UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2005

or

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)

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 ☒ No o.

Indicate by check mark if whether the registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). Yes ☒ No o.

As of May 5, 2005 there were 100,194,057 shares of the registrant's common stock outstanding.

PART 1. FINANCIAL INFORMATION

Item 1. Financial Statements

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

	Three months ended March 31, 2005	Three months ended March 31, 2004
Revenue		
Systems	$ 59,693	$ 91,756
Services	38,441	39,091
Royalties, primarily from Sumitomo Eaton Nova Corporation	1,902	3,377
	100,036	134,224
Costs of revenue	58,239	84,048
Gross profit	41,797	50,176
Operating expenses		
Research & development	15,867	15,437
Selling	11,870	11,599
General & administrative	11,183	11,095
Amortization of intangible assets	612	612
Restructuring charges	1,799	—
	41,331	38,743
Income from operations	466	11,433
Other income (expense)		
Equity income of Sumitomo Eaton Nova Corporation	2,339	5,569
Interest income	1,010	296
Interest expense	(1,654)	(1,672)
Other—net	(14)	(591)
	1,681	3,602
Income before income taxes	2,147	15,035
Income taxes	249	1,454
Net income	$ 1,898	$ 13,581
Net income per share		
Basic	$ 0.02	$ 0.14
Diluted	0.02	0.13
Shares used in computing basic and diluted net income per share		
Basic	100,138	99,208
Diluted	100,929	101,479

See accompanying Notes to Consolidated Financial Statements

Axcelis Technologies, Inc.
Consolidated Balance Sheets
(In thousands)
(Unaudited)

	March 31, 2005	December 31, 2004
ASSETS		
Current assets		
Cash and cash equivalents	$ 91,701	$ 108,295
Restricted cash	3,805	3,498
Short-term investments	86,924	78,717
Accounts receivable, net	79,491	83,767
Inventories	111,910	116,330
Other current assets	23,185	14,986
Total current assets	397,016	405,593
Property, plant & equipment, net	73,332	75,275
Investment in Sumitomo Eaton Nova Corporation	106,514	109,095
Goodwill	46,773	46,773
Intangible assets	17,059	17,671
Restricted cash, long-term portion	2,583	2,841
Other assets	31,633	31,628
	$ 674,910	$ 688,876
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 23,222	$ 24,278
Accrued compensation	17,039	27,030
Warranty	9,615	9,218
Income taxes	3,346	4,530
Deferred revenue	35,765	34,050
Other current liabilities	6,543	8,289
Total current liabilities	95,530	107,395
Long-term debt	125,000	125,000
Long-term deferred revenue	7,796	7,697
Other long-term liabilities	5,289	5,297
Stockholders' equity		
Preferred stock	—	—
Common stock	100	100
Additional paid-in capital	458,615	457,335
Deferred compensation	(536)	(566)
Treasury stock	(1,218)	(1,218)
Retained earnings deficit	(25,434)	(27,332)
Accumulated other comprehensive income-foreign currency translation adjustments	9,768	15,168
	441,295	443,487
	$ 674,910	$ 688,876

See accompanying Notes to Consolidated Financial Statements

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

	Three months ended March 31, 2005	Three months ended March 31, 2004
Operating activities		
Net income	$ 1,898	$ 13,581
Adjustments required to reconcile net income to net cash provided by (used for) operating activities		
Depreciation and amortization	5,576	5,001
Amortization of intangible assets	612	612

Stock compensation expense	30	79
Undistributed income of Sumitomo Eaton Nova Corporation	(2,339)	(5,569)
Changes in operating assets & liabilities		
Accounts receivable	3,911	(30,273)
Inventories	3,857	(349)
Other current assets	(8,488)	(2,779)
Accounts payable & other current liabilities	(12,236)	10,691
Deferred revenue	1,877	13,937
Income taxes	(1,143)	893
Other assets and liabilities	1,846	4,439
Expenditures for demo and evaluation tools	(4,357)	(5,651)
Net cash provided by (used for) operating activities	(8,956)	4,612
Investing activities		
Maturities (purchases) of short-term investments, net	(8,207)	8,072
Proceeds from sale of building	—	5,958
Expenditures for property, plant & equipment	(1,030)	(726)
Decrease (increase) in restricted cash	(49)	420
Net cash provided by (used for) investing activities	(9,286)	13,724
Financing activities		
Proceeds from the exercise of stock options	558	664
Proceeds from employee stock purchase plan	864	1,152
Net cash provided by financing activities	1,422	1,816
Effect of exchange rate changes on cash	226	483
Net increase (decrease) in cash & cash equivalents	(16,594)	20,635
Cash & cash equivalents at beginning of period	108,295	65,749
Cash & cash equivalents at end of period	$ 91,701	$ 86,384

See accompanying Notes to Consolidated Financial Statements

Axcelis Technologies, Inc.
Notes To Consolidated Financial Statements (Unaudited)
(In thousands, except per share amounts)

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. 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, or SEN, licenses technology from the Company relating to the manufacture of ion implantation products and has exclusive rights to manufacture and sell these products to the territory of Japan. SEN is the leading producer of ion implantation equipment in Japan.

The accompanying unaudited consolidated financial statements have been prepared in accordance with generally accepted accounting principles for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. In the opinion of management all adjustments, which are of a normal recurring nature, considered necessary for a fair presentation have been included. Operating results for the interim periods presented are not necessarily indicative of the results that may be expected for other interim periods or for the year as a whole.

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

The balance sheet at December 31, 2004 has been derived from the audited financial statements at that date but does not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements.

For further information, refer to the consolidated financial statements and footnotes thereto included in Axcelis Technologies, Inc.'s annual report on Form 10-K for the year ended December 31, 2004.

Note 2. Short-term Investments

The Company invests in various types of debt securities, including direct and indirect US Government obligations, corporate notes, commercial paper and auction rate securities. The Company classifies its investments as held to maturity and carries its investments at accreted cost plus accrued interest, which, due to the short term nature of the investment portfolio, approximates fair market value.

The Company began classifying its investments in auction rate securities as short-term investments as of March 31, 2005. Reclassifications have been made to amounts reported in prior periods. The consolidated statement of cash flows for the quarter ended March 31, 2004 has been reclassified to reflect the purchases and maturities of these securities as investing activities.

The following table summarizes the balances of cash and cash equivalents as previously reported and as reclassified as of the period ending dates for each of the past five quarters:

	As Reported	As Reclassifed
December 31, 2004	$ 168,495	$ 108,295

September 30, 2004	138,004	74,204
June 30, 2004	139,095	89,295
March 31, 2004	120,784	86,384
December 31, 2003	93,249	65,749

Note 3. Revenue Recognition

The Company's revenue recognition policy involves significant judgment by management. As described in detail 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 affect 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 for installation and acceptance testing performance obligations incurred at the time of sale. In addition, the standard and non-standard warranties were accrued at the time of shipment. The Company recognized the full sales price at the time of shipment, as management believed that the customer's post delivery acceptance provisions and installation process were established to be routine, commercially inconsequential and perfunctory because the process was a replication of the pre-shipment procedures. Also, customer payment terms typically provided that the majority of the purchase price was payable upon shipment. Terms generally contained delayed payment arrangements for a portion of the purchase price, which were typically time-based.

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, the Company has revised its revenue recognition policy to comply with the provisions of EITF 00-21.

In December 2003, the SEC issued Staff Accounting Bulletin No. 104 ("SAB 104"), "Revenue Recognition." SAB 104 supersedes Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" ("SAB 101"). SAB 104's primary purpose is to rescind accounting guidance contained in SAB 101 related to multiple element revenue arrangements, superseded as a result of the issuance of EITF 00-21. Additionally, SAB 104 rescinds the SEC's Revenue Recognition in Financial Statements Frequently Asked Questions and Answers ("the FAQ") issued with SAB 101 that had been codified in SEC Topic 13, Revenue Recognition. Selected portions of the FAQ have been incorporated into SAB 104. While the wording of SAB 104 has changed to reflect the issuance of EITF 00-21, the revenue recognition principles of SAB 101 remain largely unchanged by the issuance of SAB 104. As a result, the adoption of this pronouncement did not have any impact on the Company's consolidated financial statements.

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 and 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, fees 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 installation of certain systems to 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. Customers for 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 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.

Note 4. Net Income Per Share

Statement of Financial Accounting Standards No. 128 ("SFAS 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.

A reconciliation of net income and shares used in computing basic and diluted earnings per share follows:

	Three months ended March 31, 2005	Three months ended March 31, 2004
Income available to common stockholders	$ 1,898	$ 13,581
Weighted average common shares outstanding used in computing basic net income per share	100,138	99,208
Incremental shares	791	2,271
Weighted average common shares outstanding used in computing diluted net income per share	100,929	101,479
Basic net income per share	$ 0.02	$ 0.14
Diluted net income per share	0.02	0.13

The Company has excluded 6,250 of common stock equivalents attributable to conversion of its 4.25% convertible subordinated notes, computed using the if converted method, from the computation of diluted earnings per share for the three months ended March 31, 2005 and 2004, because they are anti-dilutive.

Note 5. Comprehensive Income (Loss)

The components of comprehensive income (loss) follow:

	Three months ended March 31, 2005	Three months ended March 31, 2004
Net income	$ 1,898	$ 13,581
Foreign currency translation adjustments	(5,400)	2,734
Comprehensive income (loss)	$ (3,502)	$ 16,315

Note 6. Inventories

The components of inventories follow:

	March 31, 2005	December 31, 2004
Raw materials	$ 77,905	$ 77,669
Work-in-process	32,935	29,134
Finished goods (completed systems)	1,070	9,527
	$ 111,910	$ 116,330

Note 7. Restructuring

The Company recorded a restructuring charge of $1,799 and $994 in the first quarter of 2005 and the fourth quarter of 2004, respectively, primarily related to severance and other one-time 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, approximately $1,100 of expenses related to these actions was recorded in general and administrative expense in the first quarter of 2005.

The Company expects to incur approximately $9,000 to $10,000 in restructuring and general and administrative expenses related to both of these actions, of which $4,000 has been recognized in the income statement since the fourth quarter of 2004. The Company expects to incur $5,000 to $6,000 in additional expense over the second and third quarters of 2005. Of the total cost related to this action, approximately $8,000 to $9,000 is expected to result in cash expenditures.

As of March 31, 2005, $1,001 of restructuring costs have been paid, of which $723 was paid in the first quarter of 2005. The remaining balance of $1,770 is expected to be paid by the end 2005.

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

	Severance	Retention	Total
Restructuring accrual balance, 12/31/04	$ 724	$ 44	$ 768
Additions: restructuring expense	1,441	358	1,799
Deduct: payments	(765)	(32)	(797)
Restructuring accrual balance, 3/31/05	$ 1,400	$ 370	$ 1,770

Note 8. 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. The Company accrues the estimated cost of standard warranty at the time system revenue is recognized and defers the portion of systems revenue attributable to the fair value of non-standard warranty. 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:

	Three months ended March 31,	
	2005	2004
Balance at December 31	$ 10,924	$ 17,197
Warranties issued during the period	1,854	4,697
Settlements made during the period	(1,568)	(5,199)
Changes in liability for pre-existing warranties during the period	53	—
Balance at March 31	$ 11,263	$ 16,695
Amount classified as current	$ 9,615	$ 13,543
Amount classified as long term	1,648	3,152
Balance at March 31	$ 11,263	$ 16,695

Note 9. 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, "Accounting for Stock Issued to Employees," 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 not less than the market value of the common shares.

As required by SFAS No. 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 and shares purchased under the Employee Stock Purchase Plan have been estimated at the date of grant using the Black-Scholes options pricing

model. 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. Because Axcelis' options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in the opinion of management, the existing models do not necessarily provide a reliable single measure of the fair value of the Company's options.

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

	Three months ended March 31,	
	2005	2004
Net income	$ 1,898	$ 13,581
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related income tax effect	(4,706)	(5,230)
Pro forma net income (loss)	$ (2,808)	$ 8,351
Net income (loss) per share		
Basic — as reported	$ 0.02	$ 0.14
Basic — pro forma	(0.03)	0.08
Diluted — as reported	$ 0.02	$ 0.13
Diluted — pro forma	(0.03)	0.08

Note 10. Deferred Income Taxes

At December 31, 2004, the Company had $90.9 million of deferred tax assets relating to net operating loss carryforwards, tax credit carryforwards and other temporary differences, 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.

During the second quarter of 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 expects to record a full valuation allowance on future tax benefits 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.

Note 11. 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

plans to adopt SFAS 151 on January 1, 2006. The Company is assessing what effect, if any; adopting SFAS 151 will have on its financial position or results of operations.

SFAS 123R

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 Statement 123. However, SFAS 123(R) requires all share-based payments to employees, including grants of employee stock options, to be recognized in the income statement based on their fair values. Pro forma disclosure is not an alternative.

SFAS 123(R) must be adopted no later than January 1, 2006. The Company plans to adopt 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 is evaluating which method to adopt.

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 our results of operations, although it will have no impact on our overall financial position. The impact of adoption of SFAS 123(R) cannot be predicted at this time because it will depend on levels of share-based payments granted in the future. However, had we adopted SFAS 123(R) in prior periods, the impact of that standard would have approximated the impact of SFAS 123 as described above in the disclosure of pro forma net income (loss) and net income (loss) per share.

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 under current literature. Since the Company does not have the benefit of tax deductions in excess of recognized compensation cost, because of the Company's net operating loss position, this change will have no immediate impact on the Company's consolidated financial statements.

Note 12. Significant Customers

In the first quarter of 2005, one customer accounted for approximately 27% of revenue. In the first quarter of 2004, two customers accounted for approximately 13% and 12% of revenue, respectively. For the periods ended March 31, 2005 and 2004 no other customer accounted for more than 10% of revenue.

Note 13. Contingencies

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 March 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.

Item 2. 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 "Financial Condition, Liquidity and Capital Resources" and "Risk Factors" and those appearing elsewhere in this Form 10-Q. Readers are cautioned not to place undue reliance on these forward-looking statements, which reflect management's analysis only as of the date hereof. The Company assumes no obligation to update these forward-looking statements to reflect actual results or changes in factors or assumptions affecting forward-looking statements.

Overview

We are 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 SEN, with Sumitomo Heavy Industries, Ltd. in Japan. SEN licenses technology from the Company relating to the manufacture of ion implantation products and has exclusive rights to manufacture and sell these products to the territory of Japan. SEN is the leading producer of ion implantation equipment in Japan.

The semiconductor capital equipment industry is 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 the Company's control. As a result, the Company's revenues and gross margins, to the extent affected by increases or decreases in volume, can fluctuate significantly from year to year and period to period. Our gross margins also may be affected by the introduction of new products. We typically become more efficient in producing our 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 systems sold to process 300mm wafers. At December 31, 2004, gross margins on 300mm products were in-line with what we realize on our 200mm products. The Company's expense base is largely fixed and does not vary significantly with changes in volume. Therefore, the Company expects to experience significant fluctuations in operating results and cash flows depending on the level of capital expenditures by semiconductor equipment 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, which will reduce the number of our potential customers. This increased concentration of our customers potentially makes our revenues more volatile as higher percentages of our total revenues are tied to a particular customer's or a small number of customers' buying decisions.

Axcelis accesses the important Japanese market for ion implant through a joint venture 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. Royalties and equity income from SEN have made a substantial contribution to the Company's earnings, and a substantial decline in SEN's sales and net income could have a material adverse effect on the Company's operating results. 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 balance of 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 its interest. Axcelis does not expect to terminate the SEN license agreement. During 2005, Axcelis intends to continue to pursue agreement with SEN on amendments to the license agreement to add additional licensed products and related royalty terms.

Operating results for the interim periods 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, the Company evaluates its 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.

The Company believes 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

The Company's revenue recognition policy involves significant judgment by management. As described in detail 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 affect 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 for installation and acceptance testing performance obligations incurred at the time of sale. In addition, the standard and non-standard warranties were accrued at the time of shipment. The Company recognized the full sales price at the time of shipment, as management believed that the customer's post delivery acceptance provisions and installation process were established to be routine, commercially inconsequential and perfunctory because the process was a replication of the pre-shipment procedures. Also, customer payment terms typically provided that the majority of the purchase price was payable upon shipment. Terms generally contained delayed payment arrangements for a portion of the purchase price, which were typically time-based.

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, the Company has revised its revenue recognition policy to comply with the provisions of EITF 00-21.

In December 2003, the Securities and Exchange Commission ("SEC") issued Staff Accounting Bulletin No. 104 ("SAB 104"), "Revenue Recognition." SAB 104 supersedes Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" ("SAB 101"). SAB 104's primary purpose is to rescind accounting guidance contained in SAB 101 related to multiple element revenue arrangements, superseded as a result of the issuance of EITF 00-21. Additionally, SAB 104 rescinds the SEC's Revenue Recognition in Financial Statements Frequently Asked Questions and Answers ("the FAQ") issued with SAB 101 that had been codified in SEC Topic 13, Revenue Recognition. Selected portions of the FAQ have been incorporated into SAB 104. While the wording of SAB 104 has changed to reflect the issuance of EITF 00-21, the revenue recognition principles of SAB 101 remain largely unchanged by the issuance of SAB 104. As a result, the adoption of this pronouncement did not have any impact on the Company's consolidated financial statements.

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 and 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, fees 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 installation of certain systems to 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. Customers for 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 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.

Deferred Tax Assets

At December 31, 2004, the Company had $90.9 million of deferred tax assets relating to net operating loss carryforwards, tax credit carryforwards and other temporary differences, 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.

During the second quarter of 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 expects to record a full valuation allowance on future tax benefits 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.

Goodwill and Other Intangible Assets

We account for our 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 that are consolidated. 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 customer related intangibles and are generally amortized over periods ranging from five to ten years. We have determined that all of our intangible assets have finite lives.

The Company performs an annual impairment review of our 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, 2004, 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
- 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. When 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 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

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. The Company accrues the estimated cost of standard warranty at the time system revenue is recognized and defers the portion of systems revenue attributable to the fair value of non-standard warranty. Factors that affect the Company's warranty 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.

Results of Operations

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

	Three months ended March 31,	
	2005	**2004**
Revenue		
Systems	59.7%	68.4%
Services	38.4	29.1
Royalties, primarily from Sumitomo Eaton Nova Corporation	1.9	2.5
	100.0	100.0
Cost of revenue	58.2	62.6
Gross profit	41.8	37.4
Other costs and expenses		
Research & development	15.9	11.5

Selling	11.9	8.6
General & administrative	11.2	8.3
Amortization of intangible assets	0.6	0.5
Restructuring	1.8	—
	41.3	28.9
Income from operations	0.5	8.5
Other income (expense)		
Equity income of Sumitomo Eaton Nova Corporation	2.3	4.2
Interest income	1.0	0.2
Interest expense	(1.7)	(1.3)
Other—net	(0.0)	(0.4)
	1.7	2.7
Income before income taxes	2.1	11.2
Income taxes	0.2	1.1
Net income	1.9%	10.1%

Three months ended March 31, 2005 in comparison to the three months ended March 31, 2004.

Revenue

Revenue from system sales was $59.7 million, or 59.7% of revenue for the first quarter of 2005, compared with $91.8 million, or 68.4% of revenue for the first quarter of 2004. The decrease in sales of systems compared with 2004 was primarily attributable to declining market demand from our semiconductor manufacturing customers particularly with respect to capacity expansion at 200mm manufacturing facilities.

Approximately 31.0% of revenue from system sales for the first quarter of 2005 was from the sale of 200mm products and 69.0% was from the sale of 300mm products, compared with 52.5% and 47.5%, respectively, for the first quarter of 2004.

Services revenue, which include spare parts, equipment upgrades and maintenance services, was $38.4 million, or 38.4% of revenue for the first quarter of 2005 compared with $39.1 million, or 29.1% of revenue, for the first quarter of 2004. Service revenues fluctuate with capacity utilization by our customers and the decline in service revenues in the first quarter of 2005 as compared with the corresponding period of the preceding year is attributable to declining utilization by semiconductor manufacturers.

As described above in “Revenue Recognition”, a portion of the Company’s revenue from system sales is deferred until installation and other services related to future deliverables are performed. The total amount of deferred revenue at March 31, 2005 and 2004 was $43.6 million and $30.5 million, respectively.

Of the $1.9 million of royalty revenue recognized in the first quarter of 2005, $1.7 million was earned under the terms of the Company’s license agreement with SEN. This represents a decrease of $1.5 million compared with the first quarter of 2004 due to lower SEN sales volume in the first quarter of 2005 reflecting changes in demand for equipment by Japanese semiconductor manufacturers.

Revenue from sales of ion implantation products and services accounted for $77.9 million, or 77.9%, of total revenue in the first quarter of 2005, compared with $115.2 million, or 85.9%, of total revenue in the first quarter of 2004. The lower proportion of total revenue from the sale of ion implantation products and services in 2005 is primarily a result of a decrease in capacity expansion by semiconductor manufacturers.

Worldwide revenues, including revenues of SEN, for the first quarter of 2005 were $154.7 million. Such worldwide revenues for the first quarter of 2005 decreased by $52.8 million compared with the first quarter of 2004 due to the decline in demand for equipment by semiconductor manufacturers discussed above and 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 41.8% of revenue in the first quarter of 2005 compared with gross profit of 37.4% of revenue in the first quarter of 2004. The gross profit increase of 4.4 percentage points was primarily due to favorable product mix and an increase in the number of lower costing 300mm ship from cell systems shipped (approximately 1.3 percentage points), favorable manufacturing variances associated with products produced at lower operating overheads (approximately 2.2 percentage points), offset by the

unfavorable margin impact of lower royalty revenue in the first quarter of 2005 (approximately 0.5 percentage points).

The gross margin in the first quarter of 2004 was impacted negatively by approximately 1.5 percentage points due to a one-time buy-resale transaction with SEN for product sales outside of Japan.

Research and Development

Research and development expense was $15.9 million in the first quarter of 2005, an increase of $0.5 million, or 2.8%, compared with $15.4 million in the first quarter of 2004 primarily due to expenses associated with the timing of project material usage ($0.9 million) and increased amortization related to demo tools used in R&D ($0.3 million). Cost increases were partially offset by lower payroll and payroll related expenses primarily related to lower costs of variable compensation ($0.7 million) and headcount reductions ($0.2 million). The Company expects spending levels for research and development of $16 million to $17.5 million per quarter for 2005. Quarterly fluctuations are attributable principally to the timing of material usage.

Selling

Selling expense was $11.9 million in the first quarter of 2005, an increase of $0.3 million, or 2.3%, compared with $11.6 million in the first quarter of 2004 primarily due to increased expenses for customer and evaluation tool support.

General and Administrative

General and administrative expense was $11.2 million in the first quarter of 2005, an increase of $0.1 million, or 0.8%, compared with $11.1 million in the first quarter of 2004 primarily due to lower cost associated with variable compensation ($1.0 million) offset in part by costs 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.

Amortization of Intangible Assets

Amortization of intangible assets was $0.6 million in the first quarter of 2005 essentially flat compared with the first quarter of 2004.

Restructuring

Restructuring expense of $1.8 million in the first quarter of 2005 consists 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. The Company expects to incur approximately $9.0 to $10.0 million in restructuring and general and administrative expenses related to both of these actions, of which $4.0 million has been recognized in the income statement since the fourth quarter of 2004. The Company expects to incur $5.0 to $6.0 million in additional expense over the second and third quarters of 2005. Of the total cost related to this action, approximately $8.0 to $9.0 million is expected to result in cash expenditures.

Other Income (Expense)

Equity income attributable to SEN was $2.3 million and $5.6 million in the first quarter of 2005 and 2004, respectively.   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 $1.0 million primarily relates to interest earned on cash, cash equivalents and short-term investments. Interest income increased by $0.7 million from the comparable period in 2004 due primarily to increased levels of cash, cash equivalents and short-term investments in 2005, as well as higher interest rates.

Interest expense of $1.7 million in the first quarter of 2005 primarily relates to the Company's long-term debt issued in January 2002. Interest expense remained essentially flat compared with the first quarter 2004.

Income Taxes (Credit)

In the first quarter of 2005, the Company recorded income tax expense of $0.2 million. The Company has significant net operating losses and, as a result, does not pay significant income taxes in the U.S. and certain foreign tax jurisdictions. In other foreign jurisdictions the Company is a taxpayer. Income tax expense in the first quarter of 2005 represents the estimated annual effective tax rate based on estimated taxable income of certain foreign entities and the estimated alternative minimum tax in the U.S.

In the first quarter of 2004, the Company recorded income tax expense of $1.5 million.

Liquidity and Capital Resources

Cash, cash equivalents and short-term investments at March 31, 2005 were $178.6 million compared with $187.0 million at December 31, 2004. The $8.4 million decrease in cash, cash equivalents and short-term investments is mainly attributable to $9.0 million in cash used from operations and $1.0 million in capital expenditures offset in part by $1.4 million in proceeds from the exercise of stock options and the Employee Stock Purchase Plan. Cash used in operations was affected by annual commitments, payable in the first quarter, for variable compensation, 401k matching contribution, and insurance premiums aggregating approximately $14.4 million.

Net working capital was $301.5 million at March 31, 2005 compared with $298.2 million at December 31, 2004. The $3.3 increase in net working capital is attributable principally to the Company's results of operations.

Capital expenditures were $1.0 million and $0.7 million for the quarters ended March 31, 2005 and March 31, 2004, respectively. The Company has no significant capital projects planned for 2005 and total capital expenditures are projected to be less than $10.0 million. Future capital expenditures beyond 2005 will depend on a number of factors, including the timing and rate of the expansion of our business.

Expenditures for demo tools, used in-house for research and development and training, and evaluation tools, which are located at customers' sites and are being evaluated for potential purchase, were approximately $4.4 million and $5.7 million for the first quarter of 2005 and 2004, respectively. Demo and evaluation tools are included in amounts reported as other assets.

The Company has no off-balance sheet arrangements other than foreign currency exchange contracts used to hedge the Company's royalty receivable from SEN ($3.3 million at March 31, 2005).

In October 2003 the Company renegotiated its $50 million revolving credit facility to extend the maturity to 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 the Company's 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 March 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.

At March 31, 2005 the Company had outstanding standby letters of credit, bank guarantees and surety bonds of $12.4 million, which support certain operating lease obligations, the Company's workers' compensation insurance program, and certain value added tax refunds in Europe. At March 31, 2005, $6.4 million of cash was pledged as collateral for certain outstanding standby letters of credit and bank guarantees, and is reflected as restricted cash the balance sheet.

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.

Outlook

The Company's 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 implemented by the Company in recent quarters. The level of capital expenditures by semiconductor 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.

During the third quarter of 2004, the Company started to see a slowdown in capital spending by semiconductor manufacturers and customer requested delays of anticipated shipments and delays of customer orders. The Company, based on ongoing discussions with its customers of their future plans and requirements, is currently forecasting that revenues will decrease slightly in the

second quarter of 2005 as compared to the quarter ended March 31, 2005.

On May 4, 2005, the Company announced that net revenues (excluding SEN) for the second quarter of 2005 are forecast in the range of $85.0 million to $95.0 million. Gross margins are projected in the low 40's and that net income will be in the range of breakeven to $0.04 per diluted share. The company has also forecast the contribution from SEN to increase significantly to approximately $11.0 million for the quarter. The increase in the SEN contribution is a result of increased business activity at the end of SEN's fiscal year.

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

Risk Factors

Some of the matters discussed in this filing contain forward-looking statements regarding future events that are subject to risks and uncertainties. The following important factors, among others, could cause actual results to differ materially from those described by such statements. These factors include, but are not limited to: the cyclical nature of the semiconductor industry, our ability to keep pace with rapid technological changes in 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 for access to the Japanese semiconductor equipment market, and those risk factors contained in the section titled "Outlook" and Exhibit 99.1 of this Form 10-Q, which is incorporated herein by reference. 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.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

As of March 31, 2005, there have been no material changes to the quantitative and qualitative information about market risk disclosed in Item 7a to the Company's Form 10-K for the year ended, December 31, 2004.

Item 4. 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 quarterly 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.

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 first quarter of 2005 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

The Company is not a party to any material legal proceedings.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None

Item 3. Defaults Upon Senior Securities

None

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

None

Item 5. Other Information

None

Item 6. Exhibits

a) Exhibits are numbered in accordance with the Exhibit Table of Item 601 of Regulation S-K:

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 Company, 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	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 to the Company’s Current 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 by the First Amendment to Revolving Credit Agreement, dated as of May 3, 2004. 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 Team Incentive Plan for Executive Officers Adopted by the Compensation Committee of the Board of Directors on January 26, 2005. Incorporated by reference to Exhibit 10.1 to the Company’s Current Report on Form 8-K filed with the Commission on January 31, 2005.
10.2	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.
31.1	Certification of the Principal Executive Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated May 10, 2005. Filed herewith.
31.2	Certification of the Principal Financial Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated May 10, 2005. Filed herewith.
32.1	Certification of the Principal 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 May 10, 2005. Filed herewith.

32.2	Certification of the Principal 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 May 10, 2005. Filed herewith.
99.1	Factors Affecting Future Operating Results for the Form 10-Q for the period ended March 31, 2005. Filed herewith.

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.

/s/ Stephen G. Bassett

DATED: May 10, 2005

By: Stephen G. Bassett, Chief Financial Officer
Duly authorized officer and Principal Financial Officer

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 quarterly report on Form 10-Q 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 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: May 10, 2005

/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 quarterly report on Form 10-Q 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 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:	May 10, 2005	/s/ Stephen G. Bassett
		Stephen G. Bassett, Chief Financial Officer and Senior Vice President

EXHIBIT 32.1

AXCELIS TECHNOLOGIES, INC.

Certification of the Principal 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-Q quarterly 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 May 10, 2005.

/s/ Mary G. Puma

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

EXHIBIT 32.2

AXCELIS TECHNOLOGIES, INC.

Certification of the Principal 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-Q quarterly 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 May 10, 2005.

/s/ Stephen G. Bassett

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

AXCELIS TECHNOLOGIES, INC.

Form 10-Q for the quarter ended March 31, 2005
FACTORS AFFECTING FUTURE OPERATING RESULTS

From time to time, we may make 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.

In connection with the “safe harbor” provisions of the Private Securities Litigation Reform Act, we are hereby filing cautionary statements identifying important factors that could cause our actual results to differ materially from those projected in forward-looking statements made by us or on our behalf.

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 quarterly 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. Gross profit as a percentage of revenue may vary based on a variety of factors, including the mix and average selling prices of products sold, costs to manufacture and customize systems and warranty costs. Our gross margins also may be affected by the introduction of new products. Due to the foregoing factors, we believe that period-to-period comparisons of our operating results should not be relied upon as an indicator of our future performance.

Our quarterly financial results may fall short of anticipated levels; forecasting quarterly 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, but in some cases, at the time the forecast is made the final customer terms may not have been agreed and documented, 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 where the demand for our products is high and downturns where 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 the Company’s 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 the down cycle, 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. Competitors are expected 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 maintain 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 2004,our customer, ST Microelectronics accounted for 14.9% of our net sales. Also, in 2004, our top ten customers accounted for 61% 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, including reductions or delays due to customer departures from recent buying patterns, or market, economic or competitive conditions in the semiconductor industry, could adversely affect us. The ongoing consolidation of semiconductor manufacturers may also increase the harmful effect of losing one or more significant customers.

We access the important Japanese market for ion implant through a joint venture that we do not control.

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 ion implanters in Japan. Historically, Japan has represented approximately 20% of the annual worldwide market for ion implanters. 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, as described below). 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. 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. 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.

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 its interest. Axcelis does not expect to terminate the SEN license agreement. During 2005, Axcelis intends to continue to pursue agreement with SEN on amendments to the license agreement to add additional licensed products and related royalty terms.

We may occasionally 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 the Company's revenues.

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 77.0% of total revenue in 2004, 65.3% in 2003, and 53.3% in 2002. In recent years, the percentage of shipments to Asia has been increasing. System shipments to Asian customers represented 74% of total shipment dollars in 2004 in comparison to 60% of total shipment dollars in 2003. 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. In 2004, we announced the relocation of our Rockville, Maryland operations into our Beverly, Massachusetts headquarters. Although a number of employees will be

relocating, we will need to hire to fill open positions in Beverly. 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. Because of our reliance on outside vendors generally, and on a limited group of suppliers in particular, 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, 2004, approximately 13% of the Company's revenues were derived from foreign operations with this inherent risk. In addition, at December 31, 2004, the Company's operations outside of the United States accounted for approximately 29% of the Company's 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. The Company uses forward contracts to hedge the risk of currency fluctuation with respect to SEN royalties for which payment is received in Japanese yen.

In certain circumstances, we may need 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 exiting cash and cash equivalents will be sufficient to satisfy our anticipated cash requirements for at least the next twelve

months. 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 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.

We seek to protect our proprietary technology through patents and trade secrets that 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, both where Axcelis is the licensor and 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. Our system sales documentation typically includes an indemnification by Axcelis of our customers from liability to third parties for intellectual property infringement arising from the use of our products in their intended manner. Therefore, Axcelis on occasion receives notification from customers who believe that Axcelis owes 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, and its operations are 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 and could seriously harm our business.