ON Semiconductor Corporation, Q4 2022 Earnings Call, Feb 06, 2023 (EditedCopy)

**TEXT** version of Transcript

# **Corporate Participants**

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ON Semiconductor Corporation - President, CEO & Director

\* Parag Agarwal

ON Semiconductor Corporation - Vice President of Investor Relations & Corporate Development

\* Thad Trent

ON Semiconductor Corporation - Executive VP, CFO & Treasurer

# **Conference Call Participants**

\* Christopher Caso

Crédit Suisse AG, Research Division - Research Analyst

\* Christopher Brett Danely

Citigroup Inc., Research Division - MD & Analyst

\* Harsh V. Kumar

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\* Ross Clark Seymore

Deutsche Bank AG, Research Division - Managing Director

\* Toshiya Hari

Goldman Sachs Group, Inc., Research Division - Managing Director

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\* Vivek Arya

BofA Securities, Research Division - MD in Equity Research & Research Analyst

#### **Presentation**

### Operator [1]

Good day, and thank you for standing by. Welcome to the onsemi Fourth Quarter 2022 Earnings Conference Call. [Operator Instructions] Please be advised that today's conference is being recorded.

I would now like to hand the conference over to your speaker today, Parag Agarwal, Vice President of Investor Relations and Corporate Development. Please go ahead.

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

Thank you, Christa. Good morning, and thank you for joining onsemi's Fourth Quarter 2022 Quarter 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 2022 fourth 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 include 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 Investor Relations section.

During the course of this conference call, 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 events or results 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-K and Form 10-Q in our filings with the Securities and Exchange Commission and in our earnings release for the fourth quarter of 2022.

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, and thank you all for joining us today. 2022 has been an excellent year for onsemi, and nothing makes me prouder than to share our latest progress after closing the second year of our transformation.

Our worldwide teams have yet again delivered outstanding results, allowing us to deliver the most successful year in the company's history, with record revenue of \$8.3 billion in 2022, an increase of 24% year-over-year, with earnings growing 3x faster than revenue. Our gross margin of 49.2% increased 880 basis points for the full year and 1,650 basis points since we began our transformation journey.

From our manufacturing footprint to our product portfolio and go-to-market strategy, we have transformed all facets of our business and set ourselves up to win in the fastest-growing megatrends of the automotive and industrial market.

We earned ourselves the position in the S&P 500 this past year, and we created more value for our shareholders than ever before. The uncertainty in the macro environment has impacted demand, and we have seen a slowdown in some areas of our business, which include consumer computing and parts of industrial.

Demand for our automotive business remains healthy as automakers have been catching up on production levels.

In Q4, our automotive business grew 54% year-over-year, 30% quarter-over-quarter and accounted for 47% of our total revenue as compared to 35% in the quarter a year ago. Our industrial business grew 6% year-over-year in Q4 and accounted for 26% of our total revenue. While we saw softness in parts of our industrial business in Q4, demand for energy infrastructure and medical applications, such as continuous glucose monitors and hearing aids, remain strong.

We continue to extend our leadership in silicon carbide with our customers who value the leading performance of our silicon carbide modules and our end-to-end supply chain capabilities. In 2022, we shipped more than \$200 million in silicon carbide revenue. We remain on track to deliver \$1 billion in 2023 based on committed revenue from LTSAs, and we now have more than \$4.5 billion of committed silicon carbide revenue between 2023 and 2025.

By focusing on the areas where we provide the most value to our customers, we have positioned ourselves with the market leaders in the fastest-growing segments in automotive and industrial. The top automotive OEMs are not only choosing onsemi for silicon carbide, but for our worldwide class intelligent power and sensing solution.

In automotive, we have seen tremendous momentum with silicon carbide, and we believe that vehicle electrification will be a long-term driver for our business. We expect to remain supply constrained for the next several years even as we aggressively add capacity to our Hudson, Czech Republic and South Korea manufacturing sites.

As we recently announced, Volkswagen Group has selected onsemi as a corporate strategic supplier to provide the silicon carbide modules that enable a complete traction inverter solution for its entire fleet of next-generation electric vehicles. onsemi will deliver its EliteSiC 1,200-volt traction inverter power module. These modules facilitate a small footprint and full weight system solution, which will support the front and rear axle inverters in a large range of VW models.

We already shipped more than 500 different devices to Volkswagen Group, including IGBTs, MOSFETs image sensors and power management integrated circuits and this expanded engagement to include our silicon carbide further strengthens our partnership with one of the largest carmakers leading the charge in vehicle electrification.

In 2022, we began to recognize revenue at Tesla from silicon carbide shipments and expect revenue to see a continued ramp in 2023. We have also expanded our partnership beyond silicon carbide and image sensor to numerous power and analog solutions, totaling over 300 different part numbers.

Jaguar Land Rover signed a 7-year long-term supply agreement to adopt onsemi's silicon carbide for their next-generation platforms and other solutions for their 11-kilowatt onboard chargers and other XEV application. This LTSA also provides Jaguar Land Rover with the supply assurance for their current production model across onsemi's broad portfolio of power solutions.

In addition, Hyundai Motor Group selected onsemi's EliteSiC family of silicon carbide power modules for their high-performance electric vehicles. Onsemi's EliteSiC silicon carbide modules increase the efficiency and lower the weight of the traction inverters extending electric vehicle range and improving performance. Our high-power density SiC modules deliver the most innovative package technology to reduce power losses associated with DC to AC conversion, along with reduced size and weight of the traction inverter to extend easy range and increase performance.

We remain just as focused on our engagement with Tier 1s, where we are seeing a steep increase in onsemi content for upcoming EV platforms and advanced safety applications. We recently secured a win with a major Tier 1 for a marquee European platform that includes more than \$1,800 of content across our portfolio of silicon carbide and other intelligent power solutions for traction inverters. These are just a few of our recent wins in the fastest-growing automotive applications, giving us confidence in our outlook for this business and our \$1 billion revenue year for silicon carbide.

As the leading automakers accelerate the transition towards vehicle electrification, increased autonomy and advanced safety, they are choosing onsemi as their preferred partner for the performance of our silicon carbide solutions and vertical integration from substrates to state-of-the-art modules, for our world-class image sensors and for the breadth of our complementary intelligent power intensive portfolio, and for our manufacturing excellence and supply assurance.

In industrial, while fourth quarter revenue declined 10% over Q3, we expect our traction in energy infrastructure and medical applications to offset the softness we are seeing in the legacy parts of this business. The global energy crisis is triggering an acceleration in alternative energy deployment with solar as the most installed renewable power capacity by 2027, tripling from 2021. This accelerated deployment trend is reflected in our revenue for energy infrastructure, which increased 75% year-over-year, above our forecast of 60% growth.

Our newest 200-kilowatt wins with leading energy storage system suppliers contained nearly \$370 of content per system in silicon carbide and other power solutions. Last month, we announced our partnership with Ampt, the world's #1 DC optimizer company for large-scale solar and energy storage systems. Ampt uses our EliteSiC silicon carbide critical power switching application. Customers like Ampt expect leading-edge technology, and our silicon carbide solution meets the high performance and reliability standards required for these renewable energy applications.

In addition to our alternative energy opportunities, our customer LTSAs are providing demand visibility into the broader industrial market where we expect our growth to come from over-the-counter hearing aid and emerging requirements in factory automation. We are at the beginning of a transition cycle where our award-winning inductive position sensors and new generation image sensors engineered for robotics and scanning provide better performance and lower power.

We have spent the last 2 years making structural changes in all areas of the company to improve the resiliency of our business. We are a different company today. We have rationalized our product portfolio and manufacturing footprint, we are leading in the fastest-growing markets, and we are now getting the true value for our products with multiyear commitments from our customers. We will not be distracted with the current market environment and remain focused on our execution against our near-term objectives and our long-term strategy.

Our customers are planning well beyond 2023, and they are investing with onsemi to deliver leading-edge technologies that address complex intelligent power and sensing requirements in automotive, industrial and cloud power markets. We will grow faster than the markets we plan, and our traction in silicon carbide, coupled with the demand visibility that long-term supply agreements support us, leave me confident that with a disciplined approach in 2023, we will continue to meet our customers' expectations and deliver on our commitments to our shareholders.

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

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

Thanks, Hassane. Let me first start by going through our full year's performance, followed by results for the quarter and wrap up with guidance for the first quarter.

As Hassane mentioned, our results have only been possible because of the incredible effort of our worldwide teams. I want to thank our employees for embracing our fast-paced transformation and going above and beyond for our customers. A year where the macro environment and geopolitical uncertainties were front and centered, we remained steadfast in our execution to achieve a record financial year for onsemi.

Our 2022 revenue closed to \$8.3 billion, an increase of 24% year-over-year, primarily driven by strength in our automotive and industrial businesses. Our non-GAAP gross margin of 49.2% increased 880 basis points year-over-year, achieving our target model of 48% to 50% for the full year. Our non-GAAP earnings per share was \$5.33 as compared to \$2.95 in 2021, growing 3x faster than revenue.

We just closed the eighth quarter since the beginning of our transformation, and our continued success is a direct result of the structural changes we've made to improve the resiliency of our business. The company's

transformation has taken shape by optimizing 3 key areas of our business: our manufacturing footprint, our product portfolio and our go-to-market strategy.

In 2022, we divested 4 subscale fabs to improve our cost structure. We completed the acquisition of East Fishkill fab in New York, which became part of our manufacturing network on December 31. We further reduced price-to-value discrepancies to maximize value for our technology investments. We exited volatile and highly competitive businesses, allowing us to walk away from \$294 million of noncore revenue to date at an average gross margin of 26%. We've pivoted our portfolio to high-margin products and end markets, with auto and industrial exiting the year at 73% of total revenue versus 59% in Q4 of 2020.

We exited the year with \$16.6 billion of signed LTSAs across our entire portfolio. We increased our new product revenue by 34%, and we increased the design win funnel by 38% year-over-year. These structural changes have yielded a threefold increase in free cash flow since the start of our transformation, growing approximately 4x as fast as revenue, with 2022 coming at a 20% free cash flow margin.

Our strategy has driven radical improvements in the performance of our business units, and these businesses are now best-in-class among their immediate and broader peer group. For example, our Intelligent Sensing Group's transformation has yielded a high growth, high operating margin business. ISG is now comparable to peers who typically command valuation multiples at premiums of more than 2x the industry average. ISG exited Q4 with record gross margin of more than 49%. By rationalizing the portfolio and exiting low-margin consumer-facing markets, ISG's gross margin has improved by more than 1,600 basis points since the start of our transformation and the revenue mix is now more than 90% high-margin automotive and industrial. ISG revenue of \$1.28 billion in 2022 increased 73% over 2020, driven by the transition to higher-resolution sensors at elevated ASPs.

As I mentioned earlier, we assumed ownership of our 300-millimeter fab in East Fishkill on December 31. This fab is a key enabler of our brownfield manufacturing strategy by providing incremental capacity for our silicon power products that we are transitioning from our fab in Korea to create capacity for our silicon carbide ramp. In addition, the EFK fab provides us with the capabilities to support long-term growth for our Intelligent Sensing business. Since the acquisition closed on the last day of the year, there is no P&L impact in Q4, but the acquired assets are now reflected on our balance sheet.

Turning to results for the fourth quarter. As I mentioned, Q4 was another quarter of strong results. Total revenue was \$2.1 billion, an increase of 14% over the fourth quarter of 2021 and a 4% decline in quarter-over-quarter. Record automotive revenue of \$989 million increased 13% quarter-over-quarter and 54% year-over-year to 47% of our total revenue as compared to 35% in the quarter a year ago.

Industrial revenue grew by 6% year-over-year, but declined by 10% quarter-over-quarter, primarily due to macroeconomic factors. As Hassane mentioned, our energy infrastructure and medical businesses continue to grow despite macroeconomic headwinds. Revenue from Intelligent Power and Intelligent Sensing accounted for 69% of our total revenue in Q4. Intelligent Power grew 18% year-over-year and Intelligent Sensing grew by 47% year-over-year, both driven by continued growth in the automotive and industrial markets.

Revenue for the Power Solutions Group, or PSG, was \$1 billion, an increase of 10% year-over-year. Revenue for the Advanced Solutions Group, or ASG, was \$701 million, an increase of 8% year-over-year and revenue for the Intelligent Sensing Group, or ISG, was a record \$354 million, an impressive increase of 44% year-over-year.

GAAP gross margin for the fourth quarter was 48.5% and non-GAAP gross margin was 48.4% and above the midpoint of our guidance. Our non-GAAP gross margin declined by 90 basis points quarter-over-quarter, with our planned ramp in silicon carbide and lower factory utilization at 74% as we proactively slowed wafer starts from the beginning of the year. We also exited an additional \$17 million of revenue in the quarter at an average gross margin of 40% and bringing the total to date to \$294 million of non-core business exits.

GAAP operating margin for the quarter was 33.5% and non-GAAP operating margin was 34.1%, an increase of 550 basis points year-over-year and a decrease of 130 basis points quarter-over-quarter. GAAP earnings per diluted share for the fourth quarter was \$1.35 as compared to \$0.96 in the quarter a year ago. Non-GAAP earnings per share was \$1.32 as compared to \$1.09 in the fourth quarter of 2021.

We remain confident in the sustainability of our long-term gross margin model of 48% to 50% despite near-term headwinds from silicon carbide start-up costs and our ramp at EFK. As we enter 2023, we are maintaining tight control of our wafer starts, managing inventory levels, and we remain disciplined in our spending. We expect continued favorability as we plan to exit more than \$400 million of low-margin business. And starting in 2024, we'll start recognizing \$160 million of gross margin benefit as we transition our wafer supply from the divested fab.

Now let me give you some additional numbers for your models. GAAP operating expenses for the fourth quarter were \$316 million as compared to \$352 million in the fourth quarter of 2021. Non-GAAP operating expenses were \$300 million as compared to \$306 million in the quarter a year ago. Non-GAAP operating expenses were below the midpoint of our guidance as we proactively manage spend across the company.

For the fourth quarter, our non-GAAP tax rate was 16.9%, our GAAP diluted share count was 448 million shares, and our non-GAAP diluted share count was 440 million shares. We repurchased 1.3 million shares for \$90 million in the fourth quarter. For the full year, we repurchased 4 million shares for a total of \$260 million at an average price of \$65.13 per share, which was 16% of 2022 free cash flow.

Turning to the balance sheet. Cash and cash equivalents increased 19% sequentially to \$2.9 billion, and we had \$1.5 billion undrawn on our revolver. Cash from operations was \$731 million and free cash flow was \$380 million or 18.5% of revenue. Capital expenditures during the fourth quarter were \$340 million, which equates to a capital intensity of 16% for the quarter and 12% for the full year.

As we indicated previously, we are directing a significant portion of our capital expenditures towards silicon carbide and enabling our 300-millimeter capabilities at the East Fishkill fab and expect our capital intensity to be in the mid- to high teens percentage range for the next several quarters.

Accounts receivable of \$842 million declined by \$15 million and DSO of 37 days increased by 1 day. Inventory increased by \$41 million sequentially and days of inventory increased by 7 days to 136 days. This includes approximately 26 days of bridge inventory to support fab transition and the impending silicon carbide ramp.

We continue to proactively manage distribution inventory decrease in inventory in the channel by \$10 million sequentially and at historically low levels with weeks of inventory at 7.3 weeks compared to 6.9 weeks in Q3. Total debt was \$3.2 billion and net leverage is approaching 0.

We accrued \$15.7 million on 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 we will receive the associated cash benefit in the future.

Let me now provide you key elements of our non-GAAP guidance for the first quarter. A table detailing our GAAP and non-GAAP guidance is provided in the press release related to our fourth quarter results. We continue to see strong demand from our automotive end market, driven by electrification and ADAS and accelerating ramp of our silicon carbide business. We continue to see softening in certain industrial applications, and we expect increased weakness in our nonstrategic end markets that we plan to exit.

Given the macro uncertainty, we are taking a cautious stance on our guidance. Despite a slowing macroeconomic environment, our business continues to strengthen with total committed revenue under LTSAs of \$16.6 billion, an increase of \$2.5 billion quarter-over-quarter. We expect to recognize more than \$5 billion of revenue from our committed LTSAs in 2023 in addition to our noncancelable nonreturnable orders. We anticipate Q1 revenue will be in the range of \$1.87 billion to \$1.97 billion, with continued strength in automotive amid softness in all other end markets. We expect non-GAAP gross margin to decline, to be between 45.7% and 47.7% due to lower factory utilization and the dilutive impact of ramping silicon carbide and EFK, which is within our expected range of 100 to 200 basis points and 50 to 70 basis points, respectively.

This also includes share-based compensation of \$3.4 million. We expect 2023 to be a transition year for our gross margins as we manage the temporary headwinds. We expect non-GAAP operating expenses of \$298 million to \$313 million, including share-based compensation of \$23 million. We anticipate our non-GAAP OIE to be \$21 million to \$25 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 first quarter is expected to be approximately 441 million shares. This results in non-GAAP earnings per share to be in the range of \$1.02 to \$1.14. We expect capital expenditures of \$340 million to \$380 million, primarily in brownfield investments, which are a more efficient use of capital and the greenfield alternative of building a fab from the ground up.

As a company, we become much more agile, controlled and purposeful in our execution, and we'll benefit from our disciplined approach in 2023 and beyond. Given our confidence in our strategy to invest for long-term profitable growth, we remain committed to a balanced capital allocation strategy to drive shareholder value. With a threefold increase in free cash flow, a strong balance sheet and our net leverage approaching zero, we have increased flexibility into one capital towards our shareholder return program.

Today, we announced that our Board of Directors has approved a new program authorizing up to \$3 billion of share repurchases through 2025, representing twice that of the last authorization, which expired at the end of last year. This is aligned with our stated strategy of returning 50% of free cash flow to shareholders over the long term.

And finally, we hope you're saving the date for our Analyst Day in New York on May 16. We look forward to sharing more of our long-term vision at that time.

And with that, I would like to turn the call back over to Christa to open the line for questions.

#### **Question And Answer**

# Operator [1]

[Operator Instructions] And our first question will come from Ross Seymore from Deutsche Bank.

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

First question for either of you guys. In the first quarter, guiding down about 9% sequentially. I know you said auto is staying strong and everything else is kind of softening. Can you give a little bit more color on the puts and takes with exits, et cetera? And then perhaps more importantly, how those trend throughout the year between the end segments within that \$5 billion of LTSAs you plan to represent?

#### Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [3]

Yes, Ross, this is Thad. So if you look at the planned exits that we have for Q1, we think we'll exit up to another \$75 million in the first quarter. As we've always said, this will be market-dependent, but we do kind of see that in the cards here.

In terms of overall what we're seeing for Q1, we're looking at automotive continuing to be strong. We think about it as kind of low single digits. We think industrial is down kind of low single digits. And the best consumer compute, other being down pretty significantly to make up that -- the rest of it to be down approximately 9% for the quarter.

I think for the year, it's hard to tell at this point. I think we see auto remains strong. I think industrial kind of being potentially flat year-on-year and the rest of the business being down slightly or down, but it's obviously too early to tell what's going to happen long term.

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

And then on the gross margin side of things, it seems like that's holding in well despite the utilization dropping and all the other headwinds. It doesn't seem like there's any surprises. Any sort of linearity about how the buckets work throughout the year, the exits being a positive, the silicon carbide side and the East Fishkill being negative? Is that something that peaks out in the headwinds in the beginning of the year and then lessen? Or is the shape a little more back-end loaded? Anything you could provide on color on that would be helpful.

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

Yes. Look, you know that, right? I mean there's no surprises here on where margins are coming in. We're really happy with where we're performing. All of the ramps in silicon carbide and EFK are playing out just as we would expect. We think these headwinds kind of peaked probably Q2, Q3. We think by the end of this year, we've got silicon carbide, the headwinds there have gotten to parity and the margins for average at that point after all these headwinds are behind us. But we're pretty happy with the performance and the tracking of gross margin at this point, right on track with what we've been telegraphing for a couple of quarters ago.

# Operator [6]

And our next question comes from Vivek Arya from Bank of America.

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

I just wanted to dig into the silicon carbide comments. It seemed like you are reaffirming the \$1 billion commitment for this year. And I think you raised the longer-term outlook by \$0.5 billion to \$4.5 billion.

I was wondering, Hassane, if you could give us some more color on what's helping to drive that upside? And as kind of part B of that question, how should we think about any incremental headwinds on the cost or the gross margin side as you bring on more internal material supply? Are you getting the yields? Are you getting the performance? Are you getting what you need from your internal supply? Or will you have to rely more on external wafers that could change the profitability of your silicon carbide business?

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

Yes. So in fact, a few parts of your question. So first, yes, we're reconfirming the \$1 billion revenue for '23. The increase of \$0.5 billion in the same time frame, the '23 to '25, obviously, we've always said we continue to engage with customers. Customer continue to value the performance of our products and the end-to-end capability, as I mentioned in my prepared remarks. So that obviously has maintained the strength of our business where customers are committing to long-term supply agreements, even in what I would call a shorter-term horizon, which is '23 to '25. So that's again a testament of where we stand with the technology and the supply.

Now as far as your comments on internal substrate, we remain committed to our internal substrates. So of course, we have been -- through '22, we have ramped our capabilities for internal substrates. That ramp is going to keep increasing. And that ramp is as a plan to support our growth in the LTSA that we have from '23 to '25 and even beyond.

And as far as yields are concerned, I know there's conversations about yield, none of which have been made by the company. So I'll use the opportunity to set the record straight. Any commentary about yields from unreliable sources, I'm not going to comment on. What I will tell you is our yields are coming in per plan. Our ramp is coming in per plan. And as shown in our margin in the fourth quarter and our guide in the first quarter, which all have come between that 100 to 200 basis points. So our business is healthy, our ramp is on track, and we will continue to invest in brownfield to support our customers.

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

And then just as a quick follow-up. I was hoping you could give us some color on your automotive business, excluding silicon carbide. Sales have now grown in your auto business for, I believe, 10 quarters, and you're guiding to another quarter of sequential growth. How undersupplied is the automotive market right now? And is your non-silicon carbide business you think can it grow in line or above the market this year?

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

Yes. Look, I think we're going to outgrow the market in automotive. We said that goal even back in our Analyst Day, and we've been outperforming our own goal. Outside of silicon carbide, the breadth of our portfolio is what is really highlighting the strength of that business. We've always said that our growth is going more pact content versus unit sold.

Thad talked about the transformation we've had in our image sensing -- our Intelligent Sensing Group. That is content, both in number per vehicle, but also the ASPs with the higher resolution. That's driving growth in our business. A lot of the power, whether its IGBT or support other medium and high-voltage fabs outside of silicon carbide, that's more content, both content and share gains.

I can tell you, I am -- we are winning more share as others can't supply, and we're locking in that share gain in LTSAs to sustain the long term. So all of that is what is giving us the confidence in our ramp. And look, we still are oversubscribed as far as demand is concerned, which puts us in a very good buffer as far as whatever demand does and the macro does. We feel very strongly about the position in our automotive. And of course, other segments from ASG is the LED driver, ultrasonic sensing. All of these are macro trends that are happening in automotive driving our content in that business.

# **Operator** [11]

Our next question comes from Chris Danely from Citi.

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

Last quarter, you gave us an update on the shortage situation and lead times. I think you talked about lead times being 45 weeks, where they're normally 15. How have the shortage situation and lead times changed over the last 3 months?

# Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [13]

Yes. So the lead times are relatively flat. I mean, I think they're down a couple of weeks on average. But when you're out at 45 weeks, that really isn't material. So I would say things have been very consistent throughout the quarter in terms of the lead times as well as just the shortages and the number of escalations that we've seen.

### Christopher Brett Danely, Citigroup Inc., Research Division - MD & Analyst [14]

Sure. And then any comment on the Q2 outlook? It's been sort of flat, slightly up, slightly down over the last several years. How's Q2 looking? Can we expect this to spread into Q2?

#### Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [15]

So Chris, we'll talk about Q2 in 90 days. It's too early to make that call.

#### Operator [16]

Our next question comes from Toshiya Hari from Goldman Sachs.

#### Toshiya Hari, Goldman Sachs Group, Inc., Research Division - Managing Director [17]

Hassane, I was hoping you could talk a little bit about your philosophy around LTSAs with the macro softening. I guess one of the common questions we get from investors is how does the company? How do you guys manage any requests around pushouts and things of that sort?

I think in the past, you've talked about not being flexible on the pricing side because that's a committed contract, if you will. But how are you managing the volume side of things as it relates to LTSAs?

#### Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [18]

Yes. Look, obviously, our philosophy has not changed. The pricing is firm. The backdrop is the LTSAs are legally binding. We will engage with customers for the right reasons. Obviously, it's not in anybody's benefit to have inventory on their shelf or even inventory in the channel. So we've been managing the inventory in the channel. You've seen that consistently in our performance. So that philosophy is holding, and we will maintain that. Engagement with customers, it's not about price, but we will have a win-win situation with the customer, and that remains our philosophy.

### Toshiya Hari, Goldman Sachs Group, Inc., Research Division - Managing Director [19]

Got it. And then as a quick follow-up for Thad. I guess what kind of utilization rates are you assuming for the current quarter? That's a quick clarification. Then my question is in terms of long-term gross margins, at the '21 Analyst Day, I think you gave a range of 48% to 50%. It sounds like your strategy -- the execution to your strategy has been really good in terms of your portfolio, your manufacturing footprint, et cetera. Is 48% to 50% still the right range? Or do you feel like there could be upside given the \$160 million benefit you spoke to in your prepared remarks?

# Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [20]

Yes. So on the utilization rates, we expect that we'll be kind of in this range, maybe it's flat to down slightly in Q1. I think just given kind of the macro softness we're seeing here in the first half of the year, it's probably going to be -- remain in that range. And we'll see how the second half shapes up later. And what's the second part of the question? What was it? Can you repeat the second part?

# Toshiya Hari, Goldman Sachs Group, Inc., Research Division - Managing Director [21]

Yes, long-term gross margins, you gave a 48% to 50% range. I don't expect you to give us a preview on the May Analyst Day, but how are you thinking about the puts and takes? And I think you gave a number in terms of the benefit from transitioning manufacturing from your divested fabs. Any potential upside to that 48% to 50% long term?

#### Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [22]

Yes. Look, we remain confident in that 48% to 50%. I said that in my prepared remarks. We've also said that target is a milestone, not a destination, right? We're confident in our business. We have a lot of tailwinds after we get through '23. So stay tuned on that, but we remain committed to the 48% to 50%. And I believe that is a milestone.

#### Operator [23]

Our next question comes from Harsh Kumar from Piper Sandler.

#### Harsh V. Kumar, Piper Sandler & Co., Research Division - MD & Senior Research Analyst [24]

First of all, some great color on Tesla, Volkswagen, JLR, particularly the traction inverter win at Volkswagen. I think that's huge.

I had a question on gross margins. You're basically guiding gross margin 400 basis points, but you are saying that the headwind from silicon carbide is between 100 and 200. Should we assume that it's closer to 200 at the beginning of the year? And could you give us some color on how that number will trend? Do you expect it to be gone by the end of this year? Will it continue into next year? And then any color on Fishkill that 50 to 70 bps of headwind as well would be helpful.

# Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [25]

Yes. So let me start with the latter. The East Fishkill is 50 to 70 basis points. You can think about that as being linear throughout the year and very consistent. That's where the foundry services that we'll be providing to GLOBALFOUNDRIES at kind of a low margin, low single-digit type margin.

In terms of the silicon carbide, as I said earlier, we're really happy with the execution there. We're in that range of 100 to 200 hundred basis points. We think that starts to peak kind of in midyear. We think that based on what we can see now with the \$1 billion run rate or the \$1 billion number that we're going to hit in '23, we think we'll exit the year with that headwind behind us. So that's why I've said that 2023 is really a transition year.

# Harsh V. Kumar, Piper Sandler & Co., Research Division - MD & Senior Research Analyst [26]

Okay. So it will be gone by the end of '23? And just curious about the softness in March. Have you seen any kind of noise cancellations in core industrial just outside of the consumer industrial? And a couple of the other companies have talked about cancellations in the auto business. I was curious if you've seen anything kind of strange over here in your auto business with increasing cancellations?

### Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [27]

No. No. This is Hassane. We haven't seen any of that in automotive. Like I said earlier, we still remain oversubscribed in auto. So it's not really a demand for us, it's more of a supply. So as we get more supply, we're going to be able to cover more of the demand. But cancellations have not been an issue in automotive.

Obviously, we've seen cancellations. If I look at a trend, actually Q4 was slightly down as far as cancellations on the non-auto. So I think it's too soon to call it a trend. But it looks like it's getting better. But like I said, with our LTSAs, we're able to engage with customers for a win-win. So we don't see that impact beyond what we guided.

# Operator [28]

[Operator Instructions] Our next question comes from Chris Caso from Credit Suisse.

#### Christopher Caso, Crédit Suisse AG, Research Division - Research Analyst [29]

Just a follow-up question on some of the industrial weakness that you saw. And recognize for you, the industrial market is very broad. And it sounds like you've seen some different trends there. Perhaps you could just give some more color on what you're seeing and how that looks like it's trending into midyear?

#### Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [30]

Yes. Look, I think even last quarter, when we talked about the third quarter even, we talked about how some of the industrial markets that are closer to the consumer, like power tools and so on, those remain soft. We've seen softness in the broader market. Again, we believe this is more consumer and macro-driven, where we have been investing in industrial and alternative energy, that has actually been up, as I said, 75%, even ahead of our 60% growth target that we had. So that exceeded our expectation. That gives you the strength of the market that will continue through '23.

And then pockets in the medical business that we focus on have seen a lot of growth, and we see that continuing in '23, obviously, offset by softness in other broader pockets of industrial. So no real change in the performance of that business or the outlook as we get into '23.

### Christopher Caso, Crédit Suisse AG, Research Division - Research Analyst [31]

Just a follow-up on pricing. And I think you've been clear on a number of aspects of pricing. It sounds, like principally in auto, this is covered by the LTSAs in some of the non-core segments where pricing is declining, that's where you're exiting.

But what about industrial, which I imagine probably more NCNR orders? Are you seeing any changes as the NCNRs tail off and you're signing new orders for these customers? Or is that pricing remaining resilient as well?

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

No, the pricing is holding up because -- just to clarify one thing. Our industrial business, where I highlighted the growth and where we have been focusing and where we want to keep investing, those are -- those remain under LTSA. So the LTSAs are not only for automotive, but they are for growth areas where we have been putting investments and we want that return on the investments to be solid.

So that carved out a big portion of the growth in industrial and puts it on high confidence. Obviously, the NCNR, we are getting the renewed backlog in these, and the backlog comes in at the same rate as far as pricing is concerned. So we don't see any softness there as far as pricing, even on the NCNR.

# Operator [33]

Our next question will come from Matt Ramsey from Cowen.

# Matthew D. Ramsay, Cowen and Company, LLC, Research Division - MD & Senior Research Analyst [34]

For my first question, I wanted to follow up on the last topic there that Chris brought up that you guys now have \$16.5 billion something like that in LTSAs, only maybe 1/4 of that is from the silicon carbide business that gets a lot of attention. I wonder guys if you might spend a little bit more time on the rest of the business, LTSAs, where they're concentrated?

I took note of the increase of \$2.5 billion that you just announced from where the number was that you reported previously. So just where are you? Maybe a little bit more detail on the last answer of where you're seeing the strength in the market in order for a customer to be willing to sign up for those long-term agreements and other segments outside of silicon carbide?

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

Sure. This is Hassane. So look, the LTSAs are broad in nature. I highlighted some examples where we have hundreds of parts for LTSA, and that goes back to the strength of our portfolio and the breadth of our portfolio as we target applications like electric vehicle electrification or autonomous driving or even parts of the industrial where we provide, for example, the sensing part of it as well as the motor control in the areas of factory automation, as an example.

So all of these is really the strength of our portfolio. If I look at it, majority is automotive just because, obviously, it ties to the total market. Total market in automotive is larger. Therefore, our LTSAs are larger. And like you said, 1/4 of it is silicon carbide. So the rest is really the broad portfolio that we have.

Image sensing, for example, remains a constrained technology. And given that is a very key enabler for autonomous driving in the future of mobility, that has customers really locking in supply in order to ensure that they have what they need as they start converting their vehicles to more ADAS or Level 2+ with more content. That's the breadth that I can talk about across all applications that we target.

#### Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [36]

Yes. And let me just add that the \$4.5 billion of silicon carbide LTSA is through '25. So it's actually a much larger number that's included in the in \$16.6 billion of total LTSAs. But as Hassane said, it's broad. The place that we are not doing LTSA, obviously, is the non-core business that we're trying to exit. So we are intentionally trying to get out of that business.

# Matthew D. Ramsay, Cowen and Company, LLC, Research Division - MD & Senior Research Analyst [37]

Got it. That was helpful. As my follow-up, I wanted to ask on silicon carbide on a little bit of a different angle. There's acute focus for obvious reasons on materials and yields and what not. But Hassane, I wanted to know if you could talk a little bit about the work that the company is doing and potentially the differentiation of your products in areas like using depreciated fabs to do silicon carbide rather than building new facilities or packaging, heat dissipation, size of modules, everything downstream from the raw materials and just how your company is positioned there? I see lots of conversation around the materials and not as much around the rest of the supply chain.

#### Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [38]

Yes. Look, that's a great question. So we've been obviously investing in brownfield. We've been very upfront about it. Given our manufacturing footprint and the optimization that we've been undergoing in the last couple of years, we're very well positioned to grow in there as we want.

So let me give you some color. We have a large-scale manufacturing site in South Korea and Buchan. That is an existing highly capable, high output power fab that today manufactures IGBT. What we've been able to do over the last few years is transfer that IGBT technology to East Fishkill, converted to 12-inch. So there's benefit from that by itself, and then use an existing power fab with slightly fewer GAAP tools in order for us to run silicon carbide and start running silicon carbide in that fab.

So that's what allowed us to ramp so quickly and with the CapEx efficiency that you've seen from us. That, for example, is on the front end. The same thing with the back-end. We have a very robust back-end footprint that is already leading in power and packaging for power semiconductors and modules. We've been able to retool those back-end factories in order to support our world-class modules that I mentioned in my prepared remarks for silicon carbide. So that's on the front-end and the back-end.

Now right after the material that we've been talking about, there is, of course, capabilities of wafering and happy, and that's where we do it in the Czech Republic. We've been able to increase that capacity to match the output from our Hudson facility for substrates and to match the capabilities that our fab has been able to ramp to. So all of these 3 sites are what is increasing proportionally in order to support our not only the \$1 billion, but you can imagine, we're investing in the '24 ramp and the '25 ramp based on those LTSAs.

Those are coming in on track. Those are coming in on time. Obviously, equipment has been a challenge over the last few years, but we've been able to stay ahead of it given that we're utilizing our existing manufacturing footprint.

So I'm very proud with what the team has done because it's not an easy task, but they have been able to do it, and that's obviously a testament of the capabilities of the team to run such a complex manufacturing. And we'll continue to invest in brownfield in order to support our long-term strategy.

#### Operator [39]

And our next question will come from Vijay Rakesh from Mizuho.

Vijay Raghavan Rakesh, Mizuho Securities USA LLC, Research Division - MD of Americas Research & Senior Semiconductor Analyst [40]

Hassane, great guide here, given all the concerns. On the inventory side, just a quick question. Your inventories were up only 3% sequentially, which is probably the lowest among all the analog guys. Just wondering if you can give us some color on how inventories look in the channel and at the OEM level?

## Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [41]

Yes. Look, we're -- if you look at our inventory on our balance sheet, in terms of days that went up, as I mentioned, there are 26 days of bridge inventory for the fab transition in the silicon carbide ramp.

If you look at that quarter-over-quarter, our base inventory, not the strategic portion of what the transition, the bridge is actually down. So you can see, we've talked about reducing wafer starts from earlier in the year, starting in Q2, and you can see that coming through our inventory. So this is just that our tight management of inventory.

At the same time, in the channel, we've been managing it very tight as well. So we took inventory in the channel down by \$10 million sequentially. It's at 7.3 weeks. We plan on running that really tight as well. We've been in that range for quite a while here, and we continue to go through the softness we'll manage both internal inventory and channel inventory very tight and just be cautious in terms of what we're seeing out there.

Vijay Raghavan Rakesh, Mizuho Securities USA LLC, Research Division - MD of Americas Research & Senior Semiconductor Analyst [42]

Got it. And then on the silicon -- sorry, go ahead.

Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [43]

No, that was it. Go ahead, Vijay.

# Vijay Raghavan Rakesh, Mizuho Securities USA LLC, Research Division - MD of Americas Research & Senior Semiconductor Analyst [44]

Yes. I know the silicon carbide side, just wondering what is -- if you can give us some color on what's driving the wins? Obviously, you compete with a lot of very established suppliers on the silicon carbide side. What's driving the events and how defensible is it?

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

Well, we're an established supplier too for silicon carbide. So that puts us in that bucket. But look, I remain consistent in why we're winning. A lot of people focus on technology as, call it, the silicon carbide wafer technology or something before that like substrates. I always couple the competitive advantage we have on technology as encompasses the wafer technology, but also the packaging technology. Any power semiconductor for us to be competitive and really win in the market, you have to have both.

The best power silicon or silicon carbide die if you can't get the heat off of it, in a very light and efficient manner, then it's not going to work in the whole system. So we're able to do the best, highest power, highest density power in a very light and cost-effective package using our road map and our innovation.

Customers have validated that and customers have signed up for us. So the combination of the power, call it, semiconductor or silicon carbide plus the packaging co-developed is what puts us in the lead and customers are obviously seeing that benefit and signing up with us for those long-term agreements. So you have to have both, and we have the best of both.

#### Operator [46]

Our next question comes from Joseph Moore from Morgan Stanley.

# Joseph Lawrence Moore, Morgan Stanley, Research Division - Executive Director [47]

I guess when you look at some of those that have also been announced by competitors or associated with competitors. How is that business being split? Is it one vendor? Does the onboard charger, another uses traction inverter? Are there cases where people are multi-sourcing within those individual components?

# Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [48]

Yes. Look, I mean, in all fairness, let me just give you a little bit of a time-based questions. A lot of the ramps that are happening today are ramps that have been won, call it, 3, maybe 4 years ago. Before onsemi was, call it, a credible and a focused player in silicon carbide, we talked about our strategy of doubling down on silicon carbide in 2021. So my focus and our strategy and a lot of the wins that we have are forward-looking.

Obviously, they already started. They are ramping our -- for -- against that \$1 billion we have in '23, but forward-looking. So how it's split, like I said, most of the platforms are single sourced. So I can tell you because the packaging is not like it's swappable. So most of them are single source. There are a few cases where we may share a platform, but majority of them are single sourced. And those will be ramping.

Think about what we're winning now is in the '25, '26 and beyond. What we are ramping now has already been won a few years ago. So that gives you a little bit on the timing of what others have been disclosing, which is not a surprise to me, by the way.

# Joseph Lawrence Moore, Morgan Stanley, Research Division - Executive Director [49]

Great. And then in terms of the forward-looking outlook, you guys talked about maybe exiting a higher amount of business than you have the last couple of quarters of \$75 million. So how much of the cautious guidance is sort of the factors that you've talked about in the nonautomotive markets versus the ability to maybe at a less tight supply environment to exit some of those businesses more quickly?

#### Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [50]

Well, it's really a combination of both, right? In Q4, we exited \$17 million. It was below our expectations than what we thought we would exit. In Q1, we're looking at \$75 million. So I think it's a combination of that. We're definitely seeing slowness in the other noncore markets, right?

Consumer and compute has been down. It continues to be down. As I said, our automotive, we expect to be up sequentially in Q1. And we think industrial has got some headwinds as well. But so -- I would look at it as a cautious guide, but it's kind of taken into account the exits as well as just the overall softness that we're seeing right now.

### Operator [51]

Our next question comes from Rajvindra Gill from Needham & Company.

#### Rajvindra S. Gill, Needham & Company, LLC, Research Division - Senior Analyst [52]

Congrats on the silicon carbide ramp. Just a follow-up on the long-term supply agreements. I was wondering if you could maybe talk about any changes that you're seeing within those agreements?

I know a couple of quarters ago, you talked about certain customers requesting more volume near term, some customers extending the agreements, some customers requesting higher volumes. So any kind of positive specific changes within those LTSAs that you would like to call out or noticeable?

# Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [53]

Yes. Look, it's been the same. When we -- we've done a lot of amendments -- what we call amendment where customers came in and wanting more volume. And obviously, in the areas where we have been able to release volume because of the decline in the other markets and our ability to convert.

We have been able to sign up for more volume for the customer, still, unfortunately, less than what their demand--have natural demand would be. But we have been able to increase that. So customers always engage with us on kind of almost what about now? What about now? Are we able to get that?

Some of the technology or medium voltage bets remain constrained. Our IGBT remain constrained. Silicon carbide, obviously, we maintain our constraint. Image sensor constraints. So we do have technologies across the company that remain constrained.

So any opportunity we have where we were able to gain efficiency in our manufacturing footprint or convert from nonstrategic or non-core to core technology in our fab. We actually will either proactively go and talk to our customers that we know we're not supporting 100% or they come to us with some mix. Some of it is, again, our sockets that we want to get to 100%. And lately, it's been where others cannot support and customers have come to us and those were -- have been share gains.

So we're able to solidify those in an LTSA to sustain 5 to sometimes 7 years length. So it's still -- the environment is positive as far as the LTSAs because it's more on a long term. It's not anything about what we can do in '23.

# Rajvindra S. Gill, Needham & Company, LLC, Research Division - Senior Analyst [54]

Appreciate that color. Just one follow-up in terms of the overall pricing environment. I know as part of your strategy, you talked about reducing the price to value discrepancy you after obviously have prices kind of locked in regarding the LTSAs. How do you think about the pricing environment, overall blended pricing this year as you see the benefits of those strategies, but then kind of offset by maybe the nonstrategic? So just kind of maybe talk -- walk me through the puts and takes on the pricing environment this year.

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

Look, I think we expect the pricing environment to be stable this year. Our approach to pricing has been strategic where you mentioned, we're looking at price to value discrepancy. We've done a lot of that. So that's

all behind us. Right now, it's really focusing on supporting our customers with supply.

So we don't see any, call it, pricing that we do. Obviously, we're always sensitive to costs, and we keep an eye up on cost. So if we do get cost increases that are not part of already our LTSA or cost increases that are new that we haven't gotten yet from some of the vendors, we are -- of course, we'll pass those on. But as far as the pricing environment, net of that, we do see it as stable.

# **Operator** [56]

This does conclude the question-and-answer session for today's conference. I'd now 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 [57]

Thank you again for joining our call, and thank you for the thousands of onsemi employees who have had a direct impact on our exceptional results. As we enter this new year, amid a dynamic macro environment, I'm confident that we will maintain our momentum and navigate this market better than we ever have as a company. Thank you.

# **Operator** [58]

This concludes today's conclude call. Thank you for your participation. You may now disconnect. Everyone, have a wonderful day.