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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

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\* Christopher Brett Danely

Citigroup Inc., Research Division - MD & Analyst

\* Gary Wade Mobley

Wells Fargo Securities, LLC, Research Division - Senior Analyst

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\* Ross Clark Seymore

Deutsche Bank AG, Research Division - Managing Director

\* Toshiya Hari

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

\* William Stein

Truist Securities, Inc., Research Division - Managing Director

### **Presentation**

## **Operator [1]**

Good day, and thank you for standing by. Welcome to the onsemi Second Quarter 2022 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, 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, Liz. Good morning, and thank you for joining onsemi's Second Quarter 2022 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](http://www.onsemi.com). A replay of this webcast, along with our 2022 2nd 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, we will make projections or other forward-looking statements regarding the 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 forward-looking statements are described in our most recent Form 10-K and Form 10-Qs in other filings with the Securities and Exchange Commission and in our earnings release for the second 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, changed 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, everyone, for joining the call. Nearly a year ago to the date, we unveiled our strategy to deliver intelligent power and sensing technologies for the sustainable ecosystem, fueled by high-growth megatrends in automotive, industrial and cloud power. This meant that we would not only provide differentiated solutions for our customers, but that we would execute on our commitments to our shareholders.

Today, we announced another quarter of record revenue, gross margin and EPS, and I could not be prouder of the progress we have made. We achieved our first ever \$2 billion revenue quarter with record revenue in the automotive and industrial end markets. As compared to last year's second quarter, our total revenue increased 25%. Our non-GAAP gross margin expanded by 1,130 basis points and our earnings per share more than doubled to \$1.34 per share.

In the face of challenging business conditions, our employees have maintained steadfast in their dedication to our customers, and I want to thank them all for their continued hard work and tenacity.

Despite ongoing geopolitical and macroeconomic uncertainty, demand for products in our focus areas remain strong. Our automotive and industrial revenue now accounts for 66% of our overall business and combined grew 9% quarter-over-quarter and 38% year-over-year. This performance was driven by increasing adoption of our market-leading intelligent power and sensing solutions in the fastest-growing applications.

We have seen a slowing demand in our noncore end markets, but demand from automotive and industrial continues to outpace supply. The volatility in energy markets and supply chain disruptions across the globe are driving an accelerated adoption of electric vehicles, alternative energy and industrial automation. Our market-leading portfolio, coupled with the differentiated performance of our products and end-to-end capabilities has distinguished onsemi as a premier source for intelligent power and sensing solutions, and our customers are increasingly relying on us to enable their roadmap in a rapidly evolving market.

While we are optimistic about our outlook, we remain sensitive to dynamic market conditions. The structural changes we implemented over the past 18 months to rationalize our product portfolio and optimize our cost structure, have reduced the volatility in our financials and we have positioned the company to be more resilient in all business environments.

The nature of our customer engagements has evolved into strategic partnerships to support our customers' long-term technology roadmaps, advanced capacity planning and supply assurance. Customers continue to expand the scope of their LTSA's to include onsemi's entire portfolio of intelligent power and sensing solutions, which accounted for 66% of our total revenue in the second quarter, up from 62% a year ago. We have signed LTSA's covering up to 200 parts across our entire portfolio and for existing LTSA's customers are still requesting additional near-term volumes and extending the duration of our agreements in some cases, through 2029.

For their longer-term demand, they are co-investing with onsemi capacity expansion to secure their supply, which in turn improves our demand planning.

We continue to make progress in our transformation journey to structurally improve the gross margin of the company. We have redeployed capital to high-margin, high-growth areas such as silicon carbide and over the last 12 months, we have exited approximately \$210 million in revenue and an average gross margin of 24% and of which \$36 million occurred in the second quarter at an average gross margin of 34%. Despite a deliberate loss of noncore revenue we have been able to grow at an impressive pace and offset these losses with new product revenue, which increased 35% year-over-year at favorable gross margins.

Our Intelligent Power revenue grew by 31% year-over-year and 10% quarter-over-quarter driven by the market-leading efficiency of our solutions. The superior performance of our silicon carbide and IGBTs has enabled us to engage directly and sign LTSA's with leading automotive OEMs and EV disruptors across the globe. They rely on onsemi's silicon carbide expertise and end-to-end capabilities to help them achieve their electrification goal. Although internal combustion engine vehicle sales were nearly flat in 2021, EVs grew by 94% and are expected to grow at a CAGR of 22% to 45% of total light vehicle units in the next 5 years.

Electric vehicles require up to \$700 of incremental onsemi content for drivetrain and onboard charging as compared to an internal combustion engine car. As the transition continues to accelerate from ICE vehicles to electric, we expect to see steep growth in our Intelligent Power revenue for automotive.

Our progress to our silicon carbide leadership is one that I'm especially proud of. We are seeing a steep acceleration in our silicon carbide ramp and have doubled our silicon carbide revenue quarter-over-quarter in the second quarter. We had forecasted to double last year's silicon carbide revenue in '22 and thanks to our global team's impressive acceleration of our capacity expansion plans and our latest customer engagement, we are confidently raising our annual projection to triple last year's silicon carbide revenue in 2022 and exceed \$1 billion in revenue in 2023. Towards that end, we have also secured more than \$4 billion of committed silicon carbide revenue through long-term supply agreements for the next 3 years as compared to the \$2.6 billion we had previously disclosed.

To support the steep acceleration in our silicon carbide revenue, we are rapidly expanding capacity across our sites. By the end of this year, we plan to quadruple our substrate output on a year-over-year basis, and we are adding capacity for wafering, Appy and modules at our various sites around the globe. Furthermore, we are adding 200-millimeter silicon carbide capacity at our existing fabs and we are on track to double our front-end wafer capacity by the end of 2023 as compared to that at the end of '22 and further double that capacity by the end of '24.

Our energy infrastructure business is also growing at a rapid pace. With a year-over-year revenue increase of 61% in Q2, we are on track to exceed our 2022 target of 50% growth year-over-year. As I indicated earlier,

volatility in the global energy supply is driving rapid adoption of [ alternative ] energy and with our broad portfolio of high-efficiency silicon carbide and IGBT modules, we are the key enabler in this market. We expect the alternative energy market to be a long-term driver for our business, as utility-scale power plant installations grow rapidly worldwide, reducing both fossil fuel dependence and associated climate impact.

The top 10 solar inverter suppliers have more than 80% of the global market share, and onsemi has signed long-term supply agreements with 7 of them totaling more than \$1 billion in revenue. Beyond the LTSA's, we continue to expand our footprint in the alternative energy market. And in the second quarter, we secured a design win for our silicon carbide module for solar inverse with a leading global industrial OEM. While silicon carbide is the fastest-growing part of our power business, our silicon power products remain integral to our Intelligent Power portfolio with year-over-year growth of approximately 30% in our IGBT and MOSFET revenue. This growth was primarily driven by automotive and industrial where higher efficiency of our products is a key differentiator.

Our intelligent sensing revenue grew by 39% year-over-year and by 10% quarter-over-quarter. The growth in our intelligent sensing was driven by both automotive and industrial end markets which grew by approximately 60% and 30%, respectively, year-over-year. The steep growth in our automotive Image Sensors is driven by an increasing number of cameras per car, a mix shift towards higher resolution and higher ASP sensors and accelerating penetration of ADAS. One of the primary drivers of increasing number of cameras per car has been the efforts by traditional OEMs to match the ADAS and related safety features offered by constructors and the new EV models.

We are seeing increasing use of our Image Sensors to enable safety through the replacement of traditional mirrors by camera-enabled digital mirrors. We secured a design win for a digital mirror that incorporates 4 cameras for the rear and outside views. This mirror overcomes obstructions caused by passengers, headrests and other objects and provides integrated rearview and side view for blind spot monitoring. We signed another LTSA to supply Image Sensors for a vision system to replace mirrors with cameras and commercial trucks. This system provides the driver with a more complete view of operating conditions over traditional mirrors and delivers improved driver vision and flight spot elimination.

We entered into an LTSA with a leading manufacturer of agriculture equipment to supply our new super exposure flicker-free high dynamic range image sensor for targeted spray systems in weed elimination. A vision system comprising more than 30 onsemi Image Sensors, identifies weeds and signals the nozzle control system to precisely spray herbicide in just the right quantity. This application sustainably eliminates the indiscriminate use of agricultural chemicals, enable savings of more than 75% of herbicide and helps protect the environment.

In the industrial end market, our growth is driven by industrial and warehouse automation applications. Our scanning business grew by 70% year-over-year, driven by strong traction of our Image Sensors and industrial and warehouse applications. This growth is driven by expansion and increased automation of warehouse by global e-commerce leaders. Our proprietary global shutter technology, which enables high-speed capture of images and low light performance, coupled with strong technical support are the key drivers of our leadership in this market.

Our transformation journey is well underway, and we are aggressively hiring worldwide to keep up with our growth. Onsemi is driving disruptive innovation and route energy in the semiconductor space. And the work we do matters for our customers, to our employees and for the environment. We play a greater role in the most exciting megatrends that will define our future, such as electric vehicles, autonomous driving, robotics and automation and alternative energy. There is no better time to be part of a growth story like ours, and I invite anyone interested in joining our talented team to apply online.

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. Another quarter of record results clearly demonstrates our accelerating momentum in the fastest-growing semiconductor market and the progress we have made in our transformation. We are a stronger company today after having focused our strategy, redirected our investments and doubled down on Intelligent Power and Sensing Solutions for the automotive, industrial and cloud power markets.

We rationalized our product portfolio by exiting price-sensitive products in favor of highly differentiated, Intelligent Power and Sensing Solutions. Our worldwide teams are focused on operational efficiencies to reduce costs while we continue to make progress towards our fab lighter manufacturing strategy with the announced divestitures of 2 subscale fabs.

The structural changes we have implemented over the last 18 months have significantly improved the predictability of our financial results and to position the company to consistently execute in dynamic market conditions.

Our disciplined execution resulted in record financial performance for the last 5 consecutive quarters, and we are thrilled that the results of our transformation are being recognized by the financial and business communities.

In a noteworthy milestone, onsemi has been included in the S&P 500 Index and recognized as a Fortune 500 Company. We could not have achieved these results without the dedication of our worldwide team, and I continue to be impressed with their operational excellence quarter after quarter. To our employees around the world, thank you for your unwavering commitment to ensuring the success of our customers.

We are seeing unprecedented demand for our products driven by accelerating megatrends of vehicle electrification, ADAS, factory automation and energy infrastructure. In silicon carbide alone, we have LTSAs of more than \$4 billion for the next 3 years. Our customers value the market-leading performance of our solutions, the breadth of our intelligent power and sensing portfolio and our end-to-end manufacturing capabilities and choose onsemi as a strategic partner to enable their long-term technology roadmaps.

Our focused markets of automotive and industrial grew by 41% and 34%, respectively, year-over-year to account for 66% of revenue as compared to 59% a year ago. We expect continued strength in the automotive and industrial end markets amidst slowing demand for our noncore businesses, parts of which we are exiting to further achieve our transformation goals.

We're also making progress on our sustainability initiatives. Last quarter, we published our sustainability report in which we reiterated our commitment to achieving net zero by 2040. We recognize the importance in doing our part for the environment as we deliver cutting-edge technologies that enable our customers to create a sustainable future.

In 2021, approximately 75% of our revenue was sustainable product revenue. We significantly reduced our water consumption compared to the previous year, and we are already making progress in reducing our greenhouse gas emissions. Our Intelligent Power solutions for electric vehicles, EV charging and energy infrastructure are helping to slow the pace of climate change and our Intelligent Sensing solutions enable automation and efficiencies which in turn reduced energy consumption.

Turning to results for the second quarter. As I mentioned, Q2 was another quarter of record results. Total revenue was \$2.085 billion, an increase of 25% over the second quarter of 2021 and 7% quarter-over-quarter. This increase was driven by strength in our automotive and industrial businesses, which grew 38% year-over-year and 9% quarter-over-quarter. Our Q2 revenue was above the high end of our guidance range as we navigated the China lockdown and recovered the impacted revenue late in the second quarter.

Revenue from both Intelligent Power and Intelligent Sensing was at record levels. Intelligent Power grew by 31% year-over-year to 48% of revenue and Intelligent Sensing grew by 39% year-over-year to 18% of revenue. All 3 business units reported record revenue in the second quarter. Revenue for the Power Solutions Group, or PSG, was \$1.06 billion, an increase of 25% year-over-year and achieving its first \$1 billion quarter. Revenue for the Advanced Solutions Group, or ASG, was \$716.7 million, an increase of 18% year-over-year. Revenue for the Intelligent Sensing Group, or ISG, for the quarter was \$311.3 million, an increase of 44% year-over-year.

GAAP and non-GAAP gross margin for the second quarter was 49.7%. Our non-GAAP gross margin improved 30 basis points quarter-over-quarter, primarily driven by a favorable mix of automotive and industrial markets and despite a proactive slowdown in our wafer starts, which reduced our utilization from 81% in Q1 to 77% in the second quarter.

Six quarters into our transformation, a better control of our operational levers to optimize efficiencies, maximize output and deliver for our customers and our shareholders.

GAAP operating margin for the quarter was 28%, and non-GAAP operating margin was a record of 34.5%. GAAP earnings per diluted share for the second quarter was \$1.02 as compared to \$0.42 in a quarter a year ago. Non-GAAP earnings per diluted share was \$1.34 as compared to \$0.63 in the second quarter of 2021.

We relaunched our share buyback program and for the first time in over 2 years, repurchased 1.5 million shares or \$89.7 million at an average price of \$59.76 per share. This represents 44% of our free cash flow for the second quarter, and there is \$1.2 billion remaining on our authorized repurchase program.

Now let me give you some additional numbers for your models. GAAP operating expenses for the second quarter were \$453.1 million as compared to \$357.9 million in the second quarter of 2021. Non-GAAP operating expenses were \$317.7 million as compared to \$314.2 million in the quarter a year ago.

Non-GAAP operating expenses increased by \$14.9 million sequentially and driven by hiring to support our growth. As I indicated in previous calls, OpEx will continue to trend higher as we bring in additional talent to support our growth. As we guided in the past, our non-GAAP tax rate will increase in 2022 as we have substantially utilized our NOL attributes.

For the second quarter, our non-GAAP tax rate increased to 16.3% from 4.6% in the fourth quarter of 2021. This change accounted for \$0.18 of EPS dilution in the second quarter and \$0.34 year-to-date. Our GAAP diluted share count was 447 million shares, and our non-GAAP diluted share count was 441.6 million shares. Please note that we have an updated reference table on the Investor Relations section of our website to assist you with calculating our diluted share count at various share prices.

Turning to the Q2 balance sheet. Cash and cash equivalents was \$1.79 billion, and we had \$1.5 billion undrawn on our revolver. Cash from operations was \$420.8 million and free cash flow was \$202.7 million and free cash flow on an LTM basis was 17% of revenue.

Capital expenditures during the second quarter were \$218 million, which equates to a capital intensity of 10.5%. As we indicated previously, we are directing a significant portion of our capital expenditures towards the capacity expansion of silicon carbide and enabling our 300-millimeter capabilities at the East Fishkill fab. We expect to see a higher level of capital intensity in the second half of the year as we continue to invest in equipment and capacity expansion to support our growth.

Accounts receivable was \$1.1 billion, resulting in DSO of 50 days. The sequential increase in AR was due to nonlinear shipments as we recovered revenue late in the quarter from the China lockdown.

Inventory increased \$67 million sequentially to \$1.56 billion, and days of inventory decreased by 3 days to 136 days. We continue to build inventory to support our fab transitions and ramping silicon carbide. Distribution inventory decreased approximately \$12 million quarter-over-quarter and remains consistent with Q1 at 7.1 weeks. We continue to maintain distribution inventory at historically low levels to hold more inventory on our balance sheet for our customers' needs rather than building inventory in the supply chain. Total debt was \$3.2 billion, and our net leverage remains well under 1%.

Turning to guidance for the third quarter. Demand continues to outpace supply in our targeted automotive and industrial end markets while there are pockets of softness in our noncore markets. Given the uncertainty in the macro environment, we are taking a conservative stance in judging down demand in our guidance for the third quarter. A table detailed in our GAAP and non-GAAP guidance is provided in the press release related to our second quarter results.

Let me now provide you key elements of our non-GAAP guidance for the third quarter. We anticipate revenue will be in the range of \$2.07 billion to \$2.17 billion. We expect non-GAAP gross margin to remain between 48% to 50%. This includes share-based compensation of \$3 million. Although we continue to focus on long-term gross margin expansion and sustainability are rapidly accelerating silicon carbide ramp will be dilutive to gross margins by 100 to 200 basis points over the next several quarters due to the incremental start-up cost as we scale the operation.

We expect non-GAAP operating expenses of \$319 million to \$334 million to include share-based compensation of \$21 million. We anticipate our non-GAAP OIE will be \$24 million to \$28 million.

For the remainder of 2022, we expect our non-GAAP tax rate to be in the range of 15.5% to 16.5% and non-GAAP diluted share count for the third quarter is expected to be approximately 440 million shares. This results in non-GAAP earnings per share to be in the range of \$1.25 to \$1.37. We expect capital expenditures of \$265 million to \$295 million in the second quarter as we ramp up our silicon carbide production and invest in 300-millimeter capability.

In summary, the transformation of the company has enabled us to deliver outstanding financial results and at the same time, reduce the volatility in our financials. With leadership in Intelligent Power and Sensing solutions for the fastest-growing applications in automotive and industrial, we are well positioned to deliver sustained long-term financial performance for our shareholders.

With that, I'd like to turn it back over to Liz to open up for Q&A.

## **Question And Answer**

### **Operator [1]**

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

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

I guess my first question is on the general macro trends and how you're reacting to them. You talked about a little bit of weakness in your noncore businesses, Hassane. And then Thad, just talked about the utilization actually coming down, sequentially. So how do I, in general, reconcile demand being greater than supply in your core businesses, weakness in your noncore and kind of what does it mean to the ability to backfill on that given your utilization is dropping?

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

Yes. Look, this is Hassane. Not all capacity is fungible, obviously. So what we're doing is we've been very cautious in our inventory management. You've seen our inventory go down in days. We're focusing our inventory on the strategic inventory in our core business and silicon carbide and fab transition. So that will remain that side of the utilization is full. But as we see the softening in the economic and that said, our cautious outlook on the macro, which is built into our guide, we're taking down -- we're taking measures as part of our resilience of our model that we've been talking about in good and bad times. And these are kind of the things we're focusing on to get through this and come out stronger.

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

I guess, Thad, one for you on a little more specifically on the gross margin side of things. You talked about a bunch of different moving parts in your third quarter guide and then even over the next few quarters with silicon carbide being a point or two headwind to gross margin. Can you just walk us through the puts and takes? And I believe at one point, you thought you could keep the gross margin relatively flat at this kind of 49-ish level for the next few quarters, even into the first half of next year. Is that still true?

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

Yes. Look, we're in our targeted range of 48% to 50% in our guidance. I noted that they got a headwind of 100 to 200 basis points resulting from silicon carbide. As Hassane mentioned, the silicon carbide is ramping faster than we anticipated even 90 days ago, and that's causing a dilutive impact. Silicon carbide products at scale are at or above the corporate average. So we're comfortable that we'll continue to achieve our goals there is primarily just the lumpiness of bringing capacity on and supporting that growth that gives us a headwind here. But we are still very happy that we can maintain margins at this level within our target range as we ramp silicon carbide.



And by the way, bringing utilization down slightly to offset some of the inventories that Hassane talked about as well. So I think, again, that shows the resilience in the model.

#### **Operator [6]**

Our next question comes from Chris Danely with Citi.

#### **Christopher Brett Danely, Citigroup Inc., Research Division - MD & Analyst [7]**

Just a follow on Ross' question. So theoretically, when would gross margins bottom for both the silicon carbide and for the overall company?

#### **Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [8]**

Well, look, we think we're -- again, we're in our range, right? We think we're there. There'll be some puts and takes over the next few quarters. We think we'll be able to maintain that range plus or minus. But I would call this kind of the rate at which you should be modeling.

#### **Christopher Brett Danely, Citigroup Inc., Research Division - MD & Analyst [9]**

Okay. And then as a follow-up, you talked about some macro issues in the nonauto and industrial business. Can you just expand on that? And are you guys I guess, predicting that they will get any worse? Or have we seen the worst there? And does this have any impact on the overall pricing for the company?

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

Yes. This is Hassane. Look, I don't know about getting better or worse. They're noncore. We've always said a lot of that business are the areas we want to exit. So we're taking utilization down part of our -- that strategy. It's not going to have an impact on margin from a dilutive side, because I've always said, and I've been very firm even on these calls prior, we're not going to chase that pricing down. We are planning on exiting that business. And therefore, you shouldn't expect any dilution on the margin because of it.

#### **Operator [11]**

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

#### **Vivek Arya, BofA Securities, Research Division - MD in Equity Research & Research Analyst [12]**

I wanted to dig in into your very strong disclosure on the silicon carbide side. If I got it right, I think, Hassane, you mentioned \$1 billion for next year. I think in the past, you said \$1 billion exiting '23? And then probably more than \$2 billion in perhaps '24 and then \$4 billion in terms of run rate or pipeline, I forget the exact word you used, and I think that number used to be \$2.6 billion. So I'm curious, what has driven the upside to your silicon carbide numbers to this extent? How much of this is auto? How much of this is expanding relationship with existing customers versus new customers? And then I had a follow-up.

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

Sure. Look, I've always said the strength of our silicon carbide starts with technology. And when I talk about technology, devices and packages, we have differentiated solutions that matter at the end system, meaning it translates into longer battery, longer range, whatever tuning the OEM would like for that specific platform. So that's consistent, that's now proven in the results that we've seen already beyond what we projected, but also in the outlook that we've said. And you're right, the first disclosure that I put is I've always said we're going to double our silicon carbide in '22. I changed that to triple in '22 based on the strength that we're seeing already, even in the second quarter. So we're going to exit 2022 at a higher run rate than we expected. And then we're going to continue that growth in '23, which leads to the updated number that I've given on the \$1 billion in '23.

Now on the \$4 billion, that's a mix of existing customer that started ramping, came back and deployed additional platforms on their LTSAs and some of them extended the LTSA, but also within the quarter, we have extended the LTSAs with new customers and new platforms. So it is broad, it's geographically and it's



customer diverse. And some of it includes OEMs directly, and that's the level of strategic partnerships we have had. About 90% of it is automotive.

And then you saw me talk about the solar side of it or the renewable energy side, where we've also had LTSAs with the top 7. That's a slower ramp, obviously, than automotive. But nevertheless, that keeps pushing. So 90% of automotive strength and stickiness because of our technology across the board. And of course, we can underestimate the end-to-end capability we have for the supply assurance.

**Vivek Arya, BofA Securities, Research Division - MD in Equity Research & Research Analyst [14]**

Got it. And for my follow-up, how should we think about the percentage of in-sourcing versus outsourcing of substrates that it will take to achieve your \$4 billion target over time? Maybe if you could give us a sense for how much of the substrate requirements are being met internally? And then how do you see that ratio go through time? And what that implies for your capital intensity over time?

**Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [15]**

Yes. So look, our capital intensity already has a lot of the expansion that we talked about. I've always said we're going to exit this year with a quadrupling of our substrate capacity after the GTAT acquisition. We're on track of doing that. That's going to fuel the growth in the subsequent years. And of course, as we put that capacity online, the percent of internal is going to keep increasing into what we want, which is the majority internal. We're always going to have an external component of it because we don't build capacity for a max peak of a ramp. We build capacity for a steady state. So we're going to use external substrate if we need to flex during a ramp. But other than that, I would expect the majority will be from our internal, and that's already accounted in our CapEx numbers.

**Operator [16]**

Our next question comes from Toshiya Hari with Goldman Sachs.

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

I've got 2 as well. First on gross margins. I guess a multipart question. Thad, you mentioned that the gross margin headwind from the SIC ramp over the next several quarters to be 1 to 2 percentage points. Curious how the progression of that will look like, meaning should we expect 25 to 50 basis points of headwind every quarter? Or is it more back half loaded? Any sort of shape of that headwind would be helpful. And then how should we think about EFK from an accounting perspective, how much depreciation would hit your P&L? And what are the implications for gross margins in the first half of '23.

**Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [18]**

Yes. So this is Thad. Let me take those in reverse order. So EFK comes online in 2023. So you're not going to see an impact in Q3 and Q4, obviously. As we bring on the fab, the -- we'll be providing foundry services to GLOBALFOUNDRIES for the next 3 years, which will wind down. As we've said, there is revenue associated with that foundry agreement, which is low margin. You can think about it as being foundry margins in the mid- to high single digits range. You can think about for 2023 is that being a headwind of somewhere around 40 to 70 basis points on a quarterly basis. And that's the impact of that. The rest of it, we feel like we can offset. And obviously, we get the efficiency of a better cost structure as we move more and more products into that fab over time as well.

On the silicon carbide, as I said, 100 to 200 basis points of headwind. It is a little lumpy depending on the revenue and the timing of the equipment. We do believe we can keep the margins in this range of 48% to 50% for the next several quarters. Even with that headwind, you may see it move around a little bit, plus or minus 50 basis points here and there, but we think we can be in that tight range even offsetting those margins. But it doesn't necessarily linear from this point to 200 basis points, it's a little more fluctuation. And like I said, you'll see a little bit of fluctuation on the gross margin line, but we don't think it's material, and we think we can offset it with other efficiencies.

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

A quick follow-up, Thad. The 40 to 70 basis point headwind from the EFK, should we expect you to hold the current range on gross margins even with that headwind? Or could that drive another leg down in [ '23 ]?

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

No, we believe we can offset it with other gross margin expansion initiatives in our fab lighter strategy. So even though it's a headwind, we feel like we can still maintain our margins in this range.

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

Okay. Great. And then as my follow-up, just on capital allocation, it was interesting to see you buyback stock in the quarter, just given sort of the CapEx ramp you spoke to in your SIC business going forward. Can you remind us how we should be thinking about the balance between investing in your business versus returning cash to shareholders? And remind us how much cash you'd like to have on your balance sheet steady state?

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

Yes. Look, I don't think anything really changes with our capital allocation. We continue to invest back in our businesses, R&D, CapEx and obviously investing for our long-term growth. So that's our #1 priority. We've always said we want financial flexibility for M&A if there's some opportunity out there for us on that, that fits our model. And then we would return cash to shareholders through the buyback. We will obviously pace each of those, depending on the requirements. We've got a lot of CapEx requirements over the next several quarters. So we will be very disciplined when it comes to the capital allocation.

**Operator [23]**

Our next question comes from William Stein with Truist.

**William Stein, Truist Securities, Inc., Research Division - Managing Director [24]**

Thad, I think you said that your CapEx plan includes funding from customers. Can you perhaps detail how much of your CapEx plan includes such advances and how that influences your thinking about spending?

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

Yes. So our CapEx doesn't change, right? We said we run around 12% for the next few years, and I think we'll still maintain that funding from the customer to offset that, but you don't see that through the CapEx, our CapEx intensity doesn't necessarily change because we still report it that way. We do have customers that are co-investing with us for capital, in some cases, some NREs, things like that to invest in silicon carbide and other capacity that we're bringing online that makes those customers much more sticky and it's a good -- it just improved that relationship with that customer on a strategic basis.

**William Stein, Truist Securities, Inc., Research Division - Managing Director [26]**

And my follow-up, if I can, relates to the business that you intend to exit. Can you remind us how much of that is left after the current quarter? What's left to exit and maybe the pacing and margin of that, please?

**Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [27]**

Yes, good question. So we've got roughly around -- roughly \$600 million left to exit. We've always said that would be market driven. We're pricing that in a position that as capacity comes back on and it's the price sensitive part of our portfolio that we would likely exit it. We haven't been exiting as fast as what we anticipated. Originally, we thought we'd exit about another \$300 million in the latter half of this year. We think we're probably going to exit about half of that. So roughly about \$150 million between Q3 and Q4. And then that obviously leaves a big slug for us next year as well in 2023. If the market gets softer faster, we could exit that faster. We've always said faster is better for us. We'll rightsize our manufacturing and reallocate that capacity into automotive and industrial. But you can expect roughly kind of even, I think, \$75 million a quarter between Q3 and Q4.

**William Stein, Truist Securities, Inc., Research Division - Managing Director [28]**

And the margin on that, can you remind us?

**Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [29]**

Yes. That margin is what we exited last quarter, I think it was about 34% margin. You can think about most of that today is kind of being in the low 40% range. That is the stuff that is highly price sensitive.

**Operator [30]**

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

**Rajvindra S. Gill, Needham & Company, LLC, Research Division - Senior Analyst [31]**

Congrats on navigating through this uncertain environment with really good results. Just Thad, another follow-up on the gross margins. If I add up the EFK headwinds of negative 40 to negative 70 basis points a quarter plus the silicon carbide start-up cost of negative 100 to 200. You're talking about anywhere between negative 140 to negative 210 basis points through gross -- headwinds to gross margins over the next several quarters. Stripping that out would put your gross margins above 50% for the -- on a more normalized basis. So my question number 1 is that's still a significant headwind if you combine the 2, and yet you're kind of still talking about a 48% to 50% range. So specifically, what are the drivers to offset that headwind especially the fact if utilization rates are going to be dropping for some of the noncore business? I'm curious how you're able to offset those kind of several headwinds over the next several quarters?

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

Yes, look, this is Hassane. In the short term, obviously, those are the headwinds that we're offsetting through efficiencies that we have internally. I talked about new products ramping, show new products ramping outside of silicon carbide are accretive to gross margin. So we have a lot of these -- and I always said thousands of line items that we keep working on in order to offset that. And over a longer time, that's going to take itself out with silicon carbide ramping. The dilution effect will get less and less as we ramp into that capacity. And the same thing with EFK, where our foundry business to GLOBALFOUNDRY will be reduced year-over-year at quarter after quarter, which will reduce that headwind. So in the short term, it's operational efficiencies that we are driving and longer term is structural as we grow into it. And while we do that, we're navigating the market like you've seen us do using utilization very carefully to balance between utilization and inventory building.

**Rajvindra S. Gill, Needham & Company, LLC, Research Division - Senior Analyst [33]**

And just for my follow-up, if you look at your auto business, it was \$784 million in Q2 versus \$556 million in June of last year. Taking out 2021 and 2020, which was during the COVID years, it's still almost 80% above where it was at pre-COVID levels. So \$440 million in June of 2019, now you're doing \$784 million if you look at it from that perspective. So obviously, the units have not -- units have been kind of declining since 2019. I know the content is very strong. But just wondering how you're able to get this kind of outsized growth even from kind of pre-COVID levels? What's happening with respect to pricing? And how much of that pricing scenario is going to be sustainable as we go into next year?

**Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [34]**

Yes, that's a very good question because that's something I look at internally. So from the unit's perspective, you can't really linearize the units because a lot of the things we have been exiting also when we talk about not just the noncore market but also nondifferentiated products. A lot of it is that very, very high volume very, very low ASP business that we have been exiting, which some of it is going into automotive. So from a unit decline, I review that. The only thing I look at that is how to balance the manufacturing into our fab lighter strategy. So that's one thing here. But a lot of the new products that we are shipping are higher ASP but not as much volume. Think about IGBT modules, think about silicon carbide module much higher ASP and much lower volume.

The second part of the growth is if you compare the EVs built back into -- if I go back to '18, if you want to do that as the baseline, EV units are much, much higher percent of total units built than they were 3 years ago, even when they were last year. So a lot of that is the content. Then of course, you have the pricing stuff, which I've always said is -- some of it is we're pricing ourselves out of the market, and that's the stuff we're not going to chase down and that's sustainable as far as margin, not sustainable from a price perspective, and that's expected. But the price-to-value discrepancies that we have been doing is sustainable.

And the way I monitor that is, one, the LTSAs that customers are signing, which includes volume and price over the length of the LTSA. And even on my prepared remarks, I talked about customers coming in and wanting to extend those LTSAs beyond the original time line that they had. And LTSA is not about image sensor or silicon carbide or highly constrained, it's some of them have 200 parts from onsemi. So customers are valuing the whole portfolio. They're valuing where we are economically even with the price-to-value discrepancies because we started way below market and that is sustainable, one from the LTSA side; and two, I know kind of a feel of where we are versus the market, and we're not an outlier.

### **Operator [35]**

Our next question comes from Gary Mobley with Wells Fargo.

### **Gary Wade Mobley, Wells Fargo Securities, LLC, Research Division - Senior Analyst [36]**

I believe that would be me Gary Mobley, Wells Fargo Securities. I apologize if otherwise. But I had a multi-part question on silicon carbide. And so I'm wondering what your view is on silicon carbide contribution to gross margin over the long term. Will it be at corporate gross margin when that business is \$1 billion plus next year? And with respect to silicon carbide materials capacity or supply, I believe there's a constrained situation in that market today. And so I'm wondering if that's contemplated as well into your fiscal year '23 outlook?

### **Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [37]**

Yes. The silicon carbide, as we've said, is at or above the corporate average gross margin at scale. We believe for the next several quarters, we're going to have the headwinds of 100 to 200 basis points. But I think if you think about late next year, we will -- that headwind should be behind us, and we will be achieving those gross margin targets at that time.

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

Yes. From -- look, from a supply demand perspective, it's hard to make silicon carbide and it sure's hard to scale it at the pace we are scaling it. Based on the acceleration of the EV penetration into total vehicles made, we do see, and I think that comment is supported by some of the industry analysts out there silicon carbide is going to remain constrained in the foreseeable future. And that's why our focus is on investing heavily into that capacity, ramping that capacity as hard as we can and supporting our LTSA customers and that's the reason we -- you've seen an increase in LTSA customers that are signing up with committed revenue because they want to get that capacity, they want to have us invest in that capacity so we are there when they need to ramp versus them having to scramble. The last thing they want is announce EV aspirations and not have the main event that drives the car. So we're working with our customers to support their EV ramps. And we do that through LTSAs, and we do that through heavy investments in order to increase the pace. That's what we need.

### **Gary Wade Mobley, Wells Fargo Securities, LLC, Research Division - Senior Analyst [39]**

As my follow-up, I wanted to ask. About what's embedded in your third quarter guidance with respect to some of the end markets that may be showing some softness? In particular, I'm curious to know what your exposure is currently between consumer PCs and smartphones. Can you remind us of that?

### **Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [40]**

Yes. Look, when we think about the guidance going forward, we believe that auto and industrial continue to be supply constrained. So we believe that auto is up more than our guidance. We think that industrial is flat to

up, and we think the other markets are potentially down, and that's the conservative in our guide there. We don't break out between those various markets. They're not strategic to us. And again, part of where we're seeing the softness is the noncore business that we're hoping to exit. So if that does get softer faster, that could allow us to exit even quicker.

#### **Operator [41]**

Our next question comes from Joseph Moore with Morgan Stanley.

#### **Joseph Lawrence Moore, Morgan Stanley, Research Division - Executive Director [42]**

Staying with the silicon carbide topic, as I add up kind of the numbers you're talking about and I look at the numbers that your top 4 or 5 competitors are talking about, we're getting to numbers that are much larger than kind of the third-party estimates for silicon carbide. So I assume that the market is growing faster than the third-party success, but I would have thought we were constrained by battery capacity and just kind of the general EV and battery power capability of your customers. So do you think the market is expanding that much more rapidly versus on success within the market? And do you think some people might be overly optimistic about where -- how big this could be?

#### **Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [43]**

Yes. Look, one thing history have taught me is external reports are accurate backwards looking, not so much forward-looking. The numbers I'm putting together, and I'm sure some of my peers do that. Our bottom -- for us, I can speak specifically, their bottoms-up number. They are numbers that are under long-term supply agreements. And remember, we always talked about those are committed revenue. It's not -- I don't talk about funnel. I don't talk about projections of what conversion is going to be. These are long-term supply agreement. Contractual documents between us and the customer, stating by year and some of them by quarter about what the rent profile and we have identified vehicle platforms that we're working on with the customer where that silicon carbide is going to go into. So from the onsemi side, I can speak very comfortably about the ramp that we are seeing because that's what we're working on.

Now from what derisks the ramp and the market in general is the geographical and the customer/ platform diversity that we have engaged in, where if there is one model that doesn't ramp the way they expect, there will be another model that will ramp faster than they expect. Because for us, the LTSA especially the ones with an OEM are at an OEM level, not necessarily at a model level. So that's how we balance the risk. A lot of the strategies that we are working with, we always look at overall capacity from a battery perspective because that will be kind of the secondary bottleneck. A lot of these OEMs have committed battery capacity and they've made their own disclosures, so I won't comment on that.

So from a ramp perspective, it is ahead of where we even thought there is an acceleration of silicon carbide that we have seen in our current revenue and have seen outlined in our projection with the long-term supply agreements, but we are ready for it and our customers have everything else they need to ramp up that volume.

#### **Joseph Lawrence Moore, Morgan Stanley, Research Division - Executive Director [44]**

Great. And just a quick follow-up, kind of more of a housekeeping thing. The -- is the treatment of the start-up expense in silicon carbide sort of similar GAAP versus non-GAAP or are there any big differences we should be aware of?

#### **Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [45]**

All of our startup costs are in our non-GAAP results. So we don't exclude anything. That's the headwinds.

#### **Operator [46]**

Our next question comes from the line of Harsh Kumar with Piper Sandler.

#### **Harsh V. Kumar, Piper Sandler & Co., Research Division - MD & Senior Research Analyst [47]**



I had a quick one. When I talk to investors that are negative or bearish on the stocks, they often bring up the fact that you guys might have been involved in raising prices a lot more aggressively than some of your other competitors. I was curious, Hassane, if you could walk me through how things work in real life in the business. Is that even possible that you are super aggressive in raising prices and maintain business with our customers? Or do you risk losing business? I was just curious if you can give me puts and takes on that angle. And then I've got a quick follow-up.

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

Yes. Look, I'll give you -- I've been very straightforward about this. There's 2 components of this. I'll talk with the easiest one first. We've always been very straightforward and direct about the fact that in noncore business that we plan to exit, we price ourselves out of the market. That's one way to exit that business is by pricing yourself out of the market. So that I would say, if that's where you're hearing it from, that would be true. And there is -- it's not a risk of losing business. It's the intent of losing the business, and we've had that intent, and we even disclosed it in our prepared remarks of how much we lost and how much we intend on losing. So that's one side of it.

The other side, which is more on the value strategic, as I talk about the price-to-value discrepancy, I don't think there's a risk of losing that business, especially with the fact that a lot of these products the value products that we supply to our customers. After the price actions that we've taken, we still remain committed to them, and we have them under LTSA's with our customers. That tells you that our pricing is not out of line. Otherwise, why would the customer want to sign up for it, one. And two, why would they want to come back and extend that?

Now relative and it's all relative, maybe the percent that you hear that we've raised higher may be higher than as a percent than some of our peers have done. I don't know what they've done. I don't know what talk is in the market, but you also have to remember where we started from. In a lot of areas, and I have that data that we're acting on, we have been pricing way below market. So getting it back to market, maybe a bigger percent, but it doesn't mean that you're above market and the data and the commitments from our customers prove that from an external view.

**Harsh V. Kumar, Piper Sandler & Co., Research Division - MD & Senior Research Analyst [49]**

That was very helpful. And then as a follow-up real quickly, there's a lot of chatter, a lot of talk, not from you guys, but from everywhere else about a Tesla contract possibly. Are you willing to talk about that at all? And is that a part of the \$1 billion 2023 goal? That's another question we get from investors a lot.

**Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [50]**

Look, I will maintain my policy of not commenting on specific customer engagement or customer ramps. So I'll leave it at that.

**Harsh V. Kumar, Piper Sandler & Co., Research Division - MD & Senior Research Analyst [51]**

Fair enough. Thank you, Hassane. Congrats, guys. Thanks.

**Operator [52]**

Our next question comes from Matt Ramsay with Cowen.

**Matthew D. Ramsay, Cowen and Company, LLC, Research Division - MD & Senior Technology Analyst [53]**

I wanted to ask on the silicon carbide business. As you get to sort of this \$1 billion in scale and continue to scale beyond that, Hassane, you mentioned that this is going to be sort of a historically quick volume ramp of a new technology that's no doubt complicated to get to yield and to scale. So what I would like to understand a little bit more about how your agreements with your customers. Obviously, if there's upside to your ability to scale yields and volumes then great, you'll be able to fulfill all that. But is there any sort of, I don't know what the right term would be, risk sharing in some of these agreements in case the yields maybe don't come

through as you guys planned? It's great that you're winning all this business. I'm just trying to figure out how you might risk mitigate some of the volume ramps and the yield ramps as this technology scale.

**Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [54]**

Let me put it this way. We have enough data, and we've been in this business for long enough to have a very solid baseline and a very solid learning, call it, slope. Whether it's yield, whether it's growth, whether it's ramp, et cetera, I'm very, very comfortable with our commitments to our customers. With, I would say, the way we look at it is equal upside, downside. I'm not concerned about that. My main focus is not on the technology and what the technology is outputting, right now, it is having -- putting the equipment in place, ramping that equipment, and we've done a great job at that so far, and we're going to continue to do that. But the biggest thing for us is ramping the baseline that we've already established. We have a great product and very good yield that is going -- that has been and already is in production.

**Matthew D. Ramsay, Cowen and Company, LLC, Research Division - MD & Senior Technology Analyst [55]**

That's great to hear. I think from my conversations anyway, I think that's the sort of the last hurdle to get investors across is just the confidence in those metrics.

**Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [56]**

Yes. I'm not worried about the metrics. I personally review those metrics. I'm a technology person other than a CEO, and we have a solid outlook with the solid financials that said projected.

**Matthew D. Ramsay, Cowen and Company, LLC, Research Division - MD & Senior Technology Analyst [57]**

A quick follow-up for that. I got a couple of questions this morning on the receivables and DSO lines jumping up a bit in the quarter, if you had any context there. I'd appreciate it.

**Thad Trent, ON Semiconductor Corporation - Executive VP, CFO & Treasurer [58]**

Yes, absolutely. As I mentioned in the prepared remarks, we recovered the -- from the China lockdown. So if you look at our revenue for the quarter, it wasn't linear because of that. So it was very back-end loaded which caused AR to go up and DSO to go up. But it's temporary just as it takes time to collect that cash. But natural in terms of -- if you look at the slope of linearity throughout the quarter being back-end loaded. Don't expect that to continue now that we fully recovered that revenue and from the China lockdowns, and we're not seeing any impact going forward, knock on wood here. But that's the reason. It's purely temporary.

**Matthew D. Ramsay, Cowen and Company, LLC, Research Division - MD & Senior Technology Analyst [59]**

Congrats on all the progress.

**Operator [60]**

That concludes today's question-and-answer session. I'd like to turn the call back to Hassane El-Khoury, President and CEO, for closing remarks.

**Hassane S. El-Khoury, ON Semiconductor Corporation - President, CEO & Director [61]**

Thank you all for joining us today. We delivered outstanding results in the second quarter, and I again want to thank our worldwide team for their commitment to excellence as we execute to our strategy. While we have exceeded our expectations, we are nowhere near the full potential of onsemi. With accelerating growth in our silicon carbide [indiscernible] fastest growing mega trends, we are on a path to deliver sustained above-market revenue and earnings growth. We look forward to seeing you at various investor events during the quarter. Thank you.

**Operator [62]**



This concludes today's conference call. Thank you for participating. You may now disconnect.