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

FORM 10-Q

(MARK ONE)

[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2003 or

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

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)	*(I.R.S. Employer Identification Number)*

55 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 [X] NO [ ] .

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

As of November 13, 2003 there were 98,942,503 shares of the registrant's common stock outstanding.

AXCELIS TECHNOLOGIES, INC.
FORM 10-Q
INDEX

PART I. FINANCIAL INFORMATION

PART II. OTHER INFORMATION

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

Axcelis Technologies, Inc.
Consolidated Statements of Operations

(In thousands, except per share amounts)

(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 30, 2003	September 30, 2002	September 30, 2003	September 30, 2002
Net sales	$ 59,007	$93,117	$ 226,083	$244,190
Cost of products sold	45,108	56,672	157,493	159,120
Gross profit	13,899	36,445	68,590	85,070
Operating expenses:				
Research and development	16,273	18,096	48,376	54,380
Selling	11,983	10,912	35,590	33,892
General and adminstrative	10,841	10,799	30,383	34,419
Amortization of intangible assets	563	365	1,293	1,095
Restructuring	4,745	—	4,745	—
Total operating expenses	44,405	40,172	120,387	123,786
Loss from operations	(30,506)	(3,727)	(51,797)	(38,716)
Other income (expense):				
Royalty income of Sumitomo Eaton Nova Corporation	195	3,451	3,193	7,362
Royalty income - other	70	32	95	42
Equity income of Sumitomo Eaton Nova Corporation	41	2,235	4,534	3,595
Interest income	431	874	1,485	2,850

Interest expense	(1,876)	(1,535)	(4,663)	(4,429)
Other-net	57	(828)	(945)	(2,472)
Total other income (expense)	(1,082)	4,229	3,699	6,948
Income (loss) before taxes	(31,588)	502	(48,098)	(31,768)
Income taxes (credit)	354	311	69,048	(12,451)
Net income (loss)	$(31,942)	$ 191	$(117,146)	$ (19,317)
Basic net income (loss) per share	$ (0.32)	$ 0.00	$ (1.19)	$ (0.20)
Diluted net income (loss) per share	$ (0.32)	$ 0.00	$ (1.19)	$ (0.20)
Shares used in computing:				
Basic net income (loss) per share	98,697	98,090	98,423	97,849
Diluted net income (loss) per share	98,697	98,213	98,423	97,849

See accompanying notes to consolidated financial statements.

Axcelis Technologies, Inc.
Consolidated Balance Sheets

(In thousands)
(Unaudited)

	September 30, 2003	December 31, 2002
ASSETS		
Current assets:		
Cash & cash equivalents	$ 91,293	$150,651
Short-term investments	23,916	34,992
Accounts receivable, net	74,164	60,311
Inventories	120,729	115,290
Deferred income taxes & other current assets	2,159	18,329
Total current assets	312,261	379,573
Property, plant & equipment, net	88,378	93,597
Investment in Sumitomo Eaton Nova Corporation	66,220	57,868
Goodwill	47,948	40,682
Intangible assets	19,799	13,141
Deferred income taxes	—	57,136
Other assets	32,067	27,454
Total assets	$ 566,673	$669,451
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 33,032	$ 32,594
Accrued compensation	13,471	6,745
Warranty reserve	17,326	16,625
Income taxes payable	7,420	12,823
Other current liabilities	21,719	18,400
Total current liabilities	92,968	87,187
Convertible debt	125,000	125,000

Other long-term liabilities	3,270	4,756
Stockholders' equity:		
Common stock	99	98
Additional paid-in capital	450,803	447,533
Deferred compensation	(891)	(782)
Treasury stock - at cost	(1,218)	(1,218)
Retained earnings	(104,777)	12,369
Accumulated other comprehensive loss	1,419	(5,492)
Total stockholders' equity	345,435	452,508
Total liabilities and stockholders' equity	$ 566,673	$669,451

See accompanying notes to consolidated financial statements.

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

	Nine Months Ended September 30,	
	2003	**2002**
Operating activities:		
Net loss	$(117,146)	$ (19,317)
Adjustments required to reconcile net loss to net cash used by operating activities:		
Depreciation	8,759	7,933
Amortization of intangible assets	1,294	1,095
Stock compensation expense	109	387
Deferred income taxes	73,685	(16,441)
Equity income of Sumitomo Eaton Nova Corporation	(4,534)	(3,595)
Changes in operating assets & liabilities:		
Accounts receivable, net	(10,313)	(13,878)
Inventories	(2,390)	(2,092)
Other current assets	(163)	(520)
Accounts payable and other current liabilities	5,465	115
Income taxes payable	(5,407)	—
Other assets	(4,778)	150
Other-net	(1,057)	682
Net cash used by operating activities	(56,476)	(45,481)
Investing activities:		
Acquisition of Matrix Integrated Systems, net of cash acquired	(14,418)	—
Sale of short-term investments, net	11,077	—
Expenditures for property, plant & equipment	(3,185)	(11,352)
Other-net	396	(1,056)
Net cash used by investing activities	(6,130)	(12,408)
Financing activities:		
Proceeds from long-term debt, net	—	121,578
Proceeds from the exercise of stock options	175	104
Issuance of common stock from Employee Stock Purchase Plan	2,878	5,622
Net cash provided by financing activities	3,053	127,304
Effect of foreign exchange rate changes on cash	195	1,081
Net increase (decrease) in cash & cash equivalents	(59,358)	70,496
Cash & cash equivalents at beginning of period	150,651	124,177
Cash & cash equivalents at end of period	$ 91,293	$194,673

See accompanying notes to consolidated financial statements.

AXCELIS TECHNOLOGIES, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS *(Unaudited)*
NINE MONTHS ENDED SEPTEMBER 30, 2003

1) Nature of Business and Basis of Presentation

Axcelis Technologies, Inc. ("Axcelis" or the "Company"), is a worldwide producer of ion implantation, dry strip, rapid thermal processing and photostabilization 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, maintenance services and customer training. 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, except for adjustments to record a valuation allowance for deferred tax assets (see Note 7), considered necessary for a fair presentation have been included. Operating results for the three and nine month periods ended September 30, 2003 are not necessarily indicative of the results that may be expected for other interim periods or for the year ending December 31, 2003.

The balance sheet at December 31, 2002 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, 2002.

2) 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 and 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 than we now experience, 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. The Company recognized the full sales price at the time of shipment as management believes 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 provide that the majority of the purchase price is payable upon shipment. Terms do generally contain delayed payment arrangements for a portion of the purchase price, which are typically time-based.

In November 2002, the Financial Accounting Standard Board reached a consensus on Emerging Issues Task Force 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 fiscal 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. Axcelis' revenue transactions include sales of systems under multiple element arrangements. Revenue under these arrangements is allocated to all elements, except systems, based upon their estimated fair market value. The amount of revenue allocated to systems is done on a residual method. Under this method, the total value of the arrangement is allocated first to the undelivered elements based on the greater of the fair value of the undelivered elements or the portion of the sales price that will not be received until the elements are delivered, with the residual amount being allocated to systems revenue. The fair value of all other 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 for installation services is recognized at the time of customer acceptance. 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 because the process is a replication of the pre-shipment procedures. 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. To ensure that the customer's specifications are satisfied, per contract terms, many customers request that newer systems are to be tested at Axcelis' facilities prior to shipment, normally with the customer present, under conditions that substantially replicate the customer's production environment and the customer's criteria are confirmed to have been met. Customers for mature products generally do not require pre-shipment testing. Axcelis has never failed to successfully complete a system installation. Should an installation not be successfully completed, 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 upon shipment of the system, Axcelis will defer the recognition of systems revenue until written customer acceptance of the system. This deferral period is generally within twelve months of shipment.

Service revenue includes revenue from maintenance and service contracts, time and material services and sales of spare parts. Revenue related to maintenance and service contracts is recognized ratably over the duration of the contracts. Revenue related to time and material services is recorded when the services are performed. Revenue related to spare parts sales is recognized upon the later of delivery or when the title and risk of loss passes to the customer.

3) Net Income (Loss) Per Share

Basic net income (loss) per share is calculated based on the weighted average shares of common stock outstanding during the period. Diluted net income per share is calculated based on the weighted average shares of common stock outstanding, plus the dilutive effect of stock options, calculated using the treasury stock method, and the assumed conversion of convertible debt using the if converted method, when dilutive.

4) Comprehensive Income (Loss)
The components of comprehensive income (loss) are as follows (in thousands):

	Three Months Ended		Nine Months Ended	
	September 30, 2003	September 30, 2002	September 30, 2003	September 30, 2002
Net income (loss)	$(31,942)	$ 191	$(117,146)	$(19,317)
Foreign currency translation adjustments	5,712	(1,795)	6,911	6,552
Comprehensive income (loss)	(26,230)	(1,604)	(110,235)	(12,765)

5) Inventories
Inventories are carried at the lower of cost, determined using the first-in, first out (FIFO) method, or market. The components of inventory were as follows (in thousands):

	September 30, 2003	December 31, 2002
Raw materials	$ 78,957	$ 80,642
Work-in-process	12,084	13,401
Finished goods	43,781	35,939

	134,822	129,982
Inventory allowances	(14,093)	(14,692)
	$120,729	$115,290

6) 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 estimates the costs that may be incurred under its warranty obligation and records a liability in the amount of such costs at the time product revenue is recognized. 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 warranty liability and adjusts the amount as necessary.

Changes in the Company's product warranty liability for the nine month period ended September 30, 2003 are as follows (in thousands):

Balance at December 31, 2002	$ 16,625
Warranties and installations issued during the period	15,761
Settlements made during the period	(17,707)
Changes in liability for pre-existing warranties and installation during the period	2,647
Balance as of September 30, 2003	$ 17,326

7) 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 Accounting Principles Board (APB) No. 25 in accounting for stock-based awards to employees. Under APB No. 25, the Company recognizes no compensation expense with respect to such awards, if on the date the awards were granted, the exercise price equaled the market value of the common shares.

Pro forma information regarding net income (loss) is required by SFAS No. 123. This information is required to be determined as if Axcelis had accounted for stock-based awards to its employees granted subsequent to 1995 under the fair value method prescribed by SFAS No. 123. The fair values of the options granted 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 pro forma disclosures under SFAS No. 123, the estimated fair values of the options are assumed to be amortized to expense over the options' vesting periods. Pro forma information related to options granted follows (in thousands, except per share amounts):

	Three Months Ended		**Nine Months Ended**	
	September 30, 2003	**September 30, 2002**	**September 30, 2003**	**September 30, 2002**
Net income (loss)	$(31,942)	$ 191	$(117,146)	$(19,317)
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	(6,067)	(956)	(13,301)	(10,040)
Proforma net loss	(38,009)	(765)	(130,447)	(29,357)
Net loss per share				
Basic - as reported	$ (0.32)	$ 0.00	$ (1.19)	$ (.20)
Basic - pro forma	$ (0.39)	$(0.01)	$ (1.33)	$ (0.30)

Diluted - as reported	$ (0.32)	$ 0.00	$ (1.19)	$ (0.20)
Diluted - pro forma	$ (0.39)	$(0.01)	$ (1.33)	$ (0.30)

8) Deferred Income Taxes

The Company has deferred tax assets resulting from tax credit carryforwards, net operating losses and other deductible temporary differences, which are available to reduce taxable income in future periods. 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.

As of March 31, 2003, the Company's evaluation of the realization of these assets was based upon evidence of cumulative historical profitability and estimates of future taxable income. The Company was profitable in fiscal year 2000 but was not profitable in fiscal years 2001 and 2002. Projections of future earnings were based on revenue assumptions consistent with industry forecasts for the next three years along with the necessary operating expenses to support the Company's revenue assumptions. Based on these projections, the Company estimated that the loss carryforwards would be fully utilized within three years.

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 future earnings. Due to these factors as well as the uncertainty of the amount and timing of profitability in future periods, the Company increased its valuation allowance as of June 30, 2003. This non-cash charge to earnings increased income tax expense by $69.7 million for the nine month period ended September 30, 2003.

The Company expects to record a full valuation allowance on future tax benefits until it can sustain an appropriate level of profitability and until such time, the Company would not expect to recognize any significant tax benefits in its future results of operations. However, going forward should the Company return to profitability and there is 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, the carrying value of deferred tax assets may be restored, resulting in a non-cash credit to earnings.

9) Acquisition of Matrix Integrated Systems

On July 3, 2003, the Company completed the acquisition of Matrix Integrated Systems, Inc. ("Matrix"), a photoresist dry strip equipment supplier based in Richmond, California for $14.0 million plus direct expenses of approximately $900,000. The acquisition was accounted for as a purchase. Accordingly, the results of operations of Matrix have been included in the Company's results of operations since the date of acquisition. Pro forma information is not presented because the acquisition is not considered material. The purchase price allocation is subject to refinement until all pertinent information related to the acquisition is obtained.

10) Restructuring Charges

Restructuring charges of $4.7 million relate to severance and other benefits associated with reduction in force actions taken, during the third quarter of 2003 which reduced headcount by approximately 200 permanent positions. The majority of the severance payments will be made during the fourth quarter of 2003.

11) Recent Accounting Pronouncements

In January 2003, the FASB issued Interpretation No. 46 "Consolidation of Variable Interest Entities, an Interpretation of Accounting Research Bulletin No. 51" (FIN 46). FIN 46 provides a new consolidation model which determines control and consolidation based on potential variability in gains and losses. The provisions of FIN 46 are effective for enterprises with variable interests in variable interest entities created after January 31, 2003. For public companies with variable interest in variable interest entities created before February 1, 2003, the provisions of FIN 46 are to be applied no later than December 31, 2003. The Company has determined that its equity investment in SEN does not constitute a variable interest entity that would require consolidation. Accordingly, the Company does not believe that FIN 46 will have any impact on its 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" included in these sections 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, rapid thermal processing and photostabilization equipment used in the fabrication of semiconductors. In addition, we provide extensive aftermarket service and support, including spare parts, equipment upgrades, maintenance services and customer training. 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.

Critical Accounting Policies

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 and installation 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 and 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 than we now experience, 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. The Company recognized the full sales price at the time of shipment as management believes 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 provide that the majority of the purchase price is payable upon shipment. Terms do generally contain delayed payment arrangements for a portion of the purchase price, which are typically time-based.

In November 2002, the Financial Accounting Standard Board reached a consensus on Emerging Issues Task Force 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 fiscal 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. Axcelis' revenue transactions include sales of systems under multiple element arrangements. Revenue under these arrangements is allocated to all elements, except systems, based upon their estimated fair market value. The amount of revenue allocated to systems is done on a residual method. Under this method, the total value of the arrangement is allocated first to the undelivered elements based on the greater of the fair value of the undelivered elements or the portion of the sales price that will not be received until the elements are delivered, with the residual amount being allocated to systems revenue. The fair value of all other 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 for installation services is recognized at the time of customer acceptance. 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 because the process is a replication of the pre-shipment procedures. 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. To ensure that the customer's specifications are satisfied, per contract terms, many customers request that newer systems are to be tested at Axcelis' facilities prior to shipment, normally with the customer present, under conditions that substantially replicate the customer's production environment and the customer's criteria are confirmed to have been met. Customers for mature products generally do not require pre-shipment testing. Axcelis has never failed to successfully complete a system installation. Should an installation not be successfully completed, 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 upon shipment of the system, Axcelis will defer the recognition of systems revenue until written customer acceptance of the system. This deferral period is generally within twelve months of shipment.

Service revenue includes revenue from maintenance and service contracts, time and material services and sales of spare parts. Revenue related to maintenance and service contracts is recognized ratably over the duration of the contracts. Revenue related to time and material services is recorded when the services are performed. Revenue related to spare parts sales is recognized upon the later of delivery or when the title and risk of loss passes to the customer.

Deferred Tax Assets

The Company has deferred tax assets resulting from tax credit carryforwards, net operating losses and other deductible temporary differences, which are available to reduce taxable income in future periods. 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.

As of March 31, 2003, the Company's evaluation of the realization of these assets was based upon evidence of cumulative historical profitability and estimates of future taxable income. The Company was profitable in fiscal year 2000 but was not profitable in fiscal years 2001 and 2002. Projections of future earnings were based on revenue assumptions consistent with industry forecasts for the next three years along with the necessary operating expenses to support the Company's revenue assumptions. Based on these projections, the Company estimated that the loss carryforwards would be fully utilized within three years.

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 future earnings. Due to these factors as well as the uncertainty of the amount and timing of profitability in future periods, the Company increased its valuation allowance as of June 30, 2003. This non-cash charge to earnings increased income tax expense by $69.7 million for the nine month period ended June 30, 2003.

The Company expects to record a full valuation allowance on future tax benefits until it can sustain an appropriate level of profitability and until such time, the Company would not expect to recognize any significant tax benefits in its future results of operations. However, going forward should the Company return to profitability and there is 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, 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 are generally amortized over approximately ten years. We have determined that all of our intangible assets have finite lives.

During 2002, in accordance with SFAS No. 142, we ceased to amortize goodwill. In lieu of amortization, we perform an impairment review of our goodwill. Impairment tests are performed annually, or 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, 2002, 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. Net goodwill amounted to $47.9 million as of September 30, 2003.

We assess the impairment of identifiable other intangible assets 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 historical or projected future 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 would 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. Net intangible assets, other than goodwill, amounted to $19.8 million as of September 30, 2003.

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. The allowance for doubtful accounts amounted to $3.6 million as of September 30, 2003.

Inventory—Allowance for Excess and Obsolescence

Axcelis records an allowance for estimated excess and obsolete inventory. The allowance is based upon management's assumptions of future materials usage and obsolescence, based on estimates of future demand and market conditions. If actual market conditions become less favorable than those projected by management, additional inventory write-downs may be required. The allowance for excess and obsolete inventory amounted to $14.1 million as of September 30, 2003.

Product Warranty Reserve

Axcelis provides for the estimated cost of product warranties at the time of shipment. The Company's warranty obligation is affected by product failure rates, material usage and service labor costs incurred in correcting a product failure. If actual product failure rates, material usage or service labor costs differ from management's estimates, revisions to the estimated warranty liability may be required. The company's estimated warranty liability was $17.3 million as of September 30, 2003.

Results of Operations

The following table sets forth consolidated statements of operations data expressed as a percentage of net sales for the periods indicated:

	Three Months Ended		Nine Months Ended	
	September 30, 2003	September 30, 2002	September 30, 2003	September 30, 2002
Net sales	100.0 %	100.0 %	100.0 %	100.0 %
Gross profit	23.6	39.1	30.3	34.8

Other costs and expenses:				
Research and development	27.6	19.4	21.4	22.3
Selling	20.3	11.7	15.7	13.9
General and administrative	18.4	11.6	13.4	14.1
Amortization of intangible assets	1.0	0.4	0.6	0.4
Restructuring	8.0	—	2.1	—
Total operating expenses	75.3	43.1	53.2	50.7
Loss from operations	(51.7)	(4.0)	(22.9)	(15.9)
Other income (expense):				
Royalty income of Sumitomo Eaton Nova Corporation	0.3	3.7	1.5	3.0
Royalty income—other	0.1	—	—	—
Equity income of Sumitomo Eaton Nova Corporation	0.1	2.4	2.0	1.5
Interest income	0.7	0.9	0.7	1.2
Interest expense	(3.2)	(1.7)	(2.1)	(1.8)
Other-net	0.1	(0.9)	(0.4)	(1.0)
Total other income (expense)	(1.8)	4.4	1.7	2.9
Income (loss) before income taxes	(53.5)	0.5	(21.3)	(13.0)
Income taxes (credit)	0.6	0.3	30.5	(5.1)
Net income (loss)	(54.1)%	0.2 %	(51.8)%	(7.9)%

Net Sales

Net sales for the third quarter of fiscal 2003 were $59.0 million, a decrease of $34.1 million, or 36.6%, from $93.1 million in the third quarter of 2002. Net sales for the nine months ended September 30, 2003 were $226.1 million, a decrease of $18.1 million, or 7.4%, from $244.2 million for the same period in fiscal 2002. The changes in net sales from comparable periods in 2002 were primarily attributable to the timing of orders received from and related shipments of products to our semiconductor manufacturing customers. Additionally, $4.2 million of the decrease in net sales for the three and nine months ended September 30, 2002 is due to the adoption of EITF 00-21 which became effective for revenue transactions occurring after June 30, 2003 (see "Critical Accounting Policies— Revenue Recognition"). The Company does not believe the changes in sales volumes during the three and nine month periods ended September 30, 2003, as compared to the same periods in 2002, reflect any significant changes in the levels of capital spending during these periods within the semiconductor manufacturing industry. (See "Outlook").

Gross Profit

Gross profit for the third quarter of fiscal 2003 was $13.9 million, a decrease of $22.5 million, or 61.9%, from $36.4 million in the third quarter of fiscal 2002. Gross profit for the nine months ended September 30, 2003 was $68.6 million, a decrease of $16.5 million, or 19.4%, from $85.1 million for the same period in fiscal 2002. Gross profit as a percentage of net sales decreased to 23.6% in the third quarter of fiscal 2003 from 39.1% in the comparable prior period. The decrease in gross profit percentage during the third quarter is related principally to reduced selling prices caused by a competitive market environment, a change in revenue recognition policy associated with the adoption of EITF 00-21 (approximately 2.5 %), and increased warranty costs associated with 300mm tools (approximately 7.2%). For the nine months ended September 30, 2003, gross profit as a percentage of net sales decreased to 30.3% from 34.8% for the nine months ended September 30, 2002. For the nine month period, gross profit decreased primarily for the reasons described above, and was partially offset by an increased percentage of higher margin 200mm equipment sales. Sales of 200mm products constituted approximately 70.7% of systems sales for the nine months ended September 30, 2003 compared to 61.6% in the comparable period of 2002.

Operating Expenses

Operating expenses were 75.3% of net sales or $44.4 million for the three months ended September 30, 2003 compared to 43.1% or $40.2 million for the three months ended September 30, 2002. The increase of $4.2 million relates principally to restructuring charges of $4.7 million recognized in the third quarter of 2003. Operating expenses were 53.2% of net sales or $120.4 million for the nine months ended September 30, 2003 compared to 50.7% or $123.8 million for the nine months ended September 30, 2002 reflecting a decrease in spending of $3.4 million. The $3.4

million decrease is primarily due to a decrease of $6.0 million in R&D expenses and a decrease of $2.3 million in SG&A expenses, both of which are partially offset by restructuring costs of $4.7 million. For the nine months ended September 30, 2003 the decrease in R&D expenses was due principally to the completion and release of all 300mm products in the second half of 2002 and the associated reduction in headcount-related and material costs. The decreases in SG&A expenses for the nine months ended September 30, 2003 are attributable to lower costs associated with programmed headcount reductions and an adjustment of $1.7 million recorded in the second quarter to reflect a change in estimate relating to an unfunded pension expense and other benefit claims recorded in prior periods.

The restructuring costs described above in the amount of $4.7 million reflected in both the three and nine month periods ended September 30, 2003 relate to severance and other benefits associated with reduction in force actions to reduce headcount by approximately 200 permanent positions the Company took during the third quarter of 2003. The majority of the severance payments will be made in the fourth quarter of 2003. The Company estimates the annual savings from the restructuring to approximate $18.5 million, benefits from which will start to be realized in the fourth quarter of 2003.

Loss From Operations

Loss from operations was $30.5 million for the third quarter of fiscal 2003 as compared to a loss of $3.7 million for the third quarter of fiscal 2002. Loss from operations was $51.8 million for the nine months ended September 30, 2003 as compared to a loss of $38.7 million for the nine months ended September 30, 2002. The decreases were primarily a result of the factors described above.

Other Income (Expense)

Other expense was $1.1 million for the third quarter of fiscal 2003 as compared to other income of $4.2 million for the third quarter of fiscal 2002. Other income (expense) was $3.7 million for the nine months ended September 30, 2003 as compared to $6.9 million for the nine months ended September 30, 2002 reflecting a decrease of $3.2. Total other income includes royalty income and equity income from SEN. Royalty income from SEN was $0.2 million and $3.2 million for the three and nine months ended September 30, 2003, respectively, compared to $3.5 million and $7.4 million for the corresponding periods of 2002. The change in revenue recognition policy to comply with the provisions of EITF 00-21 had the effect of reducing the combined contribution (royalties and equity income) from SEN by approximately $7.8 million for the three and nine month periods ended September 30, 2003. Other fluctuations in royalty and equity contributions from SEN reflect changes in its sales volume and operating earnings resulting from changes in the Japanese semiconductor market.

Interest expense relates to the Company's $125 million convertible subordinated note offering completed in January 2002.

Income Taxes (Credit)

Income taxes for the nine months ended September 30, 2003 consist primarily of a valuation allowance of $69.7 million recorded at June 30, 2003 to reduce the carrying value of deferred tax assets to zero.

Net Income (Loss)

The Company incurred a net loss of $31.9 million in the third quarter of fiscal 2003 as compared to net income of $0.2 million in the third quarter of fiscal 2002. The increase was principally a result of the factors discussed above. Our loss per share (basic and diluted) was $0.32 in the third quarter of fiscal 2003 and $1.19 for the nine months ended September 30, 2003. Our loss per share (basic and diluted) was $0.00 in the third quarter of 2002 and $0.20 for the nine months ended September 30, 2002.

Financial Condition, Liquidity and Capital Resources

As of September 30, 2003, cash and cash equivalents were $91.3 million as compared with $150.7 million as of December 31, 2002. Short-term investments were $23.9 million as of September 30, 2003 compared to $35.0 million at December 31, 2002. The decrease in the combined amount of cash, cash equivalents and short-term investments from December 31, 2002 resulted principally from operating losses, the acquisition of Matrix Integrated Systems, Inc. and increases in accounts receivable and inventory. Increases in accounts receivable reflect a high proportion of shipments in September 2003. The Company has increased its inventory levels at September 30, 2003 in anticipation of higher fourth quarter shipments based on significant increases in orders received during the third quarter of 2003.

Net working capital was $219.3 million at September 30, 2003 as compared to net working capital of $292.4 million at December 31, 2002. The reduction in working capital is attributable principally to the loss before income taxes and the recognition of a valuation allowance relating to the current portion of deferred tax assets.

Capital expenditures were $3.2 million in the first nine months of fiscal 2003 and $11.4 million in the first nine months of fiscal 2002. The decrease in capital expenditures for the nine months ended September 30, 2003 was principally due to the completion of the Company's addition to its Beverly, Massachusetts facility during the first half of fiscal 2002.

The amount of future capital requirements will depend on a number of factors, including the timing and rate of the expansion of our business.

The Company has a $50 million revolving line of credit facility, the term of which has been amended to expire October 2006. At September 30, 2003, there were no outstanding borrowings under the revolving credit facility.

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. As a general rule, we would expect to consume cash at the beginning of a cyclical upturn and generate cash at the beginning of a cyclical downturn, due primarily to changes in working capital requirements. Although our cash requirements fluctuate based on the timing and the extent of these factors, we believe that available cash and our cash flows from operations will provide sufficient working capital and satisfy commitments for capital expenditures and other cash requirements of the business.

Outlook

The Company's performance for the three and nine month periods ended September 30, 2003 was directly related to the continuing low levels of capital expenditures by semiconductor manufacturers, especially manufacturers opening new or expanding existing fabrication facilities. The level of capital expenditures by these manufacturers depends upon the current and anticipated market demand for semiconductors and the products utilizing them, the available manufacturing capacity in manufacturers' fabrication facilities, and the ability of manufacturers to increase productivity in existing facilities without incurring additional capital expenditures. Currently, management along with industry and economic analysts, believe that semiconductor manufacturers are looking to expand capacity and increase capital spending over the next twelve to twenty-four months. Based on bookings received in the third quarter the Company believes it will begin to realize benefits in terms of increased revenues and improved operating performance from this anticipated upturn in capital spending during the fourth quarter of 2003.

Also during the first nine months of 2003, the Company experienced increased competitive pricing pressure at strategic accounts, and management expects that this pressure will continue for the remainder of 2003.

Management has continued its ongoing actions to reduce manufacturing costs as well as decrease research and development and SG&A expense. During the third quarter of 2003, the Company took actions to reorganize the business and eliminate 200 permanent positions. These actions are estimated to result in annual savings of $18.5 million, the benefit of which will begin to be realized in the fourth quarter of 2003.

On October 27, 2003, the Company announced its expectation that its revenues for the fourth quarter of fiscal 2003 will be in the range of $88 to $93 million, an increase of 49% to 58% in comparison to the reported revenues for the third quarter of 2003. On these forecast revenues, management stated on October 27, 2003 that gross margins are expected to be in the mid 30% range and the results of operations for the fourth quarter of 2003 are forecast at break-even. Management is continuing to manage the Company's cost structure on a quarterly basis with the objective of returning to profitability, while at the same time making sure that the Company has the right resources for an upturn in demand for its systems.

It is difficult for management to predict customers' capital spending plans, which can change very quickly. In addition, at the current sales level, each sale, or failure to make a sale, could have a material effect on the Company in a particular quarter.

Risk Factors

As defined under Safe Harbor provisions of The Private Securities Litigation Reform Act of 1995, some of the matters discussed in this filing contain forward-looking statements regarding future events that are subject to risks and uncertainties. The following 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, dependency on SEN (our Japanese joint venture) for access to the Japanese semiconductor equipment market, and those risk factors contained in the section titled "Outlook" and Exhibit 99.1 of this Form 10-Q. If any of those risk factors actually occur, 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

A discussion of market risk exposures is included in our Form 10-K for the year ended December 31,2002 under Management's Discussion and Analysis - Outlook and Exhibit 99.1 filed herewith.

Item 4. Controls and Procedures

(a) 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 the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of the end of the period covered by this quarterly report. Based on this evaluation, our principal executive officer and principal financial officer concluded that 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 Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the requisite time periods.

(b) Changes in Internal Controls.

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended) identified in connection with the evaluation of our internal control performed during our last fiscal quarter 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

On January 8, 2001, we filed a lawsuit against Applied Materials, Inc. ("Applied") in the United States District Court for the District of Massachusetts. The complaint alleged that Applied's medium current/high energy ion implanter machine launched in November 2000 infringes our patent for ion implantation equipment using radio frequency linear accelerator technology. We have also alleged that Applied unlawfully interfered with our existing and future contracts. On January 18, 2001, we filed a motion for a preliminary injunction for the reason, among others, that infringement at the time of transition between equipment capable of handling 200 mm wafers and equipment capable of handling 300 mm wafers would irreparably harm us. Through this motion, we asked the court to stop Applied from manufacturing, selling or offering to sell its medium current/high energy ion implanter machine and to order Applied to remove all Axcelis patented technology from implanters that Applied may have placed in chipmakers' plants for process development trials. Applied filed counterclaims of unfair competition, defamation, and tortious interference with prospective economic advantage, all of which it contends arise from certain communications allegedly made by Axcelis about the lawsuit and its claims of infringement.

A jury trial on the sole issue of infringement commenced on June 16, 2003. On July 2, 2003, the jury issued a verdict in favor of Applied Materials. The Company filed a notice of appeal in August 2003, which was docketed with the Federal Circuit Court for the First Circuit in September 2003. While there can be no assurance of a favorable outcome from an appeal, we continue to believe our claims are meritorious. The appeal is being handled on a capped contingency basis by our outside litigation counsel and we expect the requisite investment in legal expense to pursue this appeal will be minimal. The patent at issue expires in mid 2005.

Item 5. Other Information

On October 23, 2003, R. John Fletcher joined our Board of Directors. Mr. Fletcher is the founder of Fletcher Spaght, Inc., a strategy consulting firm focused on high technology businesses.

Item 6. Exhibits and Reports on Form 8-K

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 from 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 from 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 from 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 from Exhibit 4.1 to the Company's Report on Form 8-K filed with the Commission on January 15, 2002.
31.1	Certification of the Chief Executive Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated November 13, 2003. Filed herewith.

31.2	Certification of the Chief Financial Officer under Exchange Act Rule 13a-14(a)/15d-14(a) (Section 302 of the Sarbanes-Oxley Act), dated November 13, 2003. Filed herewith.
32.1	Certification of the Chief Executive Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated November 13, 2003. Filed herewith.
32.2	Certification of the Chief Financial Officer pursuant to Section 1350 of Chapter 63 of title 18 of the United States Code (Section 906 of the Sarbanes-Oxley Act), dated November 13, 2003. Filed herewith.
99.1	Factors Affecting Future Operating Results for the Form 10-Q for the period ended September 30, 2003. Filed herewith.

b) Reports on Form 8-K

(i) A Current Report on Form 8-K was filed with the Securities and Exchange Commission on July 29, 2003 relating to the Company's announcement of earnings for its quarter ended June 30, 2003.

SIGNATURES

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

AXCELIS TECHNOLOGIES, INC.

Dated: November 14, 2003

By: /s/ Stephen G. Bassett

Stephen G. Bassett
Chief Financial Officer
Duly authorized officer and
Principal financial officer

CERTIFICATION
of the Principle Executive Officer of Axelis Technologies, Inc.
under Section 302 of the Sarbanes-Oxley Act of 2002

I, Mary G. Puma, certify that:

1. I have reviewed this 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 registrant as of, and for, the periods presented in this report;

4. The registrant'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)) for the registrant 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 registrant, 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) Evaluated the effectiveness of the registrant'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

c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant'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 registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant'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 registrant'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: November 13, 2003

By: /s/ Mary G. Puma

Mary G. Puma
President and Chief Executive Officer

CERTIFICATION
of the Principle Financial Officer of Axelis Technologies, Inc.
under Section 302 of the Sarbanes-Oxley Act of 2002

I, Stephen G. Bassett, certify that:

1. I have reviewed this 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 registrant as of, and for, the periods presented in this report;

4. The registrant'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)) for the registrant 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 registrant, 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) Evaluated the effectiveness of the registrant'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

c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant'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 registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant'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 registrant'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: November 13, 2003

By: /s/ Stephen G. Bassett

Stephen G. Bassett
Chief Financial Officer

AXCELIS TECHNOLOGIES, INC.

Certification of the Chief Executive Officer

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

The undersigned Chief Executive Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certify, 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 have executed this Certification as of November 13, 2003.

/s/ Mary G. Puma

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

EXHIBIT 32.2

AXCELIS TECHNOLOGIES, INC.

Certification of the Chief Financial Officer

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

The undersigned Chief Financial Officer of Axcelis Technologies, Inc., a Delaware corporation, hereby certify, 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 have executed this Certification as of November 13, 2003.

/s/ Stephen G. Bassett

Stephen G. Bassett
Chief Financial Officer of Axcelis Technologies, Inc.

Exhibit 99.1
AXCELIS TECHNOLOGIES, INC.

Form 10-Q for the quarter ended September 30, 2003

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 which speak only as of the date on which they are made. In addition, we wish to advise you that 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 which 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.

We anticipate that a significant portion 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 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.

A number of factors may cause semiconductor manufacturers to make reduced capital expenditures, including the following.

Downturns in the semiconductor industry may further reduce demand for our products, harming our sales and profitability.

The semiconductor business is highly cyclical and the industry has been in a severe down cycle since early in 2001, the length of which cannot be predicted. This continues to reduce demand for new or expanded fabrication facilities. Any continuing weakness or future downturns or slowdowns in the industry may adversely affect our financial condition.

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

Inventory buildups in the semiconductor industry, resulting in part from the down cycle, have produced a current oversupply of semiconductors. This has caused semiconductor manufacturers to revise capital spending plans, resulting in reduced demand for capital equipment such as our products. If this 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.

Industry consolidation and outsourcing of semiconductor manufacturing may reduce the number of our potential customers, harming our revenues.

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 a higher percentages of our total revenues are tied to a particular customer's buying decisions.

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. 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.

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 2002, one of our customers, IBM, accounted for 14% of our net sales, and our top ten customers accounted for 64% 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 a significant customer.

Our quarterly financial results may fluctuate significantly and may fall short of anticipated levels.

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. Our lengthy sales cycle, coupled with customers' competing capital budget considerations, make the timing of customer orders uneven and difficult to predict. 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. 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 2001 and 2002 were adversely affected in part as a result of the increased proportion of systems sold to process 300 millimeter wafers. 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 net sales 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. 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.

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

We own 50% of the equity of a Japanese corporation called Sumitomo Eaton Nova or SEN, to which we have granted an exclusive license to manufacture and sell ion implanters in Japan. The remaining 50% of the equity is owned by Sumitomo Heavy Industries, Ltd., a Japanese manufacturer of industrial machinery and shipbuilding. 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 income from operations 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 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 from time to time. Neither Axcelis or Sumitomo has the right to buy out the other's interest in SEN and the SEN joint venture is perpetual, although termination provisions in the license agreement allow either SEN or Axcelis to effectively terminate the joint venture at the end of 2004. SEN has been a very valuable partner to Axcelis since its formation and we expect to renew our license to SEN for a further 5 year term.

From time to time, we have allowed SEN to sell implanters outside of Japan. We allow these sales when the customer requests SEN products. Such requests tend to occur when SEN customers participate, as joint venturers or technical advisors, in fabrication facilities outside of Japan. In those cases, 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, but our primary goal to satisfy our customer with the product of their choice. When these sales are allowed, we act as exclusive agent for SEN to manage the terms of the sales and to ensure that they are consistent with our global product and customer strategies. We receive commissions from SEN on these extra-territorial sales and assume most of the post-installation warranty responsibility.

A decline in sales of our products and services to customers outside the United States would hurt our business and profits.

We are substantially dependent on sales of our products and services to customers outside the United States, which accounted for approximately 70% 62% and 51%, of our net sales in 2000 and 2001 and 2002, respectively. We anticipate that international sales will continue to account for a significant portion of our net sales. 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.

Making more sales denominated in foreign currencies to counteract the strong dollar may expose us to additional risks that could hurt our results.

Substantially all of our sales to date have been denominated in U.S. dollars. Our products become less price competitive in countries with currencies that are declining in value in comparison to the dollar. This could cause us to lose sales or force us to lower our prices, which would reduce our gross margins. Our equity income and royalty income from SEN are denominated in Japanese yen, which exposes us to some risk of currency fluctuations. If it becomes necessary for us to make more sales denominated in foreign currencies to counteract the strong dollar, we will become more exposed to these risks.

We may not be able to maintain and expand our business if we are not able to retain, hire and integrate additional 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 areas where we are based, including the Boston metropolitan area and the Rockville, Maryland area, as well as in other locations around the world. If we are unable to retain our existing key personnel, or attract and retain additional qualified personnel, we may from time to time experience levels of staffing inadequate to develop, manufacture and market our products and perform services for our customers. As a result, our growth could be limited or we could fail to meet our delivery commitments or experience deterioration in service levels or decreased customer satisfaction, all of which could adversely affect our financial results and cause the value of our notes and stock to decline.

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

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. We believe that our available cash, our credit line and our future cash flow from operations will be sufficient to satisfy our working capital, capital expenditure and research and development requirements for the foreseeable future. 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 equity financings may not be possible on attractive terms and would be dilutive to the existing holders of our common stock and convertible notes. Our existing credit agreement contains restrictive covenants and future debt financings could involve additional restrictive covenants, all of which may limit the manner in which we conduct our business.

We may incur costly litigation to protect our proprietary technology, and if unsuccessful, we may lose a valuable asset or experience reduced 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.

On January 8, 2001, we filed a lawsuit against Applied Materials, Inc. ("Applied") in the United States District Court for the District of Massachusetts. The complaint alleged that Applied's medium current/high energy ion implanter machine launched in November 2000 infringes our patent for ion implantation equipment using radio frequency linear accelerator technology. We have also alleged that Applied unlawfully interfered with our existing and future contracts. On January 18, 2001, we filed a motion for a preliminary injunction for the reason, among others, that infringement at the time of transition between equipment capable of handling 200 mm wafers and equipment capable of handling 300 mm wafers would irreparably harm us. Through this motion, we asked the court to stop Applied from manufacturing, selling or offering to sell its medium current/high energy ion implanter machine and to order Applied to remove all Axcelis patented technology from implanters that Applied may have placed in chipmakers' plants for process development trials. Applied filed counterclaims of unfair competition, defamation, and tortious interference with prospective economic advantage, all of which it contends arise from certain communications allegedly made by Axcelis about the lawsuit and its claims of infringement.

A jury trial on the sole issue of infringement commenced on June 16, 2003. On July 2, 2003, the jury issued a verdict in favor of Applied Materials. The Company filed a notice of appeal in August 2003, which was docketed with the Federal Circuit Court for the First Circuit in September 2003. While there can be no assurance of a favorable outcome from an appeal, we continue to believe our claims are meritorious. The appeal is being handled on a capped contingency basis by our outside litigation counsel and we expect the requisite investment in legal expense to pursue this appeal will be minimal. The patent at issue expires in mid 2005.

We 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 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. Any of these situations could have a material adverse effect on us and cause the value of our common stock to decline.