UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): February 1, 2017

Axcelis Technologies, Inc.

(Exact name of registrant as specified in its charter)

Delaware(State or other jurisdiction of incorporation)

000-30941 (Commission File Number)

34-1818596 (IRS Employer Identification No.)

108 Cherry Hill Drive, Beverly, Massachusetts

(Address of principal executive offices)

01915 (Zip Code)

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

(Former name or former address, if changed since last report.)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- o Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02 Results of Operations and Financial Condition

On February 1, 2017, Axcelis Technologies, Inc. (the "Company") issued a press release regarding its financial results for the quarter ended December 31, 2016. The Company's press release is attached as Exhibit 99.1 to this Current Report on Form 8-K and incorporated by reference herein.

Item 9.01 Financial Statements and Exhibits.

Exhibit No.	
99.1	Press Release dated February 1, 2017. Filed herewith.
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SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: February 1, 2017 Axcelis Technologies, Inc.

By: /s/ KEVIN J. BREWER

Kevin J. Brewer

Executive Vice President and Chief Financial Officer

News Release



AXCELIS ANNOUNCES FINANCIAL RESULTS FOR FOURTH QUARTER AND FULL YEAR 2016

Purion Product Family Fuels Axcelis Growth

BEVERLY, Mass. — February 1, 2017—Axcelis Technologies, Inc. (Nasdaq: ACLS) today announced financial results for the fourth quarter and full year ended December 31, 2016.

The Company reported fourth quarter revenue of \$69.4 million, compared to \$65.7 million for the third quarter of 2016. Operating profit for the quarter was \$5.9 million, compared to \$3.6 million for the third quarter. Net income for the quarter was \$4.0 million, or \$0.13 per share. Net income for the third quarter of 2016 was \$2.2 million, or \$0.07 per share. Cash, cash equivalents and restricted cash were \$77.7 million at December 31, 2016, compared to \$72.5 million on September 30, 2016.

For the full year 2016, the Company reported revenue of \$267.0 million, compared with \$301.5 million for the full year 2015. Operating profit was \$16.6 million in 2016, compared to \$20.7 million in 2015. Net income for the year was \$11.0 million, compared to net income of \$14.7 million in 2015.

"2016 was a strong year for the Purion platform as our customer base expanded significantly, and we successfully introduced several new product extensions," said President and CEO Mary Puma. "We expect 2017 to be the start of a solid up cycle for the industry, with robust implant CAPEX spending, providing Axcelis with substantial opportunities for continued growth."

"I am pleased with our financial performance in 2016. We increased gross margins to 37.3%, up from 33.7% in 2015," said Chief Financial Officer and Executive Vice President Kevin Brewer. "We expect to realize further improvements in gross margin in 2017 with continued focus on supply chain optimization, value engineering and lean programs."

Business Outlook

For the first quarter ending March 31, 2017, Axcelis expects revenues of approximately \$80 million dollars. Gross margin in the first quarter is expected to be around 39%. First quarter operating profit is forecasted to be approximately \$7.5-9.0 million with earnings per share of \$0.20-0.24.

Fourth Quarter 2016 Conference Call

The Company will host a conference call today at 5:00 pm ET to discuss the Company's results for the fourth

quarter and full year. The call will be available to interested listeners via an audio webcast that can be accessed through the Investors page of Axcelis' website at www.axcelis.com, or by dialing 866.588.8911 (707.294.1561 outside North America). Participants calling into the conference call will be requested to provide the company name, Axcelis Technologies, and pass code: 47737570. Webcast replays will be available for 30 days following the call.

Safe Harbor Statement

This press release and the conference call contain forward-looking statements under the SEC safe harbor provisions. These statements, which include our expectations for increased spending in our industry and guidance for future financial performance, are based on management's current expectations and should be viewed with caution. They are subject to various risks and uncertainties, many of which are outside the control of the Company, including the timing of orders and shipments, the conversion of orders to revenue in any particular quarter, or at all, the continuing demand for semiconductor equipment, relative market growth, continuity of business relationships with and purchases by major customers, competitive pressure on sales and pricing, increases in material and other production costs that cannot be recouped in product pricing and global economic, political and financial conditions. These risks and other risk factors relating to Axcelis are described more fully in the most recent Form 10-K filed by Axcelis and in other documents filed from time to time with the Securities and Exchange Commission.

About Axcelis:

Axcelis (Nasdaq: ACLS), headquartered in Beverly, Mass., has been providing innovative, high-productivity solutions for the semiconductor industry for over 35 years. Axcelis is dedicated to developing enabling process applications through the design, manufacture and complete life cycle support of ion implantation systems, one of the most critical and enabling steps in the IC manufacturing process. Learn more about Axcelis at www.axcelis.com.

Company Contacts

Investor Relations: Doug Lawson 978.787.9552

Editorial/Media: Maureen Hart 978.787.4266

Consolidated Statements of Operations (In thousands, except per share amounts) (Unaudited)

		Three months ended December 31,			Twelve months ended December 31,				
		2016	2015			2016		2015	
Revenue:									
Product	\$	63,959	\$	64,802	\$	244,295	\$	278,875	
Services	,	5,399	_	5,656		22,685		22,620	
Total revenue		69,358		70,458		266,980		301,495	
Cost of Revenue:				,					
Product		37,745		43,617		149,007		181,060	
Services		4,666		4,868		18,375		18,729	
Total cost of revenue	_	42,411		48,485		167,382		199,789	
Gross profit		26,947		21,973		99,598		101,706	
Operating expenses:									
Research and development		8,795		7,907		34,402		32,586	
Sales and marketing		6,097		5,517		23,839		23,325	
General and administrative		6,190		6,143		24,452		25,059	
Restructuring charges		· —		· —		282		18	
Total operating expenses		21,082		19,567		82,975		80,988	
Income from operations		5,865		2,406		16,623		20,718	
Other (expense) income:									
Interest income		77		48		238		64	
Interest expense		(1,346)		(1,349)		(5,073)		(4,976)	
Other, net		(412)		(50)		(764)		(601)	
Total other (expense) income		(1,681)		(1,351)		(5,599)		(5,513)	
Income before income taxes		4,184		1,055		11,024		15,205	
Income tax provision		219		229		23		527	
Net income	\$	3,965	\$	826	\$	11,001	\$	14,678	
Net income per share:									
Basic	\$	0.13	\$	0.03	\$	0.38	\$	0.51	
Diluted	\$	0.13	\$	0.03	\$	0.36	\$	0.49	
Shares used in computing net income per share:									
Basic weighted average common shares		29,423		28,936		29,195		28,595	
Diluted weighted average common shares			_		_		_		
Diffice weighten average common stigles		31,436	_	30,464		30,947		30,229	

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

	December 31, 2016		December 31, 2015	
ASSETS				
Cash and cash equivalents	\$	70,791	\$	78,889
Accounts receivable, net		50,573		36,868
Inventories, net		113,853		109,408
Prepaid expenses and other assets		29,310		19,652
Property, plant and equipment, net		30,840		30,031
Restricted cash		6,864		6,936
Total assets	\$	302,231	\$	281,784
				,
LIABILITIES AND STOCKHOLDERS' EQUITY				
Accounts payable	\$	24,996	\$	19,849
Accrued compensation		5,142		9,059
Warranty		2,668		3,555
Income taxes		240		143
Deferred revenue		11,009		8,542
Sale leaseback obligation		47,586		47,586

9,135

9,286

Other liabilities

Total liabilities	100,776	98,020
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value, 30,000 shares authorized; none issued or outstanding	_	_
Common stock, \$0.001 par value, 75,000 shares authorized; 29,518 shares issued and outstanding at		
December 31, 2016; 29,025 shares issued and 28,995 shares outstanding at December 31, 2015	30	29
Additional paid-in capital	535,408	529,089
Treasury stock, at cost, no shares at December 31, 2016 and 30 shares at December 31, 2015	_	(1,218)
Accumulated deficit	(331,704)	(342,705)
Accumulated other comprehensive loss	(2,279)	(1,431)
Total stockholders' equity	201,455	183,764
Total liabilities and stockholders' equity	\$ 302,231	\$ 281,784