

# REVASUM

## Investor Update

September 13, 2021

Rebecca Shooter-Dodd  
President & Chief Executive Officer

Dr. Karey Holland  
Chief Technology Officer

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## Non-IFRS financial measures

Revasum uses certain measures to manage and report on its business that are not recognised under Australian Accounting Standards or IFRS. These measures are collectively referred to in this document as 'non-IFRS financial measures' under Regulatory Guide 230 'Disclosing non-IFRS financial information' published by ASIC. Management uses these non-IFRS financial measures to evaluate the performance and profitability of the overall business. The principal non-IFRS financial measures that are referred to in this document is EBITDA. EBITDA is earnings before interest, tax, depreciation and amortisation and significant items. Management uses EBITDA to evaluate the operating performance of the business prior to the impact of significant items, the non-cash impact of depreciation and amortisation and interest and tax charges.

Although Revasum believes that these measures provide useful information about the financial performance of Revasum, they should be considered as supplements to the income statement measures that have been presented in accordance with the Australia Accounting Standards and IFRS and not as a replacement for them.

Financial Data

All dollar values are in US dollars (US\$) unless otherwise presented.

# Revasum Corporate Overview

Revasum designs & manufactures capital equipment for substrate conditioning and device manufacturing in the global semiconductor industry with a strategic focus on the Silicon Carbide (SiC) market and wafer sizes  $\leq 200\text{mm}$ . The Company's manufacturing and R&D is based in San Luis Obispo, California, USA.

80+

Patents Covering CMP, Grind  
& Polish

US\$15.4M

FY20 Revenue

600+

Worldwide Tool Install  
Base

68+

Employees

AU\$47.00M\*

Market Capitalization  
(ASX: RVS)

100%

R&D and Manufacturing in  
the USA



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\*Share data as of 8 September 2021

## Management Team



Rebecca Shooter-Dodd  
President and CEO &  
Executive Director



Karey Holland  
CTO



Bill Kalenian  
VP of Engineering



Chris Sloan  
VP of Worldwide Sales  
& Marketing

## Board of Directors

Vivek Rao – Chairman & Independent Non-Executive Director

Ryan Benton – Independent Non-Executive Director

Kevin Landis – Non-Executive Director

Paul Mirabelle – Independent Non-Executive Director

Rebecca Shooter-Dodd – President and CEO & Executive Director

# 2021 Highlights and Updates

## Solidified Executive Management Team

- Rebecca Shooter-Dodd promoted to President and CEO & Executive Director
- Dr. Karey Holland hired as Chief Technology Officer
- Chris Sloan hired as VP Worldwide Sales & Marketing

## Commercialization & Development of New SiC Technology

- Purchase order secured for two 6EZ SiC Polishers from a NASDAQ listed customer, for delivery to their European facility – the first of the two tools shipped on September 9<sup>th</sup>, 2021.
- Continued investment in technology with the 7AF-HMG now SMIF compatible, allowing for full factory automation. First SMIF compatible tool shipped to a customer.
- Became a member of PowerAmerica to collaborate with other industry players to accelerate the adoption of SiC technology and raise awareness of Revasum within the industry.

## Record-High Sales Order Backlog of Confirmed POs

- Fully booked for equipment manufacturing slots for 2H21. Entered the second half with over US\$10M sales order backlog (confirmed purchase orders from customers), all of which is scheduled to ship in 2H21.
- Since half year-end we have taken additional equipment orders for shipment in Q122 and spares orders to ship in 2H21.
- Strong engagement with key industry participants for Silicon Carbide for both our 7AF-HMG and 6EZ. Increasing demand also seen for our Silicon product suite including the 6DZ.

## Strengthened Balance Sheet

- A\$7.9 million (US\$6.1 million) pro-rata entitlement offer completed with strong support from current investors.
- First round PPP loan of US\$2.2 million fully forgiven. Second round PPP loan of US\$1.2 million secured during the period. No other outstanding debt and cash of US\$6.1M.

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1H 2021 FINANCIAL UPDATE

# Key Financial Metrics – 1H21

US\$7.4M

Equipment Backlog

US\$4.6M

-30%<sub>2</sub>

Year to Date Revenue

US\$4.6M

-48%<sub>2</sub>

Year to Date OPEX

US\$5.4M

-14.3%<sub>1</sub>

Raw Materials

US\$6.1M

Cash at Bank &  
On Hand

US\$2.6M

Other Revenue Backlog

US\$2.2M

+US\$1.3M<sub>2</sub>

Year to Date Gross  
Profit

48.4%

+35.3%<sub>2</sub>

Year to Date Gross  
Margin

US\$3.3M

+40%<sub>1</sub>

WIP

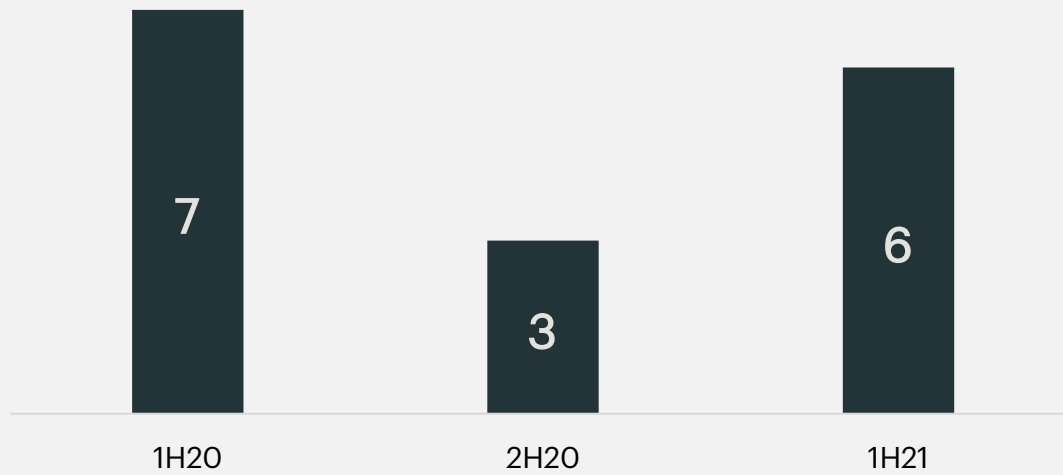
US\$0.8M

Operating Cash Outflows  
YTD (6 months)

# Growing Our Customer Base & Recurring Revenue

Revasum has a **strong & loyal customer base** including top-tier industry participants, but over the last 18 months we have continued to build this up. At the start of 2020 we had 79 active customers and have grown this as shown below.

New Customers



Whilst our core revenue base is the sales of capital equipment, we also **derive other revenues from the following sources and are working to grow these revenue streams:**

- Spare parts and consumables
- Paid service visits
- Engineering projects for customers
- Paid process development work

Recurring Revenue



# Summary Income Statement

(USD in millions)	1H21	1H20	Y/o/Y Change
Revenue	\$4.6M	\$6.5M	(29.2%)
Gross Profit	\$2.2M	\$0.9M	162.2%
GM%	48.4%	13.1%	3,530bps
Operating Expenses	\$4.6M	\$9.0M	48.6%
<b>Operating Loss</b>	<b>(\$2.4M)</b>	<b>(\$8.1M)</b>	<b>70.4%</b>

## Reconciliation of Adjusted EBITDA to Operating Loss

(USD in millions)	1H21	1H20	Y/o/Y Change
Adjusted EBITDA Profit/(Loss)	\$0.5M	(\$4.6M)	Nm
Share Based Compensation	\$0.1M	\$0.3M	(66.7%)
Intangibles Impairment	-	(\$3.0M)	100%
Depreciation & Amortization	(\$0.8M)	(\$0.8M)	-
PPP Loan Forgiveness	(\$2.2M)	-	100%
<b>Operating Loss</b>	<b>(\$2.4M)</b>	<b>(\$8.1M)</b>	<b>70.4%</b>

- Revenue reduction is primarily a timing issue, with US\$10.0M sales backlog of confirmed customer purchase orders as at half-year end.
- Gross margin increase from 13.1% for 1H20 to 48.4% for 1H21 as a result of a full review of list prices and cost containment measures.
- Gross profit increase of 162% to US\$2.2M despite lower revenues.
- OPEX down 48.6% year-over-year as a result of ongoing cost management.
- Adjusted EBITDA profit of US\$0.5M for 1H21.
- First round PPP loan of US\$2.2M was fully forgiven in June 2021.

# Summary Balance Sheet

(USD in thousands)	4 July 2021		3 January 2021	
Cash and cash equivalents	\$	6,129	\$	1,364
Trade and other receivables		2,465		2,765
Inventories - net		7,882		6,798
Prop., plant and equip.-net		3,008		3,079
Right-of-use Asset		1,619		1,943
Intangible assets - net		3,479		3,792
Other assets		1,415		449
<b>Total assets</b>	<b>\$</b>	<b>25,997</b>	<b>\$</b>	<b>20,190</b>
Trade and other payables	\$	2,785	\$	2,237
Customer deposits		2,247		113
Lease Liabilities		1,770		2,086
Borrowings		1,171		3,223
Other liabilities		504		541
<b>Total liabilities</b>	<b>\$</b>	<b>8,477</b>	<b>\$</b>	<b>8,200</b>
<b>Total equity</b>	<b>\$</b>	<b>17,520</b>	<b>\$</b>	<b>11,990</b>

- Closing cash balance of US\$6.1M as of 4 July 2021, with no debt drawn (excluding PPP loan).
- Inventories of US\$7.9M, US\$3.4M of which was WIP due to ship in 2H21.
- Significant increase in customer deposits to US\$2.2M, reflecting growing order backlog.
- First round PPP loan of US\$2.2M fully forgiven during the period.
- Successful pro-rata equity raise during the period bolstered balance sheet.

# Summary Statement of Cash Flows

(USD in thousands)		1H21		1H20
Receipts from Customers	\$	7,048	\$	6,396
Payments to Suppliers and Employees		(7,807)		(9,672)
Interest & Taxes Paid – net		(58)		(95)
<b>Operating Cash Outflows</b>	<b>\$</b>	<b>(817)</b>	<b>\$</b>	<b>(3,371)</b>
Purchase of PP&E	\$	(110)	\$	(19)
Payment of Cap. Dev. Costs		-		(433)
<b>Investing Cash Outflows</b>	<b>\$</b>	<b>(110)</b>	<b>\$</b>	<b>(452)</b>
Proceeds from Borrowings & Equity Raise	\$	7,070		3,432
Repayment of Borrowings		(1,378)		(1,801)
<b>Financing Cash Inflows</b>	<b>\$</b>	<b>5,692</b>	<b>\$</b>	<b>1,631</b>
<b>Net Increase/(Decrease) in Cash</b>	<b>\$</b>	<b>4,765</b>	<b>\$</b>	<b>(2,192)</b>
<b>Cash, Beginning Balance</b>	<b>\$</b>	<b>1,364</b>	<b>\$</b>	<b>6,838</b>
<b>Cash, Ending Balance</b>	<b>\$</b>	<b>6,129</b>	<b>\$</b>	<b>4,646</b>
<b>Free Cash Flow</b>	<b>\$</b>	<b>(927)</b>	<b>\$</b>	<b>(3,823)</b>

- Operating cash outflows of only US\$0.8M for the half as a result of significant customer deposits taken and ongoing cost management.
- Pro-rata equity capital raise completed in February 2021 provided net financing cash inflows of US\$5.8M.
- 2<sup>nd</sup> round PPP Loan of US\$1.2M secured in January 2021.
- Bridge Bank working capital loan of US\$1.0M repaid during the half-year.
- Closing cash balance of US\$6.1M, a US\$4.8M increase from the year end balance.

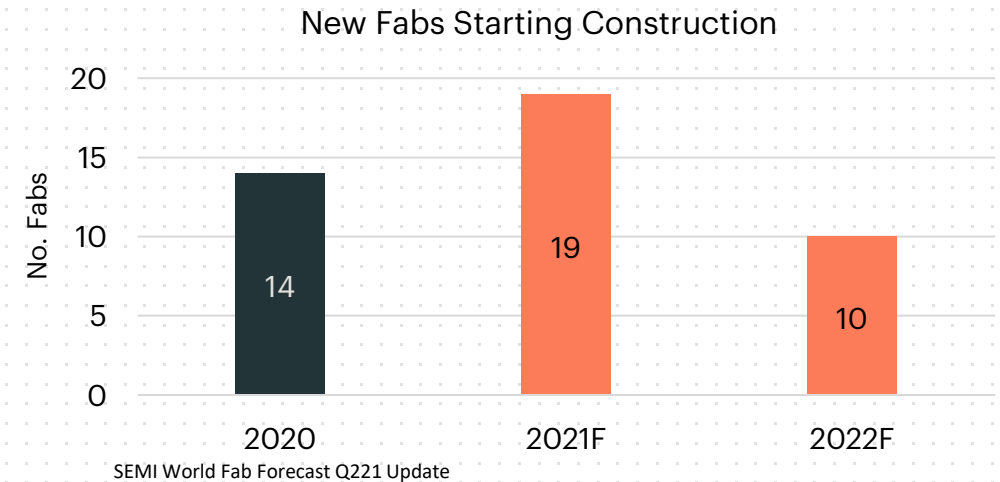
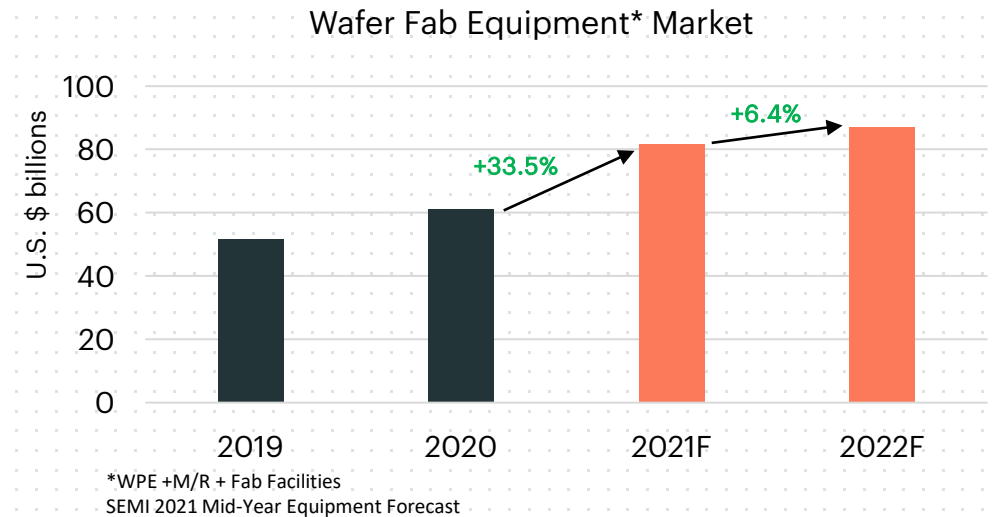
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SiC MARKET UPDATE

# Equipment Industry Dynamics

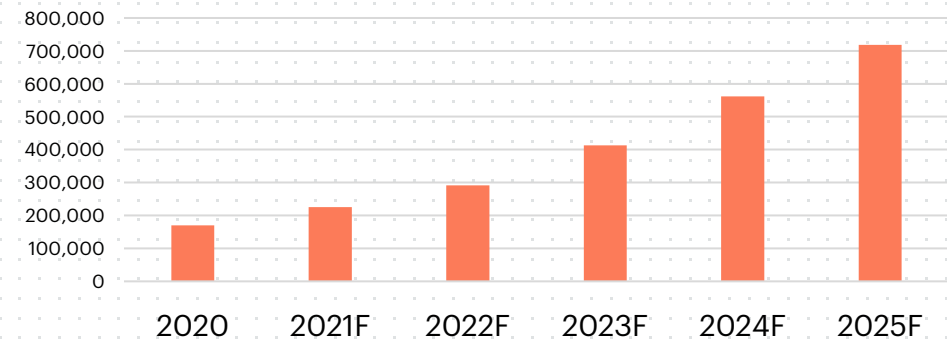
- Wafer fab semiconductor manufacturing equipment market is projected to increase by 33.5% in 2021.
- Resulting in a **new record spending on semiconductor manufacturing equipment** of US\$81.7 billion.
- Growth momentum will continue as data-driven **digital transformation propels the industry** investment to surpass US\$85 billion in 2022.
- 14 new fabs globally commenced construction in 2020, with a further 19 planned in 2021 and 10 in 2022. These fabs must be filled with new equipment.
- Global chip shortage remains a critical issue, with semiconductor supply chain constraints influencing geopolitical activity thereby increasing demand for equipment.
- In early 2021, President Biden announced plans to invest **US\$52 billion in semiconductor manufacturing and research** as part of his drive to rebuild US manufacturing under a US\$2 trillion infrastructure plan.



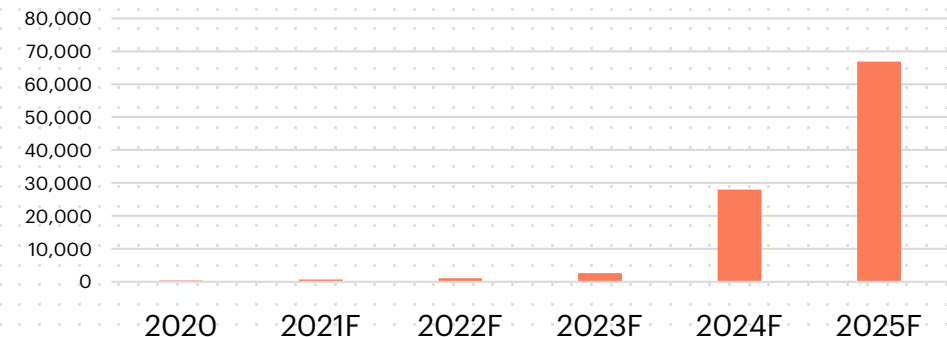
# Growing SiC Wafer Volume Drives Equipment Demand

- Increased SiC wafer volume directly drives demand for SiC Wafer Fab Equipment
- Most industry participants have made the move to 6-inch SiC wafers with the volume growing rapidly, with a CAGR of 33% between 2020 and forecast for 2025
- We are seeing some industry participants, including Cree and ST Microelectronics, start to make the move to 8-inch SiC wafers
- A **CAGR of 183%** is anticipated in **8-inch wafer volume** between 2020 and forecast for 2025
- The move to 8-inch wafers is necessary to reduce the overall cost of SiC wafers
- Both the **Revasum 7AF-HMG Grinder** and the **6EZ Polisher** are **configurable for 6-inch and 8-inch SiC wafers**, with customers able to easily switch between the two configurations

6 Inch N-Type SiC Wafer Size Volume for Power SiC Applications



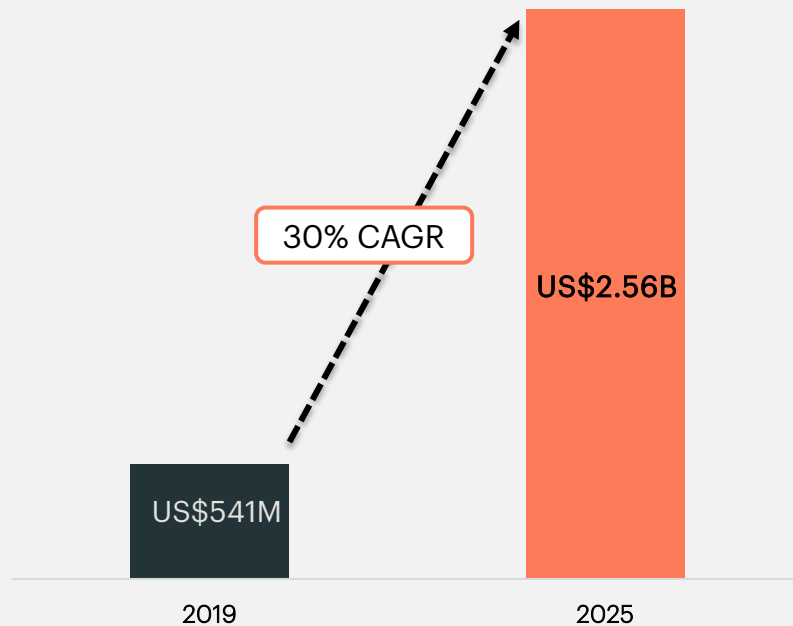
8 Inch N-Type SiC Wafer Size Volume for Power SiC Applications



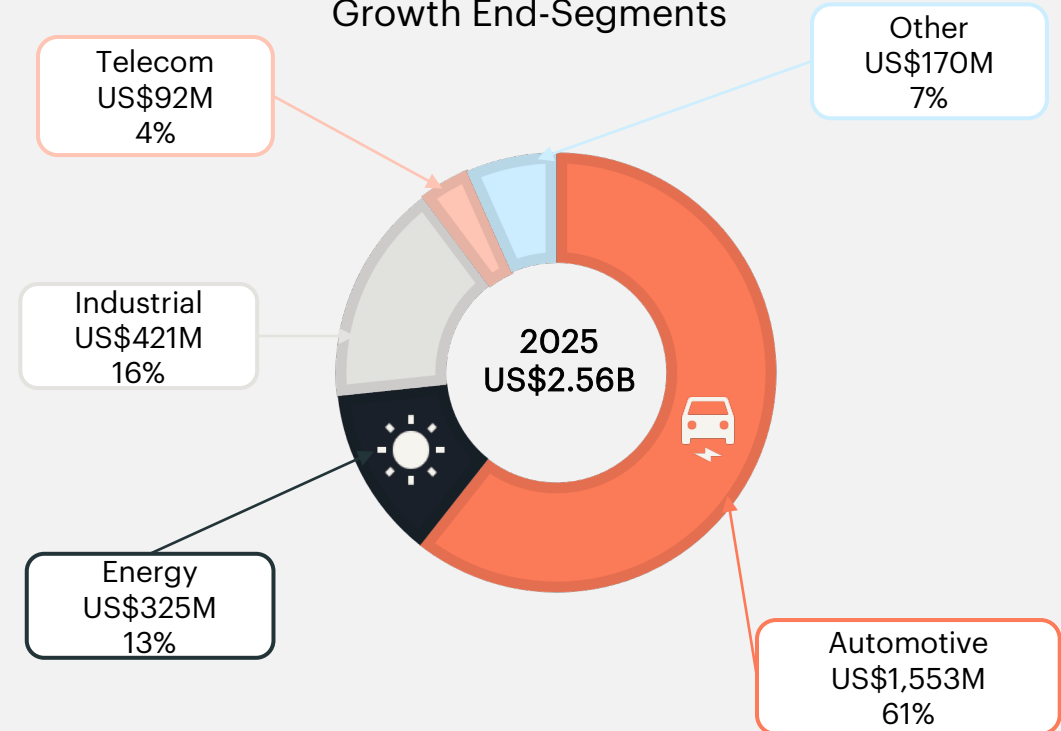
Source: YOLE Power SiC Market & Technology Report 2020

# Power SiC Device Market

Worldwide SiC Device Market SAM



Worldwide SiC Device Market by High-Growth End-Segments



# SiC Industry Announcements



**Durham, N.C. and Geneva,** — Cree, Inc. (Nasdaq: CREE) and STMicroelectronics (NYSE: STM), a global semiconductor leader serving customers across the spectrum of electronics applications, announced today the expansion and extension of an existing multi-year, long-term silicon carbide wafer supply agreement to more than \$500 million. The extended agreement is a doubling in value of the original agreement for the supply of Cree's advanced 150mm silicon carbide bare and epitaxial wafers to STMicroelectronics over the next several years. The increased wafer supply enables the semiconductor leaders to address the rapidly growing demand for silicon carbide power devices globally, particularly in automotive and industrial applications.

<https://www.wolfspeed.com/company/news-events/news/cree-and-stmicroelectronics-expand-and-extend-existing-silicon-carbide-wafer-supply-agreement>



**PHOENIX, AZ and HUDSON, NH – August 25, 2021 – onsemi** (Nasdaq: ON), a leading supplier of intelligent power and sensing technologies, and GT Advanced Technologies ("GTAT"), a producer of silicon carbide (SiC), today announced that they have entered into a definitive agreement under which **onsemi** will acquire GTAT for \$415 million in cash.

Transaction accelerates **onsemi**'s mission to push innovation to create intelligent power and sensing technologies and build a sustainable future

Expands **onsemi**'s silicon carbide capabilities & assures customer supply to meet the rapid ramp-up of the sustainable ecosystem, including electric vehicles (EVs), EV charging and energy infrastructure

Reinforces **onsemi**'s commitment to make substantial investments in disruptive, high-growth technologies

<https://www.onsemi.com/company/news-media/press-announcements/en/onsemi-to-acquire-gt-advanced-technologies>



AUBURN, Mich., July 14, 2021 /PRNewswire/ -- **SK Siltron CSS**, a semiconductor wafer manufacturer, today announced plans to invest \$300 million and create up to 150 high-paying, skilled jobs in Bay County, Mich., over the next three years to provide manufacturing and R&D capabilities of advanced materials for electric vehicles. The expansion will more than double the company's Michigan employee base and add a new site in Bay City, Mich., to join its existing site in nearby Auburn, Mich.

SK Siltron CSS manufactures a specialty wafer made of silicon carbide (SiC) that can be used in the semiconductor power components of electric vehicles. SiC wafers are more efficient at handling high powers and conducting heat than normal silicon. When used in EV system components, this characteristic can allow a more efficient transfer of electricity from the battery to the motor, increasing the driving range of an EV by 5% to 10%.

<https://www.prnewswire.com/news-releases/sk-siltron-css-announces-300-million-michigan-expansion-to-support-electric-vehicle-growth-301333677.html>



Munich, Germany – 6 May 2021 – Infineon Technologies AG (FSE: IFX / OTCQX: IFNNY) has concluded a supply contract with the Japanese wafer manufacturer Showa Denko K.K. for an extensive range of silicon carbide material (SiC) including epitaxy. The German semiconductor manufacturer has thus secured more base material for the growing demand for SiC-based products. SiC enables highly efficient and robust power semiconductors that are used in particular in the fields of photovoltaic, industrial power supply, and charging infrastructure for electric vehicles.

The contract between Infineon and Showa Denko K.K. has a two-year term with an extension option. Infineon has the industry's largest portfolio of SiC semiconductors for industrial applications.

<https://www.infineon.com/cms/en/about-infineon/press/press-releases/2021/INFXX202105-068.html>

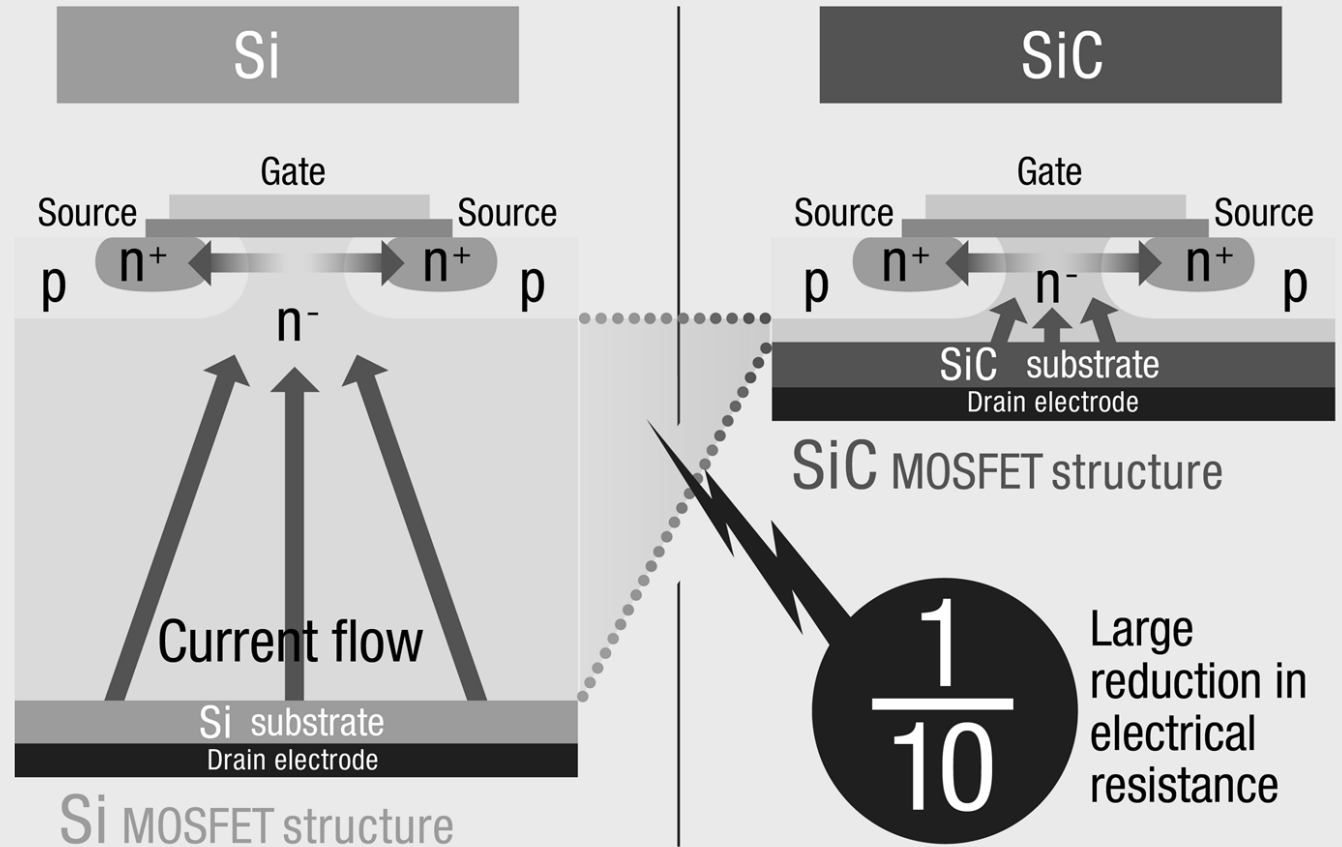
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TECHNOLOGY UPDATE

## SiC advantages over Si:

- ✓ Faster
- ✓ Less power loss
- ✓ 10% thickness
- ✓ Handle higher power
- ✓ Withstands  $> 200^{\circ}\text{C}$
- ✓ Greater control at high currents



# Challenges for Greater SiC Market Adoption



## QUALITY OF SUBSTRATES

Quality and reliability issues caused by defects coming from wafer materials and/or Epitaxy – SiC is a challenging substrate to grow & process.



## DEVICE COST OF OWNERSHIP

High substrate, epitaxy and processing yield are needed to reduce device cost – this is a key barrier to entry.

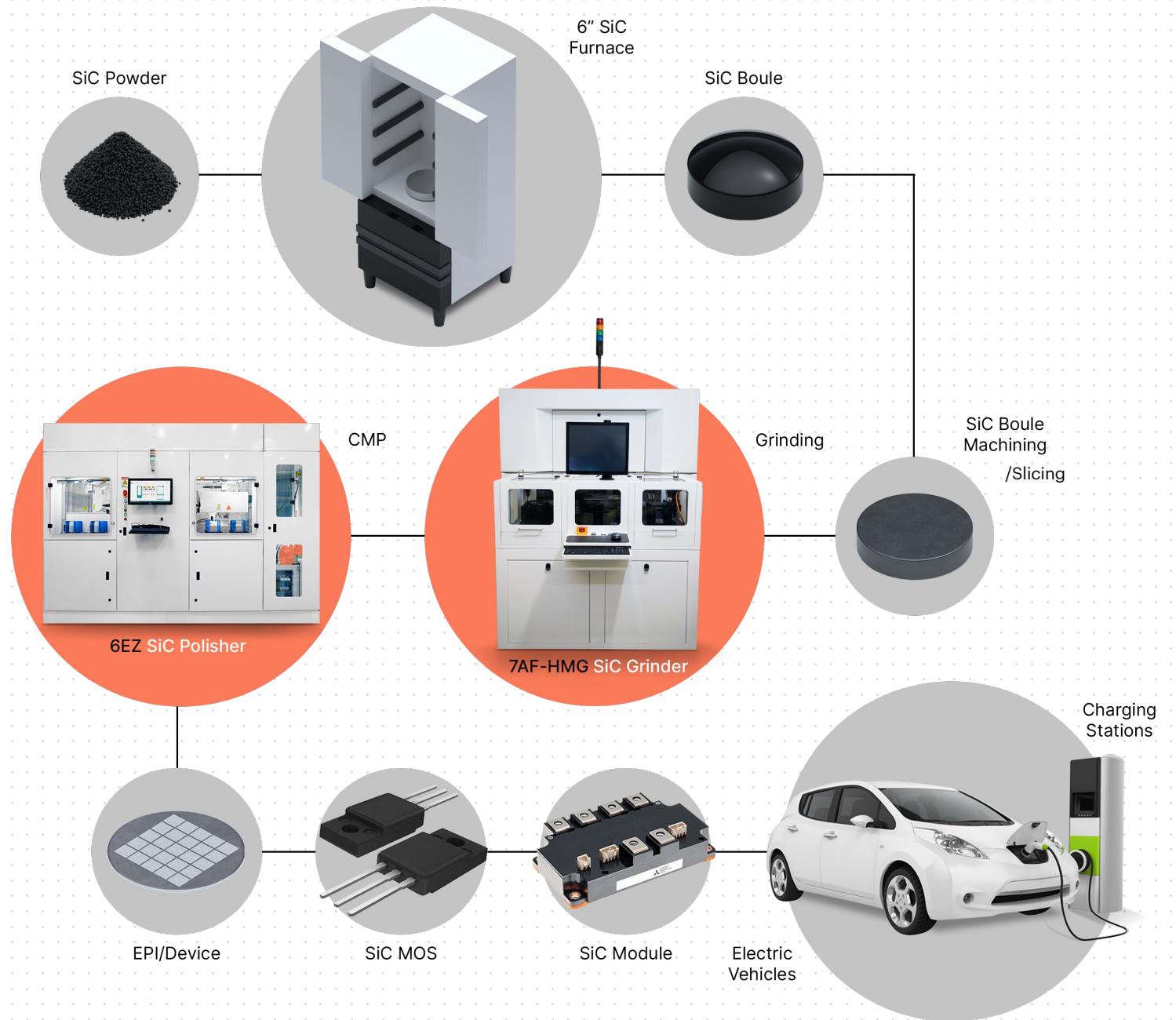


## SCALABILITY

Acceleration of the move to 8-inch wafers is necessary to take SiC from niche to mainstream.

Revasum's equipment helps to address these challenges!

# Silicon Carbide (SiC) Manufacturing Process



# Revasum's Fully-Automated, SiC Single-Wafer Toolset

## 6EZ SiC Polisher

### KEY FEATURES:

- Fully-automated cassette-to-cassette wafer handling with edge-grip robotics -up to 50 wafers without operator intervention
- Scalable to 200mm
- Single-wafer processing for excellent wafer-to-wafer control
- Single-sided & two-sided polish
- Integrated cleaning module for dry-in/dry-out operation
- SEMI S2, S8, and CE certified



## 7AF-HMG SiC Grinder

### KEY FEATURES:

- Fully automated dry-to-dry single-wafer grinder with cassette-to-cassette handling for up to 200mm diameter wafers
- Single & double-sided processing
- Linear grind spindles w/ multiple grind wheel options
- Recipe controlled head angle
- In-situ endpoint control
- SMIF compatible allowing for full factory automation
- SEMI S2/S8 & CE compliant



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# REVASUM

A GLOBAL LEADER IN SILICON CARBIDE SINGLE-WAFER  
PROCESSING EQUIPMENT

## Q&A