



NOTICE OF ANNUAL MEETING OF STOCKHOLDERS

To Be Held June 28, 2001

The 2001 annual meeting of the stockholders of Axcelis Technologies, Inc., a Delaware corporation, will be held at the State Street Bank Building, 225 Franklin Street, Boston, Massachusetts, at 11:00 a.m. on Thursday, June 28, 2001 for the following purposes:

1. To elect two (2) directors to serve until the 2004 Annual Meeting of Stockholders.
2. To ratify the appointment of independent auditors.
3. To transact such other business as may properly come before the meeting or any adjournment thereof.

Only stockholders of record at the close of business on April 30, 2001 will be entitled to vote at the annual meeting or at any adjournment.

It is important that your shares be represented at the meeting. Therefore, whether or not you plan to attend the meeting, please complete your proxy card and return it in the enclosed envelope, which requires no postage if mailed in the United States. If you attend the meeting and wish to vote in person, your proxy will not be used.

By order of the Board of Directors,

Lynnette C. Fallon
Secretary

Dated: May 14, 2001

PROXY STATEMENT

The board of directors of Axcelis Technologies, Inc. (“Axcelis” or the “Company”) is soliciting your proxy for use at the 2001 annual meeting of stockholders to be held on Thursday, June 28, 2001 and at any adjournment of the meeting. This proxy statement and the accompanying proxy card are first being sent or given to stockholders of Axcelis on or about May 14, 2001.

General Information About Voting

Who can vote. You may vote your shares of Axcelis common stock at the annual meeting if you were a stockholder of record at the close of business on April 30, 2001. On that date, there were 97,073,127 shares of common stock outstanding. You are entitled to one vote for each share of common stock that you held on the record date.

How to vote your shares. You may vote your shares either by proxy or by attending the meeting and voting in person. If you choose to vote by proxy, please complete, date, sign and return the proxy card in the enclosed postage prepaid envelope. The proxies named in the proxy card will vote your shares as you have instructed. If you sign and return the proxy card without indicating how your votes should be cast, the proxies will vote your shares in favor of each of the proposals contained in this proxy statement, as recommended by our board of directors. Even if you plan to attend the meeting, please complete and mail your proxy card to ensure that your shares are represented at the meeting. If you attend the meeting, you can still revoke your proxy by voting in person. If your shares are held in a brokerage or bank account, you must make arrangements with your broker or bank to vote your shares in person.

Proposals to be considered at the annual meeting. The principal business expected to be transacted at the meeting, as more fully described below, will be the election of two directors and the ratification of the selection of independent auditors of the Company.

Quorum. A quorum of stockholders is required to transact business at the meeting. A majority of the outstanding shares of common stock entitled to vote, represented at the meeting in person or by proxy, constitutes a quorum for the transaction of business.

Number of votes required. The number of votes required to approve the proposals that are scheduled to be presented at the meeting is as follows:

<u>Proposal</u>	<u>Required Vote</u>
• Election of two nominees as directors.	Each nominee must receive a plurality of the votes cast.
• Ratification of auditors.	This requires the affirmative vote of a majority of the shares present or represented at the meeting.

Abstentions and broker non-votes. Abstentions and broker non-votes will be counted in determining whether a quorum exists. A broker non-vote occurs when a broker cannot vote a customer’s shares registered in the broker’s name because the customer did not send the broker instructions on how to vote on the matter and the broker is barred by law or Nasdaq regulations from exercising its discretionary voting authority in the particular matter. In voting on the proposal to ratify the appointment of our auditors, abstentions and broker non-votes will be counted as votes against the proposal.

Discretionary voting by proxies on other matters. Aside from the proposals for the election of directors and the ratification of our selection of auditors, we do not know of any other proposals that may be presented at the 2001 annual meeting. If another matter is properly presented for consideration at the meeting, the persons named in the accompanying proxy card will exercise their discretion in voting on the matter.

How you may revoke your proxy. You may revoke the authority granted by your executed proxy card at any time before we exercise it by filing with our Corporate Secretary, Lynnette C. Fallon, a written revocation or a duly executed proxy card bearing a later date, or voting in person at the meeting. If your shares are held in a brokerage or bank account, you must make arrangements with your broker or bank to revoke your proxy.

Expenses of solicitation. We will bear all costs of soliciting proxies. We will upon request reimburse brokers, custodians and fiduciaries for out-of-pocket expenses incurred in forwarding proxy solicitation materials to the beneficial owners of stock held in their names. In addition to solicitations by mail, our directors, officers and employees may solicit proxies from stockholders in person or by other means of communication, including telephone, facsimile and e-mail, without additional remuneration.

SHARE OWNERSHIP

The following table shows the amount of our common stock beneficially owned as of March 31, 2001 by (i) persons known by us to own more than 5% of our common stock, (ii) the executive officers named in the Summary Compensation Table on page 15 and all other executive officers, (iii) our directors and (iv) all of our current executive officers and directors as a group.

The number of shares beneficially owned by each person listed below includes any shares over which a person has sole or shared voting or investment power as well as shares which the person has the right to acquire on or before May 30, 2001 (60 days after March 31, 2001) by exercising a stock option or other right. Unless otherwise noted, each person has sole investment and voting power (or shares that power with his or her spouse) over the shares listed in the table. The percentage ownership of each person listed in the table was calculated using the total number of shares outstanding on March 31, 2001, plus any shares these persons could acquire upon the exercise of any options held by them on or before May 30, 2001.

<u>Beneficial Owner</u>	<u>Shares Owned⁽¹⁾</u>	<u>Options or Warrants Exercisable as of May 30, 2001</u>	<u>Total Shares Beneficially Owned</u>	<u>Percent of Class</u>
<u>5% Stockholder</u>				
Wellington Management Company, LLP ⁽¹⁾	12,989,637	0	12,989,637	13.4%
75 State Street Boston, MA 02109				
<u>Executive Officers</u>				
Brian R. Bachman	25,890	797,025	822,915	*
Kevin M. Bisson	753	13,137	13,890	*
Michael L. Dreyer	1,000	0	1,000	*
Michael J. Luttati	5,266	209,632	214,898	*
Ted S. Miller	7,000	32,982	39,982	*
Robert A. Mionis	3,234	75,999	79,233	*
Cornelius F. Moses, III	5,000	0	5,000	*
Kevin O'Connor	5,099	0	5,099	*
Mary G. Puma	53,314 ⁽²⁾	225,809	279,123	*
<u>Non-Executive Directors</u>				
Alexander M. Cutler	29,184 ⁽³⁾	24,000	53,184	*
Stephen R. Hardis	65,735	24,000	89,735	*
Ned C. Lautenbach	7,358	24,000	31,358	*
Philip S. Paul	5,000	24,000	29,000	*
Naoki Takahashi	1,000	24,000	25,000	*
Gary L. Tooker	13,573 ⁽⁴⁾	24,000	37,573	*
<u>All Executive Officers and Directors as a Group (15 persons)</u>				
	228,406	1,498,584	1,726,990	1.8%

* Indicates less than 1%.

- (1) Based on a Schedule 13G filed by Wellington Management Company, LLP ("Wellington") with the Securities and Exchange Commission in February 2001, which reports that such shares are held of record by clients of Wellington. Wellington shares voting and investment power over such shares with such clients, one of which, Vanguard Winsor Fund, owns more than 5% of the outstanding Common Stock.
- (2) Includes 47,522 shares that are subject to forfeiture to the Company, which lapses as to 23,761 shares on each of December 31, 2003 and 2004.
- (3) Includes 7,279 shares owned by Mr. Cutler's wife and 1,178 shares owned by a trust of which Mr. Cutler is a beneficiary.
- (4) Includes 3,573 shares held by a trust of which Mr. Tooker is a beneficiary.

PROPOSAL 1: ELECTION OF DIRECTORS

Our board of directors has currently fixed the number of directors at eight, which number is subject to increase by the Board. Under our charter, our board is divided into three classes, with each class being as nearly equal in number of directors as possible. The term of one class expires, and their successors are elected for a term of three years, at each annual stockholders' meeting. At the upcoming annual meeting, two directors will be elected to hold office for a term of three years and until their successors are elected and qualified. Each of the board's nominees, Alexander M. Cutler and Gary L. Tooker, has consented to serve if elected. However, if any nominee is unable to serve, proxies will be voted for any other candidate nominated by the board.

The following table contains biographical information about the nominees for director and current directors whose term of office will continue after the meeting.

<u>Name and Age</u>	<u>Business Experience and Other Directorships</u>	<u>Director Since</u>	<u>Present Term Expires</u>
Alexander M. Cutler* . . . Age: 50	Mr. Cutler is Chairman and Chief Executive Officer of Eaton Corporation, a manufacturer of industrial components. Prior to assuming this position in August 2000, Mr. Cutler was President and Chief Operating Officer of Eaton Corporation since 1995. Mr. Cutler served as Eaton's Executive Vice President and Chief Operating Officer – Controls from 1993 to 1995, as Executive Vice President – Operations from 1991 and as President of its Industrial Group from 1986. He is also a director of KeyCorp.	2000	2001
Gary L. Tooker* Age: 61	Mr. Tooker is a consultant to Motorola, Inc. and Morgan Stanley Dean Witter. Mr. Tooker served as Vice Chairman of Motorola, Inc., a manufacturer of electronics equipment, from June to December 1999. Prior to that, he was Motorola's Chairman from 1997, and Vice Chairman and Chief Executive Officer from 1993. Mr. Tooker is a director of Avnet, Inc., Eaton Corporation and Motorola.	2000	2001
Brian R. Bachman Age: 56	Mr. Bachman has been the Company's Chief Executive Officer and Vice Chairman since May 2000. From December 1995 to July 2000, he was Senior Vice President and Group Executive-Hydraulics, Semiconductor Equipment and Specialty Controls of Eaton Corporation. From 1991 to 1995, he was Vice President and General Manager for the Standard Products Business Group of Philips Semiconductor. He is a member of the Board of Directors of Keithley Instruments, Inc. He also serves on Northwestern University's Kellogg McCormick Master of Management in Manufacturing Program Advisory Board.	2000	2002

<u>Name and Age</u>	<u>Business Experience and Other Directorships</u>	<u>Director Since</u>	<u>Present Term Expires</u>
Stephen R. Hardis Age: 65	Mr. Hardis is the Chairman of the Company's Board of Directors. He was Chairman and Chief Executive Officer of Eaton Corporation until July 31, 2000. Mr. Hardis became Eaton's Chairman in January 1996 and its Chief Executive Officer in September 1995. Prior to that, he served as Eaton's Vice Chairman from 1986 and its Executive Vice President - Finance and Administration from 1979. Mr. Hardis is a director of American Greetings Corporation, Lexmark International Group, Inc., Marsh & McLennan Companies, Inc., Nordson Corporation, Progressive Corporation and Apogent Technologies Inc.	2000	2002
Ned C. Lautenbach Age: 57	Mr. Lautenbach is a partner of Clayton, Dubilier & Rice, Inc., an investment firm specializing in structuring leveraged buyouts. Before joining CD&R, Mr. Lautenbach was employed by IBM from 1968 until his retirement in 1998. At IBM, he held several executive positions, including Vice President, President of IBM Asia Pacific, Senior Vice President, Chairman of IBM World Trade Corporation, Senior Vice President and Group Executive, Sales and Distribution, and was a member of IBM's Corporate Executive Committee. He is a director of Eaton Corporation, Acterna Corporation, Complete Business Solutions, Inc., ChoicePoint, Inc., Dynatech Corp., Fidelity Mutual Funds and Fairfield University.	2000	2002
Mary G. Puma Age: 43	Ms. Puma has been the Company's President and Chief Operating Officer since May 2000. Prior to her current position, she served as the Company's Vice President from February 1999 to May 2000. In 1998, she became General Manager and Vice President of Eaton Corporation's Implant Systems Division. 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.	2000	2003

<u>Name and Age</u>	<u>Business Experience and Other Directorships</u>	<u>Director Since</u>	<u>Present Term Expires</u>
Philip S. Paul. Age: 62	Mr. Paul is Chairman of Paul Capital Partners, L.L.C., a private investment firm and registered investment advisor that he founded in 1991. Prior to 1991, Mr. Paul was Chairman and Chief Executive Officer of Hillman Ventures, Inc., a private equity investment firm which funded venture capital and buyouts. Prior to 1984, Mr. Paul had been Chairman and Chief Executive Officer of Wabash Datatech, Inc. Mr. Paul is a director of Soma Networks, Inc. and serves on the Board of Advisors for U.S. Venture Partners, Bay Partners, New Enterprise Associates, The Danske Bank's Private Equity Program (Copenhagen), and S.E.D. Ventures (Paris).	2000	2003
Naoki Takahashi Age: 55	Mr. Takahashi has been Director, Senior Vice President and General Manager of the Precision Products Division of Sumitomo Heavy Industries, Ltd., an industrial holding company, since April 2000. From 1998 to 2000, Mr. Takahashi was Director and General Manager of Corporate Technology Operations Group of Sumitomo. From 1996 to 1998, he was General Manager of the Research and Development Center of Sumitomo.	2000	2003

* Indicates a nominee for election as director.

Board of Directors and Committee Meetings

Our board of directors held seven meetings during 2000. Our board has standing Audit and Compensation Committees but does not have a Nominating Committee.

Audit Committee. The Audit Committee selects and evaluates the Company's independent auditors, reviews the audited financial statements and discusses the adequacy of the Company's internal controls with management and the auditors. The Audit Committee, which met one time during 2000, consists of Messrs. Paul (Chairman), Lautenbach and Tooker. For information about the Audit Committee, see the "Audit Committee Report" below.

Compensation Committee. The Compensation Committee determines the compensation to be paid to our executive officers and also administers our 2000 Stock Plan (the "Stock Plan"). Additionally, the Compensation Committee reviews the management succession plan for the organization. The members of the Compensation Committee are each of the directors other than Mr. Bachman and Ms. Puma. The Compensation Committee and its subcommittee held five meetings in 2000. For information about the Compensation Committee, see the "Compensation Committee Report on Executive Compensation" below.

Director Compensation

Director Fees. Other than the Chairman of the Board, our directors do not receive any cash fees. Mr. Hardis, the Chairman of the Board, receives an annual retainer of \$200,000, payable quarterly.

Automatic Option Grants. All non-employee directors of Axcelis are eligible to receive automatic initial and annual grants under our 2000 Stock Plan, provided that while Eaton Corporation was our controlling stockholder, employees of Eaton were ineligible. Under the Stock Plan, at the time of our initial public offering all eligible

directors received an initial grant of an option to purchase 24,000 shares. Any director becoming eligible thereafter receives an initial grant of an option for 24,000 shares. In addition, eligible directors will receive options for 12,000 shares once a year, at the meeting of the Board of Directors after July 1 of each year, beginning in 2001. Options 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 and an exercise price equal to the closing price of our common stock on the business day immediately preceding the grant date.

The directors who are currently eligible to receive these automatic grants are Messrs. Hardis, Cutler, Lautenbach, Tooker, Paul and Takahashi. At our initial public offering in July 2000, each of Mr. Lautenbach, Mr. Tooker, Mr. Paul and Mr. Takahashi received an option for 24,000 shares with an exercise price of \$22.00. Mr. Hardis became eligible to receive an option upon his retirement from Eaton Corporation, and received an option for 24,000 shares with an exercise price of \$16.625 in August 2000. Mr. Cutler did not become eligible to receive an automatic grant until January 2001.

AUDIT COMMITTEE REPORT

An Audit Committee of the Board was formed prior to our initial public offering, composed entirely of non-management directors. The members of the Audit Committee meet the independence and financial sophistication requirements of the Nasdaq Stock Market Rules. Our Board of Directors adopted a charter for the Audit Committee that establishes the responsibilities of the Committee. A copy of this charter is attached as Appendix A to this proxy statement.

The Committee schedules four of its meetings to occur after the preparation of quarterly and annual financial statements but prior to the public release of financial results for the period. Two additional meetings are also planned during the year to discuss the Company's internal control systems with the independent auditors and to review the scope and results of the Company's internal audit plans. In 2000, the first quarterly period ending after our initial public offering was the quarter ended September 30, 2000, and therefore only one meeting was held during 2000. The Committee met in January 2001 prior to the release of the 2000 annual financial results and in April 2001 prior to the release of the financial results for the first quarter of 2001. At these meetings, Axcelis' Chief Financial Officer was present, as was our General Counsel and our independent auditors. The Committee's agenda is established by the Committee's chairman, with input from the Company's Chief Financial Officer. Depending on the content of the meeting, the Committee holds private sessions with the Company's independent auditors and, separately, with the Chief Financial Officer, at which candid discussions of financial management, accounting and internal control issues can take place.

The Board of Directors engaged Ernst & Young LLP as our independent auditors for 2000. We have discussed with our independent auditors and the Company's Chief Financial Officer overall audit scopes and plans, the results of external audit examinations, evaluations by the auditors of the Company's internal controls and the quality of the Company's financial reporting.

Management has reviewed with the Audit Committee the audited 2000 consolidated financial statements in our Form 10-K Annual Report filed with the Securities and Exchange Commission and included in the Annual Report to Stockholders which accompanies this proxy statement. The review included a discussion of the quality, not just the acceptability, of the accounting principles, the reasonableness of significant judgments, and the clarity of disclosures in the financial statements.

In its meetings with representatives of the independent auditors, the Committee asks them to address, and discusses their response to, several questions that the Committee believes are particularly relevant to its oversight. These questions include:

- Are there any significant accounting judgments made by management in preparing the financial statements that would have been made differently had the auditors themselves prepared and been responsible for the financial statements?

- Based on the auditors' experience and their knowledge of the Company, do the Company's financial statements fairly present to investors, with clarity and completeness, the Company's financial position and performance for the reporting period in accordance with generally accepted accounting principles and SEC disclosure requirements?
- Based on the auditors' experience and their knowledge of the Company, has the Company implemented internal controls and internal audit procedures that are appropriate for the Company?

The Committee believes that, by focusing its discussions with the independent auditors, it can promote a meaningful dialogue that provides a basis for its oversight judgements.

The Committee received from the independent auditors their annual written reports covering (1) matters required to be discussed by the auditors with the Committee under Statement on Auditing Standards No. 61, *Communication with Audit Committees* and (2) their independence from the Company and its management, which report is made under Independence Standards Board Standard No. 1, *Independence Discussions with Audit Committees*. Both reports were discussed with the auditors and management at an Audit Committee meeting, including a discussion of any relationship that may impact the objectivity and independence of our auditors and whether the provision of any non-audit services by the auditors is compatible with maintaining their independence.

In performing all of these functions, the Audit Committee acts only in an oversight capacity. Necessarily, in its oversight role, the Committee relies on the work and assurances of the Company's management, which has the primary responsibility for financial statements and reports, and of the independent auditors, who in their report on the audited annual financial statements express an opinion on the conformity of the Company's annual financial statements to generally accepted accounting principles.

In reliance on these reviews and discussions and the report of the independent auditors, the Audit Committee has recommended to the Board of Directors, and the Board of Directors has approved, that the audited financial statements be included in the Company's Annual Report on Form 10-K for the year ended December 31, 2000, for filing with the Securities and Exchange Commission. The Committee and the Board have also recommended, subject to reconsideration in the absence of shareholder ratification, the selection of the Company's independent auditors for the current year.

By the Audit Committee,

Philip S. Paul
Ned C. Lautenbach
Gary L. Tooker

EXECUTIVE COMPENSATION

Compensation Committee Report on Executive Compensation

The Compensation Committee of the Board of Directors administers our executive compensation program. Mr. Hardis chairs the Committee, and membership includes Mr. Cutler, Mr. Tooker, Mr. Takahashi, Mr. Paul, and Mr. Lautenbach. In addition, during 2000, we had a subcommittee of the Compensation Committee, the Executive Equity Compensation Committee (the "EECC"), which was composed of all members of the Compensation Committee except Mr. Cutler. The EECC addressed all equity grants to executive officers under the 2000 Stock Plan in order to maintain qualification of such compensation under Internal Revenue Code Section 162(m). This report is submitted by the Committee and addresses the compensation policies for fiscal year 2000 as they affected Mr. Bachman, as Chief Executive Officer, and the top four executive officers other than Mr. Bachman each of whose salary and bonus combined for fiscal year 2000 exceeded \$100,000, and who are named in the Summary Compensation Table. This report also covers compensation policies for Cornelius F. Moses, III, who joined the Company in October 2000, but who has been included in the Summary Compensation Table.

Compensation Philosophy

During 2000, the Committee was responsible for recommending the compensation package of each existing and newly recruited executive officer. In making decisions regarding executive compensation, the Committee retained the services of PricewaterhouseCoopers, LLP, an independent compensation consulting firm. Additionally, the Committee reviewed benchmarking data obtained from other compensation consultants, including Iquantic, Executive Alliance, and Watson Wyatt Worldwide, to assess the Company's compensation programs.

In order to attract, retain and motivate the talented personnel it needs to meet corporate objectives, Axcelis has structured its executive compensation program to provide its employees with total cash compensation (base compensation plus incentive compensation) at the 50th percentile of the compensation paid by other similar sized technology companies if our corporate objectives are achieved. If such objectives are exceeded, Axcelis' compensation program will deliver total compensation at or above the 75th percentile for total compensation paid by our peer group. Bonuses are primarily based on corporate performance, and actual awards will vary year to year according to the Company's overall performance and the individual's impact on that performance.

The Company's executive compensation program consists of base salary, cash bonuses and stock option awards. All three components are intended to attract and retain executives and motivate management to meet and exceed Company growth and profitability goals and align management interests with those of our stockholders. In determining the total amount and mix of the compensation package for each executive officer, the Committee members subjectively consider the overall value to the Company of the executive in light of numerous factors such as contributions to the Company's competitive position in the marketplace, individual performance, and the past and expected contribution by the executive toward the achievement of the Company's performance objectives.

Base Salary

The Company's base salaries are structured to be within the median range of salaries paid by similar companies for comparable positions. The Committee believes that the Company's most direct competitors for executive positions are not necessarily the same as the peer companies in the Philadelphia Semiconductor Index, but, depending upon the position, may represent a broader group of similar sized technology companies. The Company actively participates in survey groups facilitated by Iquantic and Executive Alliance. While data from these surveys is categorized by industry type, revenue, and/or geographic locale, the Committee emphasizes the survey cut representing companies with revenues between \$300 million and \$1 billion, as this most accurately represents companies in a similar position to Axcelis.

In establishing the management team in 2000 to prepare for our initial public offering, officer salaries were reviewed and adjusted accordingly based upon survey data provided by PricewaterhouseCoopers. Adjustments were made ranging from 1.1% to 17%.

Cash Bonuses

Cash bonus targets are set based upon a variety of factors, including market data and anticipated impact of the individual. For the elected officers these targets range from 30% up to 50% in the case of the Chief Executive Officer.

For 2000, the Company implemented a cash bonus plan with two components. Because Axcelis was a wholly owned subsidiary of Eaton Corporation until July 2000, the first half of the year was based upon Eaton's earnings per share and a "Balanced Scorecard" for Axcelis divisional performance, including cash flow return on gross capital and several other factors. The second half of the year 2000 was based upon Axcelis's earnings per share and specific "Balanced Scorecard" performance designed to drive longer term, more subjective goals. The Company's performance during 2000 resulted in a 111% average weighted score for the first half of the year and a 200% score for the second half of the year. Individual performance factors may also modify a particular executive's bonus.

Stock Options

The Committee believes it is in the best interests of the Company and its shareholders to grant stock options as the long-term component of executive and key employee compensation. Stock option grants to executive officers and other key employees are intended to bring employee financial interest in line with long-term shareholder value.

Stock option awards are at the discretion of the Committee, taking into account the individual's performance and contribution in meeting the goals of the Company. Beginning with our initial public offering in July 2000, stock options were granted to the executive officers and other key employees. The options granted in July 2000 have an exercise price of \$22.00, which equals the price to the public in the initial public offering. Subsequent grants to newly hired employees (which includes Mr. Moses) or bonus grants have an exercise price equal to the closing price of the Company's common stock on the day preceding the date of grant. All options granted to executive officers provide for vesting over a period of four years, except in the case of Mr. Bachman, who has a three year vesting schedule, and Ms. Puma, who has a five year vesting schedule.

In accordance with an agreement between Eaton and Axcelis, on December 29, 2000, Axcelis employees holding terminating Eaton stock options were provided with replacement options for Axcelis common stock to recognize their past and future contributions. The exercise price of these options was fixed at a price having the same relationship to the closing price of Axcelis common stock on December 29, 2000 as the exercise price of the Eaton option being replaced had to the Eaton market price on that date. The exercisability terms of these grants were carried over from the Eaton options. Mr. Bachman and Ms. Puma voluntarily forfeited their rights to 444,675 replacement stock options in order to reduce the total number of shares granted upon such conversion. Without this forfeiture, the conversion formula in the agreement with Eaton would have resulted in the grant of significantly higher numbers of options than originally contemplated due to an increase in the spread between the Eaton stock price and Axcelis stock price.

Compensation of Chief Executive Officer and Chief Operating Officer

Mr. Bachman was appointed Chief Executive Officer in May 2000. Pursuant to an employment agreement negotiated with the Company, his base salary for this position was established at \$600,000 with a target bonus for 2000 equal to 50% of his base salary. As a result of Company performance under the cash bonus plan and individual performance factors, Mr. Bachman's actual bonus for 2000 was \$415,830.

Ms. Puma was appointed President and Chief Operating Officer in May 2000. Pursuant to an employment agreement negotiated with the Company, her base salary for this position was established at \$380,000 with a target bonus for 2000 equal to 45% of her base salary. As a result of Company performance under the cash bonus plan and individual performance factors, Ms. Puma's actual bonus for 2000 was \$312,391.

As a result of the separation from Eaton Corporation, Ms. Puma and Mr. Bachman lost a number of executive perquisites provided by Eaton. In exchange for these forfeitures, Mr. Bachman and Ms. Puma received one-time payments of \$99,999 and \$70,000, respectively, less applicable deductions and taxes. Additionally, Eaton assigned to Axcelis a note payable by Ms. Puma of \$175,000. Assuming Ms. Puma continues her employment with Axcelis, one third of this obligation will be forgiven annually through 2003.

In addition to the cash compensation described above, Mr. Bachman was granted 909,100 non-qualified stock options with an exercise price of \$22.00 per share in July 2000. These options will vest 15% in each of July 2001 and 2002 and 70% in July 2003. At December 29, 2000, Mr. Bachman was granted options for an aggregate of 1,011,315 shares at exercise prices from \$6.26 to \$8.48, reflecting the terms of the Eaton Corporation options being replaced.

In July 2000, Ms. Puma was granted 606,100 non-qualified stock options at an exercise price of \$22.00 per share. These options will vest 16.5% in each of July 2001 and 2002, 17% in July 2003, 30% in July 2004 and 20% in July 2005. Ms. Puma also received options for an aggregate of 343,033 shares on December 29, 2000 with exercise prices from \$7.17 to \$10.44, reflecting the terms of Eaton Corporation options being replaced. Ms. Puma also received a restricted stock grant of 47,522 shares of our common stock in December 2000 which replaced a grant of restricted stock from Eaton Corporation which Ms. Puma forfeited as a result of the separation. The forfeiture provision lapses as to 23,761 shares on each of December 31, 2003 and 2004, assuming Ms. Puma's employment continues until those dates.

Compensation Deductibility

Section 162(m) of the Internal Revenue Code denies a tax deduction to a public corporation for annual compensation in excess of one million dollars paid to its Chief Executive Officer and its four other highest compensated officers. This provision excludes certain types of "performance based compensation" from the compensation subject to the limitation on deductibility.

The 2000 Stock Plan contains an individual annual limit on the number of stock options that may be granted under the plan so that the awards will qualify for the exclusion from the limitation on deductibility for performance-based compensation. The Committee will continue to assess the impact of Section 162(m) on its compensation practices and determine what further action, if any, is appropriate.

By the Compensation Committee,

Stephen R. Hardis, Chairman
Alexander M. Cutler
Philip S. Paul
Ned C. Lautenbach
Gary L. Tooker
Naoki Takahashi

The following tables contain compensation information in respect of the fiscal year ended December 31, 2000 paid to our Chief Executive Officer, the four other most highly paid executive officers and Cornelius F. Moses, who joined the Company October 1, 2000 as Chief Financial Officer. None of Messrs. Luttati, Mionis, Bisson or Moses was an executive officer of the Company during 1999.

Summary Compensation Table

Name and Position	Year	Annual Compensation		Long-Term Compensation			
		Salary (\$)	Bonus (\$)	Awards		Payouts	All Other Compensation
				Restricted Stock Awards (\$)	Securities Underlying Options (#)	Long-Term Incentive Payouts	
Brian R. Bachman	2000	\$500,010	\$415,830		1,920,415	0	\$109,839 ⁽²⁾
President and Chief Executive Officer	1999 ⁽¹⁾	380,040	364,656		0	\$414,037	14,560 ⁽³⁾
Mary G. Puma	2000	320,012	312,391	\$341,588 ⁽⁴⁾	949,133	0	76,923 ⁽⁵⁾
President and Chief Operating Officer	1999 ⁽¹⁾	224,700	264,839		0	81,700	12,522 ⁽³⁾
Michael J. Luttati	2000	239,106	206,177		564,603	0	8,650 ⁽⁶⁾
Senior Vice President – Manager, Implant Systems and Thermal Processing Division							
Robert A. Mionis	2000	217,003	174,796		280,094	0	8,507 ⁽⁶⁾
Senior Vice President – Worldwide Operations							
Kevin M. Bisson	2000	159,679	97,291		108,508	0	76,258 ⁽⁷⁾
Vice President and Controller							
Cornelius F. Moses, III ⁽⁸⁾	2000	82,500	105,000		215,000	0	80,000 ⁽⁹⁾
Executive Vice President and Chief Financial Officer							

- (1) Represents cash compensation paid by Eaton Corporation in respect of Mr. Bachman and Ms. Puma's services during 1999, all or part of which services related to the Company's business. This disclosure does not include options granted by Eaton Corporation to Mr. Bachman and Ms. Puma during 1999 and 2000 or to any other named executive officer in 2000. Those options terminated in 2000 and were replaced by options for Acxelis common stock granted in 2000.
- (2) Mr. Bachman received a one-time payment of \$99,999 in consideration of the forfeiture of certain prerequisites provided by Eaton Corporation and \$9,840 representing the market value of shares of Eaton Common Stock received by Mr. Bachman as a matching contribution to Eaton's 401(k) plan at the end of 2000.
- (3) Represents several components. Under the Eaton Corporation Share Purchase and Investment Plan, Eaton made matching contributions in 1999 as follows: Mr. Bachman, \$4,392 and Ms. Puma, \$4,357. Under an Eaton Corporation program, Eaton funded \$9,486 towards the purchase of an automobile by Mr. Bachman and \$7,459 toward the purchase of an automobile by Ms. Puma. Eaton Corporation paid annual premiums for individual whole life insurance during 1999 as follows: Mr. Bachman, \$682 and Ms. Puma, \$706.
- (4) Represents the value of 47,522 shares using the closing price on the date of grant, December 1, 2000 (\$7.188). At December 31, 2000, Ms. Puma held 47,522 shares of restricted stock, which had a value (based on the closing price on December 29, 2000) of \$421,757.75. No other executives held restricted stock on that date. Ms. Puma's restricted stock is subject to forfeiture to the Company if her employment terminates. This forfeiture provision expires as to 23,761 shares on each of December 31, 2003 and 2004. Ms. Puma would be entitled to receive any dividends paid on these shares.
- (5) Ms. Puma received a one-time payment of \$70,000 in consideration of the forfeiture of certain prerequisites provided by Eaton Corporation and \$6,923 representing the market value of shares of Eaton Common Stock received by Ms. Puma as a matching contribution to Eaton's 401(k) plan at the end of 2000.
- (6) Represents the market value of shares of Eaton Common Stock received as a matching contribution in Eaton's 401(k) plan at the end of 2000.
- (7) Mr. Bisson received a \$70,000 signing bonus on commencement of employment and \$6,258 representing the market value of shares of Eaton Common Stock received as a matching contribution to Eaton's 401(k) plan at the end of 2000.
- (8) Mr. Moses commenced employment on October 1, 2000.
- (9) This amount represents a signing bonus paid to Mr. Moses on commencement of employment.

Option Grant Table

The following table provides information on stock options granted under our Stock Plan during fiscal year 2000 to the executive officers named in the Summary Compensation Table.

Option Grants in Last Fiscal Year

Name	Individual Grants					Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term ⁽¹¹⁾		
	Number of Securities Underlying Options Granted	Percentage of Total Options Granted to Employees in Fiscal Year	Exercise Price per Share	Market Price on Date of Grant	Expiration Date	0%	5%	10%
Brian R. Bachman	909,100 ⁽¹⁾	11.65%	\$22.00	\$22.00	7/10/10	\$0	\$12,578,018	\$31,875,168
	164,317 ⁽²⁾	2.11	6.26	8.875	1/2/06	429,689	925,655	1,554,867
	381,149 ⁽²⁾	4.88	8.48	8.875	1/27/07	150,554	1,527,651	3,359,777
	169,399 ⁽³⁾	2.17	8.44	8.875	1/25/10	73,689	1,019,179	2,469,747
	296,450 ⁽⁴⁾	3.8	8.43	8.875	1/26/09	131,920	1,582,451	3,704,672
Mary G. Puma	606,100 ⁽⁵⁾	7.77	22.00	22.00	7/10/10	0	8,385,807	21,251,281
	12,705 ⁽²⁾	0.16	10.44	8.875	1/27/08	0	33,953	109,064
	67,759 ⁽²⁾	0.87	7.17	8.875	4/30/06	115,529	320,050	579,516
	84,699 ⁽³⁾	1.09	8.44	8.875	1/25/10	36,844	509,587	1,234,866
	177,870 ⁽⁴⁾	2.28	8.43	8.875	1/26/04	79,152	949,476	2,222,804
Michael J. Luttati	213,100 ⁽⁶⁾	2.73	22.00	22.00	7/10/10	0	2,948,384	7,471,783
	88,935 ⁽⁴⁾	1.14	8.43	8.875	1/26/09	39,576	474,738	1,111,402
	194,809 ⁽⁷⁾	2.50	8.22	8.875	11/16/08	127,600	953,087	2,104,785
	67,759 ⁽³⁾	0.87	8.44	8.875	1/25/10	29,475	407,668	987,890
Robert A. Mionis	152,200 ⁽⁶⁾	1.95	22.00	22.00	7/10/10	0	2,105,791	5,336,487
	50,819 ⁽⁴⁾	0.65	8.43	8.875	1/26/09	22,614	306,257	741,422
	25,409 ⁽⁸⁾	0.33	10.62	8.875	5/29/08	0	63,330	213,546
	51,666 ⁽³⁾	0.66	8.44	8.875	1/25/10	22,475	310,845	753,263
Kevin M. Bisson	68,700 ⁽⁶⁾	0.88	22.00	22.00	7/10/10	0	905,511	2,408,782
	27,950 ⁽⁹⁾	0.36	8.53	8.875	1/17/10	10,333	162,644	404,980
	11,858 ⁽³⁾	0.15	8.44	8.875	1/25/10	5,158	71,343	172,883
Cornelius F. Moses, III	215,000 ⁽¹⁰⁾	2.75	11.1875	11.1875	10/02/10	0	1,512,688	3,833,449

(1) These options were granted on July 10, 2000 and become exercisable with respect to 15% of the shares on each of July 10, 2001 and 2002 and 70% of the shares on July 10, 2003.

(2) These options were issued to replace terminating Eaton Corporation options on December 29, 2000 and were fully exercisable on the date of grant.

(3) These options were issued to replace terminating Eaton Corporation options on December 29, 2000 and 33% of the shares became exercisable on January 25, 2001, 33% of the shares will become exercisable on January 25, 2002, and the remaining 34% of the shares will become exercisable on January 25, 2003.

(4) These options were issued to replace terminating Eaton Corporation options on December 29, 2000 and 33% of the shares were exercisable on the date of grant, 33% became exercisable on January 26, 2001 and the remaining 34% will become exercisable on January 26, 2002.

(5) These options were granted on July 10, 2000 and 16.5 % of the shares will become exercisable on each of July 10, 2001 and July 10, 2002, 17% of the shares will become exercisable on July 10, 2003, 30% of the shares will become exercisable on July 10, 2004 and the remaining 20% of the shares will become exercisable on July 10, 2005.

(6) These options were granted on July 10, 2000 and become exercisable with respect to 25% on each of the first four anniversaries of the grant date.

- (7) These options were issued to replace terminating Eaton Corporation options on December 29, 2000 and 66% of the shares were exercisable on the date of grant, and the remaining 34% of the shares will become exercisable on November 16, 2001.
- (8) These options were issued to replace terminating Eaton Corporation options on December 29, 2000 and 66% of the shares were exercisable on the date of grant, and the remaining 34% of the shares will become exercisable on May 29, 2001.
- (9) These options were issued to replace terminating Eaton Corporation options on December 29, 2000 and 33% of the shares became exercisable on January 17, 2001, 33% of the shares will become exercisable on January 17, 2002 and the remaining 34% of the shares will become exercisable on January 17, 2003.
- (10) These options were granted on October 2, 2000 and become exercisable with respect to 25% of the shares on each of the first four anniversaries of the grant date.
- (11) The values in this column are given for illustrative purposes and do not reflect our estimate or projection of future stock prices. The values are based on an assumption that our common stock's market price will appreciate at the stated rate, compounded annually, from the date of the option grant until the end of the option's 10-year term. Actual gains, if any, on stock option exercises will depend upon the future performance of our common stock's price, which will benefit all stockholders proportionately.

Fiscal Year-End Option Table

The following table provides information on the total number of exercisable and unexercisable stock options held at December 31, 2000 by the executive officers named in the Summary Compensation Table.

Fiscal Year-End Option Values

Name	Shares Acquired on Exercise (#)	Value Realized	Number of Securities Underlying Unexercised Options at Fiscal Year-End Exercisable/ Unexercisable	Value of Unexercised in-the-Money Options at Fiscal Year-End Exercisable/ Unexercisable ⁽¹⁾
Brian R. Bachman	0	\$0	643,294/1,277,121	\$623,776/\$162,075
Mary G. Puma	0	0	139,841/809,972	141,649/89,876
Michael J. Luttati	0	0	157,922/406,681	97,275/99,375
Robert A. Mionis	0	0	33,540/246,554	7,463/37,626
Kevin M. Bisson	0	0	0/108,508	—/14,800
Cornelius F. Moses, III	0	0	0/215,000	—/0

(1) Based on the difference between the option's exercise price and the closing price of \$8.875 of the underlying common stock on December 29, 2000 as reported by the Nasdaq Stock Market.

Executive Agreements

Employment Agreements with Mr. Bachman and Ms. Puma. We have entered into employment agreements with Mr. Bachman and Ms. Puma which were effective as of July 10, 2000. Each agreement provides for a three-year term of employment. Mr. Bachman's agreement can be extended by mutual consent of the parties. Ms. Puma's is self-extending unless one party notifies the other that the agreement will not be extended. The agreements provide that neither employee may compete with us for a period of 12 months after termination of his or her active employment or the remaining term of his or her agreement, whichever is longer, and neither may reveal confidential information for a specified period of time. In the event the agreement and the employee's employment is terminated prior to the end of the term for reasons other than cause, death, disability or voluntary resignation, or, in the case of Mr. Bachman, his agreement is not extended, the employee is entitled to receive all compensation accrued to date, acceleration of vesting of options and other equity rights and base compensation and target bonus, for Mr. Bachman, for the greater of 12 months or the then remaining term or, for Ms. Puma, two years, in each case from the date of termination of employment.

Under his agreement, Mr. Bachman's minimum base salary is \$600,000 per year and he will have an annual target incentive compensation of 50% of base salary. Ms. Puma's minimum base salary is \$380,000 per year and her annual target incentive compensation opportunity is 45% of base salary. Actual incentive compensation for any year may be greater or less if actual performance is greater or less than the target. Base salary and incentive opportunities can be increased by our Board of Directors. The agreements provide that both executives will also participate in the Stock Plan, the defined contribution/401(k) Savings Plan and the welfare benefit plans which we sponsor.

Change in Control Agreements. We also have entered into change in control agreements with each of our executive officers, including Mr. Bachman and Ms. Puma. These agreements provide that in the event there is both a change in control and a termination of employment within three years of that change in control for reasons other than voluntary resignation, cause, death or disability, the senior officer would be entitled to severance compensation. Under the change in control agreement, a resignation by a senior 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, severance consists of (i) a cash payment equal to the sum of (a) incentive compensation for the completed portion of the incentive period and (b) the amount determined by multiplying the employee's then salary and average bonus by three, and (ii) continuation of our medical, life and other welfare benefits for three years. We will also reimburse the employee for the effects, including federal, state and local income tax consequences, of any excise tax due on severance compensation.

Compensation Committee Interlocks And Insider Participation

During the fiscal year ended December 31, 2000, the Compensation Committee of the board of directors consisted of Mr. Hardis, Mr. Cutler, Mr. Tooker, Mr. Paul, Mr. Lautenbach and Mr. Takahashi.

Relationship with Eaton Corporation

On June 30, 2000 we entered into a number of agreements with Eaton Corporation, which company then owned all of our outstanding common stock. After our initial public offering in July 2000, Eaton's ownership was reduced to 82% of our outstanding common stock. At December 29, 2000, Eaton distributed to its stockholders all of the shares of common stock held by Eaton at that time.

Agreements Related to the Separation of Our Business from Eaton Corporation.

In General. Under these agreements, Eaton transferred to us the assets related to our business and we assumed the actual and contingent liabilities related to our business, except as specifically excluded. The transfer of international assets and assumption of international liabilities was accomplished through agreements entered into between international subsidiaries on various dates preceding December 29, 2000. Eaton did not warrant as to the value of any asset transferred, the existence of any liens or encumbrances or the legal sufficiency of any conveyance of title.

Effective as of June 30, 2000, subject to specified exceptions, we released Eaton and its affiliates, agents, successors and assigns, and Eaton released us, and our affiliates, agents, successors and assigns, from any liabilities arising from events occurring on or before June 30, 2000, including events occurring in connection with the activities to implement the separation, our initial public offering and the distribution of our shares by Eaton. We agreed to bear any liability arising from any untrue statement of a material fact or any omission of a material fact in our initial public offering prospectus.

Employee Matters. We entered into an employee matters agreement with Eaton to allocate assets, liabilities and responsibilities relating to our current and former employees and their participation in the benefit plans. All of our eligible employees continued to participate in Eaton benefit plans until December 29, 2000. The assets relating to Eaton's qualified employee benefit plans have been transferred to our related plans.

The employee matters agreement also required us to assume all Eaton options held by our employees as of December 29, 2000. This was done in accordance with a conversion formula set forth in the agreement under which employees received Axcelis options which had the same intrinsic value as Eaton options which terminated at the end of 2000 due to the separation.

Both Eaton and Axcelis agreed not to directly solicit or recruit employees of the other without the other's consent until December 29, 2002, except in the case of general recruitment efforts carried out through public or general solicitation or where the solicitation is employee-initiated.

Tax Matters. We entered into a tax sharing and indemnification agreement with Eaton that allocates responsibilities and liabilities for tax matters. The agreement requires us to pay Eaton for our allocable share of any taxes due with respect to consolidated, combined or unitary tax returns that Eaton files for all periods between December 31, 1999 and December 29, 2000. This agreement also provides that until December 29, 2002, Axcelis will not, without Eaton's prior written consent, liquidate, merge or consolidate with any other person, or enter into any transaction or make any change in our equity structure that may cause the distribution of our shares by Eaton to be treated as part of a plan pursuant to which one or more persons acquire a 50 percent or greater interest in our stock. The agreement also requires us to indemnify Eaton for certain taxes (including interest and penalties) that would not have been payable but for the breach by us of any representation, warranty or obligation.

Real Estate. Our real estate matters agreement describes the manner in which Eaton transferred to us, or shares with us, various leased and owned properties. Under this agreement, we acquired title to our properties in Beverly, Massachusetts, and leases to properties in other locations.

We have agreed to indemnify Eaton and its affiliates, agents, successors and assigns from all liabilities arising from environmental conditions occurring, present at, caused by or related to any of our properties or operations before June 30, 2000 as to any of the facilities transferred to us, and arising from environmental conditions occurring, present at, caused by or related to any of our properties or operations on or after that date.

Insurance Matters. We also have an indemnification and insurance matters agreement with Eaton, which contains provisions governing our insurance coverage from June 30, 2000 until December 29, 2000. During that time, Eaton maintained insurance coverage on our behalf. In general, we agree to reimburse Eaton for premium expenses related to insurance coverage during the period.

Trademark License. Eaton granted us a royalty free, worldwide license to use the name "EATON" as a trademark for photostabilizers and ion implantation equipment. The license is for a period of two years and thereafter is terminable at will by Eaton with six months prior notice to us, or immediately for cause.

Information Exchange. Both Eaton and we have agreed to share information relating to governmental, accounting, contractual and other similar requirements of our ongoing businesses, unless the sharing would be commercially detrimental.

Accounting and Auditing Practices. In light of the fact that Eaton will be consolidating and reporting on our results of operations and financial position through December 29, 2000, the transition agreements contain a number of covenants limiting our ability to change accounting policies or principles relating to that period and otherwise facilitating Eaton's reporting requirements.

Expense Allocation. We agreed to bear the costs and expenses associated with the separation of businesses and with our initial public offering. Eaton agreed to bear the costs and expenses associated with their distribution of our shares. We will each bear our own internal costs incurred in consummating these transactions. Any nonrecurring costs and expenses that are not allocated in the agreement are the responsibility of the party that incurs the costs and expenses.

Dispute Resolution. We have agreed with Eaton to resolve any dispute first through good faith negotiation, then non-binding mediation, followed by binding arbitration, unless the failure to initiate litigation would cause serious and irreparable injury to one of the parties or to others.

Transitional Services Agreement

The transitional services agreement provides for the delivery of transitional services by Eaton to us on an interim basis, generally for not longer than December 31, 2001. The agreement provides for services, systems and support for our operations, including voice and data transmissions and other data-related operations, accounts

receivables, accounts payable, fixed assets, payroll, general accounting, financial accounting consolidations, cash management, human resources, legal and real estate. Services are generally priced at cost prior to Eaton's divestiture on December 29, 2000 and thereafter at cost plus our additional fee. We paid Eaton approximately \$5.5 million for transitional services provided during 2000.

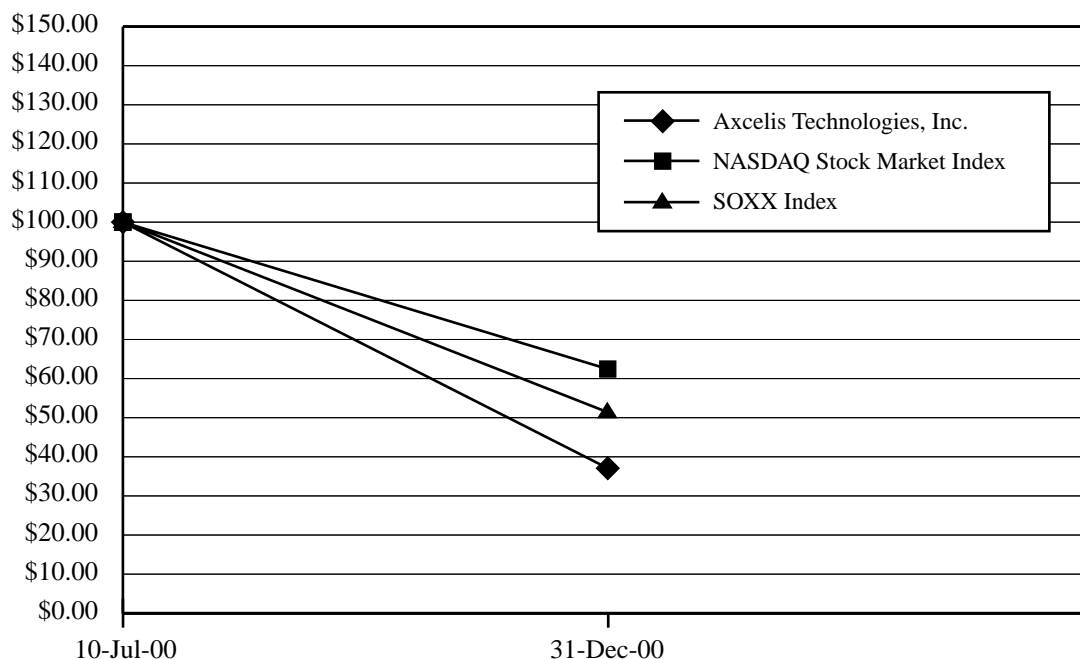
Relationship with Sumitomo Eaton Nova

Mr. Takahashi, one of our directors, is a Director, Senior Vice President and General Manger of the Precision Products Division of Sumitomo Heavy Industries, Ltd. We have a joint venture with Sumitomo Heavy Industries, Ltd., known as Sumitomo Eaton Nova, or SEN. SEN, of which we own 50% of the equity, provides us with additional manufacturing capacity for our ion implant products and local access to the Japanese semiconductor equipment market. Under our arrangements with Sumitomo Heavy Industries, Ltd., our ion implant products may be sold in Japan only through the joint venture. SEN may sell its products outside Japan only with our consent and through us as exclusive distributor. There are isolated sales of our equipment into Japan to our non-Japanese customers and isolated sales of SEN equipment outside of Japan primarily to its Japanese customers and their joint ventures. SEN manufactures ion implantation equipment at its Toyo, Japan location under the license from us described below. From time to time, we sell ion implantation equipment and other products to SEN. In 2000, our net sales of products to SEN amounted to \$11.9 million.

As part of the joint venture arrangement, we have entered into a separate license agreement with SEN, last renewed in 1996, under which we have granted SEN an exclusive license in Japan to use our current and future ion implantation technology and to manufacture, use and sell products using our current and future ion implantation patents. We have also granted SEN a non-exclusive license to sell ion implantation products outside of Japan, subject to the terms of an Export Sales Agreement under which we are exclusive marketing agent. The license agreement expires on December 31, 2004 and is automatically renewable for successive five year periods unless either party has provided one year's prior notice of termination. We also have a trademark license agreement with SEN which will terminate on December 31, 2004 and which obligates SEN to pay us a 0.5% royalty on net sales. In 2000, we recognized royalty income from SEN under these license agreements of approximately \$13.5 million.

Stock Performance Graph

The following graph compares the percentage change in the cumulative total stockholder return on the Company's Common Stock from July 10, 2000, the date the Company's Common Stock was first traded on the Nasdaq Stock Market, through the end of the Company's fiscal year ended December 31, 2000, with the percentage change in the cumulative total return for the Philadelphia Semiconductor Index (known as "SOXX") and the Nasdaq Stock Market Composite Index. The comparison assumes an investment of \$100 on July 10, 2000 in the Company's Common Stock and in each of the foregoing indices and assumes reinvestment of dividends, if any. The stock performance shown in the graph below is not necessarily indicative of future price performance.



<u>Company/Index Name</u>	<u>Base Date July 10, 2000</u>	<u>December 31, 2000</u>
Axcelis Technologies, Inc.	\$100.00	\$37.08
NASDAQ Stock Market Index	\$100.00	\$62.44
SOXX Index	\$100.00	\$51.39

PROPOSAL 2: RATIFICATION OF THE APPOINTMENT OF INDEPENDENT AUDITORS

Upon the recommendation of its Audit Committee, the Board of Directors has appointed the accounting firm of Ernst & Young LLP as independent auditors to conduct the annual audit of Axcelis' books and records for 2001 and is seeking stockholder ratification of the appointment. Ernst & Young LLP is an internationally recognized public accounting firm that audited the Company's books in 2000 and which the Audit Committee believes is well qualified to continue. The submission of this matter to the stockholders at the annual meeting is not required by law or by our bylaws. The Board of Directors is nevertheless submitting it to the shareholders to ascertain their views. If this proposal is not approved at the annual meeting by the affirmative vote of holders of a majority of the shares present or represented at the meeting, the Board intends to reconsider its appointment of Ernst & Young LLP as independent auditors. The Board may retain the firm for 2001 notwithstanding a negative stockholder vote.

Representatives of Ernst & Young are expected to attend the annual meeting and be available to respond to appropriate questions. They will also have the opportunity to make a statement if they desire. The fees for services provided by Ernst & Young to the Company in 2000 were as follows:

Audit Fees	\$250,450
Audit Related Fees	\$76,314
All Other Fees	\$83,925

The Board of Directors recommends a vote for ratification of the appointment of Ernst & Young LLP.

CERTAIN TRANSACTIONS

Three members of our board of directors serve as directors and/or officers of Eaton Corporation. One member of our board of directors serves as a director and officer of Sumitomo Heavy Industries, Ltd. We are involved in various financial and business transactions with Eaton Corporation and Sumitomo Heavy Industries, Ltd. See "Compensation Committee Interlocks and Insider Participation."

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our directors, executive officers and persons owning more than 10% of our registered equity securities, to file with the SEC reports of their initial ownership and of changes in their ownership of our common stock and to provide us with copies of all Section 16(a) reports they file.

To our knowledge, based solely on our review of copies of reports furnished to us and written representations that no other reports were required during the fiscal year ended December 31, 2000, we believe that during the 2000 fiscal year, our directors, officers, and 10% stockholders complied with all Section 16(a) filing requirements, except that one report of one acquisition of shares was filed late for each of Brian R. Bachman, Ted Miller and Kevin M. Bisson and one report of one disposition of shares was filed late by Eaton Corporation.

DEADLINE FOR STOCKHOLDER PROPOSALS

Assuming the 2002 annual meeting is not more than 60 days before or 60 days after June 28, 2002, if you wish to bring business before or propose director nominations at the 2002 annual meeting, you must give written notice to Axcelis by March 30, 2002 (the date 90 days before the anniversary of the 2001 annual meeting).

If you intend to bring such a proposal or nomination at the 2002 annual meeting, and you would like us to consider the inclusion of your proposal or nomination in our proxy statement for the meeting, you must provide written notice to Axcelis of such proposal or nomination prior to January 24, 2002 (120 days before the anniversary date of the mailing of this proxy statement), assuming our 2002 meeting date does not change by more than 30 days from our 2001 meeting date.

Notices of stockholder proposals and nominations shall be given in writing to Axcelis Technologies, Inc., 55 Cherry Hill Drive, Beverly, Massachusetts 01915, Attn: Corporate Secretary.

AXCELIS TECHNOLOGIES, INC.**Audit Committee Charter**

The Audit Committee shall be responsible to assist the Board of Directors in monitoring and oversight of (1) the integrity of the Company's financial statements and its systems of internal accounting and financial controls and (2) the independence and performance of the Company's internal and independent auditors.

The Audit Committee shall be comprised of at least three Directors appointed by the Board, each of whom shall (1) be independent, as described in the Nasdaq Stock Market Marketplace Rules (the "Nasdaq Rules"), except that one member who is not independent may be appointed to the Audit Committee in exceptional and limited circumstances as permitted by the Nasdaq Rules and (2) be able to read and understand fundamental financial statements, including the Company's balance sheet, income statement, and cash flow statement, or will become able to do so within a reasonable period of time after such person's appointment to the Audit Committee. Additionally, at least one member of the Audit Committee shall have past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in such member's financial sophistication, including being or having been a chief executive officer, chief financial officer or other senior officer with financial oversight responsibilities.

The Audit Committee shall have the authority to retain special legal, accounting or other consultants to advise the Committee. The Audit Committee may request any officer or employee of the Company or the Company's outside counsel or independent auditor to attend a meeting of the Committee or to meet with any members of, or consultants to, the Committee.

The Audit Committee shall make regular reports to the Board concerning the Committee's actions, conclusions and recommendations.

The Audit Committee shall:

1. Review and reassess the adequacy of this Charter annually and recommend any proposed changes to the Board for approval.
2. Review the annual audited financial statements with management and the independent auditor before publication, including major issues regarding accounting and auditing principles and practices as well as the adequacy of internal controls that could significantly affect the financial statements, and recommend to the Board that the financial statements be included in the annual report to shareholders and annual report on Form 10-K.
3. Review analyses prepared by management and the independent auditor of significant financial reporting issues and judgments made in connection with the preparation of the Company's annual financial statements.
4. Review major changes to the Company's auditing and accounting principles and practices as suggested by the independent auditor, internal auditors or management.
5. Review with the Company's General Counsel legal matters that may have a material impact on the Company's financial statements.
6. Meet periodically with management to review the Company's major financial risk exposures and the steps management has taken to monitor and control such exposures.

7. Recommend to the Board the appointment of the independent auditor, which will be accountable to the Audit Committee and the Board, as representatives of the stockholders of the Company.
8. Approve the fees to be paid to the independent auditor for audit services.
9. Obtain annually a formal written statement from the independent auditor delineating all relationships between the auditor and the Company, consistent with Independence Standards Board Standard No. 1, and discuss such statement with the auditor and, if so determined by the Audit Committee, recommend that the Board take appropriate action to satisfy itself of the independence of the auditor.
10. Evaluate together with the Board the performance of the independent auditor and, if so determined by the Audit Committee, recommend that the Board replace the independent auditor.
11. Review the appointment and any replacement of the Company's director of internal auditing.
12. Meet with the director of internal auditing and independent auditor prior to the Company's annual audit to review the scope, planning and staffing of the audit.
13. Discuss with the independent auditor any matters raised by the auditor under generally accepted auditing standards relating to the conduct of the Company's annual audit and quarterly reviews, including the independent auditor's judgment about the quality of the Company's accounting principles as applied in its financial reporting. In regard to quarterly reviews, this discussion may be held either through the entire Committee or through its Chairman on the Committee's behalf.
14. Review with the independent auditor any problems or difficulties the auditor may have encountered and any management letter provided by the auditor and the Company's response to that letter.
15. Review with management and the independent auditor the Company's quarterly financial statements as early as possible and in any case prior to the filing of each Form 10-Q report. This review may be conducted either through the entire Committee or through its Chairman on the Committee's behalf.
16. Meet at least annually with the Company's chief financial officer, director of internal auditing and independent auditor in separate executive sessions.
17. Prepare the report required by the rules of the Securities and Exchange Commission to be included in the Company's annual proxy statement.

While the Audit Committee shall have the responsibilities and powers set forth in this Charter, it shall not be the duty of the Committee to plan or conduct audits or to determine that the Company's financial statements are complete and accurate and in accordance with generally accepted accounting principles. These instead shall be the responsibility of management and the independent auditor. Nor shall it be the duty of the Audit Committee to conduct investigations, to resolve disagreements, if any, between management and the independent auditor or to assure compliance with laws and regulations or the Company's code of conduct.