ON Semiconductor Corporation, Q1 2023 Earnings Call, May 01, 2023 (EditedCopy)

TEXT version of Transcript

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Presentation

Operator [1]

Good day, and thank you for standing by. Welcome to the onsemi First Quarter 2023 Earnings Conference Call. [Operator Instructions] Please be advised, today's conference is being recorded.

I would now like to hand the conference over to your speaker today, Parag Agarwal. Please go ahead.

Parag Agarwal, ON Semiconductor Corporation - Vice President of Investor Relations & Corporate Development [2]

Thank you, Kevin. Good morning, and thank you for joining onsemi's First Quarter 2023 Quarterly Results Conference Call. I'm joined today by Hassane El-Khoury, our President and CEO; and Thad Trent, our CFO.

This call is being webcast on the Investor Relations section of our website at www.onsemi.com. A replay of this webcast, along with our 2023 first quarter earnings release, will be available on our website approximately 1 hour following this conference call, and the recorded webcast will be available for approximately 30 days following this conference call. Additional information is posted on the Investor Relations section of our website.

Our earnings release and this presentation includes certain non-GAAP financial measures. Reconciliation of these non-GAAP financial measures to the most directly comparable GAAP measures and the GAAP financial measures are included in our earnings release, which is posted separately on our website in the Investors Relations sector.

During the course of this conference call, we will make projections or other forward-looking statements regarding future events or the future financial performance of the company. We wish to caution that such statements are subject to risks and uncertainties that could cause actual results or events to differ materially from projections. Important factors that can affect our business including factors that could cause actual results to differ from our forward-looking statements are described in our most recent Form 10-Qs -- Form 10-Qs, other filings with Securities and Exchange Commission and in our earnings release for the first quarter of 2023.

Our estimates or other forward-looking statements may change, and the company assumes no obligation to update forward-looking statements to reflect actual results, change assumptions or other events that may occur except as required by law.

Now let me turn it over to Hassane. Hassane?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [3]

Thank you, Parag. Good morning, and thank you all for joining us today. As we continue our transformation, I'm pleased to report another quarter where we've exceeded expectations with revenue of $1.96 billion and non-GAAP gross margin of 46.8%, both above the midpoint of our guidance.

The current market environment did not deter us from our goals. We have teams around the world who are committed to operational excellence, and I am proud of the results they have achieved in this first quarter.

Over the last 2 years, we centered our transformation around the structural changes that would enable us to better navigate the uncertainty in the semiconductor industry. We streamlined our product portfolio, reduced price-to-value discrepancies double down on silicon carbide and improved the overall operations of the company.

We have incredible talent in the company, and we have all -- have been all hands on deck to solve some of the world's toughest engineering problems to accelerate the ramp of this next-generation technology. Thanks to our team's relentless efforts, we are seeing greater-than-anticipated silicon carbide results ahead of our internal plan for manufacturing output at every stage of the process from bulls to die to modules. In Q1 alone, these results allowed us to shift nearly double our Q4 revenue and more than half of our 2022 full year revenue. We are on track to grow our revenue to $1 billion in 2023 and that's approximately 5x the revenue of

2022, setting ourselves up for leadership in the silicon carbide market with the majority of the substrate sourced internally.

Demand for electric vehicles, ADAS and energy infrastructure remained healthy and with a broad-based macroeconomic slowdown. While our automotive revenue increased 38% year-over-year, it was flat quarter-over-quarter. We are still supply constrained across several automotive technologies, while in some other technologies, we are cautiously monitoring inventory digestion.

In Q2, we expect to see quarter-over-quarter growth in our automotive revenue. In Q1, we shifted our mix to energy infrastructure where there is high demand and high growth. Our industrial revenue in turn increased 1% sequentially instead of the decline we had anticipated, driven by the need for automotive energy sources and accelerated by global geopolitical issues, installation of energy storage systems is increasing along with our content that includes silicon carbide and silicon power solutions. Pricing across our business is stable, and we don't anticipate any changes in the pricing environment. A significant part of our business is secured by long-term supply agreements and pricing in these agreements is fixed for multiple years. Also, as part of our business transformation, we have walked away from price-sensitive businesses in nonstrategic areas to drive predictable financial results.

In Q1, automotive and industrial accounted for 79% of our total revenue as compared to 65% in the quarter a year ago. When we started our transformation, we targeted 75% of our business to be automotive and industrial by 2025, and we have achieved our desired end result 2 years earlier.

We also improved our demand visibility across all markets with commitments from our customers, new and existing in the form of LTSAs. These LTSAs also helped reduce our exposure to the volatility in the consumer and computing markets. Volkswagen, as an example, signed a 3-year agreement for more than 100 current production devices giving them the required supply chain sustainability with a major semiconductor partner. Our committed revenue through LTSAs increased again in Q1 by $1 billion.

We are supporting our customers today while working closely with them on next-generation designs for their intelligent power and sensing needs. In addition to the LTSA, we announced last quarter, we were recently honored with the 2022 Supplier of the Year Award from Hyundai Motor Group which recognized onsemi as a trusted provider for key technology in its ecosystem, offering supply chain resilience and manufacturing sustainability. Customers also recognize us as a strategic partner that provides high value through the entire design cycle, which gives them a competitive edge over their peers.

In March, we launched our new Elite power simulation tool to bring complex power electronics applications to market faster through system-level simulations saving design engineers from expensive, time-consuming hardware fabrication and testing in the early stages of development. This tool will also allow us to get a broader customer reach through our distribution network with a low-touch model to design in our products. Global automotive OEMs are choosing to partner with onsemi for the superior performance of our end-to-end silicon carbide solutions. Just last week, we announced an LTSA with ZEEKR, a leading all EV manufacturer in China who has selected onsemi's third-generation 1,200-volt EliteSiC MOSFET to increase the electric powertrain efficiency and extend the range of its expanding portfolio of high-performance electric vehicles.

These EliteSiC power devices deliver improved power and thermal efficiency which reduced the size and weight of the traction inverters to deliver improved performance, resulting in extended driving range and faster charging speeds. BMW Group has also selected onsemi's EliteSiC to support range extension for their next-generation electric vehicles. They secured an LTSA with us to equip their future electric drivetrains with our silicon carbide technology to increase efficiency and system level performance.

We also continue to invest in silicon power and as auto OEMs move to a zonal architecture, we deliver intelligent power solutions that meet all voltage range requirements from 12 volts to 48 volts and beyond. Through these strategic partnerships, we are enabling our customer sustainability efforts while also working on our own.

We committed to the science-based targets initiative and pledged to set near-term science-based emission reduction targets in line with SBTi criteria and our decarbonization journey to achieve net 0 emissions by 2040. Our Q1 revenue for Intelligent Sensing increased 26% year-over-year.

We introduced our new Hyper Lux family of image sensors to support the transition to 8-megapixel devices, where ASPs can be up to 2.5x that of 1 or 2 megapixel image sensors. Our traction for image sensors in automotive has proliferated into industrial automation and smart retail applications. Our newest 8-megapixel image sensor achieved stunning 4K video quality with optimized near infrared response necessary for industrial applications with harsh lighting conditions such as security and surveillance, body cameras, doorbell cameras and robotics.

The shift out of lower-value commodity applications, coupled with capacity expansion and differentiated products and packages reduced the supply-to-demand gap and is driving margin expansion and revenue growth in our focused markets.

Automotive and industrial now account for more than 95% of our intelligent sensing business. Beyond image sensing, our intelligent sensing penetration is expanding with other sensing solutions in our portfolio. We shipped our 1 billionth inductive position sensor IC to Hella, one of the largest automotive supplier who uses our technology and their drive by wire systems, such as accelerator pedal sensing, steering and torque sensors as well as actuators for pressure boost and turbos. We also lead the market in automotive ultrasonic sensors with more than 20 sensors in 1 of the latest EV models from a leading European OEMs.

In Q1, our Intelligent Power and Intelligent Sensing revenue accounted for 69% of our total revenue as compared to 64% in the quarter a year ago. As we get ready for the next chapters and with our journey, we are applying what we know, operational excellence in controlling what we can and executing to our commitments. We have positioned ourselves to lead in our focused markets with superior technology to offer our customers, and we have the agility to pivot and adapt to change as required by the business and market environment. And more importantly, we have the team to execute.

Now I will turn the call over to Thad to provide additional details on our financials and guidance. Thad?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [4]

Thanks, Hassane. As Hassane highlighted, we exceeded expectations in the first quarter, which is a testament to our employees around the globe who are committed to operational excellence. Our ability to focus, invest and execute has provided benefits across all areas of the business and allowed us to maintain our financial targets while navigating the market uncertainty.

We continue to identify and extract operational efficiencies in our business groups and corporate functions while identifying gross margin expansion opportunities. I'll start by diving into our results for the first quarter. Total revenue was $1.96 billion, above the midpoint of our guidance, driven by strength in silicon carbide and energy infrastructure. In Q1, our silicon carbide manufacturing output was ahead of our internal plans, and we nearly doubled our Q4 revenue, increasing our confidence in our path to the $1 billion year.

Our automotive business now accounts for 50% of total revenue and at $986 million in Q1, it was flat sequentially, offset by a recovery in industrial revenue. Industrial revenue grew by 1% quarter-over-quarter, surpassing our original projections. We anticipate another stellar year for our energy infrastructure business with projected 50% growth over 2022 at accretive gross margins.

Revenue for the Power Solutions Group, or PSG, was $1 billion, an increase of 3% year-over-year. And we saw sequential gross margin expansion as our silicon carbide ramp exceeded expectations on both revenue and margins. Revenue for the Advanced Solutions Group, or ASG, was $593 million, a decrease of 14% year-over-year. And revenue for the Intelligent Sensing Group, or ISG, was up an impressive 32% year-over-year at a record of $354 million. ISG's impressive turnaround continues as Q1 was also their 11th quarter of gross margin expansion with record gross margin exceeding 50%.

As a corporation, our consolidated gross margin held up nicely. GAAP and non-GAAP gross margin for the first quarter was 46.8%, above the midpoint of our guidance driven by higher-than-anticipated industrial revenue and improved manufacturing performance for silicon carbide output. We also exited an additional $47 million of revenue in the quarter at an average gross margin in the mid-40% range, bringing the total revenue to date to $341 million of noncore business exits. Our non-GAAP gross margin declined by 160 basis points quarter-over-quarter as expected with the ramp-up of silicon carbide and EFK headwinds and lower factory utilization of 71% as we continue to slow wafer starts.

Q1 was our first quarter of operations since acquiring our 300-millimeter fab in East Fishkill. The current operating cost is much higher than we had anticipated, so the dilutive impact is greater than we previously expected. However, based on our current outlook, we are confident we can realign the cost structure of the fab and drive efficiencies to recover by early 2024. As demonstrated in Q1, we expect to maintain our gross margin trajectory for 2023.

Our financial strategy remains unchanged as does our capital allocation strategy. In Q1, we returned more than 100% of our free cash flow to our shareholders with share repurchases of $104 million. This was the first repurchase from our new authorization, which allows us to repurchase up to $3 billion through 2025. Additionally, we issued $1.5 billion in convertible notes in Q1 with the proceeds used to repay our term loan. This was essentially leverage-neutral and highly accretive as we swapped out a portion of our variable rate debt approaching 7% with a fixed rate convert with a coupon of 50 basis points. We also entered a call spread transaction increasing the effective strike price to $156.78 per share, providing significant dilution protection.

Now let me give you some additional numbers for your models. GAAP operating expenses for the first quarter were $352.6 million as compared to $314.1 million in the first quarter of 2022. Non-GAAP operating expenses were $286 million as compared to $302.8 million in the quarter a year ago. Non-GAAP operating expenses were below our guidance as we manage discretionary spending across the company, given the uncertain macro environment. We also initiated structural changes to ASG to improve operational efficiency by reallocating resources to high-growth R&D initiatives while improving our product development and time to market on industry-leading proprietary products.

GAAP operating margin for the fourth quarter was 28.8% and non-GAAP operating margin was 32.2%, a decrease of 190 basis points quarter-over-quarter. Our non-GAAP tax rate was 16.3%. GAAP earnings per diluted share for the first quarter was $1.03 as compared to $1.18 in the quarter a year ago. Non-GAAP earnings per share was $1.19, above the high end of our guidance. Our GAAP diluted share count was 448.5 million shares, and our non-GAAP diluted share count was 439.1 million shares.

Turning to the balance sheet. Cash and cash equivalents was $2.7 billion, and we had $1.6 billion undrawn on our revolver. Cash from operations was $408.9 million, and free cash flow was $87.4 million or 4.4% of revenue. Free cash flow was negatively impacted by timing of annual bonuses and CapEx payments.

Capital expenditures during Q1 were $321.5 million, which equates to a capital intensity of 16.4% for the quarter. As we indicated previously, we are directing a significant portion of our capital expenditures towards silicon carbide and enabling our 300-millimeter capabilities at East Fishkill fab and expect our capital intensity to be in the mid- to high-teen percentage range for the next several quarters. Accounts receivable of $880.9 million increased by $38.6 million, and DSO of 41 days increased by 4 days. Inventory increased by $198.1 million sequentially and days of inventory increased by 23 days to 159 days. This includes approximately 43 days of bridge inventory to support fab transitions in the impending silicon carbide ramp. We continue to proactively manage distribution inventory, decreasing inventory in the channel by $79 million sequentially and at historically low levels with weeks of inventory at 7 weeks compared to 7.3 weeks in Q4. Total debt was $3.5 billion and net leverage is $0.25 billion. In Q1, we accrued $41 million in our balance sheet under property, plant and equipment related to the 25% investment tax credit for investments in our U.S. factories. This will eventually flow through our income statement as lower depreciation and will receive the associated cash benefit in the future.

Let me now provide you key elements of our non-GAAP guidance for the second quarter. A table detailing our GAAP and non-GAAP guidance is provided in the press release related to our first quarter results. Our business continues to strengthen with total committed revenue under LTSAs of $17.6 billion, an increase of $1 billion quarter-over-quarter. We expect to recognize approximately $5.8 billion of committed revenue from our LTSAs in the next 12 months in addition to our noncanceled nonreturnable orders. Given the macro uncertainty, we are taking a cautious stance in our guidance. We anticipate Q2 revenue will be in the range of $1.975 billion to $2.075 billion. We expect automotive and industrial to increase quarter-over-quarter with other markets flat to down as we plan further exits in our nonstrategic end markets.

We expect non-GAAP gross margin to be between 45.5% and 47.5% due to lower factory utilization, EFK headwinds and the dilutive impact of ramping silicon carbide, which remains ahead of plan. This also includes share-based compensation of $4.5 million. As we previously stated, 2023 will be a transition year for our gross margins, and we expect to maintain our trajectory as we manage these temporary headwinds.

We expect non-GAAP operating expenses of $297 million to $312 million, including share-based compensation of $28.8 million. We anticipate our non-GAAP OIE will be $3 million to $5 million. We expect our non-GAAP tax rate to be in the range of 15.5% to 16.5%, and our non-GAAP diluted share count for the second quarter is expected to be approximately 440 million shares. This results in non-GAAP earnings per share to be in the range of $1.14 to $1.28. We expect capital expenditures of $420 million to $460 million, primarily in brownfield investments in silicon carbide and EFK, which are a more efficient use of capital than the greenfield alternative of building a fab from the ground up.

We are very proud of our financial results through this transformation and will continue to deliver value for our shareholders. We are equally pleased with our cultural transformation. onsemi is a very different company today. We challenged the status quo, and we hold ourselves accountable to our commitments. As many of you know, we will be holding an Analyst Day in New York on May 16, and we look forward to sharing our future plans to accelerate value for our shareholders. We hope to see you there.

With that, I'd like to turn the call back over to Kevin to open the line for questions.

Question And Answer

Operator [1]

[Operator Instructions] Our first question comes from Ross Seymore with Deutsche Bank.

Ross Clark Seymore, Deutsche Bank AG, Research Division - Managing Director [2]

Hassane, I wanted to ask about the auto side of your business. Investors are getting a little more concern just about that market, given that it's one of the few that hasn't cyclically adjusted and you guys were flat sequentially versus what you thought would be up a bit, and that's all despite the silicon carbide side upsiding. So I guess, could you just talk a little bit about what you're seeing there, inventory demand and perhaps separate the silicon carbide side from the other parts of the business when you give that answer, please?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [3]

Sure. Look, obviously, for silicon carbide, it's a ramping business for us. You've seen tremendous progress in the first quarter, slightly ahead of where we thought we would be based on just the team doing a stellar job ramping the technology. that's going to keep ramping throughout the year. You can think about it as an uptick in the second half as we accelerate exiting the year on track for our -- the $1 billion that we talked about. And every day, we add more and more confidence in those numbers. The rest of automotive, obviously, we have some technologies that remain constrained. So demand is healthy. We remain constrained in our ability to supply to that demand. You can think about that as our silicon, high voltage, silicon medium voltage that not just go to the EV demand, but also a broader aspect of that demand. Other technologies, we're monitoring the inventory digestion, as I said in my prepared remarks. That was kind of the first quarter where we wanted to look at it. We used that opportunity to drain the distribution inventory, where you see we went from 7.3 to 7 weeks. And that's a pretty big number over $70 million drained from the inventory because we wanted to set ourselves up for the uncertainty in the second half of the year that everybody keeps talking about. So from a demand, I'm comfortable with the EV. That's a ramping business for us. The rest, we're cautiously monitoring. However, as I mentioned in my prepared remarks, Q2 is an up quarter for us in Q1. So you can think about automotive as we took a breather in Q1 to test the inventory, and we're going to keep ramping for the rest of the year. Full year, we're going to be up from last year. So that gives you kind of an idea on the overall demand as we see it outside of quarter-on-quarter fluctuation.

Ross Clark Seymore, Deutsche Bank AG, Research Division - Managing Director [4]

Perfect. And I guess moving for my follow-up over to Thad on the gross margin side of things. It seems like there were quite a few moving parts, especially the East Fishkill and the silicon carbide side, but the net of it all seems to be right in line with your plan. Can you just talk a little bit about those moving parts, East Fishkill's more expensive, but silicon carbide is ahead of plan. Does that still net out to the same trajectory through the rest of the year? Just walk us through those puts and takes and maybe the utilization side as part of that as well, please?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [5]

Yes. So the utilization dropped in the quarter from about 74% to 71%. We expect kind of what we're seeing right now is utilization to stay in that range, plus or minus for the remainder of the year. Obviously, if there's a second half recovery, we can ramp up quickly. You nailed it on the rest of it, silicon carbide performed better than expected. EFK cost, as I said, is coming in significantly higher than we expected. You can think about these as being kind of orders of magnitude more dilutive than what we expected. The good news is we are absorbing that. As I said, we're finding additional opportunities to improve gross margin across the company, and we're able to absorb that. We believe by the time we get into 2024, we've got the cost structure of EFK back in line to where we would expect it to be. So we're really confident in the margin outlook for this year. I don't think anything changes. I think if we look at street consensus for gross margin for 2023. Even with these headwinds, we think we can execute to that -- those expectations.

Operator [6]

Our next question comes from Vivek Arya with Bank of America Securities.

Vivek Arya, BofA Securities, Research Division - MD in Equity Research & Research Analyst [7]

Hassane, I wanted to ask about your plans for insourcing the material side for silicon carbide. Can you give us a progress on how that's going? I believe you said during the prepared remarks that you are targeting to be majority in-sourced. Is that a full year comment? Is that an exiting Q4 comment? So just give us an update on where you are from an in-sourcing perspective. And let's say, if you are majority in-sourced exiting the year, how does that help you on the gross margin side?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [8]

Yes. Look, my comment is exiting the year. It's basically reiterating our plan that I've stated throughout the year -- last year of establishing the supply, establishing the growth in our Hudson facility in order to set ourselves up exiting the year majority. So that holds even more now given the progress that we've had in Hudson just in the last quarter, which drove a lot of our favorability in our results and the gross margin, as Thad talked about. So I remain very, very happy with where we are from the progress and the confidence that we have in reiterating our plans. As far as the gross margin, obviously, insourced is always better because you can see the merchant, there's always margin stacking that happens to our ability to be able to mix and have a majority exiting of course, helps the margin as we move through the year. But the biggest portion of the margin expansion for silicon carbide is really going to come from the utilization of the fixed cost that we've implemented and that remains on track for us to get that business to at or above the corporate margin. So we remain very focused on that and really satisfied with -- where we've done so far.

Vivek Arya, BofA Securities, Research Division - MD in Equity Research & Research Analyst [9]

Got it. And for my follow-up, Hassane, I think you mentioned that -- so specific to autos that you took the opportunity in Q1 to drain some of the inventories. How are you seeing the overall pricing environment as you look Q2 through Q4 versus what you thought earlier? Are there any changes? There's a lot of macro crosscurrents, but how is that impacting your automotive outlook Q2 through Q4, especially on the pricing side? Are there any changes one way or another?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [10]

Absolutely, no changes. It's actually very, very predictable, and that's really the benefit that we've been talking about with the LTSAs that have us really, with our customers, align on pricing and volume through the duration of the LTSAs. So no conversations about pricing. The focus has always remained on supply and that's holding up not just through the year, but through the extent of the LTSAs we have with the customers. So very, very stable and no pressure on that. And by the way, it's not just in automotive. The pricing is holding up across all markets where we have LTSAs. And we -- because we -- as you know, we've been focusing on products that provide value. It's not a pricing conversation. It's about what the products bring to the customer, the things that would have pricing pressures. Thad talked about how we have been focusing on exiting those -- that business to the point where it's above -- the business we exited had a 4-handle on the gross margin, and we still are steadfast on exiting because that is where the margin pressure will come in and

the pricing pressure, and we're not going to play in these markets, and we're getting ahead of it and exiting those businesses.

Operator [11]

Our next question comes from Chris Danely with Citi.

Christopher Brett Danely, Citigroup Inc., Research Division - MD & Analyst [12]

I didn't know I went from a Jewish to Italian overnight. Anyway, can you just give us a little update and some color on the shortages and the lead time situation. I guess for Hassane, our shortages pretty much exclusively in the automotive business? Or are they elsewhere? And then is there any point in time this year where you think the shortages will go away?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [13]

Yes. Look, so the -- for me, I always refer to shortages as technologies because they're across all markets where we provide them high-voltage silicon is, of course, a constrained technology for us. We ramp capacity, yet the demand is much higher than even our increased capacity. And for that business, for example, goes into automotive and it goes into industrial, specifically in our alternative energy. And as Thad said, that's ramping very nicely this year after a very stellar '22 ramp that we talked about last year. So that is a technology that is constrained. We have some intelligent power technologies that are constrained. Think about it as a mixed signal analog, where demand in automotive and demand in industrial both have been increasing ahead of the capacity we've added. So those are technologies, agnostic of markets. We remain constrained not because of just capacity, but demand keeps accelerating because of the markets we are participating in.

As far as the second half of the year, that really depends on what your view is for the second half of the year. Based on our outlook, that technology will still remain constrained there. While in other areas, not in these specific technologies, we're seeing some flattening in our lead times and therefore, we can see some of that easing. But the second half is really going to depend on how -- what the demand does. And based on our outlook, we're going to remain constrained.

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [14]

Yes. And on the lead time, lead times are relatively stable, running kind of in that 41 to 43-week time frame. Quarter-on-quarter, I think down a week to 2 weeks, but I would call it pretty much across the board, lead times are stable.

Christopher Brett Danely, Citigroup Inc., Research Division - MD & Analyst [15]

Okay. Great. And then for my follow-up, just I guess one for Thad. So as the CapEx is ramping that, can you just talk about maybe over the next 3 to 5 years, how that's going to impact depreciation and gross margin? And can this all be offset by the efficiencies? Or what will be the -- I guess, the gross margin headwind from all this CapEx a little farther down the road?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [16]

Yes. Well, I would start out by saying we're making big investments in silicon carbide and EFK, as I've mentioned. Now as you think about our capital expansion and expansion and just capacity, is to support the LTSAs that we have, right? So this is not a situation where we're building capacity, hoping that we can fill it. So we're very comfortable that with our margin projections that we can absorb that additional depreciation. I would tell you, in general, I wouldn't call it significant, but what you would see is offsetting revenue and gross margin to offset that depreciation.

Operator [17]

Our next question comes from Toshiya Hari with Goldman Sachs.

Toshiya Hari, Goldman Sachs Group, Inc., Research Division - Managing Director [18]

I had a follow-up question on gross margins as well Thad. Just curious how we should be thinking about the timing of headwinds from both the silicon carbide ramp and the EFK ramp peaking. Is that sort of a second half '23 dynamic? Or should we expect the headwinds to stay relatively elevated in the early part of '24? And also the benefits from your fab-lite strategy, I think you've sized it at $160 million in reduced costs over time. When should we expect those benefits to kick in?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [19]

Yes. So the -- the impact of the $160 million, I'll start there. We expect to get that as we exit those fabs. We think that really starts to kick in, in '24 and '25 it takes at least 3 years to exit a fab. So I think most of that starts to roll in -- in '24 and '25. On the headwinds from silicon carbide and EFK, so the EFK has already hit us in Q1. You can think about that as being pretty consistent through the year. We think by early 2024, we can get that back in line and it isn't the headwind that we got surprised with.

On silicon carbide, it's ahead of schedule, which is really great. It's performing much better than we expected. There is a headwind there. We think it likely peaks kind of in that Q3 time frame. And then we think by the time we get the 24, it's -- those margins are at the corporate average. So that's behind us as well. EFK will be a little bit of a drag, as we've talked about in previously, in '24 and '25 as we continue to do that foundry business for GlobalFoundries, but we think we can get the cost structure back in line this year.

Toshiya Hari, Goldman Sachs Group, Inc., Research Division - Managing Director [20]

That's helpful. And then as my follow-up, one for Hassane. Previous Analyst Day, you had guided revenue growth for the overall company in kind of the 7% to 9% range. I think that was a 2025 model. I think you have pretty good visibility given the LTSA pipeline. Is the 7% to 9% range still the right range in your view as you think about the overall company over the next several years? Or do you think with silicon carbide and some of the other opportunities that you've secured, you could potentially outgrow that?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [21]

Well, I would say must be present to win. I'll see you in -- at our Analyst Day on May 16 for that one.

Operator [22]

Our next question comes from Harsh Kumar with Piper Sandler.

Harsh V. Kumar, Piper Sandler & Co., Research Division - MD & Senior Research Analyst [23]

First of all, congratulations on a very successful transition so far Hassane, the talent team and then also the near-term results in a choppy environment. So the first question I had is we had a peer of yours in other perhaps segment in the auto business that had poor results out of China or at least they blame China EV slowdown. I was curious, given your position in China, if you could comment on what you're seeing in the EV market? And then I've got a follow-up.

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [24]

Yes. Look, I mean, we all see the EV market in China. But the difference for us is China for us is a ramping market, and that's really going to be contributing to our ramp throughout the year. So even if the demand, call it, on the top demand is a little choppy out of China for us, it's incrementally favorable, and we're going to continue to ramp there. So we don't see it. We're kind of disconnected from it, given that for us, it's a ramp. It's not a mature market yet. And that puts us in a very good position.

Harsh V. Kumar, Piper Sandler & Co., Research Division - MD & Senior Research Analyst [25]

Thanks Hassane. And then maybe one for Thad. What is -- you talked about the timing for the silicon carbide headwind and the Fishkill headwind. Could you quantify what you're seeing in terms of headwind? Would you be able to give us a number? And then the second part of that question is, I think, Hassane, you mentioned in your comments that -- or maybe Thad did that by the third quarter time frame, your silicon

carbide business would be at corporate margins. So are we thinking 40s, high 40s? Or are we thinking 50s ultimately as a stable gross margin for the silicon carbide business?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [26]

Yes. So Harsh, what we've said is at scale at -- once we fully ramp silicon carbide, those margins would be at or above the corporate average. As I said, we've got headwinds that we think peak in Q3. We think by the time we get to '24, that headwind is behind us. In terms of the magnitude of the headwind, we've said historically that the silicon carbide is 100 to 200 basis points of a headwind we're performing better than we expected. So you can think about that as it's not at the high end of that range, somewhere in between there. But we're very, very confident in our outlook here based on our performance that we can continue to execute there and we feel very good. On EFK, as I said, we had the full impact in Q1. We -- you can see we absorbed it and offset it with gross margin expansion in other areas. Historically, we've said that's 40 to 70 basis points. I've said it's significantly higher. You can think about it as being greater than 2x what our expectations were. Again, we think we can absorb that throughout the year. Our margin trajectory doesn't change, and we're very comfortable with street consensus on gross margin for the year. So I think it gives you our confidence in managing through this.

Operator [27]

Our next question comes from Raji Gill with Needham.

Rajvindra S. Gill, Needham & Company, LLC, Research Division - Senior Analyst [28]

Congratulations as well on great results in a tough environment. Just a quick question on the automotive market. You mentioned Hassane, a modest inventory digestion in the end market and then you're also kind of reducing distribution inventory. Can you talk a little bit about the overall demand picture for automotive? I know it's hard to kind of separate the significant ramp that you're seeing in electric vehicles and in turn, silicon carbide. But just curious if there's a softness in the demand market, if there's a shift away from high end to mid range? Any kind of color on the automotive market will be appreciated.

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [29]

Yes. Look, we don't see a big disconnect into demand. It was -- like I said, it was a momentary thing where we used this opportunity to kind of reposition the inventory that we have externally and we get back to growth in the second quarter and through the year, giving us an increase in our automotive revenue year-over-year. So that really doesn't change the outlook. But what we take a look at, if you think about it, it's a stable environment. We're going to be growing in automotive. I really don't see any areas that causes us pause or a change in our outlook. So we remain confident with that.

Rajvindra S. Gill, Needham & Company, LLC, Research Division - Senior Analyst [30]

All right. Very good. And for my follow-up, on the LTSAs, Thad, you talked about $17.6 billion. That was up $1 billion quarter-over-quarter. Was that all primarily related to silicon carbide incremental designs or other drivers? And just along those lines, you saw kind of significant growth in energy infrastructure. You're talking about it up 50% year-over-year. Can you describe what's -- what are some of the tailwinds in that market?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [31]

Yes. So the LTSAs, we continue to stack those up another $1 billion this quarter to $17.6 billion. It's broad. It's across the board. There's silicon carbide. There's non silicon carbides. But when we think about how we're engaging with our customers that want assurance of supply, they're looking at the entire portfolio. and locking that up with us for multiple years. And again, keep in mind, these LTSAs, on average, are 4 to 5 years. So as Hassane said, pricing is stable and those really gives us better predictability of our business, and we're happy that we continue to engage with customers on that way. We see customers expanding their LTSAs, either by adding additional part numbers or extending the duration. And then we've got new customers that have been on the outside looking in, that are coming in saying, we need to get an LTSA with you. And so we think that trend will continue.

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [32]

And then on the automotive energy, the tailwind is to be market driven. We had a stellar year in '22 from '21 and that's compounding now the -- what we're going to see in '23 from '22, and that's all of it is market-driven. And that's primarily the big components here are silicon power and silicon carbide. But again, as Thad mentioned, we have a penetration with the whole BOM, bill of material. And if you recall, most of that market for us is under LTSAs. We have LTSAs with 8 of the top 10 energy vendors in the world. And they're ramping given the demand and we're ramping with them given our content.

Operator [33]

Our next question comes from Matt Ramsay with TD Cowen.

Matthew D. Ramsay, TD Cowen, Research Division - MD & Senior Research Analyst [34]

Hassane, I wanted to -- there's so much focus that typically goes into the silicon carbide space on substrate, but you guys mentioned a few times ramping CapEx and other things around brownfield fabs in order to support the business as you ramp the substrates out of GTAT. Maybe you could give us a little bit of color on how the nonsubstrate part of your supply chain is going for silicon carbide and just what position that might give you guys on a cost basis relative to some others that are doing greenfield facilities?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [35]

Yes. So look, as I mentioned, we're -- we've been increasing capacity. We started in 2022 in preparation for the '23 ramp and really the '24 ramp in this case, where a lot of the focus, like you said, has been on substrate because that's the first thing we have to ramp. But we've increased capacity in our wafering and internal epi. That gives us a very big cost advantage versus getting turnkey externally. And then following that is increase in our fab capacity, which also gives us a much better cost structure because the fab we are ramping is an existing power fab. That's where we do really most of our IGBTs and having a power fab at scale gives us that edge one from a cost and two from the speed at which we can scale. So think about it this way, increasing capacity in an existing fab that already does power is way cheaper and way less risk than brownfield and a power fab and silicon carbide. That has always given us the confidence in our ramp, has always given us the confidence in the slope of the ramp, which really exceeds everyone else out there, and we're on track to achieving it. All of these give us one, the cost; two, the risk mitigation; and three, the confidence in our outlook.

Matthew D. Ramsay, TD Cowen, Research Division - MD & Senior Research Analyst [36]

Hassane. I just want to follow-up, I wanted to ask, I think both of you guys mentioned in your script this morning, some little pockets where you're -- I think the words were cautiously monitoring inventory. Maybe you could -- obviously, the growth of the company and the results speak for themselves, and you're overcoming some of those things. But if you could just give us a little bit of color on where you are seeing those pockets of inventory? Are they clearing up? Are they getting worse? Just any color there would be helpful.

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [37]

Yes. Look, there -- when I say pockets, again, I'll go back to my comment from prior about the technology we remain constrained in technologies across all markets. And there are areas, primarily, as you can think about it, mostly on the consumer and compute where we've been -- one is cautiously monitoring specifically the disti inventory, and that's why you've seen us even this quarter be very aggressive in draining the dollars in the channel. So although the weeks were 0.3 weeks down in the channel, but dollars are almost $80 million down. And that's a pretty steep decrease that we have been managing. And look, we've been managing it throughout the whole -- even when supply was constrained across the board. So inventory for us is a big focal point, not just internally but externally. And until we get higher and higher confidence in what the second half is going to bring, we're going to be cautiously optimistic and really holding back on what we ship out of the company unless we are seeing high confidence in its POS-ing. We're not going to have inventory just sitting around, whether it's our distribution shelf or the customer shelf. And that really sets us up for a very nice recovery whenever that starts turning out to be.

Operator [38]

Our next question comes from Christopher Rolland with Susquehanna.

Christopher Adam Jackson Rolland, Susquehanna Financial Group, LLLP, Research Division - Senior Analyst [39]

I'm going to talk about the image sensors. You did talk about supply constraints across several auto tech. I just wanted to check the update of that. And then it seems like some of the drivers there are the move to 8-megapixel. I was wondering kind of what your competitive position is there? What percent of revenue might be at 8 versus 1 or 2 overall?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [40]

Yes. Look, obviously, our competitive advantage across the board and image sensor is really on technology. We've talked about specific technology. I mentioned a few of them where it's a near infrared that helps with different lighting conditions. That, of course, applies in automotive. And the examples I've given in my prepared remarks -- or sorry, industrial, but it also applies in automotive, where the high dynamic range, whether it's very bright light with sun or a very dark at night. Those are all competitive advantage on the inherent in our technology that customers value and that we provide these solutions for. On the 8-megapixel, that's a new generation that we have launched across both auto and industrial. You're going to -- you can expect that to be forward-looking and mix shift as we ramp that. So today, it's very small. But the commentary I gave about ASP with, of course, also translates to improved margins, that is on a forward-looking basis. Both Thad and I have always said our new products are at or ahead of our model, the 48% to 50%. And as we ramp these products, you're going to see the margin expansion that will be contributed to by these products becoming a higher percent of revenue. So that's more of a forward-looking statement that again gives us the confidence in our margin trajectory and the fact that we've always said it's not -- the model is not the destination. It's really a milestone.

Christopher Adam Jackson Rolland, Susquehanna Financial Group, LLLP, Research Division - Senior Analyst [41]

Excellent. And just maybe following up there and then a quick one. So you mentioned the supply constraints across several auto tech -- technologies. I think you mentioned some, but just wanted kind of that more comprehensive list. And then lastly, M&A. You have a ton on your plate organically, but are you still considering inorganic? And how do you see that market?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [42]

Yes. Look, so across the board, obviously, I think I'll comment on image sensors. Image sensors is foundry business for us. We're seeing some easing in the foundry. So we get a little bit more capacity allocated to us. And I mentioned in my prepared remarks, we used this opportunity to really bridge that supply to demand gap that we've had in the last couple of years, and we're making progress into catching up. We're not caught up yet, but we're making progress. So that remains constrained, obviously.

On high power silicon, Think about it as IGBT or silicon carbide, really, we've always said we're sold out on silicon carbide. So improvements that we have contribute to our -- achieving our numbers. IGBT, as I mentioned, remained constrained because of the strength in not just the automotive market, but also in the industrial a lot of our energy storage systems are silicon and silicon carbide, but a lot of it is -- remains still today on silicon. So that adds some of that constraint. So you can see it's really across the board, not specifically on markets, but it's driven by megatrend growth that we are participating in.

As far as M&A, look, you're right, our focus is on execution. We have a lot going on. A lot of it is a great work that creates a ton of value for our shareholders. So execution is key, and execution is our focal point. But we never look away from M&A. We're always looking because those are opportunities that we will participate in. But as we sit here today, I can't tell you there is something we are missing in order to achieve our organic plans of value creation. So we'll be opportunistic. We'll always drive and participate in the M&A landscape. But there's nothing I would say we have to have, which is the best place to be because we can be very disciplined in our approach of M&A.

Operator [43]

Our next question comes from Gary Mobley with Wells Fargo.

Gary Wade Mobley, Wells Fargo Securities, LLC, Research Division - Senior Analyst [44]

I know Harsh asked about the China EV market, but I wanted to ask more broadly about China indigenous demand. Where do you see that demand profile sit today? And maybe give us a sense of China indigenous demand as a percentage of your sale currently versus where it's been in the past in terms of thinking about the optionality upside there?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [45]

Yes. Look, in our -- just for our China, specifically in our nonstrategic markets Obviously, that's been down both the market is down, but also that's not a strategic market for us. So we've been exiting. And a lot of the exit is driven by the market in China for us. So that contributes -- it's part of our plan. So that's not a surprise for us. It's actually what we anticipated, and that's how we've been focusing on these exits as far as protecting our margin and that's been our strategic plan all along. And we're starting to see it play out, which is not a surprise for us. On the EV, although there's some pause in EV or a little bit of redirection on the EV market in China for us, that market is actually net incremental. We are the ramping party in EV in China, and therefore, that will remain through the rest of the year even with the current outlook as a net favorable to our revenue growth. So we're -- I would say, no surprises, no changes to our outlook and no changes to our execution as we move forward this year.

Gary Wade Mobley, Wells Fargo Securities, LLC, Research Division - Senior Analyst [46]

Got it. As my follow-up, I want to ask about the supply of silicon carbide materials to support your $1 billion of revenue. I appreciate the fact that you'll be majority internally sourced for substrates exiting the year, but I presume that you'll probably purchase somewhere close to $200 million in merchant supply this year. Maybe if you can give us an update in terms of some of the constraints that you might be seeing there from your more traditional suppliers and how you may be broadening your supplier list there?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [47]

Yes. Look, I'm not worried about the merchant supply. Obviously, our percent of internal is going to be incrementally going up throughout the year. We're going to be majority internal. But as far as derisking, we've done a very good job on having multiple sources that we are able to pull on. All sources, not internal, are qualified. And we're getting what we need. So therefore, think about it as a very good and already in the playbook risk mitigation strategy while we continue to execute greatly on our internal substrate.

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [48]

Yes. And I would just add that although it's a tight market out there, obviously, I think that's well known. We -- as I've said, we've been building inventory in silicon carbide for this ramp. So we've been preparing for it. And then obviously, as we get more flex into internally supplied substrates, that helps us.

Operator [49]

Our next question comes from William Stein with Truist Securities.

William Stein, Truist Securities, Inc., Research Division - Managing Director [50]

Hassane, at the silicon carbide event you hosted, I think it was perhaps about a year ago. You talked about the trend in supply and demand in silicon carbide likely remaining in the shortage situation for many years. Then we have this surprise -- certainly surprised to many people announcement from Tesla that on their next-gen vehicle, the so-called robotaxi, they're going to be reducing silicon carbide usage meaningfully. I know it's only 1 customer. I know they're still small share of global auto production, but it's an important customer. It's an important data point. I wonder how that influences your view of supply and demand for silicon carbide longer term, not just the next year, but as we think about 5 years plus?

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [51]

Yes. Look, actually, the announcement doesn't change my outlook. It actually, I would say, confirms it because if you think about it, this is a new platform and a much broader platform as far as volume. And therefore, it's incrementally beneficial as far as demand is in the market. That's just on silicon carbide. The other thing is when you start thinking, and I don't want to talk about customers specifically. But as more and more, you can start thinking about silicon and silicon carbide, so IGBT plus SiC. This is a business that I've been talking about for really a couple of years. And you've heard me talk about how it's always a customer choice and our ability to supply both is incrementally beneficial for us. Therefore, when you start seeing silicon carbide, even with lower penetration of silicon carbide on a platform is still a net incremental silicon carbide in mass market vehicles. And that actually supports the concept that I've talked about that we are going to be constrained over the next few years.

William Stein, Truist Securities, Inc., Research Division - Managing Director [52]

That's super helpful. One other, if I can? Perhaps, Thad, you talked about the product revenue and margin of the exits you did during the quarter. Can you remind us how much is left of that? What sort of duration you expect for the exits to last? And should we continue to expect sort of this mid-40s gross margin level on the exits going forward?

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [53]

Yes. So we think for the year, there's a total of about $400 million of exits. This first quarter, we are at $47 million below our original expectations. We thought it was going to be higher than that this quarter. But we actually think we will still exit this throughout the year. I think this next quarter in Q2, we're probably looking at about $85 million of exits and then the remainder of that to be in the second half. So you'll see these exits ramp additionally in the second half. And the gross margin is -- yes, it's kind of in that mid-40% range of what we're going to lose currently. And this is the stuff that's price sensitive that -- the reason we're going to lose it is because we're not going to go down that pricing curve, right? So this is -- these exits over time, we think these gross margins go back into the in the low range that we're not willing to participate in. So yes, so for the year, about $400 million, and you can think about it as kind of the mid-40% gross margin range.

Operator [54]

Ladies and gentlemen, this does conclude the Q&A portion of today's conference. I'd like to turn the call back over to Hassane El-Khoury, President and CEO, for any closing remarks.

Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [55]

Thank you again for joining our call. As Thad mentioned, we look forward to seeing many of you at our Analyst Day. Our future is bright, and we look forward to sharing with all of you what's next for onsemi. Thank you.

Operator [56]

Ladies and gentlemen, this does conclude today's presentation. You may now disconnect and have a wonderful day.