue recognition policy, which could delay the timing of revenue recognition.

For revenue arrangements prior to July 1, 2003, Axcelis generally recognized the full sale price at the time of shipment to the customer. The costs of system installation at the customer's site were accrued at

the time of shipment. In addition, the estimated costs of standard and non-standard warranties were accrued at the time of shipment.

In November 2002, the Financial Accounting Standards Board's Emerging Issues Task Force reached a consensus on Issue No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables" ("EITF 00-21"). This issue addresses determination of whether an arrangement involving more than one deliverable contains more than one unit of accounting and how the arrangement consideration should be measured and allocated to the separate units of accounting. EITF 00-21 became effective for revenue arrangements entered into in periods beginning after June 15, 2003. For revenue arrangements occurring on or after July 1, 2003, we have revised our revenue recognition policy to comply with the provisions of EITF 00-21 and subsequently the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin No. 104 ("SAB 104"), "Revenue Recognition."

Axcelis' revenue transactions include sales of systems under multiple element arrangements. Revenue under these arrangements is allocated to each element, except systems, based upon its estimated fair market value. The amount of revenue allocated to systems is calculated on a residual method. Under this method, the total value of the arrangement is allocated first to the undelivered elements, with the residual amount being allocated to systems revenue. The value of the undelivered elements includes (a) the greater of (i) the fair value of the installation or (ii) the portion of the sales price that will not be received until the installation is completed (the "retention") plus (b) the fair value of all other undelivered elements. The amount allocated to installation is based upon the fair value of the service performed, including labor, which is based upon the estimated time to complete the installation at hourly rates, and material components. The fair value of all other undelivered elements is based upon the price charged when these elements are sold separately. System revenue is generally recognized upon shipment provided title and risk of loss has passed to the customer, evidence of an arrangement exists, prices are contractually fixed or determinable, collectibility is reasonably assured through historical collection results and regular credit evaluations, and there are no uncertainties regarding customer acceptance. Revenue from installation services is recognized at the time formal acceptance is received from the customer or, for certain customers, when both the formal acceptance and retention payment have been received. Revenue for other elements is recognized at the time products are shipped or the related services are performed.

Management continues to believe recognition of systems revenue at the time of shipment is appropriate because the customer's post delivery acceptance provisions and installation process have been established to be routine, commercially inconsequential and perfunctory. The majority of Axcelis' systems are designed and tailored to meet the customer's specifications, as outlined in the contract between the customer and Axcelis, which may be the Axcelis standard specification. To ensure that the customer's specifications are satisfied, many customers request that newer systems be tested at Axcelis' facilities prior to shipment, normally with the customer present, under conditions that substantially replicate the customer's production environment and the customer's criteria are confirmed to have been met. Customers of mature products generally do not require pre-shipment testing. We believe the risk of failure to complete a system installation is remote. Should an installation not be completed successfully, the contractual provisions do not provide for forfeiture, refund or other purchase price concession beyond those prescribed by the provisions of the Uniform Commercial Code applicable generally to such transactions.

In the small number of instances where Axcelis is unsure of meeting the customer's specifications or obtaining customer acceptance upon shipment of the system or for initial shipments of systems with new technologies, Axcelis will defer the recognition of systems revenue and related costs until written customer acceptance of the system is obtained. This deferral period is generally within twelve months of shipment.

Services revenue includes revenue from spare parts, equipment upgrades and maintenance services. Revenue related to maintenance and service contracts is recognized ratably over the duration of the

contracts, or based on parts usage, where appropriate. Revenue related to time and material services is recognized when the services are performed. Revenue related to spare parts sales and equipment upgrades is recognized upon the later of shipment or when the title and risk of loss passes to the customer.

Goodwill and Other Intangible Assets

We account for acquisitions under the purchase method of accounting pursuant to Statement of Financial Accounting Standard (SFAS) No. 141, "Business Combinations." Goodwill represents the excess of cost over net assets, including all identifiable intangible assets, of acquired businesses. Pursuant to SFAS No. 142, "Goodwill and Other Intangible Assets," goodwill is not amortized. Other intangible assets that are separable from goodwill and have determinable useful lives are valued separately and amortized over their useful lives. Such other identifiable intangible assets consist mainly of developed technology and are generally amortized over periods ranging from five to ten years.

We perform an annual impairment review of goodwill. Impairment reviews may be performed more frequently if there are other indicators of impairment. The annual impairment test consists of determining the fair market value of the business unit through a discounted cash flow analysis. Management's best judgments are employed in determining future market conditions that impact this discounted cash flow analysis. As a result of our annual review conducted as of December 31, 2005, we determined that there was no impairment of our goodwill. If we determine through the impairment review process that goodwill has been impaired, we would record the impairment charge in our statement of operations as a non-cash charge to earnings.

We assess the impairment of intangible assets, other than goodwill, whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important that could trigger an impairment review include the following:

- a significant underperformance relative to expected operating results;
- a significant change in the manner of our use of the acquired asset or the strategy for our overall business;
- a significant negative industry or economic trend; and
- a significant decrease in our market capitalization relative to net book value.

As part of this assessment, we review the expected future undiscounted cash flows to be generated by the assets. If we determine that the carrying value of intangibles may not be recoverable, we measure any impairment based on a projected discounted cash flow method using a discount rate determined by our management to be commensurate with the risk inherent in our current business model.

Accounts Receivable—Allowance for Doubtful Accounts

Axcelis records an allowance for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. If the financial condition of Axcelis' customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be necessary.

Inventory—Allowance for Excess and Obsolescence

Axcelis records an allowance for estimated excess and obsolete inventory. The allowance is determined using management's assumptions of materials usage, based on estimates of forecasted and historical demand and market conditions. If actual market conditions become less favorable than those projected by management, additional inventory write-downs may be required.

Product Warranty

Axcelis offers a one to three year product warranty, the terms and conditions of which vary depending upon the product sold. For all systems sold, we accrue a liability for the estimated cost of standard warranty at the time of system shipment and defer the portion of systems revenue attributable to the fair value of non-standard warranty. Costs for non-standard warranty are expensed as incurred. Factors that affect our warranty liability include the number of installed units, historical and anticipated product failure rates, material usage and service labor costs. We periodically assess the adequacy of our recorded liability and adjust the amount as necessary.

Results of Operations

The following table sets forth our results of operations as a percentage of total revenues for the periods indicated:

	Years Ended December 31,		
	2005	2004	2003
Revenue			
Systems	55.3%	64.3%	59.4%
Services	42.3	32.9	38.8
Royalties, primarily from SEN	2.4	2.8	1.8
	100.0	100.0	100.0
Cost of revenue	58.5	58.4	66.4
Gross profit	41.5	41.6	33.6
Operating expenses			
Research and development	19.0	12.4	19.3
Sales and marketing	12.0	9.4	14.1
General and administrative	12.2	9.1	12.5
Amortization of intangible assets	0.7	0.5	0.6
Restructuring charges	1.7	0.2	1.5
	45.7	31.6	48.0
Income (loss) from operations	(4.3)	10.1	(14.3)
Other income (expense)			
Equity income of SEN	4.2	6.0	2.7
Interest income	1.5	0.4	0.6
Interest expense	(1.8)	(1.3)	(1.9)
Other—net	(0.2)	(0.4)	(0.6)
	3.7	4.7	0.8
Income (loss) before income taxes	(0.5)	14.8	(13.5)

Income taxes	0.5	0.2	21.2
Net income (loss)	(1.0)%	14.6%	(34.7)%

Year ended December 31, 2005 in comparison to the year ended December 31, 2004

Revenue

Systems revenue was $206.1 million, or 55.3% of revenue in 2005, compared with $326.5 million, or 64.3% of revenue, in 2004. The decrease in sales of systems compared with 2004 was primarily attributable to weaker market demand resulting from lower levels of chip production by our semiconductor manufacturing customers. Also, while the effect is not yet quantifiable, systems revenue has also declined because semiconductor manufacturers are shifting away from our multi-wafer high current ion implant systems to single wafer high current ion implant systems. The high current segment constitutes

approximately fifty percent of the worldwide ion implant market. Our first shipment of our new single wafer high dose ion implant system is expected in 2006. We began shipping our new mid dose single wafer ion implant system in 2005, but have not yet recognized revenue for any such shipments to date.

Approximately 42.3% of systems revenue in 2005 was from sales of 200mm products and 57.7% were from sales of 300mm products, compared with 61.6% and 38.4% for sales of 200mm products and 300mm products in 2004, respectively. This highlights the market trend towards 300mm products and the decrease in expansion of facilities using 200mm products.

Services revenue, which includes spare parts, equipment upgrades, and maintenance services, was $157.6 million, or 42.3% of revenue for 2005, compared with $167.0 million, or 32.9% of revenue for 2004. Services revenue fluctuates with capacity utilization by our customers, and the decline in services revenue for 2005 is attributable to declining utilization by semiconductor manufacturers.

As described above in “Revenue Recognition,” a portion of our systems revenue is deferred until installation and other services related to future deliverables are performed. The total amount of deferred revenue at December 31, 2005 and 2004 was $41.3 million and $41.7 million, respectively.

Royalty revenue was $8.8 million, or 2.4% of revenue for 2005, compared with $14.4 million, or 2.8% of revenue for 2004. Royalties are primarily earned under the terms of our license agreement with SEN. Revenue changes are mainly attributed to fluctuations in SEN sales volume based on demand for equipment by Japanese semiconductor manufacturers and the timing of shipments in Japan.

Revenue from sales of ion implantation products and services accounted for $297.3 million, or 79.8% of total revenue in 2005, compared with $412.3 million, or 81.2%, of total revenue in 2004.

Worldwide revenues including revenues of SEN, for the years ending December 31, 2005 and 2004 were $627.4 million and $837.7 million, respectively. Worldwide revenues decreased compared with 2004 due to the decline in demand for semiconductor equipment and the transition to single wafer, high dose ion implant systems, as discussed above, as well as the timing of shipments in Japan. Axcelis believes that the information regarding the aggregate annual revenues of SEN, a 50% owned unconsolidated subsidiary of Axcelis, combined with Axcelis’ own revenues for the year, is useful to investors. SEN’s ion implant products are covered by a license from Axcelis and, therefore, the combined revenue of the two companies indicates the full market penetration of Axcelis’ technology.

Gross Profit

Gross profit was 41.5% of revenue in 2005 compared with 41.6% of revenue in 2004. The gross profit decrease of .1 percentage points was the result of unfavorable systems cost and product mix (approximately 2.5 percentage points), unfavorable systems volume (approximately 1.6 percentage points) and 100% margin SEN royalties (approximately .5 percentage points), offset by an increased percentage of parts and service volume and margins (approximately 4.3 percentage points), and lower warranty costs (approximately .3 percentage points).

Research and Development

Research and development expense was $70.9 million in 2005, an increase of $7.7 million, or 12.2%, as compared with $63.2 million in 2004. The increase was driven primarily by expenses associated with the timing of project material usage, supplies and contract labor ($9.4 million) and increased amortization related to manufactured products used in research and development ($1.4 million). These cost increases were partially offset by lower costs associated with variable compensation ($2.2 million) and lower payroll and payroll related expenses ($0.8 million). Increases in overall research and development expenses in 2005 compared with 2004 are attributable to development efforts related to our single wafer Optima platform.

Research and development expense was attributable to the following activities in 2005; 60% for new product development, 22% for improvement of existing products, and 18% for product testing.

Sales and Marketing

Sales and marketing expense was $44.8 million in 2005, a decrease of $2.8 million, or 5.9%, as compared with $47.6 million in 2004. This decrease was driven primarily by lower payroll and payroll related expenses associated with reduction in force actions ($2.0 million) and lower commission expense ($0.9 million).

General and Administrative

General and administrative expense was $45.6 million in 2005, a decrease of $0.5 million, or 1.1%, as compared with $46.1 million in 2004. This decrease was driven primarily by lower costs associated with variable compensation ($3.3 million), reduced salary expense ($0.6 million) and reduced supplies costs ($0.8 million) offset by costs associated with the consolidation of our Rockville, Maryland operations into our headquarters and manufacturing facility located in Beverly, Massachusetts ($4.4 million).

Restructuring

Restructuring expense of $6.5 million in 2005 consists primarily of severance and other one-time termination benefits related to reduction in force actions and the consolidation of our Rockville, Maryland operations into our headquarters and manufacturing facility located in Beverly, Massachusetts. In total, we expect to incur approximately $13.2 million in restructuring and general and administrative expenses related to these actions, of which $12.4 million has been recognized as expense since the fourth quarter of 2004. We expect to incur approximately $0.8 million in additional expense over the first quarter of 2006. Of the total cost related to these actions, approximately $12.4 million is expected to result in cash expenditures, of which $9.6 million has been paid through December 31, 2005. The accruals for severance and retention are expected to be paid over the first six months of 2006. The lease charges are expected to be paid over the remaining lease periods extending to 2007. The impact of these cost reductions on our liquidity is not significant, as these actions are expected to yield equivalent actual cash savings within twelve months.

Changes in our restructuring liability are as follows:

	Severance	Retention	Leases	Leasehold Improvements	Total
			(in thousands)		
Balance at December 31, 2004	$ 724	$ 44	$ —	$ —	$ 768
Restructuring expense	3,263	585	1,924	725	6,497
Cash payments	(3,351)	(509)	(660)	—	(4,520)
Non-cash impairment	—	—	—	(725)	(725)
Balance at December 31, 2005	$ 636	$ 120	$ 1,264	$ —	$ 2,020

Other Income (Expense)

Equity income attributable to SEN was $15.8 million in 2005 compared to $30.5 million in 2004. Fluctuations in equity contributions from SEN reflect changes in its sales volume and net income resulting from demand changes in the Japanese semiconductor market, and the timing of shipments in Japan.

Interest income of $5.5 million primarily relates to interest earned on cash, cash equivalents and short-term investments. Interest income increased by $3.5 million from 2004 due primarily to higher interest rates earned on invested balances.

Interest expense of $6.6 million in 2005 and $6.7 million in 2004 primarily relates to our long-term debt issued in January 2002.

Income Taxes

Income tax expense for 2005 was $1.9 million. Income tax expense relates principally to operating results of foreign entities in jurisdictions, principally in Asia, where we earn taxable income. We have significant net operating losses in the United States and certain foreign tax jurisdictions, principally Europe, and, as a result, do not pay significant income taxes in those jurisdictions nor have the ability to obtain tax benefit for such losses. Accordingly, our effective income tax rate is not meaningful.

Year ended December 31, 2004 in comparison to the year ended December 31, 2003

Revenue

Systems revenue was $326.5 million, or 64.3% of revenue in 2004, compared with $194.9 million, or 59.4% of revenue, in 2003. The increase in sales of systems compared with 2003 was primarily attributable to strong market demand resulting from high levels of chip production by our semiconductor manufacturing customers.

Approximately 61.6% of systems revenue for 2004 was from the sales of 200mm products and 38.4% was from the sales of 300mm products, compared with 64.6% and 35.4%, for sales of 200mm products and 300mm products in 2003, respectively. Sales of 200mm products were strong during 2004 due to the expansion of existing 200mm production capacity that outpaced the investment in new 300mm fabrication facilities.

Services revenue, which includes spare parts, equipment upgrades, and maintenance services, was $167.0 million, or 32.9% of revenue for 2004, compared with $127.1 million, or 38.8% of revenue for 2003. Services revenue fluctuates with capacity utilization by our customers, and the increase in services revenue for 2004 compared with 2003 was a result of increased capacity utilization by our customers which has a direct effect on demand for both spare parts and billable labor. In addition, as the out of warranty installed base increased, demand for service maintenance contracts also increased.

As described above in “Revenue Recognition,” a portion of our systems revenue is deferred until installation and other services related to future deliverables are performed. The total amount of deferred revenue at December 31, 2004 and 2003 was $41.7 million and $16.5 million, respectively.

Royalty revenue was $14.4 million, or 2.8% of revenue for 2004, compared with $6.0 million, or 1.8% of revenue for 2003. Royalties are primarily earned under our license agreement with SEN. Revenue changes are mainly attributed to fluctuations in the SEN sales volume based on demand for equipment by Japanese semiconductor manufacturers and the timing of shipments in Japan.

Revenue from sales of ion implantation products and services accounted for $412.3 million, or 81.2%, of total revenue in 2004, compared with $243.9 million, or 74.3%, of total revenue in 2003. The higher proportion of total revenue from the sale of ion implantation products and services in 2004 is primarily a

result of capacity expansion by semiconductor manufacturers whereby capital spending for ion implantation products has outpaced increases in total wafer fabrication equipment spending.

Worldwide revenues, including revenues of SEN, for the years ending December 31, 2004 and 2003 were $837.7 million and $492.2 million, respectively. Worldwide revenues increased by $345.5 million compared to 2003 due to the growth in demand for equipment by semiconductor manufacturers discussed above. Axcelis believes that the information regarding the aggregate annual revenues of SEN, a 50% owned unconsolidated subsidiary of Axcelis, combined with Axcelis' own revenues for the year, is useful to investors. SEN's ion implant products are covered by a license from Axcelis and therefore the combined revenue of the two companies indicates the full market penetration of Axcelis' technology.

Gross Profit

Gross profit was 41.6% of revenue in 2004 compared with 33.6% of revenue in 2003. The gross profit increase of 8.0 percentage points was primarily due to increased sales volume and the related increased absorption of fixed manufacturing costs (approximately 6 percentage points), reduced system warranty costs (approximately 1.5 percentage points) and improved pricing (approximately 1 percentage point) due to favorable market conditions which provided increased demand and an expanded customer base.

Research and Development

Research and development expense was $63.2 million in 2004, a decrease of $0.1 million, compared with $63.3 million in 2003. While research and development expenses remained primarily flat year over year, the individual components varied. Increased variable compensation ($2.9 million) and expenses associated with the timing of projects ($2.4 million) were offset in part by lower amortization related to demo tools used in R&D ($1.7 million), lower payroll and payroll related expense primarily due to headcount reductions ($1.9 million), lower facility costs allocated to research and development ($1.1 million), and lower fixed costs associated with depreciation and leased equipment ($0.6 million).

Sales and Marketing

Sales and marketing expense was $47.6 million for 2004, an increase of $1.4 million, or 3.0%, compared with $46.2 million for 2003 primarily due to increased expenses for customer and evaluation tool support ($1.1 million), travel associated with increased volume ($0.8 million), and commissions ($0.4 million). Cost increases were offset in part by lower payroll and payroll related expense primarily due to our September 2003 restructuring ($1.3 million).

General and Administrative

General and administrative expense was $46.1 million in 2004, an increase of $5.0 million, or 12.2%, as compared with $41.1 million in 2003. General and administrative expense increased in 2004 primarily due to increased variable compensation ($3.8 million), higher audit fees and costs related to compliance with section 404 of the Sarbanes-Oxley Act ($1.6 million). In addition, general and administrative expense in 2003 was reduced by an adjustment of $1.7 million to reflect a change in estimate relating to unfunded pension and other benefits recorded in prior years.

Amortization of Intangible Assets

Amortization of intangible assets was $2.4 million in 2004, an increase of $0.4 million, or 20%, as compared with $2.0 million in 2003. The increase was due to a full year of amortization expense relating to the intangible assets acquired as part of the Matrix Integrated Systems, Inc. acquisition completed on July 3, 2003.

Restructuring

Restructuring expense of $1.0 million in 2004 consists primarily of severance and other one-time termination benefits related to reduction in force actions and the consolidation of our Rockville, Maryland operations into our headquarters and manufacturing facility located in Beverly, Massachusetts.

Changes in our restructuring liability are as follows:

	Severance	Retention	Total
Balance at December 31, 2003	$ 876	$ —	$ 876
Restructuring expense	950	44	994
Cash payments	(1,102)	—	(1,102)
Balance at December 31, 2004	$ 724	$ 44	$ 768

Other Income (Expense)

Equity income attributable to SEN was $30.5 million in 2004 compared to $9.0 million in 2003. Fluctuations in equity contributions from SEN reflect changes in its sales volume and net income resulting from demand changes in the Japanese semiconductor market.

Interest income of $2.0 million primarily relates to interest earned on cash, cash equivalents and short-term investments. Interest income increased by $0.2 million from 2003 due primarily to increased levels of cash, cash equivalents and short-term investments in 2004, as well as higher interest rates.

Interest expense of $6.7 million in 2004 primarily relates to our long-term debt issued in January 2002. Interest expense increased by $0.5 million compared with 2003 due primarily to the amortization of bank fees associated with the October 2003 renegotiation of our revolving credit facility. See Note 13 to the Consolidated Financial Statements contained in Item 15 of this Form 10-K.

Income Taxes

Income tax expense for 2004 was reduced by $4.0 million from the reversal of income tax accruals recorded in prior years for certain tax matters that were resolved in the second quarter of 2004. Income tax expense relates principally to operating results of foreign entities in jurisdictions, principally in Asia, where we earn taxable income. Income tax expense attributable to U.S. operations is minimal because taxable income derived from the current year operating results is substantially offset by available net operating loss carryforwards. We have significant net operating losses in the United States and certain foreign tax jurisdictions, principally Europe, and, as a result, do not pay significant income taxes in those jurisdictions nor have the ability to obtain tax benefit for such losses. Accordingly, our effective income tax rate is not meaningful.

Liquidity and Capital Resources

Cash, cash equivalents, and short-term investments at December 31, 2005 were $165.2 million, compared to $187.0 million at December 31, 2004. The $21.8 million decrease in cash and cash equivalents, and short-term investments is mainly attributable to $13.7 million in cash used by operations, $7.8 million used for capital expenditures, and increases in restricted cash balances of $4.9 million, partially offset by $3.6 million in proceeds from the exercise of stock options and stock purchases under the Employee Stock Purchase Plan.

Capital expenditures were $7.8 million and $5.5 million for the years ended December 31, 2005 and 2004, respectively. The increase was primarily due to the consolidation of our Rockville, Maryland operations into our headquarters and manufacturing facility in Beverly, Massachusetts. We have no significant capital projects planned for 2006 and total capital expenditures for 2006 are projected to be less

than $10.0 million. Future capital expenditures beyond 2006 will depend on a number of factors, including the timing and rate of expansion of our business.

We have no off-balance sheet arrangements other than foreign exchange contracts used to hedge amounts receivable from SEN ($1.9 million at December 31, 2005).

We have net operating loss and tax credit carryforwards the tax effect of which aggregate $84.8 million at December 31, 2005. These carryforwards, which expire principally between 2018 and 2025, are available to reduce future income tax liabilities in the United States and certain foreign jurisdictions.

We have a $50.0 million revolving credit facility that expires in October 2006. We expect to be able to renew the credit facility when it expires. The purpose of the facility is to provide funds for working capital and general corporate purposes as required. To the extent that we have borrowings under the agreement, those borrowings would bear interest at the bank's base rate, as defined in the agreement, or LIBOR plus an applicable percentage. We have no plans to borrow against the facility but may use the facility to support letters of credit in the future. The credit facility is secured by substantially all of our assets (excluding our investment in SEN) and contains certain financial and other restrictive covenants including restrictions on the payment of dividends, minimum levels of tangible net worth, liquidity and profitability as well as maximum levels of indebtedness and capital spending. At December 31, 2005, we were in compliance with all covenants. We incur an annual commitment fee based on an EBITDA formula outlined in the agreement applied to the full commitment.

We have $125.0 million of outstanding convertible debentures that mature in January 2007. We believe that our existing cash balances, expected positive cash flows for 2006, and anticipated access to bank financing will allow us to repay the debt when it matures without causing a liquidity issue.

We have outstanding standby letters of credit, bank guarantees and surety bonds in the amount of $17.0 million to support certain operating lease obligations, workers' compensation insurance, and certain value added tax claims in Europe. In addition, at December 31, 2005, $11.2 million of cash was pledged as collateral for certain outstanding standby letters of credit and bank guarantees, and is reflected as restricted cash on the consolidated balance sheet.

The following represents our contractual obligations and commercial commitments as of December 31, 2005 (in thousands):

		Payments Due by Period			
Contractual Obligations	**Total**	**2006**	**2007-2008**	**2009-2010**	**Thereafter**
Long-term debt (including interest)	$ 132,969	$ 5,313	$ 127,656	$ —	$ —
Purchase order commitments	34,430	34,430	—	—	—
Operating leases	11,162	5,100	5,212	685	165
	$ 178,561	$ 44,843	$ 132,868	$ 685	$ 165

		Amount of Commitment Expiration by Period			
Other Commercial Commitments	**Total**	**2006**	**2007-2008**	**2009-2010**	**Thereafter**
Unused line of credit	$ 50,000	$ 50,000	$ —	$ —	$ —
Standby letters of credit	8,629	7,949	680	—	—
Guarantees	8,421	1,194	5,291	1,936	—
	$ 67,050	$ 59,143	$ 5,971	$ 1,936	$ —

Axcelis' liquidity is affected by many factors. Some of these factors are based on normal operations of the business and others relate to the uncertainties of global economies and the semiconductor equipment industry. Although our cash requirements fluctuate based on the timing and extent of these factors, we

believe that our existing cash and cash equivalents will be sufficient to satisfy our anticipated cash requirements for at least the next twelve months.

Recent Accounting Pronouncements

SFAS 151

In November 2004 the FASB issued Statement of Financial Accounting Standards No. 151 ("SFAS 151") "Inventory Costs, an amendment of ARB 43, Chapter 4." SFAS 151 amends the guidance in ARB No. 43, Chapter 4, "Inventory Pricing" to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs, and wasted material (spoilage). SFAS 151 requires that idle facility expense, excessive spoilage, double freight, and rehandling costs be recognized as current period charges. In addition, SFAS 151 requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. SFAS 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005, however early adoption is permitted for inventory costs incurred during fiscal years beginning after November 2004. We adopted SFAS 151 effective January 1, 2006. Adopting SFAS 151 will not have a material impact on our consolidated financial statements.

SFAS 154

In May 2005, the FASB issued SFAS No. 154, "Accounting Changes and Error Corrections," which changes the requirements for the accounting and reporting of a change in accounting principle. SFAS No. 154 applies to all voluntary changes in accounting principle as well as to changes required by an accounting pronouncement that does not include specific transition provisions. SFAS No. 154 requires that changes in accounting principle be retrospectively

applied. SFAS No. 154 is effective for accounting changes and corrections of errors made in fiscal years beginning after December 15, 2005. We do not believe adoption of this statement will have a material impact on our consolidated financial statements.

SFAS 123(R)

On December 16, 2004 the FASB issued SFAS No. 123 (revised 2004), "Share-Based Payment" ("SFAS 123(R)"), which is a revision of SFAS No. 123, "Accounting for Stock-based Compensation." SFAS 123(R) supersedes APB Opinion No. 25, "Accounting for Stock Issued to Employees" and Amends SFAS No. 95, "Statement of Cash Flows." Generally, the approach in SFAS 123(R) is similar to the approach described in SFAS 123. However, SFAS 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the determination of net income based on their fair values. Pro forma disclosure is not an alternative. We adopted SFAS 123(R) effective January 1, 2006.

SFAS 123(R) permits public companies to adopt its requirements using one of two methods: (1) a "modified prospective" approach or (2) a "modified retrospective" approach. Under the modified prospective approach, compensation cost is recognized beginning with the effective date based on (a) the requirements of SFAS 123(R) for all share based payments granted after the effective date and (b) the requirements of SFAS 123(R) for all awards granted to employees prior to the effective date of SFAS 123(R) that remain unvested on the effective date. The modified retrospective approach includes the requirements of the modified prospective approach, but also permits entities to restate based on the amounts previously recognized under SFAS 123 for purposes of pro forma disclosures either all prior periods presented or prior interim periods of the year of adoption. We adopted the modified prospective approach.

As permitted by SFAS 123, we currently accounts for share-based payments to employees using APB Opinion No. 25's intrinsic value method, and, as such, generally recognizes no compensation cost for

employee stock options. Accordingly, the adoption of the fair value method will have a significant impact on results of operations, although it will have no impact on overall financial position.

The effects of the adoption of SFAS 123(R) on our results of operations and financial position are dependent upon a number of factors, including the number of employee stock options outstanding and unvested, the number of stock-based awards which may be granted in the future, the life and vesting features of stock-based awards which may be granted in the future, the future market value and volatility of Axcelis' stock, movements in the risk free rate of interest, award exercise and forfeiture patterns, and the valuation model used to estimate the fair value of each award. In addition, we intend to utilize restricted stock units as a key component of its ongoing employee incentive-based compensation plan. These awards generally are recorded at their fair value, equal to the quoted market price of Axcelis' common stock on the date of issuance, and this amount is subsequently amortized ratably over the vesting period of the shares of restricted stock held by the employee. We estimate the adoption of SFAS 123(R) will increase compensation expense in the range of $4.0 to $5.0 million for the year ending December 31, 2006 of which $3.1 million represents estimated compensation expense for options issued at December 31, 2005 and the remainder represents estimated compensation expense for assumed option issuances.

SFAS 123(R) also requires the benefits of tax deductions in excess of recognized compensation cost to be reported as a financing cash flow, rather than as an operating cash flow. Because we do not recognize the benefit of tax deductions in excess of recognized compensation cost due to our net operating loss position, this change will have no impact on our consolidated financial statements.

Outlook

Our performance is directly related to semiconductor manufacturers' levels of capital expenditures to open new fabrication facilities and expand existing ones, as well as operational improvements we have implemented over the past several years. The level of capital expenditures by these manufacturers depends upon the current and anticipated market demand for semiconductors and the products utilizing them, the available manufacturing capacity in manufacturers' fabrication facilities, and the ability of manufacturers to increase productivity in existing facilities without incurring additional capital expenditures.

On February 8, 2006, we announced that net revenues (excluding SEN) for the first quarter of 2006 are forecast in the range of $90 million to $100 million. Worldwide revenues, including SEN, are expected to be $160 million to $175 million. Gross margins are projected in the 40% range. We expect results of operations to approximate breakeven for the quarter.

In addition, we provided a summary of expectations for the 2006 total year. Revenues are anticipated to increase 15 to 20 percent over 2005 levels with revenues from sales of our single wafer Optima products to exceed 10% of total systems revenues. Shipments of Optima products, not all of which will be recognized as revenue in 2006, should be in the range of $60 to $70 million. Gross margins are expected to remain at approximately 40% and expense levels should remain comparable with 2005 levels. Cash flow is expected to be positive.

It is difficult to predict our customers' capital spending plans since they can change very quickly. At our current sales level, each sale, or failure to make a sale, could have a material effect on our results of operations in a particular quarter.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

Interest Rate Sensitivity

Axcelis' exposure to market risk for changes in interest rates relates primarily to our investment portfolio, which consists entirely of cash-equivalents and short-term investments at December 31, 2005. The primary objective of our investment activities is to preserve principal while maximizing yields without

significantly increasing risk. This is accomplished by investing in marketable high investment grade securities and limiting exposure to any one issue or issuer. We do not use derivative financial instruments in managing our investment portfolio and, due to the nature of our investments, we do not expect our operating results or cash flows to be affected to any significant degree by any change in market interest rates. To the extent we have borrowings in the future under the revolving credit facility, such borrowings would be exposed to market risk associated with fluctuations in the bank's base rate or LIBOR.

Foreign Currency Exchange Risk

Substantially all of our sales are billed in U.S. dollars, thereby reducing the impact of fluctuations in foreign exchange rates on our results. Operating margins of certain foreign operations can fluctuate with changes in foreign exchange rates to the extent revenues are billed in U.S. dollars and operating expenses are incurred in the local functional currency. During the years ended December 31, 2005 and 2004, approximately 11% and 13% of our revenues, respectively, were derived from foreign operations with this inherent risk. In addition, at December 31, 2005 and 2004, our operations outside of the United States accounted for approximately 29.2% and 28.9% of our total assets, respectively, the majority of which was denominated in currencies other than the U.S. dollar.

Our investment in SEN and our royalty and equity income from SEN are subject to foreign currency exchange risks. For royalties to be received in cash and certain other accounts receivable from SEN ($1.9 million at December 31, 2005) we hedge our exposure to currency fluctuation through the use of forward contracts. The effect of a 10% depreciation of the Japanese Yen compared to the U.S. dollar would result in a write-down in our investment in SEN and a corresponding decrease in accumulated other comprehensive income (included in stockholders' equity) of $9.8 million at December 31, 2005.

Item 8. Financial Statements and Supplementary Data.

Response to this Item is submitted as a separate section of this report immediately following Item 15.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures.

Our management, with the participation of our principal executive officer and principal financial officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this annual report (the "Evaluation Date"). Based on this evaluation, our principal executive officer and principal financial officer concluded that, as of the Evaluation Date, these disclosure controls and procedures are effective and designed to ensure that the information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the requisite time periods.

Internal Control Over Financial Reporting

Management's Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. A control system, no matter how well designed and operated, can provide only reasonable

assurance with respect to financial statement preparation and presentation. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2005. In making this assessment, management used the criteria set forth in the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control-Integrated Framework.

Based on this assessment, management has concluded that, as of December 31, 2005, our internal control over financial reporting is effective based on those criteria.

Ernst & Young LLP, an independent registered public accounting firm that audited our financial statements for the year ended December 31, 2005 included in this annual report, has issued an attestation report on management's assessment of our internal control over financial reporting. This report is provided as follows:

Report of Independent Registered Public Accounting Firm on Internal Control over Financial Reporting

The Board of Directors and Stockholders of Axcelis Technologies, Inc.

We have audited management's assessment, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting, that Axcelis Technologies, Inc. (the Company) maintained effective internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Axcelis Technologies, Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk

that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, management's assessment that Axcelis Technologies, Inc. maintained effective internal control over financial reporting as of December 31, 2005, is fairly stated, in all material respects, based on the COSO criteria. Also, in our opinion, Axcelis Technologies, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2005 based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets as of December 31, 2005 and 2004 and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2005 of Axcelis Technologies, Inc. and our report dated March 8, 2006 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 8, 2006

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) under the Exchange Act identified in connection with the evaluation of our internal control performed during our fourth quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors and Executive Officers of the Registrant.

A portion of the information required by Item 10 of Form 10-K is incorporated by reference from the information responsive thereto contained in the sections in Axcelis' Proxy Statement for the Annual Meeting of Stockholders to be held May 3, 2006 (the "Proxy Statement") captioned:

- "Proposal 1: Election of Directors,"
- "Committees of the Board of Directors,"
- "Section 16(a) Beneficial Ownership Reporting Compliance" and
- "Code of Ethics"

The remainder of such information is set forth under the heading "Executive Officers" at the end of Item 1 in Part I of this report.

Item 11. Executive Compensation.

The information required by Item 11 of Form 10-K is incorporated by reference from the information responsive thereto contained in the section captioned "Executive Compensation" in the Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by Item 12 of Form 10-K is incorporated by reference from the information responsive thereto contained in the sections in the Proxy Statement captioned:

- "Share Ownership of 5% Stockholders,"
- "Share Ownership of Directors and Executive Officers" and
- "Equity Plan Reserves Disclosure."

Item 13. Certain Relationships and Related Transactions.

The information required by Item 13 of Form 10-K is incorporated by reference from the information responsive thereto contained in the sections in the Proxy Statement captioned:

- "Executive Agreements,"
- "Certain Transactions" and
- "Compensation Committee Interlocks and Insider Participation"

Item 14. Principal Accounting Fees and Services

The information required by Item 14 of Form 10-K is incorporated by reference from the information responsive thereto contained in the section captioned "Proposal 2: Ratification of the Appointment of the Independent Registered Public Accounting Firm" in the Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of this Report:

1) Financial Statements:

2) Financial Statement Schedules:

Schedule II—Valuation and Qualifying Accounts for the years ended December 31, 2005, 2004 and 2003

All other schedules for which provision is made in the applicable regulation of the Securities and Exchange Commission are not required under the related instructions or are inapplicable, and therefore have been omitted.

(b) Exhibits

The exhibits filed as part of this Form 10-K are listed on the Exhibit Index immediately preceding such Exhibits, which Exhibit Index is incorporated herein by reference.

(c) Financial Statement Schedules

The response to this portion of Item 15 is submitted as a separate section of this report.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Axcelis Technologies, Inc.

We have audited the accompanying consolidated balance sheets of Axcelis Technologies, Inc. (the Company) as of December 31, 2005 and 2004 and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2005. Our audits also included the financial statement schedule listed in the Index at Item 15(a). These financial statements and schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Axcelis Technologies, Inc. at December 31, 2005 and 2004 and the consolidated results of its operations and its cash flows for each of the three years in the period ended December 31, 2005, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects the information set forth therein.

As discussed in Note 2 to the consolidated financial statements, effective July 1, 2003, the Company adopted the provisions of Emerging Issues Task Force Issue No. 00-21 "Accounting for Revenue Arrangements with Multiple Deliverables."

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Axcelis Technologies, Inc.'s internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 8, 2006 expressed an unqualified opinion thereon.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 8, 2006

Axcelis Technologies, Inc.
Consolidated Statements of Operations
(In thousands, except per share amounts)

	Year Ended December 31,		
	2005	2004	2003
Revenue			
Systems	$ 206,087	$ 326,521	$ 194,889
Services	157,644	167,027	127,084
Royalties, primarily from SEN	8,809	14,428	6,017
	372,540	507,976	327,990
Cost of revenue	218,109	296,448	217,622
Gross profit	154,431	211,528	110,368
Operating expenses			
Research and development	70,908	63,209	63,284
Sales and marketing	44,826	47,593	46,202
General and administrative	45,631	46,149	41,057
Amortization of intangible assets	2,448	2,448	1,955
Restructuring charges	6,497	994	4,907
	170,310	160,393	157,405
Income (loss) from operations	(15,879)	51,135	(47,037)
Other income (expense)			
Equity income of SEN	15,751	30,531	8,954
Interest income	5,459	2,032	1,807
Interest expense	(6,634)	(6,673)	(6,229)
Other—net	(679)	(1,886)	(1,836)
	13,897	24,004	2,696
Income (loss) before income taxes	(1,982)	75,139	(44,341)
Income taxes	1,873	964	69,535
Net income (loss)	$ (3,855)	$ 74,175	$ (113,876)
Net income (loss) per share			
Basic	$ (0.04)	$ 0.75	$ (1.16)
Diluted	$ (0.04)	$ 0.73	$ (1.16)
Shares used in computing basic and diluted net income (loss) per share			
Basic	100,301	99,528	98,514
Diluted	100,301	101,205	98,514

See accompanying Notes to Consolidated Financial Statements

Axcelis Technologies, Inc.
Consolidated Balance Sheets
(In thousands, except per share amounts)

	December 31,	
	2005	2004
ASSETS		
Current assets		
Cash and cash equivalents	$ 71,417	$ 108,295
Marketable securities	93,797	78,703
Restricted cash	8,037	3,498
Accounts receivable, net	79,379	83,767
Inventories, net	109,972	116,330
Prepaid expenses and other current assets	32,767	14,986
Total current assets	395,369	405,579
Property, plant and equipment, net	71,443	75,275
Investment in SEN	108,815	109,095
Goodwill	46,773	46,773
Intangible assets	16,100	17,671
Restricted cash, long-term portion	3,195	2,841
Other assets	19,748	31,628
	$ 661,443	$ 688,862
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 25,556	$ 24,278
Accrued compensation	18,437	27,030
Warranty	5,739	9,218
Income taxes	3,021	4,530
Deferred revenue	30,140	34,050
Other current liabilities	11,333	8,289
Total current liabilities	94,226	107,395
Long-term debt	125,000	125,000

Long-term deferred revenue	11,177	7,697
Other long-term liabilities	4,999	5,297
Commitments and contingencies		
Stockholders' equity		
Preferred stock, $0.001 par value, 30,000 shares authorized; none issued or outstanding	—	—
Common stock, $0.001 par value, 300,000 shares authorized; 100,637 shares issued and 100,517 shares outstanding at December 31, 2005, 100,110 shares issued and 99,990 shares outstanding at December 31, 2004;	101	100
Additional paid-in capital	466,454	457,335
Deferred compensation	(5,385)	(566)
Treasury stock, 120 shares at December 31, 2005 and 2004	(1,218)	(1,218)
Accumulated deficit	(31,187)	(27,332)
Accumulated other comprehensive income (loss)	(2,724)	15,154
	426,041	443,473
	$ 661,443	$ 688,862

See accompanying Notes to Consolidated Financial Statements

Axcelis Technologies, Inc.
Consolidated Statements of Stockholders' Equity
(In thousands)

	Common Stock							
	Shares	Amount	Additional Paid-in Capital	Deferred Compensation	Treasury Stock	Accumulated Earnings (Deficit)	Accumulated Other Comprehensive Income (Loss)	Total
Balance at December 31, 2002	98,359	$ 98	$ 447,533	$ (782)	$ (1,218)	$ 12,369	$ (5,492)	$ 452,508
Comprehensive loss								
Net loss	—	—	—	—	—	(113,876)	—	(113,876)
Foreign currency translation adjustments	—	—	—	—	—	—	10,790	10,790
Total comprehensive loss	—	—	—	—	—	—	—	(103,086)
Exercise of stock options	105	—	760	—	—	—	—	760
Issuance of shares under Employee Stock Purchase Plan	582	1	2,878	—	—	—	—	2,879
Issuance of restricted common shares	97	—	573	(573)	—	—	—	—
Forfeiture of restricted common shares	(29)	—	(355)	355	—	—	—	—
Stock-based compensation expense	—	—	—	189	—	—	—	189
Balance at December 31, 2003	99,114	99	451,389	(811)	(1,218)	(101,507)	5,298	353,250
Comprehensive income								
Net income	—	—	—	—	—	74,175	—	74,175
Foreign currency translation adjustments	—	—	—	—	—	—	9,870	9,870
Unrealized loss on marketable securities	—	—	—	—	—	—	(14)	(14)
Total comprehensive income	—	—	—	—	—	—	—	84,031
Exercise of stock options	245	—	1,743	—	—	—	—	1,743
Issuance of shares under Employee Stock Purchase Plan	774	1	4,338	—	—	—	—	4,339
Forfeiture of restricted common shares	(23)	—	(135)	135	—	—	—	—
Stock-based compensation expense	—	—	—	110	—	—	—	110
Balance at December 31, 2004	100,110	100	$ 457,335	$ (566)	$ (1,218)	$ (27,332)	$ 15,154	$ 443,473
Comprehensive loss								
Net loss	—	—	—	—	—	(3,855)	—	(3,855)
Foreign currency translation Adjustments	—	—	—	—	—	—	(17,851)	(17,851)
Unrealized loss on marketable securities	—	—	—	—	—	—	(27)	(27)
Total comprehensive loss	—	—	—	—	—	—	—	(21,733)
Exercise of stock options	190	—	1,141	—	—	—	—	1,141
Issuance of shares under Employee Stock Purchase Plan	327	1	2,019	—	—	—	—	2,020
Forfeiture of restricted common shares	(34)	—	(201)	201	—	—	—	—
Issuance of restricted common shares	44	—	300	(300)	—	—	—	—
Issuance of restricted stock units	—	—	5,860	(5,860)	—	—	—	—
Stock-based compensation expense	—	—	—	1,140	—	—	—	1,140
Balance at December 31, 2005	100,637	$ 101	$ 466,454	$ (5,385)	$ (1,218)	$ (31,187)	$ (2,724)	$ 426,041

See accompanying Notes to Consolidated Financial Statements

Axcelis Technologies, Inc.
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2005	2004	2003
Operating activities			
Net income (loss)	$ (3,855)	$ 74,175	$ (113,876)
Adjustments to reconcile net income (loss) to net cash provided by (used for) operating activities			
Undistributed income of SEN	(15,751)	(30,531)	(8,954)
Depreciation and amortization	21,284	20,533	22,875
Deferred income taxes	(828)	(4,974)	68,902
Amortization of intangible assets	2,448	2,448	1,955
Purchased in-process research and development	1,500	—	—
Stock-based compensation expense	1,140	110	189
Impairment of fixed assets	725	—	—
Changes in operating assets & liabilities			
Accounts receivable	3,133	(8,655)	(16,713)
Inventories	4,120	9,896	(4,264)
Prepaid expenses and other current assets	(17,987)	(781)	(4,261)
Accounts payable & other current liabilities	(7,280)	(7,004)	754
Deferred revenue	(328)	25,152	16,299
Income taxes	(1,291)	2,987	(1,045)
Other assets and liabilities	800	(11,710)	(19,095)
Net cash provided by (used for) operating activities	(12,170)	71,646	(57,234)
Investing activities			
Purchases of marketable securities	(108,125)	(105,158)	(187,745)
Sales and maturities of marketable securities	92,965	68,900	180,600
Proceeds from sale of building	—	5,958	—
Expenditures for property, plant and equipment	(7,794)	(5,541)	(4,993)
Acquisition of businesses, net of cash acquired of $400 in 2003	(1,500)	—	(14,572)
Decrease (increase) in restricted cash	(4,893)	77	(2,063)
Other—net	—	—	575
Net cash used for investing activities	(29,347)	(35,764)	(28,198)
Financing activities			
Proceeds from the exercise of stock options	1,141	1,743	760
Proceeds from Employee Stock Purchase Plan	2,463	3,129	4,095
Net cash provided by financing activities	3,604	4,872	4,855
Effect of exchange rate changes on cash	1,035	1,792	28
Net increase (decrease) in cash and cash equivalents	(36,878)	42,546	(80,549)
Cash and cash equivalents at beginning of period	108,295	65,749	146,298
Cash and cash equivalents at end of period	$ 71,417	$ 108,295	$ 65,749
Cash paid for interest	$ 5,566	$ 5,597	$ 6,298
Cash paid for income taxes	$ 4,956	$ 3,066	$ 666

See accompanying Notes to Consolidated Financial Statements

Axcelis Technologies, Inc.
Notes to Consolidated Financial Statements
(All tablular amounts in thousands)

Note 1. Nature of Business and Basis of Presentation

Axcelis Technologies, Inc. (“Axcelis” or the “Company”), is a worldwide producer of ion implantation, dry strip, thermal processing and curing equipment used in the fabrication of semiconductors in the United States, Europe and Asia. In addition, the Company provides extensive aftermarket service and support, including spare parts, equipment upgrades, and maintenance services to the semiconductor industry. The Company owns 50% of the equity of a joint venture with Sumitomo Heavy Industries, Ltd. in Japan. This joint venture, which is known as Sumitomo Eaton Nova Corporation (“SEN”), licenses technology from the Company relating to the manufacture of ion implantation products and has exclusive rights to manufacture and sell these products in the territory of Japan. SEN is the leading producer of ion implantation equipment in Japan.

Note 2. Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of Axcelis and its subsidiaries. All significant intercompany balances and transactions are eliminated in consolidation. The equity method of accounting is used to account for the Company’s 50% investment in SEN.

Use of Estimates

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Foreign Currency

The functional currency for substantially all operations outside the United States is the local currency. Financial statements for these operations are translated into United States dollars at year-end rates as to assets and liabilities and average exchange rates during the year as to revenues and expenses. The resulting translation adjustments are recorded in stockholders' equity as an element of accumulated comprehensive income (loss). Foreign currency transaction gains and losses recorded in the consolidated statements of operations are not material for all periods presented.

Cash, Cash Equivalents and Marketable Securities

Cash and cash equivalents include all highly liquid investments with a remaining maturity of ninety days or less at the time of purchase. Cash equivalents consist primarily of money market securities, direct and indirect U.S. government obligations, commercial paper, and obligations of U.S. banks. Cash equivalents are carried on the balance sheet at fair market value.

Marketable securities comprise debt securities, primarily corporate notes, commercial paper, auction rate securities, and obligations of the U.S. government, which are classified as available-for-sale and recorded at fair market value.

Unrealized gains and losses on cash equivalents and marketable securities are included in Accumulated Other Comprehensive Income (Loss) in stockholders' equity until realized.

Inventories

Inventories are carried at lower of cost, determined using the first-in, first-out (FIFO) method, or market.

Axcelis records an allowance for estimated excess and obsolete inventory. The allowance is determined using management's assumptions of materials usage, based on estimates of demand and market conditions. If actual market conditions become less favorable than those projected by management, additional inventory write-downs may be required.

Property, Plant and Equipment

Property, plant and equipment are recorded at cost. Depreciation is computed using the straight-line method. The historical cost of buildings is depreciated over forty years and machinery and equipment principally over three to ten years. Expenditures for maintenance and repairs are expensed as incurred. Expenditures for renewals and betterments are capitalized.

Impairment of Long-Lived Assets

Long-lived assets (primarily property, plant and equipment and intangible assets) are reviewed for impairment losses whenever events or changes in circumstances (primarily sustained losses from operations or a significant change in the use of an asset) indicate the carrying amount may not be recoverable. An impairment loss would be recognized based on the amount by which the carrying value of the asset exceeds its fair value.

Intangible Assets

Intangible assets are amortized on a straight-line basis over their estimated useful lives as follows:

Developed technology	5 to 10 years
Customer list	10 years
Software licenses	5 years

Goodwill

In accordance with the provisions of Statement of Financial Accounting Standards No. 142 "Goodwill and Other Intangible Assets" the Company tests for impairment of goodwill on an annual basis or whenever events and changes in circumstances suggest that the carrying amount may not be recoverable. This test is performed at the reporting unit level based on product line. As of December 31, 2005, the Company completed its annual assessment and determined that goodwill was not impaired.

Concentration of Risk

Financial instruments, which potentially expose Axcelis to concentrations of credit risk, consist principally of accounts receivable, cash equivalents and marketable securities. Axcelis' customers consist of semiconductor manufacturers located throughout the world. Axcelis' net sales to its ten largest customers accounted for 60.2%, 55.4%, and 65.6% of revenue in 2005, 2004, and 2003, respectively. Axcelis performs ongoing credit evaluations of its customers' financial condition and generally requires no collateral to secure accounts receivable. For selected overseas sales, Axcelis requires customers to obtain letters of credit before product is shipped. Axcelis maintains an allowance for doubtful accounts based on its assessment of the collectibility of accounts receivable.

Axcelis' exposure to market risk for changes in interest rates relates primarily to cash equivalents and short-term investments. The primary objective of the Company's investment activities is to preserve

principal while maximizing yields without significantly increasing risk. This is accomplished by investing in marketable high investment grade securities and limiting exposure to any one issue or issuer. The Company does not use derivative financial instruments to manage its investment portfolio and does not expect operating results or cash flows to be affected to any significant degree by any change in market interest rates.

Axcelis accesses the important Japanese market for ion implant systems through a joint venture (SEN) that the Company does not control. The joint venture agreement gives both owners veto rights, so that neither of the owners alone can effectively control SEN. SEN's business is subject to the same risks as the Company's business. The Company's investment in SEN represents more than 25% of its net assets and royalties and equity income from SEN have

made a substantial contribution to the Company's operating results. A substantial decline in SEN's sales and net income could have a material adverse effect on the Company's operating results. For royalties to be received in cash and certain other accounts receivable from SEN ($1.9 million at December 31, 2005) the Company hedges its exposure to currency fluctuation through the use of forward contracts. Gains and losses recognized on these forward contracts are included in "Other income(expense)" in the Consolidated Statements of Operations. As a result of this joint venture structure, the Company has less control over SEN management than over the Company's own management and may not have timely knowledge of factors affecting SEN's business. In addition, given the equal ownership, it is possible that the SEN Board may be unable to reach consensus on important matters from time to time which could delay important decisions.

Some of the components and subassemblies included in the Company's products are obtained either from a sole source or a limited group of suppliers. Disruption to the Company's supply source could affect its ability to deliver products to its customers.

Fair Value of Financial Instruments

The fair value of the Company's long-term debt (convertible subordinated notes), based on quoted market prices, approximated $123.3 million at December 31, 2005.

Revenue Recognition

The Company's revenue recognition policy involves significant judgment by management. As described below, the Company considers a broad array of facts and circumstances in determining when to recognize revenue, including contractual obligations to the customer, the complexity of the customer's post delivery acceptance provisions, payment history, customer creditworthiness and the installation process. In the future, if the post delivery acceptance provisions and installation process become more complex or result in a materially lower rate of acceptance, the Company may have to revise its revenue recognition policy, which could delay the timing of revenue recognition.

For revenue arrangements prior to July 1, 2003, Axcelis generally recognized the full sale price at the time of shipment to the customer. The costs of system installation obligations at the customer's site were accrued at the time of shipment. In addition, the estimated costs of standard and non-standard warranties were accrued at the time of shipment.

In November 2002, the Financial Accounting Standards Board's Emerging Issues Task Force reached a consensus on Issue No. 00-21, "Accounting for Revenue Arrangements with Multiple Deliverables" ("EITF 00-21"). This issue addressed determination of whether an arrangement involving more than one deliverable contained more than one unit of accounting and how the arrangement consideration should be measured and allocated to the separate units of accounting. EITF 00-21 became effective for revenue arrangements entered into in periods beginning after June 15, 2003. For revenue arrangements occurring on or after July 1, 2003, the Company has revised its revenue recognition policy to comply with the

provisions of EITF 00-21 and subsequently the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin No. 104 ("SAB 104"), "Revenue Recognition."

Axcelis' revenue transactions include sales of systems under multiple element arrangements. Revenue under these arrangements is allocated to each element, except systems, based upon its estimated fair market value. The amount of revenue allocated to systems is calculated on a residual method. Under this method, the total value of the arrangement is allocated first to the undelivered elements, with the residual amount being allocated to systems revenue. The value of the undelivered elements includes (a) the greater of (i) the fair value of the installation or (ii) the portion of the sales price that will not be received until the installation is completed (the "retention") plus (b) the fair value of all other undelivered elements. The amount allocated to installation is based upon the fair value of the service performed, including labor, which is based upon the estimated time to complete the installation at hourly rates, and material components. The fair value of all other undelivered elements is based upon the price charged when these elements are sold separately. System revenue is generally recognized upon shipment provided title and risk of loss has passed to the customer, evidence of an arrangement exists, prices are contractually fixed or determinable, collectibility is reasonably assured through historical collection results and regular credit evaluations, and there are no uncertainties regarding customer acceptance. Revenue from installation services is recognized at the time formal acceptance is received from the customer or, for certain customers, when both the formal acceptance and retention payment have been received. Revenue for other elements is recognized at the time products are shipped or the related services are performed.

The Company generally recognizes systems revenue at the time of shipment because the customer's post delivery acceptance provisions and installation process have been established to be routine, commercially inconsequential and perfunctory. The majority of Axcelis' systems are designed and tailored to meet the customer's specifications, as outlined in the contract between the customer and Axcelis, which may be the Axcelis standard specification. To ensure that the customer's specifications are satisfied, many customers request that newer systems be tested at Axcelis' facilities prior to shipment, normally with the customer present, under conditions that substantially replicate the customer's production environment and the customer's criteria are confirmed to have been met. Customers of mature products generally do not require pre-shipment testing. The Company believes the risk of failure to complete a system installation is remote. Should an installation not be completed successfully, the contractual provisions do not provide for forfeiture, refund or other purchase price concession beyond those prescribed by the provisions of the Uniform Commercial Code applicable generally to such transactions.

In the small number of instances where Axcelis is unsure of meeting the customer's specifications or obtaining customer acceptance upon shipment of the system or for initial shipments of systems with new technologies, Axcelis will defer the recognition of systems revenue and related costs until written customer acceptance of the system is obtained. This deferral period is generally within twelve months of shipment.

Services revenue includes revenue from spare parts, equipment upgrades and maintenance services. Revenue related to maintenance and service contracts is recognized ratably over the duration of the contracts, or based on parts usage, where appropriate. Revenue related to time and material services is recognized when the services are performed. Revenue related to spare parts sales and equipment upgrades is recognized upon the later of shipment or when the title and risk of loss passes to the customer.

Shipping and Handling Costs

Shipping and handling costs are included in cost of revenue.

Stock-Based Compensation

As permitted under Statement of Financial Accounting Standards (SFAS) No. 123, "Accounting for Stock-Based Compensation," as amended by SFAS No. 148 "Accounting for Stock-Based Compensation

Transition and Disclosure," Axcelis has elected to follow the provisions of Accounting Principles Board (APB) No. 25 to account for stock-based awards to employees. Under APB No. 25, compensation expense with respect to such awards is not recognized if on the date the awards were granted the exercise price was equal to or greater than the market value of the underlying common shares.

On October 24, 2005, the Company accelerated the vesting of certain unvested and "out-of-the-money" stock options with exercise prices equal to or greater than $10.00 per share. These options were previously awarded to its employees and other eligible participants, including executive officers, under the Company's 2000 Stock Plan. Of the approximately 1.5 million accelerated options, 309,474 options, or 21.2%, are held by executive officers. The acceleration of vesting was effective for stock options outstanding as of December 15, 2005, at which date the closing price of the Company's common stock was $4.70 per share. The weighted average exercise price of the options subject to the acceleration was $11.52 per share. The acceleration of the vesting of these options did not result in compensation expense based on generally accepted accounting principles. For pro forma disclosure requirements under SFAS 123, the Company recognized an incremental $7.1 million of stock-based compensation expense for all options whose vesting was accelerated. As a result of this action the Company will not recognize compensation expense of approximately the same amount associated with these options in future operating results, upon effectiveness of the application of SFAS No. 123 (revised 2004), "Share-Based Payment" ("SFAS 123(R)"), which the Company adopted effective January 1, 2006.

As required by SFAS 123 the following pro forma information is presented as if Axcelis had accounted for stock-based awards to its employees granted subsequent to 1995 under the fair value method. The fair values of the options granted have been estimated at the date of grant using the Black-Scholes options pricing model with the following assumptions:

	Stock Option Plan		
	2005	2004	2003
Dividend yield	0%	0%	0%
Expected volatility	69%	70%	74%
Risk-free interest rate	3.4% to 4.3%	2.6% to 3.5%	2.5% to 3.6%
Expected option life in years	4	4	4
Weighted average fair value per share of options granted during the year	$3.68	$5.49	$4.77

The fair value of each employee stock purchase right was estimated on the commencement date of each offering period using the Black-Scholes option-pricing model with the following assumptions:

	Employee Stock Purchase Plan		
	2005	2004	2003
Dividend yield	0%	0%	0%
Expected volatility	51%	74%	80%
Risk-free interest rate	2.1% to 3.2%	1.7% to 3.2%	2.7% to 3.1%
Expected life in years	0.8	1.5	1.5

The Black-Scholes options valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility.

For purposes of the following pro forma information, the estimated fair values of the options are assumed to be amortized to expense over the vesting periods.

	Year Ended December 31		
	2005	2004	2003
	(in thousands, except per share data)		
Net income (loss), as reported	$ (3,855)	$ 74,175	$ (113,876)
Add stock-based employee compensation expense included in reported net income (loss)	1,140	110	189
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related income tax effect	(21,098)	(21,720)	(22,714)
Pro forma net income (loss)	$ (23,813)	$ 52,565	$ (136,401)
Net income (loss) per share as reported			
Basic	$ (0.04)	$ 0.75	$ (1.16)
Diluted	$ (0.04)	$ 0.73	$ (1.16)
Pro forma net income (loss) per share			
Basic	$ (0.24)	$ 0.53	$ (1.38)
Diluted	$ (0.24)	$ 0.52	$ (1.38)

Deferred Income Taxes

The Company records income taxes using the asset and liability method. Deferred income tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective income tax bases, and operating loss and tax credit carryforwards. The Company's consolidated financial statements contain certain deferred tax assets which have arisen primarily as a result of operating losses, as well as other temporary differences between financial and tax accounting. SFAS No. 109 "Accounting for Income Taxes," requires the Company to establish a valuation allowance if the likelihood of realization of the deferred tax assets is reduced based on an evaluation of objective verifiable evidence. Significant management judgement is required in determining the Company's provision for income taxes, the Company's

deferred tax assets and liabilities and any valuation allowance recorded against those net deferred tax assets. The Company evaluates the weight of all available evidence to determine whether it is more likely than not that some portion or all of the net deferred income tax assets will not be realized.

Net Income (Loss) Per Share

SFAS No. 128, "Earnings Per Share," requires two presentations of earnings per share, "basic" and "diluted." Basic earnings per share is computed by dividing income available to common stockholders (the numerator) by the weighted-average number of common shares outstanding (the denominator) for the period. The computation of diluted earnings per share is similar to basic earnings per share, except that the denominator is increased to include the number of additional common shares that would have been outstanding if the potentially dilutive common shares had been issued.

The Company has excluded 0.3 million (for the year ended December 31, 2005) and 1.9 million (for the year ended December 31, 2003) incremental shares attributable to outstanding stock options and 0.5 million (for the year ended December 31, 2005) incremental shares attributable to restricted stock and restricted stock units, all computed using the treasury stock method from the computation of diluted earnings per share as their effect would be anti-dilutive. In addition, 6.3 million shares of common stock for the assumed conversion of the Company's convertible debt, computed using the if converted method, were excluded from the computation of diluted earnings per share for all years presented as the effect of

conversion would be anti-dilutive. These stock options, restricted stock awards and conversions could, however, become dilutive in future periods.

The following table sets forth basic and diluted net income per share computational data for the years ended December 31:

	2005	2004	2003
	(in thousands, except per share data)		
Income (loss) available to common stockholders	$ (3,855)	$ 74,175	$ (113,876)
Weighted average common shares outstanding used in computing basic net income (loss) per share	100,301	99,528	98,514
Incremental shares	—	1,677	—
Weighted average common shares outstanding used in computing diluted net income (loss) per share	100,301	101,205	98,514
Net income (loss) per share			
Basic	$ (0.04)	$ 0.75	$ (1.16)
Diluted	$ (0.04)	$ 0.73	$ (1.16)

Reclassifications

Certain amounts in prior years have been reclassified to conform to the current year presentation.

Recent Accounting Pronouncements

SFAS 151

In November 2004 the FASB issued Statement of Financial Accounting Standards No. 151 ("SFAS 151") "Inventory Costs, an amendment of ARB 43, Chapter 4". SFAS 151 amends the guidance in ARB No. 43, Chapter 4, "Inventory Pricing" to clarify the accounting for abnormal amounts of idle facility expense, freight, handling costs, and wasted material (spoilage). SFAS 151 requires that idle facility expense, excessive spoilage, double freight, and rehandling costs be recognized as current period charges. In addition, SFAS 151 requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. SFAS 151 is effective for inventory costs incurred during fiscal years beginning after June 15, 2005, however early adoption is permitted for inventory costs incurred during fiscal years beginning after November 2004. The Company adopted SFAS 151 effective January 1, 2006. Adopting SFAS 151 will not have a material impact on the Company's consolidated financial statements.

SFAS 154

In May 2005, the FASB issued SFAS No. 154, "Accounting Changes and Error Corrections", which changes the requirements for the accounting and reporting of a change in accounting principle. SFAS No. 154 applies to all voluntary changes in accounting principle as well as to changes required by an accounting pronouncement that does not include specific transition provisions. SFAS No. 154 requires that changes in accounting principle be retrospectively applied. SFAS No. 154 is effective for accounting changes and corrections of errors made in fiscal years beginning after December 15, 2005. The Company does not believe adoption of this statement will have a material impact on the Company's consolidated financial statements.

SFAS 123(R)

On December 16, 2004 the FASB issued SFAS No. 123 (revised 2004), "Share-Based Payment" ("SFAS 123(R)"), which is a revision of SFAS No. 123, "Accounting for Stock-based Compensation". SFAS 123(R) supersedes APB Opinion No. 25, "Accounting for Stock Issued to Employees" and Amends

SFAS No. 95, "Statement of Cash Flows". Generally, the approach in SFAS 123(R) is similar to the approach described in SFAS 123. However, SFAS 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the determination of net income based on their fair values. Pro forma disclosure is not an alternative. The Company adopted SFAS 123(R) effective January 1, 2006.

SFAS 123(R) permits public companies to adopt its requirements using one of two methods: (1) a "modified prospective" approach or (2) a "modified retrospective" approach. Under the modified prospective approach, compensation cost is recognized beginning with the effective date based on (a) the requirements of SFAS 123(R) for all share based payments granted after the effective date and (b) the requirements of SFAS 123(R) for all awards granted to employees prior to the effective date of SFAS 123(R) that remain unvested on the effective date. The modified retrospective approach includes the requirements of the modified prospective approach, but also permits entities to restate based on the amounts previously recognized under SFAS 123 for

purposes of pro forma disclosures either all prior periods presented or prior interim periods of the year of adoption. The Company adopted the modified prospective approach.

As permitted by SFAS 123, the Company currently accounts for share-based payments to employees using APB Opinion No. 25's intrinsic value method, and, as such, generally recognizes no compensation cost for employee stock options. Accordingly, the adoption of the fair value method will have a significant impact on results of operations, although it will have no impact on overall financial position.

The effects of the adoption of SFAS 123(R) on the Company's results of operations and financial position are dependent upon a number of factors, including the number of employee stock options outstanding and unvested, the number of stock-based awards which may be granted in the future, the life and vesting features of stock-based awards which may be granted in the future, the future market value and volatility of the Company's stock, movements in the risk free rate of interest, award exercise and forfeiture patterns, and the valuation model used to estimate the fair value of each award. In addition, the Company intends to utilize restricted stock units as a key component of its ongoing employee incentive-based compensation plan. These awards generally are recorded at their fair value, equal to the quoted market price of the Company's common stock on the date of issuance, and this amount is subsequently amortized ratably over the vesting period of the shares of restricted stock held by the employee. The Company estimates the adoption of SFAS 123(R) will increase compensation expense in the range of $4.0 to $5.0 million for the year ending December 31, 2006, of which $3.1 million represents estimated compensation expense for options issued at December 31, 2005 and the remainder represents estimated compensation expense for assumed option issuances.

SFAS 123(R) also requires the benefits of tax deductions in excess of recognized compensation cost to be reported as a financing cash flow, rather than as an operating cash flow. Because the Company does not recognize the benefit of tax deductions in excess of recognized compensation cost due to its net operating loss position, this change will have no impact on the Company's consolidated financial statements.

Note 3. Cash and Cash Equivalents and Marketable Securities

Axcelis invests excess cash primarily in money market funds, commercial paper, corporate notes, direct and indirect U.S. government obligations, bank certificates of deposit, time deposits and auction rate securities. Investments purchased with a maturity of ninety days or less at the time of acquisition and considered highly liquid are classified as cash equivalents.

Axcelis' practice is to minimize investment risk by diversifying according to issuer, type and maturity. Except for auction rate securities, which have long-term underlying maturities, Axcelis generally intends to hold its investments until final maturity. In the case of auction rate securities, however, which have long-term underlying maturities, Axcelis' intent is not to hold them until final maturity. Rates on auction rate securities reset at auction every 7, 28, or 35 days. Axcelis' practice is to take advantage of the rate reset feature for liquidity and enhanced yield relative to alternative short-term investments.

Beginning in the first quarter of 2005 Axcelis began classifying its investments in auction rate securities as marketable securities and began accounting for all marketable securities as available-for-sale as opposed to held-to-maturity. Pursuant to SFAS No. 115, "Accounting for Certain Investments in Debt and Equity Securities," available-for-sale investments are carried on the balance sheet at fair market value. Unrealized gains and losses are excluded from earnings and included as a separate component of stockholders' equity, until realized. Realized gains and losses are included in earnings.

The following tables summarize the composition of marketable securities at December 31, 2005 and 2004, respectively. Fair value was determined based upon quoted market prices.

	Amortized Cost	Gross Unrealized Losses	Fair Value
		(in thousands)	
December 31, 2005:			
Auction rate securities	$ 50,000	$ —	$ 50,000
U.S. corporate debt	24,875	34	24,841
U.S. government agencies	9,905	7	9,898
Certificates of deposit	9,058	—	9,058
	$ 93,838	$ 41	$ 93,797
December 31, 2004:			
Auction rate securities	$ 60,200	$ —	$ 60,200
U.S. corporate debt	13,517	14	13,503
Certificates of deposit	5,000	—	5,000
	$ 78,717	$ 14	$ 78,703

There were no realized gains or losses on sales of available-for-sale marketable securites for the years ended December 31, 2005, 2004 and 2003.

The following tables summarize the contractual maturities of short-term available for sale investments at December 31, 2005.

	Fair Value (in thousands)
Due in one year or less	$ 50,000
Due after 10 years	43,797
	$ 93,797

Note 4. Restricted Cash

The components of restricted cash are as follows:

	December 31,	
	2005	2004

	(in thousands)	
Cash collateralizing standby letters of credit	$ 8,629	$ 3,498
Bank guarantees	2,603	2,841
	$ 11,232	$ 6,339

In addition to guarantees that are cash collateralized, the Company has guarantees and surety bonds related to value added tax claims and refunds in Europe of approximately $5.8 million at December 31, 2005.

Note 5. Accounts Receivable

The components of accounts receivable are as follows:

	December 31,	
	2005	2004
	(in thousands)	
Trade receivables	$ 82,502	$ 87,395
Allowance for doubtful accounts	(3,123)	(3,628)
	$ 79,379	$ 83,767

Note 6. Inventories

The components of inventories are as follows:

	December 31,	
	2005	2004
	(in thousands)	
Raw materials	$ 78,230	$ 77,669
Work in process	22,073	29,134
Finished goods (completed systems)	9,669	9,527
	$ 109,972	$ 116,330

Note 7. Property, Plant and Equipment

The components of property, plant and equipment are as follows:

	December 31,	
	2005	2004
	(in thousands)	
Land and buildings	$ 71,875	$ 72,283
Machinery and equipment	57,917	61,675
Construction in process	8,118	3,841
	137,910	137,799
Accumulated depreciation	(66,467)	(62,524)
	$ 71,443	$ 75,275

Depreciation expense was $10.5 million, $10.8 million, and $11.3 million, for the years ended December 31, 2005, 2004, and 2003 respectively.

Note 8. Intangible Assets

The components of intangible assets are as follows:

	December 31, 2005			December 31, 2004		
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value
	(in thousands)					
Developed technology	$ 48,030	$ 33,474	$ 14,556	$ 48,030	$ 31,116	$ 16,914
Customer list	903	236	667	903	146	757
Software licenses	877	—	877	—	—	—
	$ 49,810	$ 33,710	$ 16,100	$ 48,933	$ 31,262	$ 17,671

Amortization expense for intangible assets was $2.4 million, $2.4 million, and $2.0 million for the years ended December 31, 2005, 2004, and 2003 respectively.

Estimated future amortization expense for the intangible assets recorded by the Company as of December 31, 2005 is as follows:

Year ended December 31,	(in thousands)
2006	$ 2,624
2007	$ 2,624
2008	$ 2,624
2009	$ 2,428
2010	$ 2,428
Thereafter	$ 3,372

Note 9. Other Assets

Included in amounts reported as other assets are the net book value of products manufactured by the Company for internal as follows:

	December 31, 2005	2004
	(in thousands)	
Cost	$ 56,181	$ 54,568
Accumulated amortization	(40,193)	(34,437)
	$ 15,988	$ 20,131

These products are used in-house for research and development, training, and customer demonstration purposes. Costs are amortized to expense over three to five years. Amortization expense was $10.0 million, $9.3 million, and $11.2 million, for the years ended December 31, 2005, 2004, and 2003 respectively.

Note 10. Acquisitions

On July 3, 2003, the Company completed the acquisition of Matrix Integrated Systems, Inc. (“Matrix”), a dry strip equipment supplier based in Richmond, California for cash and acquisition expenses totaling $14.6 million. The acquisition was accounted for as a purchase. Accordingly, the results of operations of Matrix have been included in the Company’s results of operations since the date of acquisition. Pro forma information is not presented because the acquisition is not considered material. In connection with the acquisition of Matrix the Company recorded goodwill of $6.1 million and other intangible assets of $8.9 million.

On November 30, 2005 the Company acquired certain assets and intellectual property of Diamond Semiconductor Group for $1.5 million in cash. The purchase price was allocated to in-process research and development and included in research and development expense in the consolidated statement of operations.

Note 11. Restructuring Charges

For the year ended December 31, 2005, the Company recorded restructuring charges of $6.5 million primarily related to severance and other termination benefits associated with reduction in force actions and the consolidation of the Company’s Rockville, Maryland operations into its headquarters and manufacturing facility located in Beverly, Massachusetts. In addition to amounts reported as restructuring expense, $4.9 million of relocation and other incremental expenses related to the consolidation of the Rockville, Maryland operations are included in general and administrative expense for the year ended December 31, 2005.

In total, the Company expects to incur approximately $13.2 million in restructuring and general and administrative expenses related to these actions, of which $12.4 million has been recognized as expense since the fourth quarter of 2004. The Company expects to incur approximately $0.8 million in additional expense over the first quarter of 2006. Of the total cost related to these actions, approximately $12.4 million is expected to result in cash expenditures, of which $9.6 million has been paid through December 31, 2005. The accruals for severance and retention are expected to be paid over the first six months of 2006. The lease charges are expected to be paid over the remaining lease periods extending to 2007. The impact of these cost reductions on the Company’s liquidity is not significant, as these actions are expected to yield equivalent actual cash savings within twelve months.

Changes in the Company’s restructuring liability are as follows:

	Severance	Retention	Leases	Leasehold Improvements	Total
			(in thousands)		
Balance at December 31, 2004	$ 724	$ 44	$ —	$ —	$ 768
Restructuring expense	3,263	585	1,924	725	6,497
Cash payments	(3,351)	(509)	(660)	—	(4,520)
Non-cash impairment	—	—	—	(725)	(725)
Balance at December 31, 2005	$ 636	$ 120	$ 1,264	$ —	$ 2,020

Restructuring expense of $1.0 million in 2004 consisted primarily of severance and other one-time termination benefits related to reduction in force actions and the consolidation of the Company’s Rockville, Maryland operations into its headquarters and manufacturing facility located in Beverly, Massachusetts. As of December 31, 2005, all such benefits had been paid.

Restructuring expense of $4.9 million in 2003 relates to severance and other benefits associated with reduction in force actions the Company took in 2003 to reduce headcount by approximately 200 permanent positions. As of December 31, 2005, all such benefits had been paid.

Amounts associated with the Company’s restructuring liability are included in accrued compensation, other current liabilities and other long-term liabilities in the consolidated balance sheets.

Note 12. Product Warranty

The Company offers a one to three year warranty for all of its products, the terms and conditions of which vary depending upon the product sold. For all systems sold, the Company accrues a liability for the estimated cost of standard warranty at the time of system shipment and defers the portion of systems revenue attributable to the fair value of non-standard warranty. Costs for non-standard warranty are

expensed as incurred. Factors that affect the Company’s warranty liability include the number of installed units, historical and anticipated product failure rates, material usage and service labor costs. The Company periodically assesses the adequacy of its recorded liability and adjusts the amount as necessary.

Changes in the Company’s product warranty liability are as follows:

	December 31,

	2005	2004	2003
		(in thousands)	
Balance at January 1 (beginning of year)	$ 10,924	$ 17,197	$ 16,625
Warranties issued during the period	7,393	10,438	22,292
Settlements made during the period	(8,723)	(16,226)	(22,314)
Changes in estimate of liability for pre-existing warranties during the period	(2,428)	(485)	594
Balance at December 31 (end of year)	$ 7,166	$ 10,924	$ 17,197
Amount classified as current	$ 5,739	$ 9,218	$ 13,648
Amount classified as long-term	1,427	1,706	3,549
	$ 7,166	$ 10,924	$ 17,197

Note 13. Financing Arrangements

Revolving Credit Facility

The Company has a $50 million revolving credit facility with a maturity of October 2006. The purpose of the facility is to provide funds for working capital and general corporate purposes as required. To the extent that the Company has borrowings under the agreement, those borrowings would bear interest at the bank's base rate, as defined in the agreement, or LIBOR plus an applicable percentage. The Company currently has no plans to borrow against the facility but may use the facility to support letters of credit in the future. The credit facility is secured by substantially all of the Company's assets, excluding its investment in SEN, and contains certain financial and other restrictive covenants including restrictions on the payment of dividends, minimum levels of tangible net worth, liquidity and profitability as well as maximum levels of indebtedness and capital spending. At December 31, 2005, the Company was in compliance with all covenants. The Company incurs an annual commitment fee based on an EBITDA formula outlined in the agreement applied to the full commitment. The commitment fee was $0.3 million, $0.3 million, and $0.2 million for the years ended December 31, 2005, 2004 and 2003, respectively.

Convertible Subordinated Notes

In January 2002, the Company completed an offering of $125 million of 4.25% Convertible Subordinated Notes ("the Notes"), which mature on January 15, 2007. Interest on the Notes is payable on January 15 and July 15 of each year. The Notes are convertible into shares of Axcelis common stock at any time prior to the close of business on the maturity date, unless previously redeemed, at a conversion price of $20.00 per share, subject to certain adjustments. The Notes are redeemable, in whole or in part, at the option of the Company with at least 30 days notice at a redemption price of 100.85% of face value. The Notes are unsecured and subordinated in right of payment in full to all existing and future senior indebtedness, as defined. Expenses associated with the offering of approximately $3.6 million were deferred and are being amortized over the term of the Notes to interest expense using the straight-line method, which approximates the effective interest rate method.

Note 14. Defined Contribution Plan

The Company maintains the Axcelis Long-Term Investment Plan, a defined contribution plan. All regular employees are eligible to participate and may contribute up to 35% of their compensation on a before-tax basis subject to IRS limitations. Highly compensated employees may contribute up to 16% of their compensation on a before-tax basis subject to IRS limitations. The Company matches employee contributions in an amount equal to the greater of (A) 100% of the employee's pre-tax contributions up to one thousand dollars or (B) 50% of the employee's pre-tax contributions, up to the first 6% of eligible compensation. Under this plan, approximately $2.2 million, $2.5 million, and $2.3 million was recognized as expense for the years ended December 31, 2005, 2004, and 2003, respectively.

Note 15. Stock Award Plans

2000 Stock Plan

The Company maintains the Axcelis Technologies, Inc. 2000 Stock Plan (the Plan), a stock award and incentive plan which permits the issuance of options, stock appreciation rights, restricted stock, restricted stock units, and performance awards to selected employees, directors and consultants of the Company. The Plan originally reserved 18.5 million shares of common stock for future grant and expires in 2012. The Plan provided that the original maximum amount increases annually on July 14th by the lesser of (i) five percent (5%) of the then number of outstanding shares of Common Stock, (ii) 5.0 million shares or (iii) such lesser amount as may be determined by the Board of Directors. The effect of this provision was to increase the shares available for grant under the Plan by 4.9 million shares in each of the years ended December 31, 2003, 2002, and 2001. In 2005 and 2004, the Board of Directors elected not to increase the shares available for grant. In 2005 the Board of Directors voted to amend the Plan and eliminate the provision for annual increases in shares available for future grant. Expiration of options or stock appreciation rights are based on award agreements, but incentive stock option awards expire ten years from the date of grant. Non-qualified stock options may, if approved by the Board of Directors, have a stated term in excess of ten years. Generally, awards terminate upon termination of employment (or 90 days thereafter) for options granted to employees. Under the terms of the Plan, the exercise price, determined by the Board of Directors, may not be less than the fair market value of a share of the Company's common stock on the date of grant.

The following table summarizes Axcelis' stock option activity as of and for the years ended December 31:

	2005		2004		2003	
	Options	Weighted-Average Exercise Price	Options	Weighted-Average Exercise Price	Options	Weighted-Average Exercise Price
	(in thousands, except per share data)					
Outstanding at beginning of year	15,318	$ 11.91	14,171	$ 12.10	13,016	$ 13.13
Granted	667	6.78	2,157	10.05	3,353	8.27
Exercised	(190)	6.02	(245)	7.11	(105)	7.32
Cancelled	(889)	9.03	(483)	9.96	(1,337)	11.52
Expired	(1,442)	13.00	(282)	14.86	(756)	14.46
Outstanding at end of year	13,464	$ 11.81	15,318	$ 11.91	14,171	$ 12.10
Exercisable at end of Year	11,450	$ 12.70	8,947	$ 13.48	6,757	$ 14.18
Available for grant at end of year	18,000		17,199		18,568	

The following table summarizes information with respect to stock options outstanding and exercisable at December 31, 2005:

Range of Exercise Price	Outstanding at December 31, 2005	Weighted-Average Exercise Price	Exercisable at December 31, 2005	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life
	(in thousands, except per share data)				
$4.36-$6.33	2,354	$ 5.80	1,516	$ 5.84	6.5 Years
$6.77-$10.00	3,146	$ 8.04	1,970	$ 8.36	5.6 Years
$10.28-$15.38	5,601	$ 12.22	5,601	$ 12.22	6.2 Years
$15.63-$22.00	2,362	$ 21.88	2,362	$ 21.88	4.3 Years
$24.13	1	$ 24.13	1	$ 24.13	4.5 Years
	13,464	$ 11.81	11,450	$ 12.70	5.8 Years

During 2005, the Compensation Committee of the Board of Directors approved the issuance of 854,000 restricted stock units ("RSUs") to selected employees, including 365,000 to executive officers, and the issuance of 44,000 shares of restricted stock to Directors under the Company's 2000 Stock Plan. RSUs represent the Company's unfunded and unsecured promise to issue shares of the Company's common stock, $0.001 par value ("Common Stock," as defined in the 2000 Plan) at a future date, subject to the terms of the RSU Award Agreement and the 2000 Plan. The purpose of these awards is to assist in attracting and retaining highly competent employees and Directors and to act as an incentive in motivating selected employees and Directors to achieve long-term corporate objectives. The awards vest over four years for employees and executive officers. Restricted stock awards to Directors vested on January 1, 2006. The fair value of restricted stock unit and restricted stock awards is charged to deferred compensation at the time of issuance and amortized to expense over the vesting period on a straight-line basis. At December 31, 2005 there were 1,015,000 shares of restricted stock and restricted stock units outstanding. The weighted average fair value of restricted awards issued during fiscal 2005 was $6.87.

Employee Stock Purchase Plan

The 2000 Employee Stock Purchase Plan (the "Purchase Plan") which provides effectively all Axcelis employees the opportunity to purchase common stock of the Company at less than market prices. Purchases are made through payroll deductions up to 10% of the employee's salary, subject to certain caps set forth in the Purchase Plan. Historically, employees could purchase Axcelis common stock at 85% of the market value of the Company's common stock on the first trading day of each offering period or on the day the stock is purchased, whichever is lower. Effective January 1, 2006, employees may only purchase Axcelis common stock at 85% of the market value of the Company's common stock on the day the stock is purchased. The purchase price may be adjusted by a committee of the Board of Directors. Compensation expense was not recognized through December 31, 2005 because the Purchase Plan was a non-compensatory plan under Section 423 of the Internal Revenue Code. The initial number of shares of common stock issued under the Purchase Plan was 2.5 million shares, plus an annual increase to be added on the last day of each fiscal year equal to one percent of the outstanding shares on such date, or a lesser amount approved by the Board of Directors. The effect of this provision was to increase the shares available for grant under the Plan by approximately 1.0 million in each of the years 2005, 2004 and 2003. The maximum shares that may currently be issued under the Purchase Plan may not exceed 7.5 million. At December 31, 2005, there were 4.4 million shares of common stock reserved for issuance under the Purchase Plan.

Note 16. Stockholders' Equity

Preferred Stock

The Company may issue up to 30 million shares of preferred stock in one or more series. The Board of Directors is authorized to fix the rights and terms for any series of preferred stock without additional shareholder approval. In June 2000, the Board of Directors authorized and designated 3 million shares of preferred stock as Series A Participating Preferred Stock for issuance pursuant to the Company's Shareholder Rights Plan discussed below. As of December 31, 2005 and 2004, there were no outstanding shares of preferred stock.

Shareholder Rights Plan

In June 2000, the Board of Directors adopted a Shareholder Rights Plan and declared a dividend distribution of one share purchase right (a "Right") for each outstanding share of common stock to stockholders of record at the close of business on June 30, 2000. Each share of common stock newly issued after that date also will carry with it one Right. Each Right will entitle the record holder to purchase from the Company one one-hundredth of a share of Series A Participating Preferred Stock at an exercise price of $110.00 per Right subject to adjustment. If certain takeover events occur, exercise of the rights would entitle the holders thereof (other than the acquiring person or group) to receive common shares or common stock of a surviving corporation, or cash, property or other securities, with a market value equal to twice the purchase price. These takeover events include a person or group becoming the owner of 20% or more of the Company's outstanding common stock, or the commencement of, or announcement of an intention to make, a tender offer or exchange offer the consummation of which would result in the beneficial ownership by a person or group of 20% or more of the Company's outstanding common shares. The Rights expire in June 2020, and may be redeemed by the Company at the option of its Board of Directors, for $.001 per Right.

Other Reserved Shares

At December 31, 2005, there were 6.3 million shares of common stock reserved for issuance upon conversion of the Notes.

Note 17. Commitments and Contingencies

Lease Commitments

The Company leases manufacturing and office facilities and certain equipment under operating leases that expire through 2011. Rental expense was $7.0 million, $7.7 million, and $8.5 million under operating leases, excluding expense recorded as a component of restructuring, for the years ended December 31, 2005, 2004 and 2003, respectively. Future minimum lease commitments on non-cancelable operating leases and sublease income are as follows:

	Operating	Sublease

Year ended December 31,	Leases	Income
	(in thousands)	
2006	$ 5,100	$ 141
2007	3,988	146
2008	1,224	—
2009	511	—
2010	174	—
Thereafter	165	—
	$ 11,162	$ 287

Purchase Commitments

The Company has non-cancelable contracts and purchase orders for inventory of $34.4 million at December 31, 2005.

Litigation

From time to time, the Company may be subject to legal proceedings and claims arising from the conduct of its business including litigation related to intellectual property matters, customer contract matters, employment claims and environmental matters. At December 31, 2005, the Company is not a party to any material legal proceedings.

Indemnifications

The Company's system sales agreements typically include provisions under which the Company agrees to take certain actions, provide certain remedies and defend its customers against third-party claims of intellectual property infringement under specified conditions and to indemnify customers against any damage and costs awarded in connection with such claims. The Company has not incurred any material costs as a result of such indemnifications and has not accrued any liabilities related to such obligations in the accompanying consolidated financial statements.

Note 18. Business Segment, Geographic Region Information, and Significant Customers

Axcelis operates in one business segment, which is the manufacture of capital equipment for the semiconductor manufacturing industry. The principal market for semiconductor manufacturing equipment is semiconductor manufacturers. Substantially all sales are made directly by Axcelis to customers located in the United States, Europe and Asia Pacific.

Axcelis' ion implantation systems product line includes high and medium current implanters and high energy implanters and services. Other products include dry strip equipment, curing systems, and thermal processing systems. In addition to equipment, Axcelis provides post-sales equipment service and support, including spare parts, equipment upgrades, maintenance services and customer training.

Revenues by product line are as follows:

	Years ended December 31,		
	2005	2004	2003
	(in thousands)		
Ion implantation systems, services, and royalties	$ 297,335	$ 412,311	$ 243,850
Other products systems, services, and royalties	75,205	95,665	84,140
	$ 372,540	$ 507,976	$ 327,990

Revenues and long-lived assets by geographic region based on the physical location of the operation recording the sale or the asset are as follows:

	Revenue	Long-Lived Assets
	(in thousands)	
2005		
United States	$ 292,408	$ 70,150
Europe	32,320	387
Asia Pacific	47,812	906
	$ 372,540	$ 71,443
2004		
United States	$ 424,723	$ 73,805
Europe	34,897	488
Asia Pacific	48,356	982
	$ 507,976	$ 75,275
2003		
United States	$ 271,981	$ 79,396
Europe	26,016	343
Asia Pacific	29,993	1,188
	$ 327,990	$ 80,927

Long-lived assets consist of property, plant and equipment, net. Operations in Europe and Asia Pacific consist of sales and service organizations.

International revenues, including export sales from U.S. manufacturing facilities to foreign customers, sales by foreign subsidiaries and branches, and royalties were $262.3 million (70.4% of total revenues) in 2005, $390.9 million (77.0% of total revenues) in 2004, and $214.1 million (65.3% of total revenues), in 2003.

In 2005, one customer, Samsung, accounted for 17.5% of revenue and 11.2% of consolidated accounts receivable at December 31, 2005. In 2004, one customer, ST Microelectronics, accounted for 14.9% of revenue. In 2003, two customers, Samsung and Micron, individually accounted for 11.7% and 10.9% of revenue, respectively. Net sales to the Company's ten largest customers accounted for 60.2%, 55.4%, and 65.6%, of revenue in 2005, 2004, and 2003, respectively.

Note 19. Income Taxes

Income (loss) before income taxes for the years ended December 31 are as follows:

	Years ended December 31,		
	2005	2004	2003
	(in thousands)		
United States	$ (21,297)	$ 33,877	$ (55,810)
Foreign	3,564	10,731	2,515
Equity income of Sumitomo Eaton Nova Corporation	15,751	30,531	8,954
	$ (1,982)	$ 75,139	$ (44,341)

Income taxes (credit) for the years ended December 31 are as follows:

	Years ended December 31,		
	2005	2004	2003
	(in thousands)		
Current			
United States			
Federal	$ (92)	$ 648	$ —
State	110	310	378
Foreign	2,683	4,980	255
Total current	2,701	5,938	633
Deferred			
United States	—	(3,986)	66,102
Foreign	(828)	(988)	2,800
Total deferred	(828)	(4,974)	68,902
Income taxes	$ 1,873	$ 964	$ 69,535

Reconciliations of income taxes at the United States Federal statutory rate to the effective income tax rate are as follows:

	Years ended December 31,		
	2005	2004	2003
	(in thousands)		
Income taxes (credit) at the United States statutory rate	$ (694)	$ 26,299	($15,520)
State income taxes, net of federal income tax benefit	72	201	378
Realized net operating loss carryforwards	—	(11,596)	—
Change in valuation allowance	12,481	—	80,999
Tax on unremitted earnings of foreign subsidiaries	—	—	9,007
Credit for increasing research activities	(2,111)	—	(4,698)
Foreign income tax rate differentials	(570)	(362)	(29)
Equity income of Sumitomo Eaton Nova Corporation	(5,513)	(10,686)	(3,134)
Reversal of income tax liabilities recorded in prior years	(508)	(3,986)	—
Other—net	(1,284)	1,094	2,532
	$ 1,873	$ 964	$ 69,535

Significant components of current and long-term deferred income taxes are as follows:

	December 31,			
	2005		2004	
	Current	Long-term	Current	Long-term
	(in thousands)			
Net operating loss carryforwards	$ —	$ 55,491	$ —	$ 52,762
Tax credit carryforwards	—	29,264	—	28,194
Unremitted earnings of foreign subsidiaries	—	(7,135)	—	(8,513)
Intangible assets	—	(3,961)	—	(6,532)
Property, plant and equipment	—	(497)	—	(1,892)
Other	3,968	1,027	3,692	(512)
Inventories	13,670	—	12,730	—
Deferred revenue	7,365	2,735	5,845	2,694

Warranty	1,792	518	2,076	384
	26,795	77,442	24,343	66,585
Valuation allowance	(26,027)	(77,382)	(24,343)	(66,585)
	$ 768	$ 60	$ —	$ —

At December 31, 2005, the Company had $104.2 million of deferred tax assets relating to net operating loss carryforwards, tax credit carryforwards and other temporary differences (principally in the United States, Europe, and Asia), which are available to reduce income taxes in future years. SFAS No. 109 “Accounting for Income Taxes” requires that a valuation allowance be established when it is “more likely than not” that all or a portion of deferred tax assets will not be realized. A review of all available positive and negative evidence needs to be considered, including a company’s performance, the market environment in which the company operates, length of carryback and carryforward periods, existing sales backlog, and projections of future operating results. Where there are cumulative losses in recent years, SFAS No. 109 creates a strong presumption that a valuation allowance is needed. This presumption can be overcome in very limited circumstances.

In 2003, the Company entered a three-year cumulative loss position and revised its projections of the amount and timing of profitability in future periods. As a result, the Company increased its valuation allowance to reduce the carrying value of deferred tax assets to zero.

The Company will maintain a valuation allowance on future tax benefits for entities in a three year cumulative loss position until it can sustain an appropriate level of profitability. However, going forward should the Company’s return to profitability provide sufficient evidence, in accordance with the provisions of SFAS No. 109, to support the ultimate realization of income tax benefits attributable to net operating losses, tax credit carryforwards, and other deductible temporary differences, a reduction in the valuation allowance may be recorded and the carrying value of deferred tax assets may be restored, resulting in a non-cash credit to earnings.

Changes in the valuation allowance in 2005 were attributable to changes in the composition of temporary differences and increases in net operating losses and tax credit carryforwards. Changes in the valuation allowance in 2004 were attributable to changes in the composition of temporary differences and increases in tax credit carryovers which were offset by the realization of benefits from the use of net operating loss carryforwards to reduce taxable income.

At December 31, 2005, the Company has federal, state, and foreign net operating loss carryforwards of approximately $147.1 million expiring principally between 2018 and 2025. Net operating loss carryforwards from acquired businesses of approximately $13.3 million, can be used to offset future taxable income subject to certain annual limitations. Any future income tax benefits related to net operating loss

carryforwards of acquired businesses will be recorded as a reduction of goodwill in the year the benefit is realized.

The Company has research and development and other tax credit carryforwards of approximately $26.8 million at December 31, 2005 that can be used to reduce future income tax liabilities. The carryforwards expire principally between 2021 and 2025. In addition, the Company has foreign tax credit carryforwards of approximately $2.5 million at December 31, 2005 that are available to reduce future U.S. income tax liabilities subject to certain limitations. These foreign tax credit carryforwards expire between 2011 and 2015.

At December 31, 2005, no U.S. income taxes have been provided on approximately $5.6 million of undistributed earnings of the Company’s foreign subsidiaries. These earnings are considered to be indefinitely reinvested. Moreover, the Company has not provided income tax expense on $107.5 million of equity income of Sumitomo Eaton Nova Corporation since material distributions of such earnings in the form of dividends is not anticipated nor does the Company have the ability to unilaterally initiate a distribution of these earnings. If such earnings were distributed in the future, some portion of the distribution would be subject to both U.S. income taxes and foreign withholding taxes, less an adjustment for applicable foreign tax credits. At the present time the Company has available net operating loss carryforwards and income tax credits that would substantially offset any resulting income tax liability.

Note 20. Sumitomo Eaton Nova Corporation (unaudited)

SEN was established in 1982 under the Commercial Code of Japan and is owned equally by Sumitomo Heavy Industries, Ltd., a Japanese corporation, and Axcelis. SEN designs, manufactures, sells and services ion implantation equipment in Japan under a license agreement with Axcelis.

Summary financial information is as follows:

	2005	2004	2003
		(in thousands)	
Twelve months ended November 30:			
Net sales	$ 254,886	$ 329,744	$ 164,179
Gross profit	121,952	165,683	78,132
Income from operations	49,704	100,090	32,573
Net income	31,503	61,063	17,908
November 30:			
Current assets	$ 248,566	$ 279,663	$ 185,705
Noncurrent assets	28,336	40,245	34,560
Current liabilities	58,888	100,967	72,570
Noncurrent liabilities	188	496	800

SEN has a March 31st fiscal year end. The consolidated statements of operations for Axcelis include the results of SEN for the twelve-month periods ended November 30th, which represents a one-month lag. The information above has been presented as of and for the twelve months ended November 30th to conform to Axcelis’ equity accounting for SEN.

A summary of Axcelis’ transactions with and balances payable to or receivable from SEN are as follows:

	2005	2004	2003
	(in thousands)		
Net sales	$ 3,490	$ 3,374	$ 3,179
Royalty revenue	8,652	12,951	5,866
Dividends received	538	—	456
Axcelis' equity income of SEN	15,751	30,531	8,954
Accounts receivable at December 31	2,375	1,816	495
Accounts payable at December 31	71	162	2,623

Axcelis' accumulated deficit included $82.9 million and $67.6 million of undistributed earnings of SEN at December 31, 2005 and 2004, respectively.

Note 21. Quarterly Results of Operations (unaudited)

	Dec. 31, 2005(1)	Sept. 30, 2005(2)	June 30, 2005(3)	March 31, 2005(4)	Dec. 31, 2004(5)	Sept. 30, 2004	June 30, 2004(6)	March 31, 2004
	(in thousands, except per share data)							
Revenue	$ 92,944	$ 87,382	$ 92,178	$ 100,036	$ 94,508	$ 127,896	$ 151,348	$ 134,224
Gross profit	37,991	35,703	38,940	41,797	38,873	54,079	68,400	50,176
Net income (loss)	(1,335)	(5,167)	749	1,898	7,041	19,082	34,471	13,581
Net income (loss) per share								
Basic	$ (0.01)	$ (0.05)	$ 0.01	$ 0.02	$ 0.07	$ 0.19	$ 0.35	$ 0.14
Diluted	$ (0.01)	$ (0.05)	$ 0.01	$ 0.02	$ 0.07	$ 0.19	$ 0.33	$ 0.13

(1) Includes restructuring charges of $1.1 million.

(2) Includes restructuring charges of $1.5 million and reduced income tax expense of $0.5 million for adjustments to income tax provisions recorded in prior years.

(3) Includes restructuring charges of $2.1 million.

(4) Includes restructuring charges of $1.8 million.

(5) Includes restructuring charges of $1.0 million.

(6) Includes reduced income tax expense of $4.0 million as a result of reversal of income tax accruals recorded in prior years related to the underlying tax matters that were favorably resolved.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

AXCELIS TECHNOLOGIES, INC.

Dated: March 10, 2006

By: /s/ Mary G. Puma
Mary G. Puma, Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the date indicated.

Signature	Title	Date
/s/ MARY G. PUMA Mary G. Puma	Director and Principal Executive Officer	March 10, 2006
/s/ STEPHEN G. BASSETT Stephen G. Bassett	Principal Accounting and Financial Officer	March 10, 2006
/s/ ALEXANDER M. CUTLER Alexander M. Cutler	Director	March 10, 2006
/s/ R. JOHN FLETCHER R. John Fletcher	Director	March 10, 2006
/s/ STEPHEN R. HARDIS Stephen R. Hardis	Director	March 10, 2006
/s/ WILLIAM C. JENNINGS William C. Jennings	Director	March 10, 2006

/s/ MICHIO NARUTO Michio Naruto	Director	March 10, 2006
/s/ PATRICK H. NETTLES Patrick H. Nettles	Director	March 10, 2006
/s/ H. BRIAN THOMPSON H. Brian Thompson	Director	March 10, 2006

Exhibit Index

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation of the Company. Incorporated by reference to Exhibit 3.1 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
3.2	Bylaws of the registrant, as amended as of January 23, 2002. Incorporated by reference to Exhibit 3.2 of the Company's Form 10-K for the year ended December 31, 2001, filed with the Commission on March 12, 2002.
3.3	Certificate of Designation of Series A Participating Preferred Stock, filed with the Secretary of State of Delaware on July 5, 2000. Incorporated by reference to Exhibit 3.3 of the Company's Form 10-K for the year ended December 31, 2000, filed with the Commission on March 30, 2001.
4.1	Specimen Stock Certificate. Incorporated by reference to Exhibit 4.1 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
4.2	Rights Agreement between the Company and EquiServe Trust Company, N.A. Incorporated by reference to Exhibit 4.1 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
4.3	Indenture between the Company and State Street Bank and Trust Company, as trustee, including the form of note, dated as of January 15, 2002. Incorporated by reference to Exhibit 4.1 of the Company's Report on Form 8-K filed with the Commission on January 15, 2002.
4.4	Registration Rights Agreement by and among the Company, Morgan Stanley & Co., Incorporated, Salomon Smith Barney Inc. and SG Cowen Securities Corporation, dated as of January 15, 2002. Incorporated by reference to Exhibit 4.2 of the Company's Report on Form 8-K filed with the Commission on January 15, 2002.
4.5	Revolving Credit Agreement dated as of October 3, 2003, among the Company, ABN Amro Bank N.V. and the other lenders named therein, as amended. Pursuant to Regulation S-K, Item 601(b)(4)(iii), this exhibit has not been filed, since the total amount of the facility does not exceed 10% of the Company's total assets at this time. The Company will furnish a copy of the Credit Agreement to the Commission on request.
10.1*	Axcelis Technologies, Inc. 2000 Stock Plan, as amended through June 23, 2005. Incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Commission on June 28, 2005.
10.2*	Axcelis Technologies, Inc. Employee Stock Purchase Plan, as amended through May 12, 2005, effective January 1, 2006. Incorporated by reference to Exhibit 10.1 of the Company's report on Form 10-Q for the quarter ended September 30, 2005 filed with the Commission on November 9, 2005.
10.3*	Axcelis Team Incentive Plan for executive officers, adopted by the Compensation Committee of the Board of Directors on January 31, 2006. Incorporated by reference to the Company's Report on Form 8-K filed with the Commission on February 6, 2006.
10.4	Form of Indemnification Agreement entered into by the Company with each of its directors and executive officers. Incorporated by reference to Exhibit 10.2 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
10.5*	Form of Change in Control Agreement, as amended on May 12, 2005, between the Company and each of its executive officers. Incorporated by reference to Exhibit 10.1 of the Company's report on Form 10-Q filed with the Commission on August 9, 2005.
10.6*	Form of Employee non-qualified stock option grant under the 2000 Stock Plan, updated as of April 5, 2002. Incorporated by reference to Exhibit 10.1 of the Company's report on Form 10-Q filed with the Commission on November 9, 2004.

10.7	Form of Non-Employee Director stock non-qualified stock option grant under the 2000 Stock Plan, updated as of July 12, 2004. Incorporated by reference to Exhibit 10.2 of the Company's report on Form 10-Q filed with the Commission on November 9, 2004.
10.8	Form of Restricted Stock Agreement for use under the 2000 Stock Plan. Incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K filed with the Commission on June 28, 2005.
10.9	Form of Restricted Stock Unit Award Agreement for use under the 2000 Stock Plan. Incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed with the Commission on June 28, 2005.
10.10*	Form of Lock-Up Agreement dated October 26, 2005 between the registrant and each of its executive officers. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on October 26, 2005.
10.11*	Non-Employee Director Compensation effective July 1, 2005. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on June 28, 2005.
10.12	Executive Officer Cash Compensation at March 1, 2006. 0Filed herewith.
10.13	Director Compensation at March 1, 2006. Filed herewith.
10.14*	Employment Agreement between the Company and Mary G. Puma. Incorporated by reference to Exhibit 10.5 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
10.15*	Executive Officer Agreement dated as of December 18, 2003 between the Company and Stephen G. Bassett. Incorporated by reference to Exhibit 10.2 of the Company's report on Form 10-K filed with the Commission on March 8, 2004.
10.16*	Executive Separation Agreement dated as of January 28, 2005 between Axcelis Technologies, Inc. and Jan Paul van Maaren. Incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Commission on February 3, 2005.
10.17*	Executive Separation Agreement dated as of July 1, 2005 between the Company and David W. Duff, Ph.D. Incorporated by reference to Exhibit 10.7 of the Company's report on Form 10-Q for the quarter ended June 30, 2005 filed with the Commission on August 9, 2005.
10.18**	Organization Agreement dated December 3, 1982 between Eaton Corporation and Sumitomo Heavy Industries, Ltd. relating to Sumitomo Eaton Nova Corporation, as amended. Incorporated by reference to Exhibit 10.6 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).
10.19**	Master License Agreement dated January 16, 1996 between Eaton Corporation and Sumitomo Eaton Nova Corporation. Incorporated by reference to Exhibit 10.7 of the Company's Registration Statement on Form S-1 (Registration No. 333-36330).

14.1	Ethical Business Conduct at Axcelis, revised through January 2003. Incorporated by reference to Exhibit 14.1 of the Company's report on Form 10-K filed with the Commission on March 28, 2003.
21.1	Subsidiaries of the Company. Filed herewith.
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm. Filed herewith.
31.1	Certification of the Chief Executive Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated March 8, 2006. Filed herewith.
31.2	Certification of the Chief Financial Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated March 8, 2006. Filed herewith.
32.1	Certification of the Chief Executive Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated March 8, 2006. Filed herewith.
32.2	Certification of the Chief Financial Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated March 8, 2006. Filed herewith.
99.1	Charter of the Audit Committee of the Board of Directors of Axcelis, as adopted on April 29, 2004. Incorporated by reference to Exhibit 99.2 of the Company's report on Form 10-Q filed with the Commission on August 6, 2004.
99.2	Governance Policies adopted by the Board of Directors of Axcelis on September 25, 2002 and amended on October 22, 2003, June 22, 2005 and November 9, 2005. Filed herewith.
99.3	Charter of the Nominating and Governance Committee of the Board of Directors, as adopted on September 26, 2002. Incorporated by reference to Exhibit 99.6 of the Company's report on Form 10-K filed with the Commission on March 28, 2003.
99.4	Charter of the Compensation Committee of the Board of Directors of Axcelis, as adopted on January 23, 2003. Incorporated by reference to Exhibit 99.7 of the Company's report on Form 10-K filed with the Commission on March 28, 2003.

* Indicates a management contract or compensatory plan.

** Certain confidential information contained in the document has been omitted and filed separately with the Securities and Exchange Commission pursuant to Rule 406 of the Securities Act of 1933, as amended, or Rule 24b-2 promulgated under the Securities and Exchange Act of 1934, as amended

Schedule II-Valuation and Qualifying Accounts
Axcelis Technologies, Inc
(in thousands)

	Balance at Beginning of Period	Charged to Costs and Expenses	Deductions	Other(*)	Balance at End of Period
Year Ended December 31, 2005					
Allowance for doubtful accounts and returns	$ 3,628	$ —	$ (455)	$ (50)	$ 3,123
Reserve for excess and obsolete inventory	15,356	4,224	(1,845)	60	17,795
Year Ended December 31, 2004					
Allowance for doubtful accounts and returns	3,823	82	(277)	—	3,628
Reserve for excess and obsolete inventory	8,966	10,107	(3,963)	246	15,356
Year Ended December 31, 2003					
Allowance for doubtful accounts and returns	3,644	318	(139)	—	3,823
Reserve for excess and obsolete inventory	14,692	4,493	(11,204)	985	8,966

(*) represents foreign currency translation adjustments.

Axcelis Technologies, Inc.
Executive Officer Cash Compensation at March 1, 2006

Base Salaries and Bonus Opportunities. Other than in the case of Mary G. Puma, Axcelis Technologies, Inc. (the "Company") has not entered into any written agreements with its executive officers addressing the amount of base salary or bonus opportunity due to the executive. The Company's Employment Agreement with Ms. Puma is filed as Exhibit 10.14 to this Form 10-K (incorporated by reference to Exhibit 10.5 to the Company's Registration Statement on Form S-1 (Registration No. 333-36330)). The Company maintains that all executive officers, other than Ms. Puma, are employees at will and that the Company has no obligation to pay base salary or bonuses, other than amounts accrued for services rendered prior to termination of employment and other than in circumstances where the Change of Control Agreements described below are applicable.

In the course of the employment relationship with each executive officer, the Company communicates to executive officers the amount of base salary and a target bonus opportunity approved by the Compensation Committee of the Board of Directors, which compensation is subject to change in the discretion of the Compensation Committee of the Board of Directors. In establishing this cash compensation, the Compensation Committee applied its compensation philosophy to provide base salaries and target bonus compensation within the 50th percentile of such categories of compensation paid by similar companies for comparable positions, based on market benchmarking data compiled by external consulting firms

The following table sets forth the annual base salary and annual target bonus opportunity under the 2006 Axcelis Team Incentive Plan as communicated to the executive officers of the Company as in effect on March 1, 2006:

Executive Officer	Title	Base Salary	ATI Target as a % of Base Salary
Mary G. Puma	President and Chief Executive Officer	$ 500,000	100%
Lynnette C. Fallon	Executive VP HR/Legal and General Counsel	$ 305,000	60%
Stephen G. Bassett	Executive VP and Chief Financial Officer	$ 276,000	60%
Marc S. Levine	Senior VP, Product Development	$ 250,000	50%
Matthew Flynn	Senior VP, Global Customer Operations	$ 275,000	50%
Kevin Brewer	Senior VP, Manufacturing Operations	$ 250,000	50%
Donald Palette	Senior VP, Finance and Controller	$ 215,000	40%
Craig Halterman	Senior VP, Chief Information Officer	$ 224,500	40%
Mark Namaroff	Senior VP, Marketing	$ 205,000	40%

The Axcelis Team Incentive Plan for Executive Officers is filed as Exhibit 10.3 to this Form 10-K (incorporated by reference to Exhibit 10.1 to the Company's Report on Form 8-K filed with the Commission on February 6, 2006).

A description of the implementation of such plan for the fiscal year ending December 31, 2006 was described in the Company's Report on Form 8-K filed with the Commission on February 6, 2006).

Other Compensation Plans. Executives also participate in benefit plans available to all employees, including an Internal Revenue Code Section 401(k) plan, under which the Company made a matching contribution to each participant in 2005, the 2000 Stock Plan and the Employee Stock Purchase Plan, an Internal Revenue Code Section 423 plan which allows employees to purchase Axcelis shares through salary deductions. The 2000 Stock Plan is filed as Exhibit 10.1 to this Form 10-K (incorporated by reference to Exhibit 10.2 to the Company's Report on Form 8-K filed June 28, 2005). The Employee Stock Purchase Plan, as amended through May 12, 2005, is filed as Exhibit 10.2 to this Form 10-K (incorporated by reference to Exhibit 10.1 to the Company's Report on Form 10-Q for the quarter ended September 30, 2005). Other than a tax and financial planning reimbursement program capped at $5,500 per year, Axcelis offers no material executive perquisites.

Change of Control Agreements. The Company has entered into a Change of Control Agreement with each of our executive officers, including Ms. Puma, to provide that severance compensation will be paid in a lump sum within 30 days of a covered termination following a change in control, as defined in the agreement. These Change of Control Agreements provide that executive officers are entitled to severance compensation in the event there is both (1) a change in control and (2) a termination of employment within three years of that change in control for reasons other than voluntary resignation, cause, death or disability. Under the Change of Control Agreement, a resignation by an officer for reasons of a demotion or reduction in compensation, benefits or position is a termination by us and is not a voluntary resignation.

If severance compensation is payable, it would consist of a cash payment equal to the sum of (a) the Company's accrued obligations for base pay and incentive compensation and (b) the amount determined by multiplying the executive's then salary and average bonus by three. For this purpose, an executive's average bonus is his or her current bonus opportunity multiplied by the average of the individual performance scores given to the executive in the last three years, but without taking into account company performance scores. In the event such severance is payable, all unvested restricted stock units and options held by the executive will become vested until termination or expiration in accordance with their terms. We will also reimburse the executive for the effects, including federal, state and local income tax consequences, of any excise tax due on severance compensation.

In these agreements, the executives have agreed not to be engaged by, or own, any business competing with any of the businesses conducted by the Company for a period of 12 months following any termination of employment (whether or not following a change of control). The executive also agreed not to solicit employees of the Company to leave employment with the Company or solicit or induce customers of the Company to cease doing business with the Company, during such period.

The form of Change of Control Agreement currently in effect between the Company and each of its executive officers is filed as Exhibit 10.5 to this Form 10-K (incorporated by reference to Exhibit 10.1 to the Company's Report on Form 10-Q for the quarter ended June 30, 2005).

Exhibit 10.13

Axcelis Technologies, Inc.
Director Compensation at March 1, 2006

The Nominating and Governance Committee has responsibility under its charter to review any changes to non-employee director compensation and provide a recommendation as to the adoption of such changes to the full Board. All equity grants to non-employee directors are either made under automatic granting language in the 2000 Stock Plan or by the Compensation Committee on the recommendation of the Board of Directors. The 2000 Stock Plan is filed as Exhibit 10.1 to this Form 10-K (incorporated by reference to Exhibit 10.2 to the Company's Report on Form 8-K filed with the Commission on June 28, 2005).

Director Fees. Mr. Hardis, the Lead Director, receives an annual retainer, payable quarterly. Mr. Hardis' annual retainer was set at $100,000 for the period from July 1, 2005 through June 30, 2006, at which time it will be reduced to $50,000 for the period ending June 30, 2007. Each non-employee director (other than Mr. Hardis) receives an annual retainer of $30,000 payable quarterly. In addition, each non-employee director (other than Mr. Hardis) assuming responsibility as Chairman of a committee of the Board of Directors receives an annual retainer of $7,500. Non-employee directors also receive cash fees for attendance at Board and committee meetings. Mr. Hardis will not receive meeting fees for meetings held prior to July 1, 2006. The meeting fees are: (1) $2,000 for attendance in person at a meeting of the Board of Directors; (2) $1,000 for attendance at a meeting of any committee of the Board of Directors; and (3) $1,000 for participation in a telephonic meeting of the Board of Directors or committee of the Board of Directors. Fees are paid only to committee members with respect to attendance at a committee meeting. Non-employee directors also receive reimbursement of out-of-pocket expenses incurred in attending Board and committee meetings. Non-employee directors do not receive any Company-paid perquisites.

Automatic Option Grants. All non-employee directors of Axcelis receive automatic initial stock option grants under our 2000 Stock Plan. The initial option grant is for 40,000 shares and is granted upon initial election to the Board. These non-employee director options have an exercise price equal to the closing price of our common stock on the grant date and are fully exercisable on the 181st day after the date the option is granted, provided the optionee is still a director on that date. The options have a term of ten years from the date of grant.

Prior to 2005, non-employee directors also received automatic annual grants for 15,000 shares beginning in the first calendar year after such director's first election to the Board. The 2000 Stock Plan was amended to eliminate the annual option grant provision in 2005, in light of the restricted stock grants described below.

Restricted Stock Grants. In 2005, the Compensation Committee approved the issuance under the 2000 Stock Plan of 7,257 shares of restricted stock to each of the non-employee directors elected in years prior to 2005. The value of the grants was $50,000, using the closing price on the date of grant. These restricted stock grants became fully vested on the 181st day after the date of grant for recipients remaining a director on that date.

Exhibit 21.1

Axcelis Technologies, Inc.

Exhibit 21.1 to Form 10-K for the year ended December 31, 2005
Subsidiaries

A. The following is all direct and indirect wholly-owned subsidiaries of Axcelis Technologies, Inc. as of the date hereof:

Domestic Subsidiaries

1. Fusion Systems Corporation a Delaware corporation
2. Fusion Technology International, Inc., a Delaware corporation
3. Axcelis Technologies (Israel), Inc., a Delaware corporation
4. Fusion Investments, Inc., a Maryland corporation
5. High Temperature Engineering Corporation, a Delaware corporation
6. Matrix Integrated Systems Acquisition Corporation, a California corporation

European Subsidiaries

7. Axcelis Technologies, GmbH (Germany)
8. Axcelis Technologies, S.r.L (Italy)
9. Axcelis Technologies, Sarl (France)
10. Axcelis Technologies, Ltd. (U.K.)
11. Axcelis Technologies B.V. (Netherlands)
12. Matrix Europe N.V. (Belgium)

Asian Subsidiaries

13. Axcelis Technologies, KK (Japan)
14. Axcelis Technologies Limited (Korea)
15. Axcelis Technologies Ltd. (Taiwan)
16. Axcelis Technologies Pte. Ltd. (Singapore)
17. Axcelis Technologies Semiconductor Trading (Shanghai) Co., Ltd. (Peoples Republic of China)

B. Axcelis Technologies, Inc. holds 50% of the outstanding shares of Sumitomo Eaton Nova Corporation, a Japanese corporation.

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-3 No. 333-85214) of Axcelis Technologies, Inc. and in the related Prospectus, the Registration Statement (Form S-8 No. 333-49726) pertaining to the Axcelis Technologies, Inc. Employee Stock Purchase Plan and the Registration Statements (Forms S-8 No. 333-49768 and 333-120356) pertaining to the Axcelis Technologies, Inc. 2000 Stock Plan, of our reports dated March 8, 2006, with respect to the consolidated financial statements and schedule of Axcelis Technologies, Inc., Axcelis Technologies, Inc. management's assessment of the effectiveness of internal control over financial reporting, and the effectiveness of internal control over financial reporting of Axcelis Technologies, Inc., included in this Annual Report (Form 10-K) for the year ended December 31, 2005.

/s/ Ernst and Young LLP

Boston, Massachusetts
March 8, 2006

Exhibit 31.1

CERTIFICATION

of the Principal Executive Officer

Pursuant to Rule 13a-14(a)/15d-14(a) (implementing Section 302 of the Sarbanes-Oxley Act)

I, Mary G. Puma, certify that:

1. I have reviewed this annual report on Form 10-K of Axcelis Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the company's most recent fiscal

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quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 10, 2006

s/ Mary G. Puma

Mary G. Puma, Chief Executive Officer and President

Exhibit 31.2

CERTIFICATION

of the Principal Financial Officer

Pursuant to Rule 13a-14(a)/15d-14(a) (implementing Section 302 of the Sarbanes-Oxley Act)

I, Stephen G. Bassett, certify that:

1. I have reviewed this annual report on Form 10-K of Axcelis Technologies, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the company as of, and for, the periods presented in this report;

4. The company's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the company and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the company's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the company's internal control over financial reporting that occurred during the company's most recent fiscal

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quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the company's internal control over financial reporting; and

5. The company's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the company's auditors and the audit committee of the company's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the company's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 10, 2006

/s/ Stephen G. Bassett
Stephen G. Bassett, Chief Financial Officer
and Senior Vice President

EXHIBIT 32.1

AXCELIS TECHNOLOGIES, INC.

Certification of the Chief Executive Officer

Pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code

The undersigned Chief Executive Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certifies, for the purposes of Section 1350 of Chapter 63 of title 18 of the United States Code (as implemented by Section 906 of the Sarbanes-Oxley Act of 2002) as follows:

This Form 10-K annual report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and the information contained herein fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned has executed this Certification as of March 10, 2006.

/s/ Mary G. Puma
Mary G. Puma
Chief Executive Officer of Axcelis Technologies, Inc.

EXHIBIT 32.2

AXCELIS TECHNOLOGIES, INC.

Certification of the Chief Financial Officer

Pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code

The undersigned Chief Financial Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certifies, for the purposes of Section 1350 of Chapter 63 of title 18 of the United States Code (as implemented by Section 906 of the Sarbanes-Oxley Act of 2002) as follows:

This Form 10-K annual report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)) and the information contained herein fairly presents, in all material respects, the financial condition and results of operations of the Company.

IN WITNESS WHEREOF, the undersigned has executed this Certification as of March 10, 2006.

/s/ Stephen G. Bassett
Stephen G. Bassett
Senior Vice President and Chief Financial Officer of Axcelis Technologies, Inc.

Axcelis Technologies Inc.

Governance Policies

Adopted by the Nominating and Governance Committee of the Board of Directors
on September 25, 2002
as amended October 22, 2003, June 22, 2005 and November 9, 2005

Board Composition and Criteria for Evaluation of Directors and Nominees

1. The Board shall be comprised of a majority of Independent Directors.

2. For the purposes of this policy, "Independent Director" shall have the meaning set forth in the listing standards for the Nasdaq National Market (the "Nasdaq Rules"), and such definition in this policy shall change as and when the definition in such Rules change, provided that the Nominating and Governance Committee shall promptly circulate any changes to such definition to all members of the Board of Directors.

3. Any determination of whether an incumbent Board member is an "Independent Director" under the then effective Nasdaq Rules shall be made by a majority of the directors then in office who have either been affirmatively determined to be "Independent" or for whom there is no pending question of independence.

4. Former CEOs of the Company will not remain on the Board.

5. All new candidates for election to the Board and all Board members eligible for nomination for re-election to the Board shall be evaluated prior to nomination for election or re-election based on criteria developed by the Nominating and Governance Committee, including but not limited to the following:

(a) such candidate or Board member's current level of, and on-going commitment to, education regarding the responsibilities of a member of a Board of Directors under standards established by the Nominating and Governance Committee;

(b) the adequacy of such candidate or Board member's time available to commit to responsibilities as a member of the Board;

(c) the existence of any financial relationship with the Company other than that arising as an employee of the Company, as a Board member and/or as shareholder; and

(d) in the case of re-election, such member's compliance with our Director Stock Ownership Policy.

6. It would not be normally expected that a member of the Board of Directors would be asked to sit for re-election to the Board after such member's 75th birthday.

7. At any shareholder meeting at which Directors are subject to an uncontested election, any nominee for Director who receives a greater number of votes "withheld" from his or her election than votes "for" such election shall submit to the Board a letter of resignation for consideration by

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the Nominating and Governance Committee. The Nominating and Governance Committee shall recommend to the Board the action to be taken with respect to such offer of resignation. The Board shall act promptly with respect to each such letter of resignation and shall promptly notify the Director concerned of its decision.

8. When a Director's principal occupation or business association changes substantially from the position he or she held when originally invited to join the Board, the Director shall tender a letter of resignation to the Chairman. The Nominating and Governance Committee will review whether the new occupation, or retirement, of the Director is consistent with the specific rationale for originally selecting that individual and the guidelines for board membership. The Nominating and Governance Committee will recommend action to be taken regarding the resignation based on the circumstances of retirement, if that is the case, or in the case of a new position, the responsibility and type of position and company and industry involved

9. New directors will receive a director orientation program to familiarize them with the Company's business, industry trends, and recommended governance practices.

Chairman of the Board

10. The duties of the Chairman of the Board include setting Board agendas and such other responsibilities as may be assigned to him or her by the Board of Directors in accordance with the Company's bylaws.

11. The Company's Bylaws permit the Board to select its Chairman in the manner it determines to be most appropriate for the Company. If the Chairman of the Board is not the Chief Executive Officer, and is an independent director, there shall be no Lead Director. If the Chairman of the Board is the Chief Executive Officer or is not an independent director, the independent directors shall elect a Lead Director. The responsibilities of the Lead Director shall include:

- Setting the board's agenda in collaboration with the CEO;
- Acting as a regular communication channel between the board and CEO;
- Organizing and presiding over executive sessions to review the company's performance and management effectiveness;

- Conducting exit interviews with resigning senior managers to determine whether their departure reflect problems with the CEO or other company issues;

- Coordinating the activities of the independent directors;

- With the Chairman of the Nominating and Governance Committee, addressing an actions arising from the annual Board self-evaluation, coordinating the assessment of the committee structure, organization, and charters, and evaluating the need for any changes; and

- Coordinating the performance evaluation of the Chairman and CEO.

Conduct of the Board of Directors and Committees

12. The Board shall form an Audit, Compensation and Nominating and Governance Committees.

13. The composition of the Audit Committee shall satisfy the requirements of the Nasdaq Rules, the Sarbanes-Oxley Act of 2002 and the rules and regulations of the Securities and Exchange Commission.

14. The composition of the Compensation Committee shall satisfy the requirements of the Nasdaq Rules, the Securities and Exchange Commission Rule 16b-3 and the Internal Revenue Service requirements to exempt option compensation from the limitations on deductibility under I.R.C. Section 162(m).

15. The composition of the Nominating and Governance Committee shall meet the requirements of the Nasdaq Rules.

16. Independent Directors shall meet in executive session at every meeting of the full Board and in Committees.

17. Minutes of all Board committees shall be submitted to the full Board for their information.

18. At each Board meeting, Committee chairmen shall report to the full Board on Committee activities since the last Board meeting.

19. The Board and Committees shall be free to hire independent advisors as they in their sole discretion determine appropriate.

20. The Board should undertake an annual review of the Company’s strategic direction.

Shareholder Rights

21. The Company shall not limit the rights of shareholders in contravention of Delaware law or the listing requirements of Nasdaq National Market.

22. Board Committee charters and these Governance Policies shall be filed annually with the Company’s Form 10-K or proxy statement for the information of our shareholders.

23. Shareholder approval will be solicited on all equity compensation plans to the extent required by the Nasdaq Rules.
