

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

SCHEDULE 14A
(Rule 14a-101)

INFORMATION REQUIRED IN PROXY STATEMENT

SCHEDULE 14A INFORMATION

Proxy Statement Pursuant to Section 14(a) of the Securities Exchange Act of 1934

(Amendment No.)

Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

Preliminary Proxy Statement

Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))

Definitive Proxy Statement

Definitive Additional Materials

Soliciting Material Under Rule 14a-12

AXCELIS TECHNOLOGIES, INC.

(Name of Registrant as Specified in Its Charter)

VERTEX OPPORTUNITIES FUND, LP
VERTEX SPECIAL OPPORTUNITIES FUND II, LP
VERTEX GP, LLC
VERTEX SPECIAL OPPORTUNITIES GP II, LLC
VERTEX CAPITAL ADVISORS, LLC
ERIC SINGER
EDWARD H. BRAUN
STEPHEN L. DOMENIK
RICHARD J. FAUBERT
JOHN T. KURTZWEIL
PETER J. SIMONE

(Name of Persons(s) Filing Proxy Statement, if Other Than the Registrant)

Payment of Filing Fee (Check the appropriate box):

No fee required.

Fee computed on table below per Exchange Act Rules 14a-6(i)(1) and 0-11.

(1) Title of each class of securities to which transaction applies:

(2) Aggregate number of securities to which transaction applies:

(3) Per unit price or other underlying value of transaction computed pursuant to Exchange Act Rule 0-11 (set forth the amount on which the filing fee is calculated and state how it was determined):

(4) Proposed maximum aggregate value of transaction:

(5) Total fee paid:

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Check box if any part of the fee is offset as provided by Exchange Act Rule 0-11(a)(2) and identify the filing for which the offsetting fee was paid previously. Identify the previous filing by registration statement number, or the form or schedule and the date of its filing.

(1) Amount previously paid:

(2) Form, Schedule or Registration Statement No.:

(3) Filing Party:

(4) Date Filed:

Vertex Capital Advisors, LLC (“Vertex Capital Advisors”), together with the other participants named herein, intends to make a preliminary filing with the Securities and Exchange Commission of a proxy statement and an accompanying proxy card to be used to solicit votes for the election of a slate of director nominees at the 2015 annual meeting of stockholders of Axcelis Technologies, Inc.

On March 3, 2015, Vertex Capital Advisors issued the following press release:

Vertex Capital Advisors Comments on Recent Axcelis Technologies Letter to Stockholders and Appointment of Three New Directors

NEW YORK, NY (March 3, 2015) — Vertex Capital Advisors, LLC (together with its affiliates, “Vertex”), one of the largest stockholders of Axcelis Technologies, Inc. (“Axcelis” or the “Company”) (NASDAQ: ACLS), owning approximately 6.7% of the outstanding common stock of the Company, today issued the following statement:

“We were dismayed to read the February 13, 2015 Axcelis letter to stockholders; a letter we believe to be a fanciful communication whose central purpose appears to be an effort to obscure and divert attention from the longstanding reality at the Company: Axcelis has a storied history of poor operating performance, poor corporate governance, and miserable stockholder returns. It was not until the Company was faced with outside stockholder pressure from Vertex at last year’s annual meeting of stockholders that the Company’s Board of Directors (the “Board”) seemed prodded into action. Many of the “bold” actions the Axcelis Board touts in its letter to stockholders, appear to have been undertaken in reaction to our involvement and suggestions we made to the Company to create stockholder value.

In our view, Axcelis is a textbook example of one of the principal defects in today’s corporate world; the concentration of power and decision-making authority in bureaucratic, self-perpetuating boards and management teams that too often lack the vision, business acumen, and objectivity required to skillfully direct operations and maximize value for the people they represent and must ultimately be responsible to, the stockholders. Nowhere is this demonstrated more clearly than in the Company’s recent letter.

We strongly believe in the Company’s potential and, because of that, have over \$20 million invested in the Company. But in light of its poor historical track record, which extends over a decade now, we simply do not have confidence in the current Board’s ability to properly oversee management and protect the interests of stockholders. While the Company’s three newly proposed nominees for election at the 2015 Annual Meeting of Stockholders (the “Annual Meeting”) may help improve oversight, we note that none have any relevant ion implantation experience and two have no outside board experience. We fail to see how these new nominees are better than the more highly-qualified individuals we have nominated. Stockholders should question whether the addition of three new individuals nominated by the same Board that has failed Axcelis stockholders for so long, is just a textbook defensive move from an entrenched board. **We believe that significant changes must still be made to the composition of the Board.**

We note that two of the newer additions to the Board - Arthur George, Jr. and Joseph Keithley - who were apparently part of the Board’s “refreshment” process, are questionable choices in our opinion to ensure good corporate governance and straightforward thinking, since both serve as directors of Nordson Corporation, together with Axcelis’ Chief Executive Officer and President, Mary Puma. **It is unfortunate that the Board has chosen not to meaningfully engage with us on the composition of the Board and has instead decided to drag Axcelis into a costly and unnecessary proxy contest.**

The Board’s rejection of our most recent settlement proposal, which was designed to hold the Company accountable for the reasonable and achievable financial targets they set, is an illuminating example of the lack of accountability at Axcelis that has led to a generation of underperformance. Based on the Company’s persistent inability to deliver upon its stated financial goals, we believe the Board’s rejection of our settlement proposal is just another act of self-preservation and entrenchment.

At the Annual Meeting, Axcelis stockholders will finally have a real choice; stick with the status quo (and trust the current management and Board to attempt to finally deliver results) or elect a slate of truly independent, experienced nominees that will hold Axcelis management accountable. **We strongly believe our highly qualified nominees have the experience, skills and much needed independence to help Axcelis become the premier player in ion implantation.**

**AXCELIS STOCKHOLDERS HAVE SUFFERED SIGNIFICANT LOSSES
UNDER THE DIRECTION OF THE AXCELIS BOARD**

Consider the following:

- à Under the 13 year tenure of the current CEO, Mary Puma, the Company underperformed the Nasdaq index by 218.3% prior to the filing of our Schedule 13D on September 16, 2014 (the “Schedule 13D filing”).
 - à Since March 17, 2008, when the Board rejected an unsolicited cash proposal worth \$6 per share from Sumitomo Heavy Industries, Ltd., arguing that the offer undervalued the Company, Axcelis has lost 62.7% in market value, underperforming the Nasdaq index by 171.8% prior to our Schedule 13D filing, and never trading as high as \$6 since such offer.
 - à Since 2011, the year Axcelis anxiously points to in its February 13th letter to stockholders, the Company only generated meager profits in four quarters – the best was a paltry \$0.04 profit. **Losing money is apparently the norm under current management!**
 - à In Q4 2014 – a quarter that benefited from strong cyclical tailwinds in the industry – the Company recorded only 0.3% net income margin.
 - à Indeed, in Q4 2014, the Company recorded 30% gross margin, while Applied Materials Inc., its main competitor, did north of 40%. In fact, over the past twenty earnings calls, management has reiterated a low 40% gross margin target – which should be achievable – but again and again they have failed their own words and gross margins remain at 30%.
 - à Over the last ten years, cumulative operating losses have exceeded \$153,000,000.
 - à Over the last five years, the same management team cost stockholders \$46,000,000 of cumulative operating losses, during a period when the industry has prospered.
 - à Meanwhile, during that same 10 year and 5 year period, Mary Puma, the CEO, earned over \$9,200,000 and \$3,700,000, respectively. What value did Ms. Puma create for stockholders? When she took over as CEO **in 2002, Axcelis had about \$21 million of retained earnings; now, the Company is sitting on \$351 million of cumulative deficit.**
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Witnessing this tremendous destruction in value, members of the Board appear to have simply collected their director fees without taking any significant proactive actions. While stockholders have suffered losses, most of Axcelis' directors have individually earned \$900,000 to \$1,000,000 over the last 10 years. Collectively, these directors received a "king's ransom" at the expense of the stockholders for presiding over a devitalized entity plagued by long-term underperformance.

THE AXCELIS BOARD AND MANAGEMENT ONLY TOOK ACTION AFTER VERTEX PUBLICLY CRITICIZED THE COMPANY AT LAST YEAR'S ANNUAL MEETING

It was not until the 2014 annual meeting of stockholders, when Vertex openly criticized the Board, the methodology of its financial guidance and its cost structure, that the Board was finally pressured into initiating some changes to create value. While we were encouraged to see the Board institute certain cost-cutting measures, we believe much more must be done. We are also encouraged by the Company's plans to appoint an independent chairman after the Annual Meeting, another suggestion from Vertex, but have significant concerns that the Board will simply select an individual who agrees to follow the long-term plans of CEO Mary Puma and will therefore not ensure accountability.

AXCELIS' FEBRUARY 13 LETTER TO STOCKHOLDERS RAISES SIGNIFICANT CONCERNS

Yet another mirage that we believe the Company's letter to stockholders appears to create is the "castle in the air" image that this is a board open to the opinions of others, that seeks to select highly qualified individuals to the Board and management and has the critical ability to meet the challenges of the present, as well as the foresight to plan for the future. In our view, nothing could be further from the truth. We see an insular board, built on a foundation of personal ties and interlocking affiliations among board members. Consider the following:

- The first nominee added as a director following the Board's purported "refreshment" process in 2011 is a director who sat on the board of another company with CEO Mary Puma.
 - The questionable appointment of Joseph Keithley, in particular, appears to put into bold relief the longstanding and ongoing agenda of Mary Puma and "her Board," namely, the unambiguous attempt to entrench itself in power and dominate the agenda of the company. We question how any reasoning individual can think otherwise, when the first action the Board led by Mary Puma takes to initiate good governance, in 2011, is to appoint "one of its own"?
 - The Board re-appointed three directors, John Fletcher, Stephen Hardis, and H. Brian Thompson, each of whom received withhold votes of over 57% of the shares voted at the 2008 annual meeting of stockholders. ***Why has the Board allowed these so called "zombie" directors, who make up the compensation committee, to continue to serve on the Board today?***
 - **The Board re-appointed Mr. Thompson after he had the distinction of receiving withhold votes of greater than 50% again in 2014.** This is an outrageous repudiation of the wishes of stockholders.
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- Why did it take outside pressure from stockholders before two of these three “zombie” directors agreed to resign from the Board after the 2015 annual meeting of stockholders?
- **At least 25% of the shares cast at the last two annual meetings of stockholders have been voted against the entire Board.**
- **Why are the Company’s “new” director nominees being hand-picked by the “old” Board?**

This is hardly a recipe for far-reaching improvement. Rather, it appears to be yet another conspicuous example of self-preservation. This Board does not appear “investor friendly” and welcoming of stockholder feedback. Instead, it appears to be a closely-knit group that is far-removed from the people it should be working for....stockholders.

- **Why have members of Axcelis’ management team sold virtually all of their stock?** Within the last two weeks, Kevin Brewer (EVP/CFO), William Bintz (EVP/ Product Development and Engineering), and Douglas Lawson (EVP/Corporate Marketing & Strategy) have sold 71,007, 85,000 and 80,250 shares, respectively.
- **The Axcelis board and management own less than 2% of Axcelis stock. What does this suggest about their level of confidence in the Company and alignment of interests with stockholders?**

VERTEX’S INTERESTS ARE ALIGNED WITH ALL AXCELIS STOCKHOLDERS

Unlike the Axcelis Board and management who have no material investment at stake in Axcelis, Vertex has over **\$20 million** invested in Axcelis. Clearly our interests are fully aligned with all of our fellow stockholders. When the Board made it abundantly clear that it was unwilling to meaningfully engage with us on the composition of the Board, we had no choice but to nominate principled, conscientious, independent, and forward-looking individuals, each with a record of solid accomplishment, to the Board. Indeed, we believe it was largely because of our constructive efforts to engage the Board that the Board finally felt enough pressure to reach out to stockholders.

Stockholders must demand clear-headed, independent agents of change, not Board members who we believe will perpetuate the status quo frame of mind. There is, however, one thing that the present Board knows, and knows full well: a proxy fight is a strenuous and time-consuming exercise. Even more concerning, it is a costly expenditure of stockholder money. Unfortunately this is the path that the Board has chosen to take.”

Investor Contact

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CERTAIN INFORMATION CONCERNING THE PARTICIPANTS

Vertex Capital Advisors, LLC, together with the other participants named herein (collectively, "Vertex"), intends to make a preliminary filing with the Securities and Exchange Commission ("SEC") of a proxy statement and an accompanying proxy card to be used to solicit votes for the election of a slate of director nominees at the 2015 annual meeting of stockholders of Axcelis Technologies, Inc. (the "Company").

VERTEX ADVISES ALL STOCKHOLDERS OF THE COMPANY TO READ THE PROXY STATEMENT AND OTHER PROXY MATERIALS AS THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION. SUCH PROXY MATERIALS WILL BE AVAILABLE AT NO CHARGE ON THE SEC'S WEB SITE AT [HTTP://WWW.SEC.GOV](http://www.sec.gov). IN ADDITION, THE PARTICIPANTS IN THE SOLICITATION WILL PROVIDE COPIES OF THESE MATERIALS WITHOUT CHARGE UPON REQUEST.

The participants in this solicitation are anticipated to be Vertex Opportunities Fund, LP ("Vertex LP"), Vertex Special Opportunities Fund II, LP ("VSO II"), Vertex GP, LLC ("Vertex GP"), Vertex Special Opportunities GP II, LLC ("VSO GP II"), Vertex Capital Advisors, LLC ("Vertex Capital"), Eric Singer, Edward H. Braun, Stephen L. Domenik, Richard J. Faubert, John T. Kurtzweil, and Peter J. Simone.

As of the date hereof, Vertex LP beneficially owns directly 956,709 shares of Common Stock of the Company ("Common Stock"). As the general partner of Vertex LP, Vertex GP may be deemed to beneficially own the 956,709 shares of Common Stock owned directly by Vertex LP. As of the date hereof, VSO II beneficially owns directly 6,501,959 shares of Common Stock. As the general partner of VSO II, VSO GP II may be deemed to beneficially own the 6,501,959 shares of Common Stock owned directly by VSO II. As the investment manager of Vertex LP and VSO II, Vertex Capital may be deemed to beneficially own the 956,709 shares of Common Stock owned directly by Vertex LP and the 6,501,959 shares of Common Stock owned directly by VSO II. As of the date hereof, Mr. Singer does not directly own any shares of Common Stock. Mr. Singer, as the managing member of Vertex GP, VSO GP II and Vertex Capital, may be deemed to beneficially own the 956,709 shares of Common Stock owned directly by Vertex LP and 6,501,959 shares of Common Stock owned directly by VSO II. As of the date hereof, Mr. Braun beneficially owns directly 10,000 shares of Common Stock and may be deemed to beneficially own 80,000 shares of Common Stock underlying stock options that are currently exercisable. As of the date hereof, none of Messrs. Domenik, Faubert, Kurtzweil or Simone own any shares of Common Stock.