AMTECH GROUP

INVESTOR PRESENTATION

AUGUST 2022

Supplying Essential Semiconductor Solutions Worldwide

Capitalizing on the demand for SiC devices

From mobile to computing, industrial, automotive, telecom, and medical,
our products enable virtually everything around you.

Safe Harbor Statement

This Presentation may contain certain statements or information that constitute “forward-looking statements” (as such term is defined in Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995). In some, but not all, cases, forward-looking statements can be identified by terminology such as “may,” “plan,” “anticipate,” “seek,” “will,” “expect,” “intend,” “estimate,” “anticipate,” “believe,” “continue,” “predict,” “potential,” “project,” “should,” “would,” “could”, “likely,” “future,” “target,” “forecast,” “goal,” “observe,” and “strategy” or the negative of these terms or other comparable terminology. Examples of forward-looking statements include statements regarding Amtech System, Inc.’s (“Amtech” or the “Company”) future financial results, operating results, business strategies, projected costs, products under development, competitive positions, plans and objectives of Amtech and its management for future operations, efforts to improve operational efficiencies and effectiveness and profitably grow our revenue, and enhancements to our technologies and expansion of our product portfolio. Such forward-looking statements and information are provided by the Company based on current expectations of the Company and reflect various assumptions of management concerning the future performance of the Company, and are subject to significant business, economic and competitive risks, uncertainties and contingencies, many of which are beyond the control of the Company. These risks, uncertainties and other factors are further described under "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and elsewhere in the documents filed by the Company with the Securities and Exchange Commission from time to time. Accordingly, there can be no guarantee that such forward-looking statements or information will be realized. Actual results may differ materially from historical results and expectations based on forward-looking statements made in this document or elsewhere by or on the Company’s behalf. No representations or warranties are made as to the accuracy or reasonableness of any expectations or assumptions or the forward-looking statements or information based thereon. Each recipient of forward-looking statements should make an independent assessment of the merits of and not to place undue reliance upon such forward-looking statements, including projections, and should consult its own professional advisors. Except as required by law, we undertake no obligation to publicly update forward-looking statements, whether as a result of new information, future events, or otherwise.

AMTECH at-a-Glance

Positioned for strategic growth

Founded in 1981, Amtech Systems is a global supplier of semiconductor equipment and consumables to the power semiconductor industry

$1.0B + Total Addressable Market

1.3x YTD Book-to-Bill Ratio (June 2022)

Global supplier of leading premier brand name products

7 locations across four countries

40 years in business

312 employees

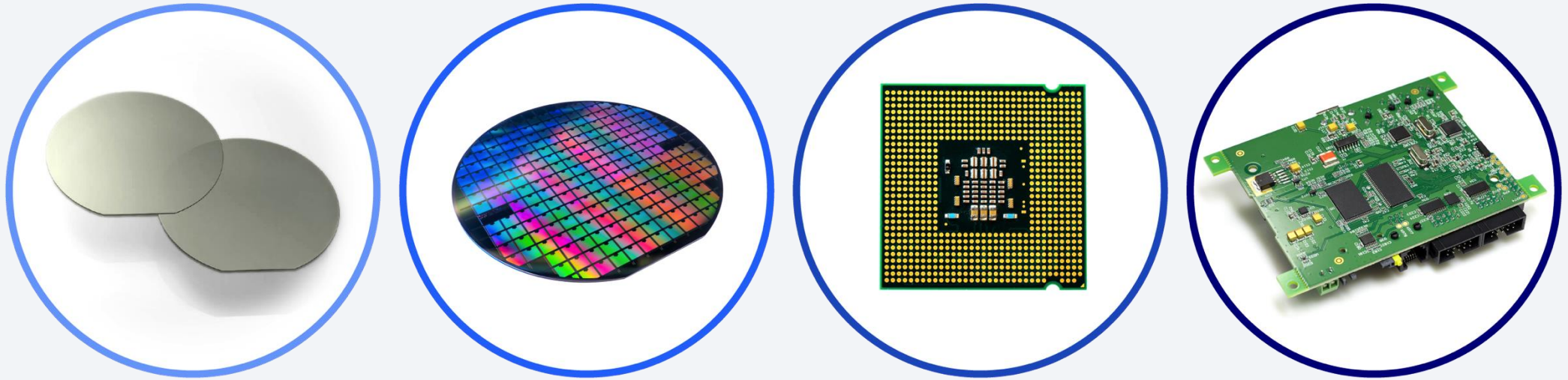
PR HOFFMAN AMTECH GROUP

BRUCE TECHNOLOGIES AMTECH GROUP

BTU International AMTECH GROUP

INTERSURFACE DYNAMICS AMTECH GROUP

Semiconductor Ecosystem



Wafer | Power Devices | Semiconductor Package | Electronics Assembly

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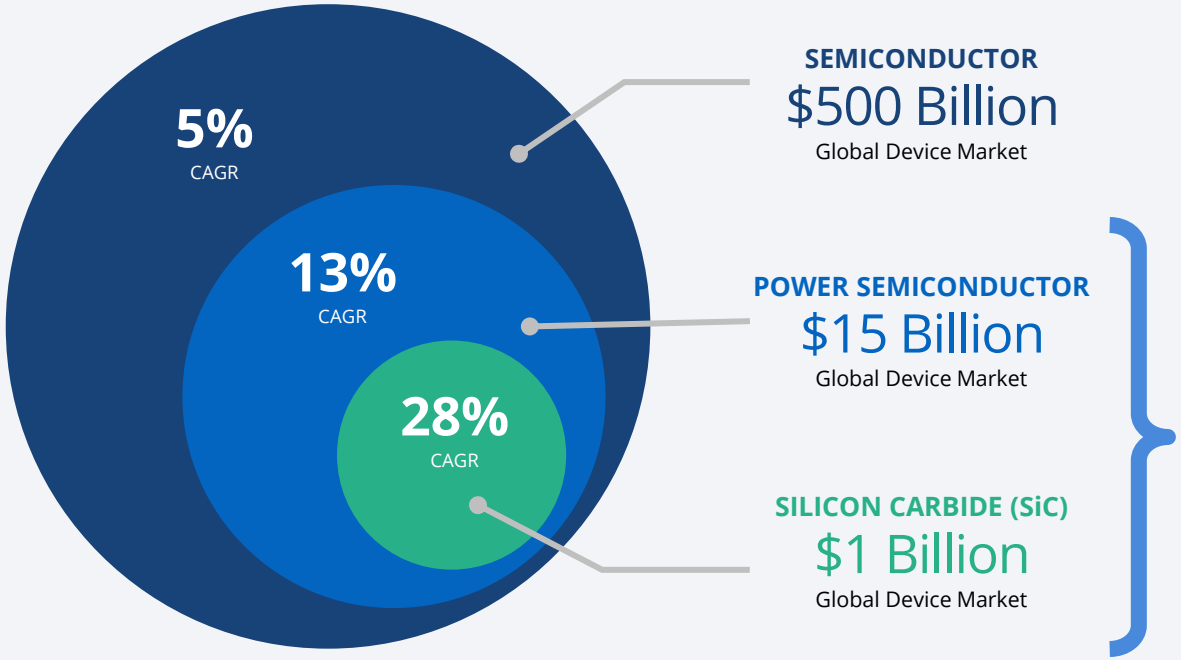
Strategic Focus on Silicon Carbide and Power Semiconductor Sectors



By focusing specifically on two high-growth sectors of the semiconductor market, **Silicon Carbide** and **Power Semiconductors**, we plan to **maximize our revenue** and **expand our operations.**

Source: Yole, Market Research Future and Fortune Insight

Power semiconductors are embedded in virtually everything and are the foundation of megatrend technologies

Renewable Energy

Automotive

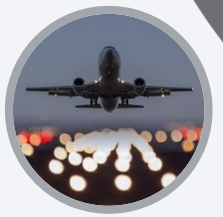
Telecom

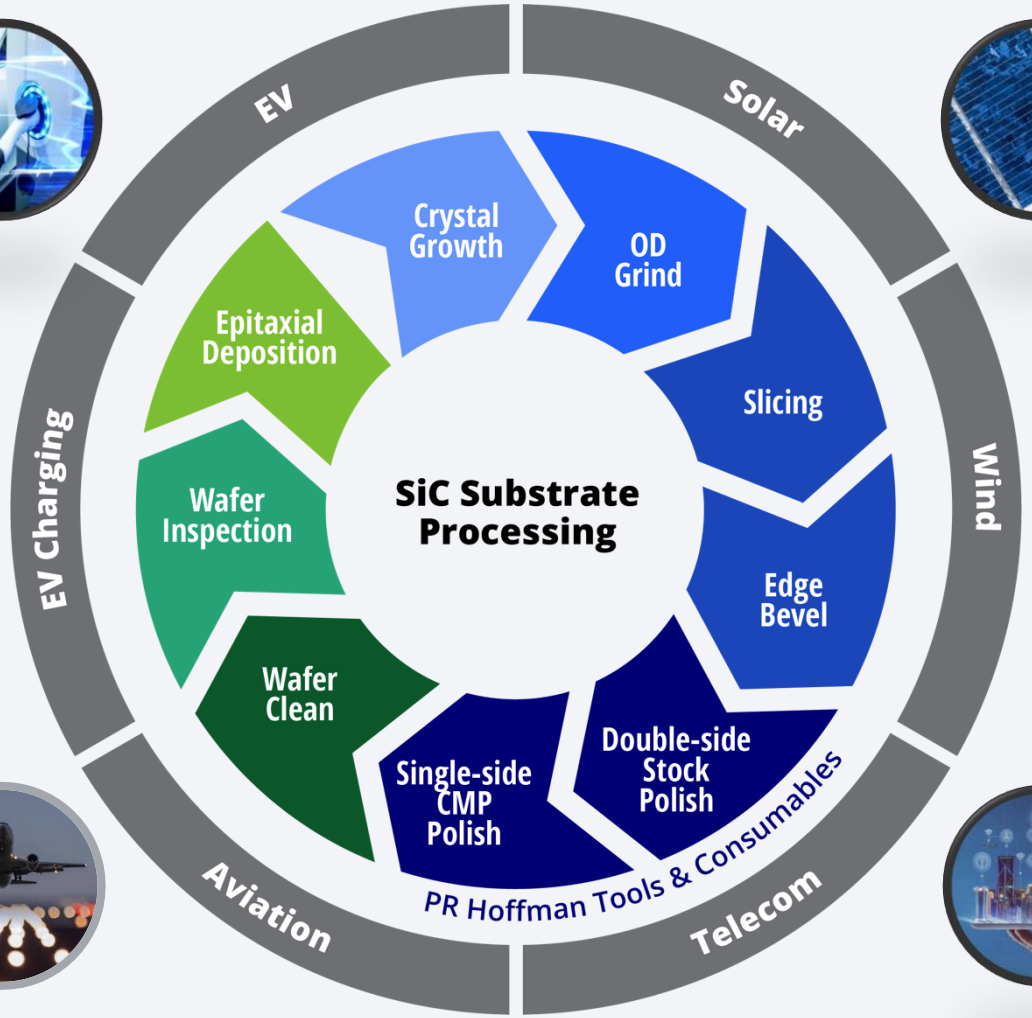
Silicon Carbide Value Cycle

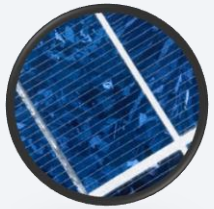
EV's contain $350 in SiC content for both cost saving and extending range

As xEV's move to 800V SiC will be critical in higher voltage charging stations

Due to weight and ruggedness benefits SiC is being adopted in aircraft propulsion







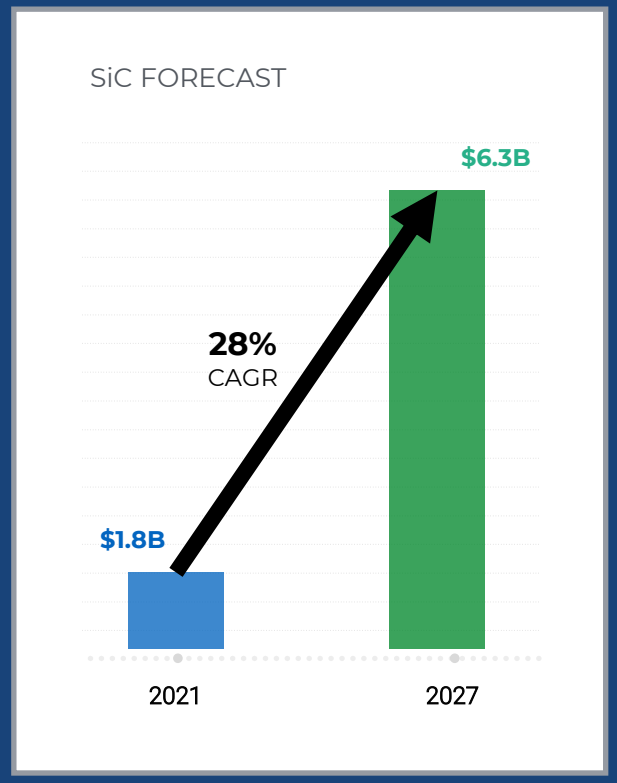
Commercial-scale solar installations require SiC-based inverters to handle higher power loads

SiC based inverters provide cost savings and improve power efficiency in wind turbines

As the build out of 5G infrastructure accelerates MIMO antennae deployments will drive SiC content growth

*Source: Cowen, Compound Semiconductors: The Crown Joule of High Voltage, May 2022

Silicon Carbide (SiC) is highly levered to multiple disruptive markets

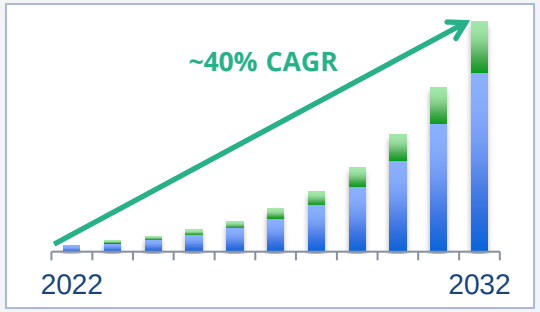


EV Adoption **Renewables**

Silicon Carbide (SiC): Accelerating the Adoption of Electric Vehicles

Electric vehicles in operation are forecast to grow at ~40% CAGR over next decade with DCFC expected to outpace overall market growth.[2]

[2]Source: Bloomberg New Energy Finance, EVgo estimates.



Key Automotive Applications:

- EV Inverters
- EV On-Board Charging
- EV Fast-Charging Stations

SUSTAINABLE DEVELOPMENT

Silicon Carbide Semiconductors in Renewable Energy

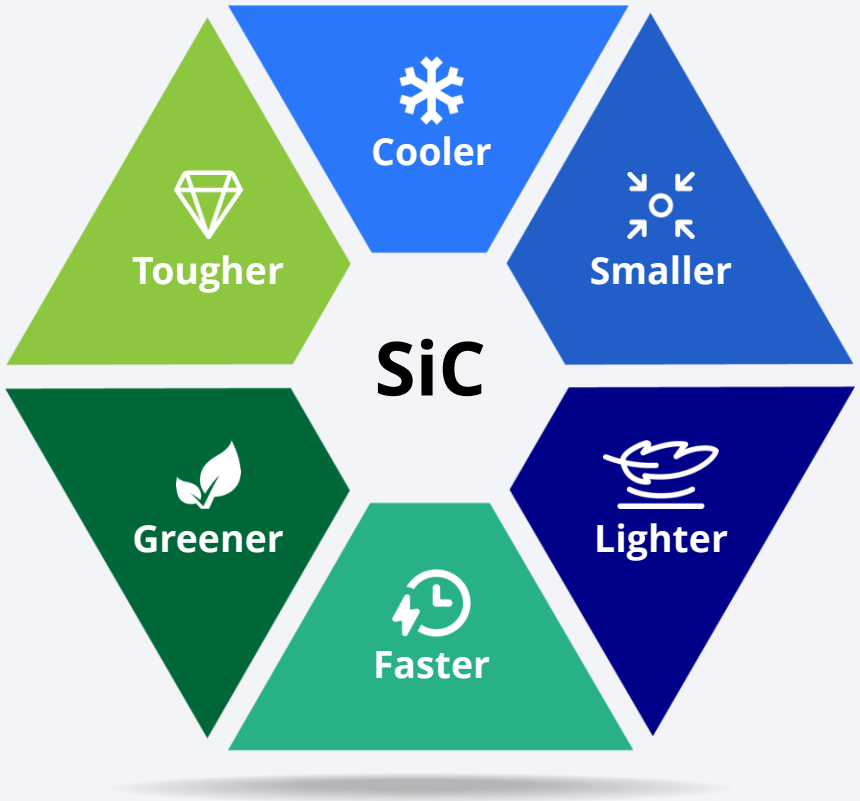
As the world becomes increasingly interested in clean energy, the need for semiconductors that can handle high temperatures and voltages grows. Silicon carbide is a material that meets this need, and its advantages are becoming more and more evident.

Key Advantages:

- High thermal conductivity
- High-frequency switching
- Larger device current

Silicon Carbide (SiC) advantages for EV and Renewable Energy

ENABLING SOLUTIONS THAT ARE MORE EFFICIENT, SMALLER, AND MORE COST-EFFECTIVE (than silicon)



Enhancing EV Performance

- 20% increase in EV battery range
- Creates lower-cost, energy-efficient fast chargers[1]
- Reduces the size of battery needed
- Faster charging time

Renewable Energy Systems

- More reliable and deliver superior performance in handling grid-scale voltages[2]
- Enables high-frequency switching without loss of efficiency
- Significant increase in power conversion efficiency and associated energy storage[3]
- Smaller and lighter equipment with lower capital, installation and maintenance costs[3]

[1]www.energy.gov
[2]www.powerelectronicsnews.com
[3]https://www.infineon.com/dgdl/Infineon-Next_level_power_density_in_solar_and_energy_storage_with_silicon_carbide_MOSFETs-Whitepaper-v01_00-EN.pdf

AMTECH GROUP

COMPETITIVE ADVANTAGE

Positioned to Capture the Market Opportunity

POSITIONED FOR GROWTH

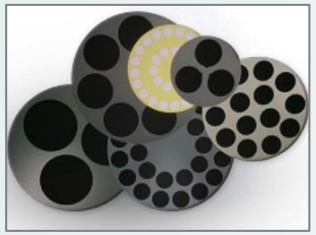
Diversified product portfolio for the semiconductor market

Addressing several fundamental process steps in chip manufacturing

Silicon Carbide

17%
Substrate

Lapping, Polishing, Cleaning & Etching



Power Semiconductors

83%

Chip Fabrication

Packaging & SMT

Diffusion Furnace

Thermal Processing

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Revenue Contribution
LTM, June 2022

Supporting EV growth across the entire portfolio

LAPPING, POLISHING,
CLEANING & ETCH PRODUCTS

Highly levered to Silicon Carbide (SiC) Market

Customers account for:

>80% of SiC substrate market share

Market Leading

In lapping & polishing consumables & machines for SiC/GaN, Si & LED

Strong Growth Potential

Next-generation products closely aligned with SiC growth opportunities

Dominant Customer Base

Top 2 customers account for >80% of SiC substrate market share

Premier Brands

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INTERSURFACE DYNAMICS AMTECH GROUP

POLISHING TEMPLATES	CARRIERS	CHEMICALS	MACHINES

Supporting EV growth across the entire portfolio

ADVANCED THERMAL
PROCESSING PRODUCTS

Serving Multiple Industries Including: Automotive, RF, Consumer & Industrial Electronics, Mobility, and Computing

Serving top players in the market including the

#1 power semiconductor producer

Leadership Position

Top 300mm HTR Diffusion Furnace for power semiconductor fabs

Robust Growth Outlook

Broad need for high power applications and growth in xEV and auto electronics content

Dominant Customer Base

Serving top players in the market including the #1 power semiconductor producer

Premier Brand

Serving Industry Since 1968

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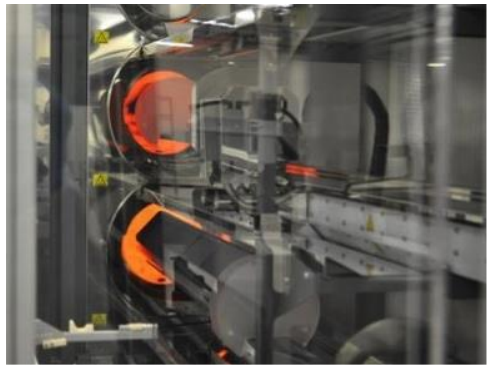


HTR DIFFUSION FURNACE

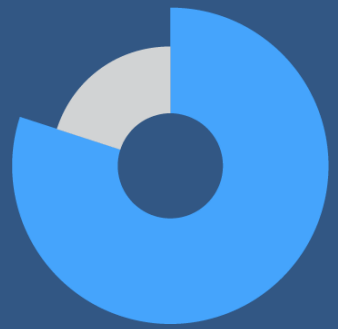
300mm CLUSTERED HTR DIFFUSION FURNACE SYSTEM

DIFFUSION FURNACES

Supporting EV growth across the entire portfolio

ADVANCED THERMAL PROCESSING PRODUCTS

High performance products for power chip fabrication



Foundation for overall growth opportunities

>80% OF REVENUE*

*Including Bruce Diffusion products

Revenue Foundation
funding overall growth opportunities

Industry Level Growth
Growth rates track semiconductor industry growth cycles

Automotive Alignment
Strong participation across multiple product lines and applications for key components in both ICE and EV supply chain

Premier Brand
Serving Industry Since 1950

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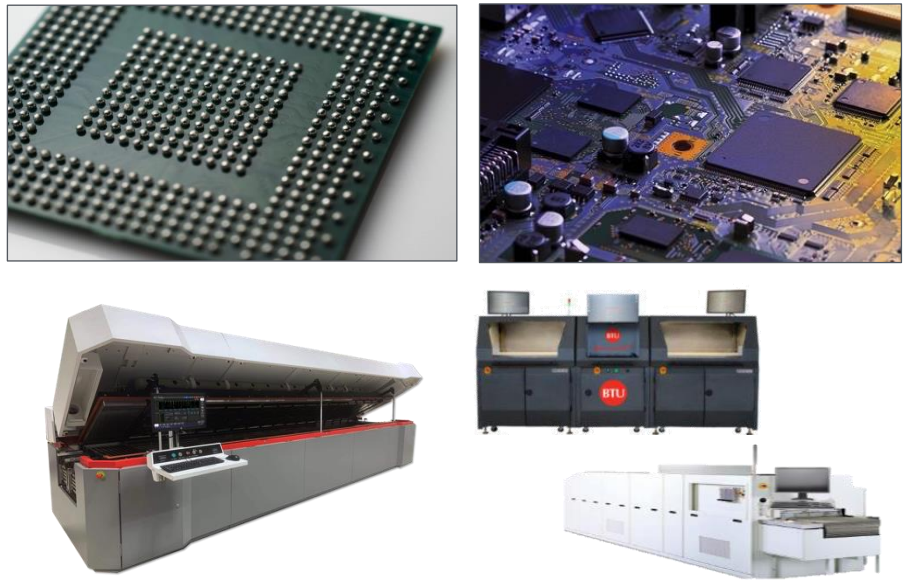


ADVANCED PACKAGING	SMT FOR ELECTRONICS	SELECTIVE SOLDERING	CUSTOM FURNACES

Supporting EV growth across the entire portfolio

STREAMLINED AND FOCUSED ON SEMICONDUCTOR GROWTH

Acquisition Timeline

1996
Founded 1938

PR HOFFMAN AMTECH GROUP

Substrate
Lapping, Polishing, Cleaning, Etching

2005
Founded 1968

BRUCE TECHNOLOGIES AMTECH GROUP

Chip Fabrication
Diffusion Furnace

2015
Founded 1950

BTU International AMTECH GROUP

Packaging & SMT
Thermal Processing

2021
Founded 1985

INTERSURFACE DYNAMICS AMTECH GROUP

Process Chemicals
Semiconductor and semiconductor materials

FINANCIAL DISCIPLINE

Capital Allocation to Support Long-Term Growth

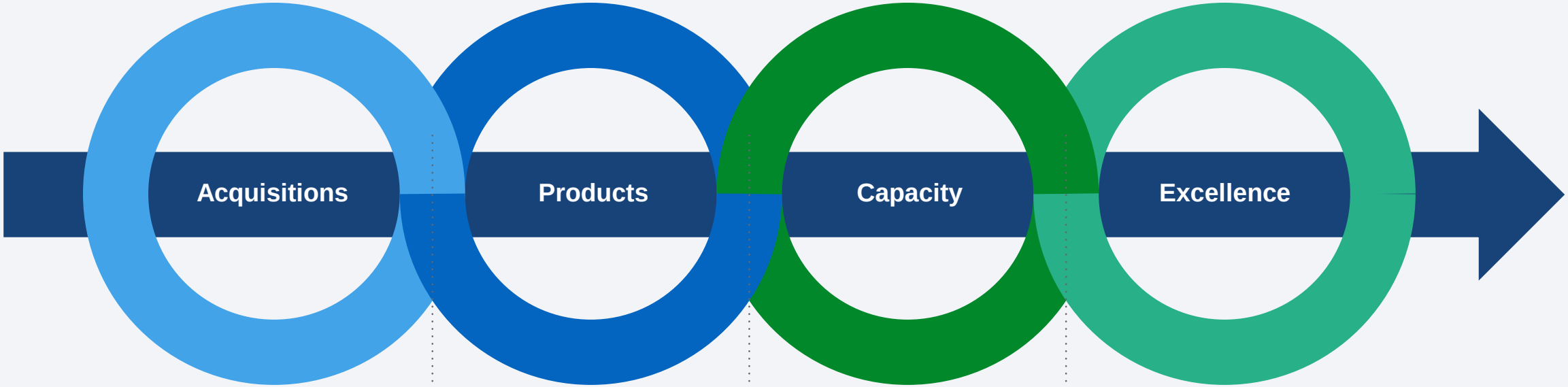
Ample liquidity to invest in profitable growth opportunities

STRONG BALANCE SHEET (as of June 30, 2022)

$48M	Cash & Cash Equivalents
$94.6M	Shareholders Equity
$131M	Total Assets
14.2M	Weighted Average Diluted Shares Outstanding

Our Strategy for Sustainable Growth

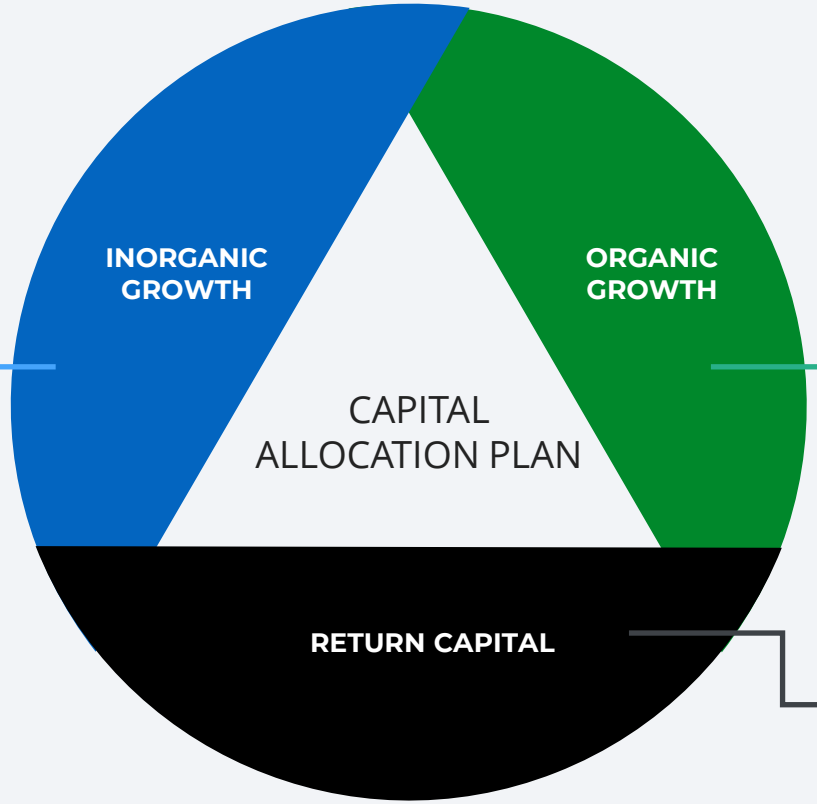
By focusing specifically on two high-growth sectors of the semiconductor market, Silicon Carbide and Power Semiconductors, we plan to maximize our revenue and expand our operations.



Acquisitions	Products	Capacity	Excellence
Evaluate strategic inorganic growth opportunities which expand capabilities and increase shareholder value	Invest in the development of next generation products across the entire portfolio	Increase and upgrade manufacturing capacity ahead of expected increases in demand	Leverage corporate capabilities in systems and operations to increase performance of each subsidiary

Opportunities are evaluated based on their ability to increase shareholder value over time

Explore accretive opportunities which enhance technologies, expand the product portfolio or build capabilities in power semiconductor and SiC



Invest in existing opportunities to support future growth including product development, manufacturing facilities, people and IT systems

Return excess cash to shareholders through opportunistic share buybacks

INVESTMENT OPPORTUNITY

Supplying Essential Semiconductor Equipment Worldwide

Capitalizing on the demand for SiC devices

FOCUSED
Focused on two high-growth sectors: Silicon Carbide and Power Semiconductor

AGILE
Diversified product portfolio with ability to move with the market through acquisitions

RESOURCED
Strong financial profile and long-term operating leverage to invest in growth opportunities

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