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Q1 2019 Atomera Inc Earnings Call

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PRESENTATION

Operator

Good afternoon, and welcome to the Atomera First Quarter 2019 Earnings Call. (Operator Instructions) This event is being recorded and will be available for replay for approximately 1 week.

I would now like to turn the conference over to Mike Bishop. Please go ahead.

Mike Bishop

Thank you, Sherry, and good afternoon. I'm Mike Bishop with the company's Investor Relations. Joining me on today's call is Scott Bibaud, Atomera's President and CEO; and Frank Laurencio, Atomera's CFO.

If you are joining by telephone, please go to the Events section of our Investor Relations page on our website to follow a slide presentation that accompanies our remarks. That presentation will remain available on our website after the call. After prepared comments by Scott and Frank, we will open up the call for your questions.

Before we begin, I would like to remind everyone that during today's call, we will make forward-looking statements. These forward-looking statements, whether in prepared remarks or during the Q&A session, are subject to inherent risks and uncertainties. These risks and uncertainties are detailed in the Risk Factors section of our filings with the Securities and Exchange Commission, specifically in the company's annual report on Form 10-K filed with the SEC on March 11, 2019.

Except as otherwise required by federal securities laws, Atomera disclaims any obligation to update or make revisions to such forward-looking statements contained herein or elsewhere to reflect changes in expectations with regards to those events, conditions and circumstances.

Also please note that during this call, we will be discussing non-GAAP financial measures as defined by SEC Regulation G. Reconciliations of these non-GAAP financial measures to the most directly comparable GAAP measures are included in today's press release, which is posted on our website.

Now I would like to turn the call over to our President and CEO, Scott Bibaud. Go ahead, Scott.

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

Thank you, Mike, and good afternoon, everyone. I'm glad you can join us today for a review of our first quarter results. After my remarks, I will turn the call over to Frank so he can go over our financial results, and we will open it up to questions.

Atomera is a materials and intellectual property licensing company with a proprietary transistor enhancement film called Mears Silicon Technology, or MST. Our company develops new materials designed to improve the performance of semiconductors and helps our customers integrate them into the manufacturing flow of both existing and new fabs.

Our technology can address the slowdown in Moore's Law by providing new materials and integration techniques to the industry, which will improve performance, cut power consumption and decrease product costs.

Atomera is not a manufacturer. We are an IP provider, granting customers the right to manufacture using our technology in exchange for a license fee and royalty payment upon shipment of their products.

Before I share updates on the customer front, I'd like to tell you about some exciting outcomes from our recent engineering efforts. Q1 has been a quarter of breakthroughs for Atomera. All of us within the company feel that we have turned the corner that will lead to accelerated success for the company. I'd like to share with you 3 of our breakthroughs, two in summary form due to customer confidentiality and the third in more detail.

During the last 3 months, we have gotten some extremely promising data from our ongoing wafer runs. One of the big breakthroughs has been in the industry's more advanced production nodes.

Atomera, in partnership with UC Berkeley School of Engineering and Notre Dame's Engineering Department, has published papers in the past detailing the advantages that MST could bring to both high-k metal-gate and FinFET products. These papers are based on simulation models and only limited experimental results since the advanced process nodes are not widely accessible and our extremely expensive, but they all show impressive performance improvements with MST. Over the last few months, we've had multiple test results from actual silicon runs, which have validated those fundamental mechanisms.

It's always been Atomera's goal to have MST become a material included in the industry's international technology road map for semiconductors. And these results take us a step closer to that outcome. Unfortunately, since this is customer data, I can't share more details, but the results move us closer to monetizing engagements in industry's newest product types production nodes and to ensure that MST has a presence in future process development.

A second set of customers' results proves that our MST technology is likely to become an important enabling technology for the 5G cellular space. Several years ago, Atomera worked with engineers from Texas Instruments and Sumatec in Austin to demonstrate the benefits of MST on silicon, on insulator or SOI technology. We showed that MST provided approximately a 30% improvement in performance. During the last 3 months, we've gotten results from customer wafers, which reinforce the great potential of MST in these technologies.

As you know, the high bandwidth of 5G cellular has driven a proliferation of extremely high-frequency transmission bands in ranges as high as 100 gigahertz. To make integrated switches in RF devices for these challenging frequencies, the industry has turned to SOI technology. Based on analyst reports, market analysis and conversations with customers, we believe this will be an important growth trend in the semiconductor space. Some analysts have predicted a tenfold increase in dollar value of RF switches in a 5G phone over the 4G phones in production today. And it is now clear and validated that MST can be a key contributor to the performance requirements needed to be successful here. Already we are working with multiple customers in this space. So we now believe that MST will be an important technology for the 5G rollout.

I'm most excited to tell you about our third breakthrough, which we also announced in the press release today and which we believe has the potential to transform the industry and Atomera. As you know, when Atomera went public, we had 3 customers, who all were working with us in the analog market. Although today, we are much more diversified, more than 1/3 of our customer engagements are still in the analog space. And it's a very lucrative place to be with about 15% of total 300-millimeter wafer output going to the space this space this year.

For long time, we've been talking about the challenges faced by these customers. They're working on old technology, which has been so optimized over the last 25 years that they're happy to get just a few percentage points of improvement in performance per year.

In our first meeting with them, we typically tell them we can bring a 15% to 20% performance improvement or more, which seems too good to be true. But it does take time. Usually, in the first run or 2, they've achieved greater than a 10% improvement and then we focus on fixing integration issues to get the number higher, maybe 14% on the next run and more on the next.

Internally, we're also running our own R&D wafers. And up until March, we were consistently able to get a 17% or 18% mobility

improvement over a non-MST baseline device. And we are regularly making integration changes to move that number a little higher, so we could help our customers get the same improvements.

Since the industry looks at 15% to 20% as the target for within node improvement for a redesign, 18% should be good enough to justify going to production. But we also had the feeling we were not revealing the full potential of MST. Recently, our engineers came up with a brilliant idea of how to combine our MST film with a smarter way of doping the transistor to get a much bigger improvement. Normally, that doping technique is not something that the industry would use, but we believe that MST could prevent the problems that typically keep it from succeeding. So we built some wafers, tested them and got some very promising results. Then we ran more wafers to quantify the size of the improvement we should expect. We just got the results back 2 weeks ago. Our internal test showed up to a 15 -- 50% improvement when we used MST with our smart profile engineering. As you can imagine, our team was very excited.

For the more technical listeners, this was for 5-volt NMOS analog component typically used for switches and power management. Test results showed up to a 50% improvement in specific on-resistance for short channel devices as well as a further improvement in breakdown voltage of the device.

When we attempted to try the smart profile doping technique without MST, it did not show an improvement, validating that it was MST that brought the benefit. I should emphasize that this is not a new film. It's just a different integration technique, which unleashes much more of the potential of MST, meaning it should be relatively easy to adopt and should not cause a reset of testing efforts among existing customers.

Now I do want to caution that this is 2-week-old data. We're just starting to share with customers. But this is the type of breakthrough we've all been waiting for and it can mean several great things for our business.

First, it is directly applicable to about 1/3 of the customers we're working with today. Second, at these performance improvement levels, we believe customers will move much faster to license and to get into production. Third, of course, greater improvement also means our customers get more benefit, meaning there is more money in the value chain, giving us more strengthen in our negotiations. Fourth, whereas customers may wait until a planned process change to incorporate an 18% improvement, we believe they will accelerate plans for a process change to take advantage of these higher performance levels enabled by MST smart profile engineering. And finally, although we're talking about this improvement for 5-volt analog initially, we believe it is applicable to even more process technologies possibly speeding our licensing efforts in many other product areas as well.

As for sharing results, the good news is that this is data that we own. So we have a lot more freedom to share the results than work we do with our customers. We will be providing more information on this breakthrough technology through our blog, in white papers and with deeper analysis from industry reporters over the next few months.

Now let me bring you up to speed with the latest on our customer pipeline. As a quick overview to our reporting methodology, Atomera represents customer activity with the phases of engagement shown here. Phase 1 includes customers under NDAs who are planning an evaluation of our technology. In Phase 2, we deposit MST film on customers wafers and conduct fiscal characterization. Phase 3 is where customers incorporate MST on their wafers during an R&D run in their fab and use the test results to justify licensing our technology.

It is generally in Phase 3 that we are most likely to sign license agreements with customers. In fact, both our existing licensees are in Phase 3. Phases 4 and 5 are where customers install our technology in their fab, execute both manufacturing and distribution licenses and transition to production.

Over the last quarter, we've seen continued new customer interest, and it shows in the growth of our total engagement count and especially with those in Phase 1. In the last quarter, we've had 2 customers drop out of Phase 3. One of the customers has been working with us for about 2 years, but had a change in their company strategy, which has caused them to cancel their program.

We are in discussion with them about re-engaging on another program, so they have now been downgraded back into Phase 1. The second customer, who left Phase 3, was a smaller fast-moving company, who just started working with us late last year. Just as quickly

as they decided to start working with us, they decided that they did not have the budget to sustain development. These customers are the first we've ever had leave Phase 3, but I don't view either of them as indicative of a systemic problem. Consistent with our commentary in prior quarters, we expected that these fast-moving customers may come and go quickly, and this is one that may come back in the future. Indeed, with the new data we spoke about earlier, I would not be surprised to see them reengage with us soon.

Based on only about a week of discussions with customers, I also anticipate a rapid expansion of our pipeline over the coming quarters. Exiting this quarter, we're up to 22 customer engagements with 17 different customers, representing at least 50% of the industry's largest players.

Our 2 licensees, ST and AKM, continue to run wafers with us and make progress towards their ultimate production goals. I know there was strong interest in the investment community for progress updates on these customers, but we are limited by confidentiality agreements and what we can share. We can simply tell you that things continue to move forward with these 2 customers and the relationship is strong.

As discussed on the last call, the current industry slowdown has not negatively affected Atomera. Although we have heard from 1 customer about R&D spending reductions, we have not seen this as a widespread trend in the industry. Indeed, we believe it may be positively benefiting us because industry players typically look for technology improvements during slow periods and the throughput of R&D wafers to underutilize fabs are typically faster.

The last 3 months have been truly a leap forward for Atomera. We believe these new performance improvement levels will transform our engagements, getting both customers and Atomera to meaningful financial results much more quickly. It is still early days, so we've only had a chance to share our results with a few customers, but the reaction has been very enthusiastic.

The Atomera team is similarly excited. These results are indeed a breakthrough, and we believe that in the future, this period will be viewed as a critical turning point for the company. Of course, we need to translate those results into accelerated revenue and move towards probability. By achieving breakthrough results in 3 different technology areas, we believe we are in a better position to make that happen than at any time in our history.

In the near future, I expect we will start to see a flow of new customers and faster time to license and production with existing customers. Why? Because MST is addressing the needs of a broad swath of a semiconductor industry with technology that can bring significant improvement today.

Let me now turn the call over to our CFO to discuss our financial results. Frank?

Francis Laurencio ***Atomera Incorporated - Chief Financial & Accounting Officer***

Thank you, Scott. At the close of the market today, we issued a press release announcing our operating and financial results for the first quarter of 2019. Our summary financial results are shown here, and I will now review them in more detail.

Our GAAP net loss for the 3 months ended March 31, 2019, was $3.5 million or $0.24 per share compared to a net loss of $3.1 million or $0.26 per share in the first quarter of 2018.

Our higher net loss was primarily due to increased operating expenses, which were $3.7 million in the first quarter of this year as compared to $3.1 million in the first quarter of 2018.

Now let me share some color on the components of operating expense. Our R&D expense in Q1 2019 was $2.1 million, an increase of approximately $436,000 from $1.7 million in Q1 2018. This increase was mainly due to higher spending on outsourced fabrication and test supporting both customer evaluations and internal R&D work and higher payroll and stock-based compensation expense due to increased headcount.

Our general and administrative expense in Q1 2019 was $1.3 million, which was an increase of $119,000 from $1.2 million in Q1 2018 and

reflected higher stock-based compensation expense as well as higher benefits and insurance costs.

GAAP net loss on a per share basis declined to $0.24 per share in the first quarter of 2019 from $0.26 in Q1 2018, primarily due to an increase in weighted average shares outstanding to 14.8 million in Q1 2019 as compared to 12 million shares in Q1 2018.

Non-GAAP adjusted EBITDA in the first quarter was a loss of $2.9 million compared to a loss of $2.6 million in Q1 2018, reflecting the same reasons I discussed in explaining our GAAP results.

Our press release in this slide contain a reconciliation of our GAAP and non-GAAP results. As you can see, the major difference between our GAAP and non-GAAP results is stock-based compensation expense, which is a noncash item. Our stock compensation expense in Q1 2019 was $694,000 as compared to $545,000 in Q1 2018.

Looking now at the results on a sequential quarterly basis. First quarter 2019 GAAP net loss was $3.5 million compared to a GAAP net loss of $3.2 million in the fourth quarter of 2018. The sequentially higher net loss was primarily due to an increase in operating expense from $3.2 million in Q4 to $3.7 million in Q1 as well as a decline in revenue from $150,000 in Q4 to $71,000 in Q1 of this year. Stock-based compensation expense increased slightly to $694,000 in Q1 compared to $629,000 in Q4.

Non-GAAP adjusted EBITDA loss of $2.9 million in Q1 compared to a loss of $2.7 million in Q4 of last year, again, reflecting the same factors discussed for our GAAP results. Our stock-based compensation expense did not change significantly quarter-over-quarter.

Turning to the balance sheet. Our cash at March 31, 2019 was $15.1 million. And at the end of 2018, our cash balance was $18.9 million. Our cash consumption of $3.8 million compares to $2.8 million in Q1 2018 and $2.4 million in Q4 of 2018.

As has been the case since our IPO, cash usage in the first quarter of each year is higher than in other quarters, due to the timing of annual payments that are expensed ratably over the course of the year on our income statement.

Specifically, these larger first quarter items consist of the payout of cash bonuses relating to the prior year, payment of annual insurance premiums, annual stock exchange listing fees and certain annual software licenses.

During the full year 2018, excluding proceeds from our October equity financing, we consumed $9.8 million of cash and had $10.8 million of non-GAAP operating expenses.

On our February update call, I gave guidance that 2019 non-GAAP operating expense would increase by between $1 million to $2 million in 2019 or to a range of $12 million to $13 million. The reasons why we expect increased spending are increased wafer runs for internal R&D, which is already yielded a very promising results that Scott described, increased customer evaluation runs and our anticipated need later in the year to lease an additional EPI deposition tool.

As in 2018, our cash consumption this year will be lower than our non-GAAP operating expense, due to noncash expense items as well as cash collections on licenses and engineering services. We are still in the very early stages of generating revenue, so we are not providing full year guidance on revenue. But our monthly run rate, excluding the annual Q1 payments, is consistent with gross cash use that is exclusive of cash collections of between $11 million to $12 million for 2019.

Our headcount is now 17 full-time employees, which includes 1 new engineer hired this January. During Q1, we recognized $71,000 of revenue, all of which was from our 2 licensees; AKM and STMicroelectronics.

I want to review our revenue recognition on licenses in a little more detail because the ASC 606 standard is still fairly new and our business model involves 3 different types of license grants. The 3 types of license grants are integration licenses, manufacturing licenses and distribution licenses.

Our licenses to AKM and STMicro are integration licenses, which grant those customers the right to integrate MST on their wafers. Under

an integration license, Atomera deposits the film on wafers sent to us by the customer, and we ship them back to the customer who finishes building the wafer with completed semiconductor devices on them, at which point they perform physical and electrical tests. Because we have to deposit our film on the wafer, this work is considered a performance obligation under ASC 606, and we can only recognize revenue when we have met that performance obligation, not immediately upon contract signing.

If contracts specify the time and quantity of wafer delivery, we would recognize revenue as we deliver wafers to our customers. But when there is no specified quantity or delivery date, we recognize revenue ratably over the period during which the customer is entitled to receive wafers. That period could be explicitly stated in the contract. Or if it's not specified, we use the period that we estimate for wafer deliveries.

Neither the STMicro nor the AKM contracts specifies delivery quantities or dates. So the $71,000 of revenue this quarter is the ratable revenue recognition from licenses with those 2 customers.

As of March 31, our deferred revenue balance was $34,000. Manufacturing licenses grant customers the right to deposit MST on their wafers in their own fab, but the customers can only use those wafers for internal testing. In order to sell wafers to third parties, a customer must buy a distribution license from us and we will also collect royalties on actual wafers sold.

I will provide additional color on the revenue recognition for manufacturing and distribution licenses on later calls as we announce those types of contracts.

Given the ratable revenue recognition on the integration licenses with STMicro and AKM and the fact that we have not signed any new license agreements, we expect license revenue in Q2 to be roughly in line with Q1.

We also continued to work with customers and engineering services engagements. But as I've discussed on prior calls, the timing of engineering services revenue is difficult to predict because our work for customers is highly dependent on their fab capacity.

Our outstanding share count as of March 31, 2019 was approximately 15.3 million shares.

Now Scott will give a few summary remarks before we open up the call to questions. Scott?

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

Thanks, Frank. Q1 was a quarter of major innovation for Atomera. Our team is very excited because it appears that we have unlocked a whole new level of performance in a wide variety of segments all over just a few months. This new work will extend our already very strong IP portfolios, which this quarter has exceeded over 200 patents granted and pending. Our engineers continue to innovate with new ways to improve results for customers across more process nodes and technologies than we were a year ago.

Atomera is delivering compelling solutions to some of the most difficult problems in the semiconductor industry. And unlike other exotic options, the technology is available today. It is very clear that the Atomera of today is far more valuable than at any point in the life of the company. Our years of innovation and investment are starting to pay off. We look forward to sharing more information on our technology and business with you as we continue to build Atomera into an important and successful technology provider to the semiconductor industry.

Operator, we will now take questions.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) Our first question comes from Cody Acree with Loop Capital.

Cody Grant Acree ***Loop Capital Markets LLC, Research Division - MD***

And congrats on the progress. Just a point of clarification, Frank, I had a drop off. You said your cash burn in the quarter was what?

Francis Laurencio ***Atomera Incorporated - Chief Financial & Accounting Officer***

$3.8 million in the quarter.

Cody Grant Acree ***Loop Capital Markets LLC, Research Division - MD***

$3.8 million. And then you made a comment that $11 million to $12 million for the year. Is that correct in '19?

Francis Laurencio ***Atomera Incorporated - Chief Financial & Accounting Officer***

Yes, that's right. That's the guidance.

Cody Grant Acree ***Loop Capital Markets LLC, Research Division - MD***

Okay. And so your -- so let me just make sure I've got this correct with your monthly revenue run rate, you are again expecting $11 million to $12 million exiting 2019, are you expecting to be at the breakeven level by the end of this year on a run rate basis?

Francis Laurencio ***Atomera Incorporated - Chief Financial & Accounting Officer***

Well, as I said earlier, we're not giving revenue guidance for the full year. But consistent with what I've said before, that is possible based on engineering services engagements or getting customers to, what we call, Phase 4, which will be manufacturing licenses, which involve larger upfront fees than the integration licenses. So it's depended on those -- on the revenue side, which, again, as I said, we're not giving full year guidance.

Cody Grant Acree ***Loop Capital Markets LLC, Research Division - MD***

Scott, 2 engagements dropped for Phase 3. Can you talk just a little bit more about the reasoning, was there any concerns, issues about the performance they expected versus performance that we're seeing? And did that play into the decision at all?

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

So as I mentioned 2 customers, one -- and we have been working with for a longer time. We are working in 1 particular segment with them and their company made a decision about what they're going to do in that segment. And so they didn't want to continue with further internal development for it. And so they canceled that program. We -- as I said, we're still in discussions with them about another segment. So I don't think it was performance related.

The second customer, yes, I mean, with them, we didn't even really get a chance to complete a full set of runs and the analysis that we do and try to figure out how good or how bad the performance was and plan for next steps before they just decided that they didn't have the budget. And so -- I've been talking about this for some time. We now -- we decided a year ago or more, we wanted to start engaging with some smaller customers because they move fast. They make quick decisions. We can work with their senior management directly and get by in. But at the same time, they also can decide to change their mind very quickly and that's what happened in this case. The remainder of our engagements in Phase 3 are strong and steady. And I don't see this happening with other folks on the horizon. As a matter of fact, with our new performance levels that we've been talking about, just in the past week, we've been in phone calls with customers. I think universally, they think this is really amazing results that we're presenting and we're going to be meeting with all of them and giving details of it, and I wouldn't be surprised to see growth in our customer pipeline related to that.

Cody Grant Acree ***Loop Capital Markets LLC, Research Division - MD***

And then lastly, just on the MST SP with the initial application like switches and power management, do you have an estimation of the size of applicability of that technology? What kind of market you might be able to service just within that? And then where that natural extension of that technology be beyond switches and power management?

Francis Laurencio ***Atomera Incorporated - Chief Financial & Accounting Officer***

Yes. I think the data that we saw just looking at published market size data of about $469 billion semiconductor market for last year. If you looked at power management and 15% in total.

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

Yes. I mean -- yes, about 15%. I mean, from our quick analysis, it looked like about 15% of the total market would be -- would fall into this category with power and analog, right? But the -- and I think one of the things that you need to understand about our announcement is we have been working with a lot of customers on the specific 5-volt problem. As a matter of fact, as I said, it's more than 1/3 of the customers that are in our overall pipeline. And those customers -- the reason why so many customers working on the 5-volt problem is because it's a very popular technology. I think, Cody, you're very schooled in this analog space and know how important the 5 volt is for mobile phones and any kind of battery products and a whole bunch of other areas. And it's been a very, very intractable problem that we've been working on for a long time and our customers have been interested in the solution. I think they're very interested in our solutions at 15%, 16%, 18%, 20%. At 50%, it's like a game changer. So I know this is early. I know it's kind of technical for many investors to just look at it and understand on the face of it, but I would encourage people to go out and like do a little bit of research on the importance of (inaudible) for these type of products and you get a very good idea about the potential of it.

Operator

(Operator Instructions) Our next question comes from Suji Desilva with ROTH Capital.

Sujeeva Desilva ***Roth Capital Partners, LLC, Research Division - Senior Research Analyst***

Congratulates on the progress made in these last 3 months.

Francis Laurencio ***Atomera Incorporated - Chief Financial & Accounting Officer***

Thank you, Suji.

Sujeeva Desilva ***Roth Capital Partners, LLC, Research Division - Senior Research Analyst***

So on the comment, Frank, you made about the ratable recognition of the AKM and STM, right, I mean, you said the customers did not specify delivery date. So in that case, what period is this being ratably recognized over? I just wasn't clear on that.

Francis Laurencio ***Atomera Incorporated - Chief Financial & Accounting Officer***

Yes. So basically, it will all be recognized by the end of Q3. So we sign the contracts in -- at the beginning of Q4 last year. So basically, we'll have recognized all of the revenue from those 2 contracts during 1 year.

Sujeeva Desilva ***Roth Capital Partners, LLC, Research Division - Senior Research Analyst***

So 1 year time frame. Okay. Good. And then another question on the numbers you gave. You gave customer total of 17 and engagements of 22 versus 17 and 21 last quarter. How did the 2 folks that dropped out of the third -- Phase 3 factor in here? Is that -- are the 1Q numbers net of those? Or are they still in there? Can you just clarify that for me?

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

Well, one of the customers didn't drop out entirely. They moved from Phase 3 to Phase 1. So that customer is still in the pipeline, but -- and they were just like 1 engagement. And then we -- yes, I'm trying to remember, we had 1 or 2 customers enter into the Phase 1. Yes, so we had 2 additional engagements begin in Phase 1. One was with a customer who added a second technology node and the other one was a new customer.

Sujeeva Desilva ***Roth Capital Partners, LLC, Research Division - Senior Research Analyst***

That helps. I do remember you said you had another project going with the one that dropped the Phase 3 project. So I understand why the customer is still there. That makes sense. Okay. And my third question really is around the weaker macro environment that's happening now and you said kind of hypothetically that people would have more free time to potentially progress evaluating MST or would be able to run more tests. Are you actually seeing that manifest, Scott, in this environment? People being able to pull in projects that maybe would have taken a little longer given the environment?

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

Yes. We did see some of that in Q1. And I'm hopeful we continue to see it. In my long experience in semiconductors, I know a bunch of people on this call have the same. I've seen a lot of slowdowns that started in Q4. And by the second half of Q3, you've forgotten that

they were there, right? So I hope we can -- I mean, it's our goal to really try to take advantage of this time period when there's a little bit more space in the fabs. We're pushing our customers very hard to start a lot of wafer runs and get results that we can work with quickly.

Sujeeva Desilva ***Roth Capital Partners, LLC, Research Division - Senior Research Analyst***

All right. I guess you appreciate it can be a narrow window and that's probably accurate. But my other question is around the -- as you have these initial integration licenses, I know you're not giving revenue guidance or sort of notion of when manufacturing licenses come in. But what's the framework for us to think about that how the timing of manufacturing licenses come in after a customer has begun the integration phase? What's the way to think about that progression? Is it number of runs before they get there? Or is some other way to think about it, anything would help in terms of knowing when manufacturing licenses or what -- how those would come on next?

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

Yes. We've always said that's the most unpredictable -- the hardest thing to predict. We set a goal for ourselves at the very beginning that when we start working with a customer in integration, we would like to do 3 integrations with the runs with them before they're ready to move to manufacturing. But I would not say that we've had that experience so far and we're all learning a little bit. I still think that's the right goal for us. And I think with 50% improvement then we're going to get people who do a first run and get much higher performance numbers than they've got in the past and maybe it only takes 1 or 2 more before they go to that manufacturing license and start transitioning into production. So yes, definitely early days to see the reaction to how customers will change behavior based on this new data. But like I said in my remarks, we believe it will cause people to decide faster to get to numbers that will justify changing over to new process node a lot quicker, and it will give us a lot more negotiating levers to say, "Hey, you want to get 50% improvement? You got to pay us for the engineering services fees and you got to pay us for licenses quicker." So I think it's all giving us much more power.

Sujeeva Desilva ***Roth Capital Partners, LLC, Research Division - Senior Research Analyst***

And can you remind us, Scott, how long a typical run takes, is it 1 to 2 quarters or a few weeks? Or just...

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

No, a typical run -- I think the fastest run we've ever done has been -- was about 5 months, but a typical run is about 8 months. And that's from like planning the thing to actually reviewing the test results.

Sujeeva Desilva ***Roth Capital Partners, LLC, Research Division - Senior Research Analyst***

Okay. That's great. And my last question is more on the technology side, the MST SP you announced, you talked about the doping profile being a proprietary element of that. What specifically is it that you're able to do that is differentiated from potential competitors in the MST SP, where you can manage the doping process and that -- and how that's proprietary?

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

No. You know what, I'm not even going to say it's proprietary, so the SP is a technique that the industry has known about for some time, but it just doesn't really provide any benefit. I mean, if you were a new semiconductor designer, you might go and say, "Hey, this would be interesting." It might have an improvement, but then when you implement it, you would find that it really didn't provide any benefit. It adds complexity without a benefit. So they haven't used it in the industry. It was the innovation that we came up with was that because of the characteristics of MST and its ability to block opens and keep them in certain regions where you want to have it opens and keep them out of regions or we don't have to it opens, that if we can use this technique in conjunction with MST, that we would get a big breakthrough and that's exactly what has happened.

So although the SP is some know-how that we have and we do actually have the ability to patent the concept of using SP with MST, the SP technology is really not a proprietary technique that no one has ever done before. And so there's one thing I think it's important to understand and I mentioned in my remarks, but today when we work with customers, we get to a certain performance level and then both of us put our heads together and we say what do we can going to -- what's the next thing we're going to tweak in the integration process to get to a much higher level of performance. That's expected. You're tweaking these things in integration process. SP is a basically a tweak. It's not a small tweak. It's a kind of a breakthrough tweak, obviously. But it's exactly what customers expect to be doing

between runs to get their performance level higher. So we're not going into existing customers and saying, "Hey, let's throw out the film development and all the work you've done and start over." No, we're saying, "Hey, let's make this next level tweak and see if we can get to a much higher level of performance." So -- yes, so we think it can be implemented pretty quickly by a lot of our customers.

Operator

Speakers, I'm showing no further questions from the phone lines at this time. I would now like to turn the call back over to Mr. Scott Bibaud for any closing remarks.

Scott A. Bibaud ***Atomera Incorporated - President, CEO & Director***

All right. Thank you. I want thank you all for attending today's presentation. As I mentioned Q3 has been a quarter of breakthroughs for us. And we really look forward to continuing to update with you with news on both our technical and business improvements through news, articles. We'll be putting up blog posts on this in the near future, white papers and all of those to keep you up-to-date on our progress. You can sign up for them, along with investor alerts, on our website atomera.com. Should you have additional questions, please call Mike Bishop, and we'll be happy to follow up. We look forward to seeing some of you during our scheduled marketing activities, which we'll be announcing soon. Again, we thank you for your support and look forward to our next update call in August.

Operator

Thank you. Ladies and gentlemen, thank you for participating in today's conference. This concludes the program. You may all disconnect, and have a wonderful day.