Accelerating the Journey
Towards a Sustainable Ecosystem

May 16, 2023
Safe Harbor

This presentation contains “forward-looking statements,” as that 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. All statements, other than statements of historical facts, included or incorporated in this presentation could be deemed forward-looking statements, particularly statements about the future financial performance of onsemi and forward-looking financial guidance. Forward-looking statements are often characterized by the use of words such as “believes,” “estimates,” “expects,” “projects,” “may,” “will,” “intends,” “plans,” “anticipates,” or “Target” or by discussions of strategy, plans, or intentions. All forward-looking statements in this presentation are made based on our current expectations, forecasts, estimates, and assumptions and involve risks, uncertainties, and other factors that could cause results or events to differ materially from those expressed in the forward-looking statements. Investing in our securities involves a high degree of risk and uncertainty, and you should carefully consider the trends, risks, and uncertainties described in this presentation, our 2022 Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on February 6, 2023, our Quarterly Report on Form 10-Q for the first quarter of 2023 filed with the SEC on May 1, 2023 and other reports filed with or furnished to the SEC, before making any investment decision with respect to our securities. If any of these trends, risks, or uncertainties actually occurs or continues, our business, financial condition, or operating results could be materially adversely affected, the trading prices of our securities could decline, and you could lose all or part of your investment. We assume no obligation to update such information, which speaks only as of the date made, except as may be required by law. All forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by this cautionary statement.

This presentation contains historical non-GAAP financial measures, including, among others, free cash flow (FCF) and FCF margin, non-GAAP gross margin and non-GAAP operating margin. See the Appendix for a description of these financial measures and a reconciliation of all such non-GAAP financial measures to GAAP. This presentation also contains forward looking non-GAAP financial measures, some of which are adjusted for certain special items. These special items are out of our control and could change significantly from period to period. As a result, we are not able to reasonably estimate and separately present the individual impact of these special items, and we are similarly unable to provide a reconciliation of the non-GAAP measures. The reconciliation that is unavailable would include a forward looking income statement, balance sheet, and statement of cash flows prepared in accordance with GAAP. We believe these non-GAAP measures provide important supplemental information to investors. We use these measures, together with GAAP measures, for internal managerial purposes and as a means to evaluate period-to-period comparisons. However, we do not, and you should not, rely on non-GAAP financial measures alone as measures of our performance. In addition, because non-GAAP financial measures are not standardized, it may not be possible to compare these financial measures with other companies’ non-GAAP financial measures, even if they have similar names.
<table>
<thead>
<tr>
<th>TOPIC</th>
<th>PRESENTER</th>
</tr>
</thead>
</table>
| Welcome to the New World      | Hassane El-Khoury  
President & CEO                                                                  |
| Powder to Power               | Simon Keeton  
Executive Vice President & General Manager  
Power Solutions Group                                                     |
| Accelerating the Flywheel     | Sudhir Gopalswamy  
Senior Vice President & General Manager  
Advanced Solutions Group                                                   |
| Foundation Set: Ready to Accelerate | Thad Trent  
Executive Vice President & CFO                                                   |
| Q&A                           | All                                                                       |
Play to Win

- Focus on high-growth megatrends in Automotive and Industrial and win with onsemi intelligent power and sensing
- Double down and don’t dabble
- Invest in disruptive innovation to drive higher margin growth

Implement Structural Changes

- Optimize organizational structure to reduce complexities
- Streamline manufacturing to match the strategy and not the other way around
- Attract and retain the best, diverse talent across the board
- Engage and empower employees to make expeditious, data-driven decisions

Capture Value

- Focus on highly differentiated products that enable disruptive innovation
- Optimize manufacturing footprint and leverage expertise
- Eliminate price-to-value discrepancies

Execute

- Leverage new leadership team with history of strong execution
- Drive accountability throughout the organization
- Reward employees for delivering superior results
What you are used to seeing...

...is a different cut of a market growing at 4%
Welcome to the New World
Based on current market projections, '22 – '27
Accelerating onsemi Content

Based on current market projections, '22 – '27

- Energy Infrastructure: $350 - $1800
- Electric Vehicles: $224 - $960
- Advanced Safety: L2+
- Factory Automation: $5,000-$10,000 per factory
- Charging: $2,000-$4,000 per charger
- 5G Cloud Power: $350
- > $600 per inverter

- > $150 per server
onsemi and VW Group Cement Strategic Collaboration on Silicon Carbide Technology for Next-Generation Electric Vehicles with Strategic Agreement / Jan 25, 2023

SensiML Teams with onsemi for Industrial Edge AI Sensing Applications Nov 4, 2021

onsemi and ZEEKR Sign Long-Term Supply Agreement for Silicon Carbide Power Devices / Apr 25, 2023

onsemi and Ampt Collaboration Increases Efficiency for Utility Solar Providers / Jan 05, 2023

onsemi to Integrate its Silicon Carbide Technology in BMW Group’s Next-Generation Electric Vehicles / Mar 06, 2023

onsemi Silicon Carbide Power Module for Traction Inverters Selected for Hyundai Motor Group’s High-Performance Electric Vehicles / Jan 04, 2022

onsemi Imaging Technology Enables Next Era of Digital Cinematography Sep 14, 2022

onsemi and Ride Vision Collaborate on Advanced Safety Solutions for Motorcyclists / Oct 25, 2022

NIO Selects High-Efficiency Silicon Carbide Traction Power Modules from onsemi / May 11, 2022

onsemi Silicon Carbide Technology Enables All-Electric VISION EQXX to Go Further on a Single Charge / Nov 14, 2022
## Markets that Matter

<table>
<thead>
<tr>
<th>Industry</th>
<th>Semiconductor</th>
<th>Intelligent Power &amp; Sensing</th>
<th>Sustainable Ecosystem</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAM</td>
<td>$553B</td>
<td>$91B</td>
<td>$43B</td>
</tr>
<tr>
<td>CAGR</td>
<td>4%</td>
<td>6%</td>
<td>16%</td>
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</table>

### Revenue CAGR 2022 - 2027

- Semiconductor: 10-12%
- Intelligent Power & Sensing: 14%
- Sustainable Ecosystem: 21%

Electrification, creating a multi-decade opportunity for onsemi SiC growth >2x market at ~70%*

Machine Vision for the future of automation

Power new generation of cloud and 5G infrastructure with onsemi CAGR >20%
Winning Formula

Play to Win

...Implement Structural Change...

...Capture Value...

...and Execute...
Play to Win

- Win the high-growth megatrends of Automotive and Industrial with onsemi’s intelligent power and sensing
- Invest in vertical integration and capabilities across all power technologies
- Deliver disruptive innovation across the BOM and drive higher margin growth
- Expand brownfield capacity in SiC and Image Sensors to lead with best-in-class financials
- Create the future with investments in university research and workforce development
Winning Formula

...Implement Structural Change...

• Expand and scale Go-To-Market to widen reach and accelerate segment penetration
• Lead with Digital First to increase efficiency across all corporate domains
• Invest in new generation of Power ICs to deliver more value with a TAM expansion strategy
• Optimize the manufacturing footprint to support growth and expand margins
• Design in highly differentiated and optimized solutions focused on customer needs
• Go broad with technology and programs for high gross margin market share gain: Elite Power Simulator, DevWare SDK
• Phase-in 200mm SiC substrates for the next wave of EV ramps
• Expand gross margin through efficiencies and new product ramps to accelerate free cash flow
• Deliver best-in-class ROIC across all investment vectors
Winning Formula

...and Execute...

• Drive accountability throughout the organization with strategic alignment but decision autonomy
• And reward employees for delivering on our strategy and commitments
• Deliver on >$17B of customer LTSAs across all markets
• Maintain stable and predictable financial performance across all market conditions
Winning Formula

Play to Win

...Implement Structural Change...

...Capture Value...

...and Execute...

= The Undisputed Leader of the New World
Supplies
- History of vertical integration
- Volume SiC boule growth, wafering, substrate, epitaxy, device fabrication
- Best-in-class integrated modules, discrete package solutions and known good die

Scale
- A multi-decade history in Auto and Industrial markets
  - High-quality high-volume manufacturing
    - Able to ramp inline with customer expectations

Scope
- Suite of sustainable solutions from energy generation to energy consumption
  - Depth and breadth of power technologies
  - Supporting portfolio for optimized solutions

Superior Technology
- Lead with die performance
- Differentiate with package innovation
- Die + Package = THE most optimal solution on the planet
EliteSiC Advantage

Superior Technology

Supply
- History of vertical integration
- Volume SiC boule growth, wafering, substrate, epitaxy, device fabrication
- Best-in-class integrated modules, discrete package solutions and known good die

Scale
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SUPERIOR TECHNOLOGY
- Lead with die performance
- Differentiate with package innovation
- Die + Package = THE most optimal solution on the planet
Superior Technology

Substrate / onsemi Hudson

Fab

Internal Package Capacity

New Product Releases

The Path to the First $1B

High Yields 1.7x ↑

Substrate Output
10x ↑

Die Output
12x ↑

Package Output
4x ↑

# New Products
3x ↑

Since GTAT Acquisition
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Lead with Die Performance...

Customer Needs

↑ Range – Efficiency
↓ Size – Fast Switching
↑ Reliability – Ruggedness

onsemi Delivers

- Innovative Cell Structure
- Channel engineering

Innovation

Traction System Figure of Merit

```
<table>
<thead>
<tr>
<th>Comp</th>
<th>onsemi</th>
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<tbody>
<tr>
<td>30%</td>
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</tbody>
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*1/R_{DS} Chip @ 175°C
Lead with Die Performance… Differentiate with Package Innovation

Customer Needs

- Range – Heat Extraction
- Flexibility – Scalability
- Reliability – Ruggedness

onsemi Delivers

- Advanced packaging materials
- World class thermal performance
- Simulations at Die, Package and System

Innovation
Optimized Solutions are our DNA

Concurrent development of die and package leads to optimized solutions
Solutions for Sustainable Ecosystems

- **GENERATION**
- **STORAGE**
- **ELECTRIFICATION**
- **CHARGING**
Solutions for Sustainable Ecosystems

- GENERATION
- STORAGE
- ELECTRIFICATION
- CHARGING
OEM Platforms – Optimized onsemi Solutions that Scale
Powering Every Architecture
Powering Every Architecture

Customer Needs

Ultra high performance

onsemi Delivers
Quad SiC traction

SiC

onsemi

✔
Customer Wins
& LTSAs
Powering Every Architecture

Customer Needs

High performance with good range & acceleration

✔ Customer Wins & LTSAs

onsemi Delivers

Dual SiC traction

SiC
Powering Every Architecture

Customer Needs

Good mid range performance with on demand acceleration

Customer Wins & LTSAs

onsemi Delivers

SiC and IGBT solution, optimized for system cost and performance
Powering Every Architecture

Customer Needs

EV entry level vehicle with extended range

onsemi Delivers

Single SiC traction device

✔ Customer Wins & LTSAs
Powering Every Architecture

Customer Needs

EV entry point vehicle

onsemi Delivers

Cost effective IGBT-based system with upgrade path
Powering Every Architecture

Customer Needs

Meet evolving market demand for increased performance at entry level

Customer Wins & LTSAs

onsemi Delivers

Blended technology solution combining best of IGBT and SiC

SiC & IGBT
Enabling a Greener Choice

Exciter Module

onsemi delivers an exciter module

✔ Customer Wins & LTSAs

SiC
Enabling a Greener Choice

**Problem:** Rare Earth Metals

- Regional dependency
- Industrial Waste (neodymium)
- Government mandate
Enabling a Greener Choice

**Problem:** Rare Earth Metals

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✔ Customer Wins & LTSAs
Enabling a Greener Choice

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Customer Wins & LTSAs
Enabling a Greener Choice

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Customer Wins & LTSAs

SiC
Enabling a Greener Choice

**Solution**

- Enabling Separately Excited Synchronous Motor
- Eliminates Magnets

Customer Wins & LTSAs

SiC
Enabling a Greener Choice

**Problem:** Rare Earth Metals
- Regional dependency
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- Enabling Separately Excited Synchronous Motor
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✔ Customer Wins & LTSAs

SiC
## Enabling a Greener Choice

### Problem: Rare Earth Metals
- Regional dependency
- Industrial Waste (neodymium)
- Government mandate

### Solution
- Enabling Separately Excited Synchronous Motor
- Eliminates Magnets
## Enabling a Greener Choice

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<th>Solution</th>
<th>onsemi delivers</th>
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<tr>
<td>- Regional dependency</td>
<td>- Enabling Separately Excited Synchronous Motor</td>
<td>- Exciter Module → completes the onsemi traction solution</td>
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<tr>
<td>- Industrial Waste (neodymium)</td>
<td>- Eliminates Magnets</td>
<td>- ✔ Customer Win &amp; LTSA</td>
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<tr>
<td>- Government mandate</td>
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Customer Wins & LTSAs

SiC
## Problem: Rare Earth Metals
- Regional dependency
- Industrial Waste (neodymium)
- Government mandate

## Solution
- Enabling Separately Excited Synchronous Motor
- Eliminates Magnets

## onsemi delivers
- Exciter Module → completes the onsemi traction solution
- ✔ Customer Wins & LTSAs

---

**onsemi Solutions for a Sustainable Future**
Power of the Portfolio
Broadest Portfolio to Capture the EV Market

160% annual growth in each of the last two years

- E-compressor
- OBC
- Exciter Module
- Single Axle Traction Inverter SiC/IGBT
- 48V LV DC-DC Converter
- DC-DC Converter
- PTC Heater
- Electronic Power Steering

Customer Wins & LTSAs

2021 and 2022, expected 2023
Onsemi Solutions for Sustainable Ecosystems

- Electrification
- Storage
- Generation
- Charging
Lead with Scalability...

- Utility
- Commercial
- Residential

- High Power PIM
- IGBT & EliteSiC PIMs
- Hybrid EliteSiC PIM
- Discrete IGBT & EliteSiC
- Discrete

Power Levels:
- 6kW
- 150kW
- 320kW
Lead with Scalability…  
Differentiate with Optimization

Case Study:  
320kW, 1500V Utility Scale Solar Inverter

Customer Needs:
- Performance ✔
- Weight ✔
- Size ✔
- System Cost ✔
- Go-to-Market speed ✔
- Supply assurance ✔

onsemi Delivers

Time to Market
- Elite Power Simulator

Module Design
- Optimized topology with a combination of best of Si and SiC devices

Technology
- Optimized die process with leading performance

Packaging
- Optimized for best thermals, 15% reduction in Rth with tailored package & layout

Customer Wins & LTSAs

IGBT
SiC
Si Diodes

Packaging

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Ultra Fast EV Charger

Energy Generation

SiC/IGBT

DC-AC Inverter

SiC

DC-AC Inverter

IGBT

Energy Storage

Power System

SiC/IGBT

LTSAs with 8 of top 10 Solar Inverter Customers

70% annual growth in each of the last 2 years

2021 and 2022, expected 2023
Solutions for Sustainable Ecosystems

ONSEMI

Lifetime LTSA $9B

GENERATION

STORAGE

ELECTRIFICATION

CHARGING
onsemi Flywheel
Winning at the Core

- WINNING AT THE CORE
- Energy Infrastructure
- Factory Automation
- Charging
- Advanced Safety
- Electric Vehicles
- 5G Cloud Power
- Sustainable Ecosystem
- Image Sensor
- Intelligent Power
- Intelligent Sensing

SiC & Si Power
SiC & Si Power

#2 Global Position

9% Market Share (‘22)

38% Rev Growth CAGR (‘22 - ’27)

Based on current market projections and onsemi internal estimates
The Profound Impact of 1%

Electric Vehicles
EV Miles Driven
2022: 
2030: 4.7x

Power Consumption
205 TWh
= ~19M homes

Industrial Motor
50% of the World’s Electricity

Data Centers

Industrial Automation

1% Efficiency Improvement

>3.2B/year
more EV miles driven WW

>$390M/year
electricity cost savings WW

>$25B/year
electricity cost savings WW
Expanding from the Core

Intelligently manage power flow

Feedback: Voltage, Current, Temp

Controller

Gate Driver

Maximize performance while protecting reliability

SiC & Si Power

Primary source of system value

onsemi delivers

↑ Efficiency (1-2%)
↑ Reliability
↑ Ease of Design
↓ System Cost
Expanding from the Core
Build from Leadership Position

- Migrate to Digital Control
- Leader Analog Control
- Market Leader
- Market Leader

Si FET  |  IGBT  |  SiC  |  GaN

Extend to Wide Bandgap
Extend to GaN

Controller
Gate Driver
SiC & Si Power

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Expanding from the Core
Proliferate Power IC Portfolio

Unlocks $14B of TAM Opportunity at up to 70% Gross Margin

Based on current market projections and onsemi estimates
Expanding from The Core
Delivers Complete Power Tree

Automotive Power Tree
- Dig PFC
- Dig LLC
- HV Iso Driver
- Iso DC/DC
- HV Iso Driver
- Sync Rec
- Battery Protection
- Pre Reg PMIC
- Power Switches
- M-ph Controller
- SPS
- Sensor

Industrial Power Tree
- PFC
- LLC
- HV Iso Driver
- Iso DC/DC
- HV Iso Driver
- Sync Rec
- Battery Protection
- Pre Reg PMIC
- Power Switches
- POL/PMIC
- SPS
- SOC
- Memory
- IVN
- MCU
- Sensing Hub
- FPGA

Cloud Power Tree
- Dig PFC
- Dig LLC
- HV Iso Driver
- Iso DC/DC
- HV Iso Driver
- Sync Rec
- Battery Protection
- Pre Reg PMIC
- Power Switches
- M-ph Controller
- SPS
- Sensor
- GPU
- CPU
- FPGA
INTELLIGENT POWER

SiC & Si Power

INTELLIGENT SENSING

Image Sensor
#1 Global Position in auto & industrial

46% Auto Market Share (‘22)

68% ADAS Market Share (‘22)

Based on current market and onsemi estimates
onsemi Advantage

Superior Technology
- Global Shutter
- Rolling Shutter
- Image Signal Processing

Auto & Industrial Focus
- Installed base of >450M automotive sensors

Decades of Innovation
- 45+ years of sustained innovation

Solution Enablement
- Devware
- Ref Designs
- Ecosystem

onsemi’s Image Sensor

Advantage:
- Decades of Innovation
- Installed base of >450M automotive sensors
- Global Shutter
- Rolling Shutter
- Image Signal Processing
- Devware
- Ref Designs
- Ecosystem
- 45+ years of sustained innovation

Technology:
- Auto & Industrial Focus
- Solution Enablement
- onsemi’s Image Sensor

Enablement:
- Global Shutter
- Rolling Shutter
- Image Signal Processing
- Devware
- Ref Designs
- Ecosystem

Focus:
- Auto & Industrial
- Decades of Innovation
- Solution Enablement

onsemi

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onsemi Advantage

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onsemi’s Image Sensor

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Global Shutter
- Rolling Shutter
- Image Signal Processing

Devware
- Ref Designs
- Ecosystem

45+ years of sustained innovation
Superior Technology

High Dynamic Range
Superior Technology

High Dynamic Range

Low Light Performance
High Dynamic Range

Low Light Performance

Low Power

Latest generation is 30-70% more power efficient
Superior Technology

High Dynamic Range

Low Light Performance

Low Power

System Functions

Cybersecurity

Functional Safety
Image Sensor Leadership
Only Provider to Enable Complete Solutions

Partner Ecosystem

Automotive Reference Design
Industrial Module Design

DevWare SDK

Image Sensor
DevWare SDK
Scale Business to 1000s of Customers
Image Sensor Leadership
Only Provider to Enable Complete Solutions

Partner Ecosystem

- Automotive Reference Design
- Industrial Module Design

DevWare SDK

Image Sensor
Image Sensor Leadership
Only Provider to Enable Complete Solutions

Partner Ecosystem

- Automotive Reference Design
- Industrial Module Design

DevWare SDK

Image Sensor
onsemi Automotive Partner Ecosystem

Optics
- SUNNY OPTICAL TECHNOLOGY
- Sunex
- EVETAR
- SEKONIX
- Nidec
- LCE-Optics

Discrete ISP
- GEO Semiconductor
- nextchip
- BROADCOM
- Ambarella
- iCatch Technology

SerDes/IF
- maxim integrated
- THine
- BROADCOM
- MICREL
- Techpoint
- LATTICE

SoC/FPGA
- mobileye
- NVIDIA
- intel
- AMD
- XILINX
- Ambarella
- Qualcomm
- RENESAS
- NXP
- XILINX

ISVs
- eyeSight
- seeing machines
- smart eye
- Zong & Mu
- Imagination
- apical
- Hella Aglaia

> 50 End-to-End Image Solution Partners
onsemi Advantage

- Global Shutter
- Rolling Shutter
- Image Signal Processing

Superior Technology

- onsemi’s Image Sensor

Solution Enablement

Auto & Industrial Focus

- Installed base of >450M automotive sensors

Decades of Innovation

- 45+ years of sustained innovation

- Devware
- Ref Designs
- Ecosystem

- Installed base of >450M automotive sensors
Image Sensor Leadership

45+ Years of Sustained Innovation

Kodak

1st proto digital camera 1975
Bayer Pattern 1975

JPL
1st Megapixel CCD 1986
1st Camera on Chip 1995

Photobit
1st CMOS Sensor 2005
1st Auto CMOS Sensor 2005

Micron
1st >Film Digital Sensor 2012
1st HDR+LFM Auto Sensor 2017

Aptina
1st Global Shutter Pixel 1995
1st Bayer Pattern 1975

sensL
Smart tToF Depth Sensor 2022
SiPM for dToF LiDAR 2018

TRUESENSE

imec
1st CMOS APS 1993

Fillfactory
1st Global Shutter Pixel 1995

CYPRESS
1st Camera on Chip 1995

onsemi
1st HDR+LFM Sensor 2023

SiPM for dToF LiDAR 2018

1st 150 dB HDR+LFM Sensor 2023
Image Sensor Leadership
Only Provider to Enable Complete Solutions

Partner Ecosystem

Automotive Reference Design
Industrial Module Design

DevWare SDK

Image Sensor
Expanding from the Core

$5.3B TAM Opportunity by 2027

Based on current market projections
Portfolio expansion increases our opportunity up to $5M per data center
Power of the Portfolio
Broadest Portfolio to Capture the EV Market

- E-compressor
- OBC
- Exciter Module
- 48V LV DC-DC Converter
- DC-DC Converter
- Single Axle Traction Inverter SiC/IGBT
- PTC Heater
- Electronic Power Steering
- EV Power Applications

Customer Wins & LTSAs
Dots represent onsemi devices designed in BMW's electric i7 Series vehicles.

- Silicon Carbide
- Silicon Power
- Power ICs
- Sensor Interfaces
- Image Sensors
- Other

Dots represent onsemi devices designed in BMW’s electric i7 vehicles
SiC/Si Power leadership enables us to win complete power trees, unlocking $14B TAM @ up to 70% GM

We are expanding intelligent sensing leadership though focused innovation in Auto & Industrial

We accessorize these solutions with a broad array of products that make us indispensable to customers
onsemi’s Transformation has Driven Outperformance

Outperforms SOX by 147%
Structural Changes Set the Foundation for Growth

- **Revenue** at 26% CAGR 2020-2022
- Focused on high-growth megatrends in Auto and Industrial
- Doubled down on Silicon Carbide

- **Gross Margin** improved by 1,310 bps
- Exited non-core low margin businesses
- Executed Fab Liter Strategy
- Eliminated Price to Value Discrepancies

- **Operating Income** increased 5.3x faster than revenue
- Reduced OpEx to <15% of revenue

- **Free Cash Flow** increased by 10x
- Invested in Silicon Carbide and 300mm fab
- Initiated share repurchases; $3B repurchase authorization

### Revenue

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
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<tbody>
<tr>
<td>2019</td>
<td>$5.5B</td>
</tr>
<tr>
<td>2020</td>
<td>$5.2B</td>
</tr>
<tr>
<td>2021</td>
<td>$6.7B</td>
</tr>
<tr>
<td>2022</td>
<td>$8.3B</td>
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### Gross Margin & Operating Margin

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Margin</th>
<th>Operating Margin</th>
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</thead>
<tbody>
<tr>
<td>2019</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>2020</td>
<td>36%</td>
<td></td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td>49%</td>
</tr>
<tr>
<td>2022</td>
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### Free Cash Flow

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>2020</td>
<td>$0.5B</td>
</tr>
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<td>2021</td>
<td>$1.3B</td>
</tr>
<tr>
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Structural Changes Set the Foundation for Growth

Revenue

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Gross Margin & Operating Margin

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</tr>
</thead>
<tbody>
<tr>
<td>Gross Margin</td>
<td>36%</td>
<td>49%</td>
<td>49%</td>
<td>49%</td>
</tr>
<tr>
<td>Operating Margin</td>
<td>14%</td>
<td>35%</td>
<td>35%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Free Cash Flow

<table>
<thead>
<tr>
<th>Year</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>$0.16B</td>
<td>$0.5B</td>
<td>$1.3B</td>
<td>$1.6B</td>
</tr>
</tbody>
</table>

Industry-Leading Results Accelerating Shareholder Value

- Free Cash Flow growth of 10x: #1 among global semis
- ROIC of 38.6%: Top 4 in global semis
- Operating Income growth of 3.7x: Top 3 in global semis
Premium Businesses

- Sustainable Ecosystem
- Energy Infrastructure
- Electric Vehicles
- Advanced Safety
- Charging
- Factory Automation
- 5G Cloud Power

INTELLIGENT POWER

AUTOMOTIVE MARKET

INDUSTRIAL MARKET

INTELLIGENT SENSING
Premium Businesses

**Intelligent Power**

- Silicon Carbide
  - Revenue growing >2x market at 70%
  - Vertically integrated manufacturing at scale
  - Industry-leading efficiency through innovative device and packaging technologies

- Silicon Power – IGBT, FET
  - #2 position with growing market share
  - Expanding BOM coverage with new products
  - Exited price sensitive markets

- Power ICs
  - Double down on $14B TAM with >70% gross margin
  - Optimize system cost with gate drivers and controllers
  - Expand leadership to full Power Tree solutions

**Intelligent Sensing**

- #1 position in Auto and Industrial
- Growing in machine vision
- 68% market share in ADAS, 27% market share in industrial
- 8MP ramping with ~2.5x ASP uplift
- #1 in Ultrasonic and Inductive Sensing for Automotive and Industrial
- Delivering high margin and the most profitable sensor business in the industry
Premium Businesses Driving Premium Results

- Revenue Growth
  ~3x Market

- Expanding Gross Margin

- Shareholder Value

- Shareholder Capital Return

- Accelerating Free Cash Flow

- Silicon Carbide
- Silicon Power
- Power ICs
- Image Sensors
# Markets that Matter

<table>
<thead>
<tr>
<th>Industry</th>
<th>Semiconductor</th>
<th>Intelligent Power &amp; Sensing</th>
<th>Sustainable Ecosystem</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAM</td>
<td>$553B</td>
<td>$91B</td>
<td>$43B</td>
</tr>
<tr>
<td>CAGR</td>
<td>4%</td>
<td>6%</td>
<td>16%</td>
</tr>
</tbody>
</table>

Revenue CAGR 2022 - 2027

- 10-12%
- 14%
- 21%

**Electrification**, creating a multi-decade opportunity for onsemi
- SiC growth >2x market at ~70%

**Machine Vision for the future of automation**

**Power new generation of cloud and 5G infrastructure with onsemi CAGR >20%**
Sustainable Ecosystem to Drive ~3x the Market Growth

Automotive
- Electrification – SiC & IGBT
- Increasing ADAS Adoption
- Power Management for LED and Advanced Safety

Industrial
- Energy Infrastructure
- Factory Automation
- EV Charging

Other
- 5G & Cloud Power growing at 22%
- Engage with Strategic market leaders opportunistically with value driven solutions
- No investment in broad markets

CAGR 2022 – 2027

Auto: 19%
Industrial: 10%
Other: -4%

2022 ---------------------------------------- 2027 Target
Sustainable Ecosystem to Drive ~3x the Market Growth

**Intelligent Power**
- SiC growth 2x the industry at 70%; 35-40% market share
- Si Power – IGBT, FET share gain in Auto & Industrial
- Accelerate Power IC growth with controllers and gate drivers

**Intelligent Sensing**
- Grow in machine vision for auto and industrial
- Advanced safety for ADAS and in-cabin vision
- Factory Automation
- Opportunistic in human vision applications

**Other**
- Attractive cash flow businesses
- BOM indispensability and complementarity
Highly Diversified Customer Base

Customer **Needs:**
- Best-in-Class Performance
- Reliable suppliers at scale
- Tighter supplier base
- Competitive system cost

**onsemi Delivers:**
- Industry-leading products
- Vertically integrated supply chain
- Broad portfolio of products
- Solution optimization across BOM

**Top 20 customers represent ~35% of revenue**

**Top 20 customers each buy ~800 products on average**
Executed Fab Liter Manufacturing Strategy

Fab Liter

Flexible, Low Fixed-Cost Footprint

- Reduced legacy capacity to minimize fab footprint – Fab Filler strategy is dead
- Captive capacity for differentiated technologies. Leverage external manufacturing for non-proprietary technologies
- Invested in brownfield expansion for capital efficiency and industry-leading ROIC
- Divested four subscale fabs – recognize $160M in annualized savings through 2025
- Reduces gross margin volatility
The Next Strategy: Fab Right

**Fab Right**

Optimize asset footprint for efficiencies and best-in-class ROIC

- Optimize mix across the network for best cost structure
- Ramping 300mm Fab for scale and capacity
- Leverage Base footprint and brownfield investments for Strategic Growth
- Multi-year LTSAs provide visibility for expansion
- Extract savings of $160M from divestiture of four Fabs
- Geographically diverse footprint for supply chain assurance
  - EFK is the only US-based 300mm power semiconductor Fab

**External/Flex capacity**

- Utilize internal capacity for differentiated products with external partners for flex capacity
- Maximize internal utilization to reduce volatility in margins
Fab Right: onsemi’s Path to Net Zero by 2040

- **Greenhouse Gas Emissions**
  - Near-term targets to be published in 2024
  - 21% YoY Scope 2 emissions reduction in 2022

- **Water**
  - 42% water recycled in 2022
  - 19% YoY water withdrawal reduction in 2022

- **Waste**
  - 70% waste diverted from landfill in 2022
  - 23% YoY waste reduction in 2022

- **Energy Saving**
  - Fab Right Energy Savings of 18% in kWh/Wafer by 2027
  - 18% savings by 2027

SBTi Letter signed December 2022
The Next Milestone: Expand Gross Margin to 53%

Mix / New Products
- Continued mix shift to Auto & Industrial
- Ramp new and differentiated products at margins above target

Silicon Carbide (SiC)
- Accretive margins at scale
- Absorption of startup costs
- SiC growing 2x market\(^1\)

Fab Right
- Optimize manufacturing network for cost efficiency
- $160M in fixed-cost savings from four Fab divestitures in 2022
- Maximize utilization across network with flex to external capacity

---

1. Yole SiC market forecast: 2022-27 CAGR of 33%
Shareholder Value

- Revenue Growth ~3x Market
- Expanding Gross Margin
- Shareholder Capital Return
- Accelerating Free Cash Flow
Accelerating Free Cash Flow

Expanding Free Cash Flow Margin to 25-30%

- Grow revenue ~3x semiconductor industry
- Expand Gross Margin
- Targeted Operating Expense deployment
- High ROIC investments
- Working Capital & Inventory management

$3.5 - 4.0 billion in Free Cash Flow in 2027
Market Success Driving Investments

**Fab Right: Expanding Capacity**
- Expand capacity for strategic growth to capture market opportunity
- Ramp 300mm and capacity expansion
- Augment competitive advantage in packaging

**Silicon Carbide Expansion**
- Invest $2B in next phase of end-to-end SiC capacity
- Evaluate brownfield opportunities in Europe, USA and Korea

**Capital Efficiency**
- Capital Intensity to be 15-20% through 2024 and decline to 11% by 2027
- Minimize risk through customer co-investments and LTSA visibility
- Government subsidies to offset CapEx investments and enhance ROIC

**Investing for growth while maintaining best-in-class ROIC**
Delivering Best-in-Class ROIC

Brownfield Efficiency
- 40% less CapEx compared to Greenfield investment
- Accelerates time to market by 2 years

2022 Capital Intensity

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>onsemi</td>
<td>12.8%</td>
<td>8.5%</td>
<td>24.6%</td>
<td>38.6%</td>
</tr>
<tr>
<td>Peer Low</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Median</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Average</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer High</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

onsemi capital intensity is nearly half the peer group median

CapEx savings of ~40%
INTELLIGENT POWER

Shareholder Value

Shareholder Capital Return

Expanding Gross Margin

Accelerating Free Cash Flow

Revenue Growth ~3x Market
Investments and Capital Allocation

R&D and CapEx
- Invest in organic initiatives to extend competitive advantage
- Maintain best-in-class ROIC

M&A
- Strategic M&A adjacent and complimentary
- Technology tuck-ins
- Accretive to financial model
- Low leverage provides firepower

Balance Sheet
- Maintain flexibility to pursue organic and inorganic growth
- Maintain existing credit rating of BB+/Ba1

Shareholder Returns
- Return 50% of Free Cash Flow through share repurchases
- $3B repurchase authorization in place
## Accelerating the Financial Model

<table>
<thead>
<tr>
<th></th>
<th>2022 Actual</th>
<th>2027 Target</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenue</strong></td>
<td>$8.3B</td>
<td>10-12% CAGR</td>
<td>Grow at ~3x the semiconductor industry</td>
</tr>
<tr>
<td><strong>Gross Margin</strong></td>
<td>49.2%</td>
<td>53%</td>
<td>Mix shift, new products &amp; SiC ramp at accretive margins</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Optimize cost through Fab Right</td>
</tr>
<tr>
<td><strong>Operating Expenses</strong></td>
<td>14.6%</td>
<td>13%</td>
<td>Invest in R&amp;D for long-term growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Digital First - embrace new technologies &amp; data analytics</td>
</tr>
<tr>
<td><strong>Operating Margin</strong></td>
<td>34.7%</td>
<td>40%</td>
<td>Grow Operating Income faster than revenue</td>
</tr>
<tr>
<td><strong>CapEx</strong></td>
<td>12%</td>
<td>11%</td>
<td>Market success drives investments</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>High ROIC brownfield investments</td>
</tr>
<tr>
<td><strong>Free Cash Flow</strong></td>
<td>20%</td>
<td>25-30%</td>
<td>$3.5-$4.0B of Free Cash Flow in 2027</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Return 50% to shareholders</td>
</tr>
</tbody>
</table>
Premium Businesses Driving Premium Results

- Premium Markets
- Sustainable Ecosystem
- Premium Businesses
- Premium Products
- Premium Results

- INTELLIGENT POWER
- INTELLIGENT SENSING
- INTELLIGENT POWER
- INTELLIGENT SENSING

- Revenue Growth ~3x Market
- Accelerating Free Cash Flow
- Shareholder Value
- Expanding Gross Margin
- Shareholder Capital Return
Appendix
## Appendix – GAAP to Non GAAP Reconciliation

### Reconciliation of GAAP to Non-GAAP Gross Margin:

<table>
<thead>
<tr>
<th></th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAAP Gross Margin</td>
<td>35.8%</td>
<td>32.7%</td>
<td>40.3%</td>
<td>49.0%</td>
</tr>
<tr>
<td>a) Impact of business wind down</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.2%</td>
</tr>
<tr>
<td>b) Amortization of acquisition-related intangible assets</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.1%</td>
</tr>
<tr>
<td>c) Non-recurring facility costs</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>d) Amortization of fair market value step-up of inventory</td>
<td>0.4%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Non-GAAP Gross Margin</td>
<td>36.1%</td>
<td>32.7%</td>
<td>40.4%</td>
<td>49.2%</td>
</tr>
</tbody>
</table>

### Reconciliation of GAAP to Non-GAAP Operating Margin FY 2019 FY 2020 FY 2021 FY 2022

<table>
<thead>
<tr>
<th></th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>GAAP Operating Margin</td>
<td>7.8%</td>
<td>6.6%</td>
<td>19.1%</td>
<td>28.3%</td>
</tr>
<tr>
<td>a) Amortization of acquisition-related intangible assets</td>
<td>2.1%</td>
<td>2.3%</td>
<td>1.5%</td>
<td>1.0%</td>
</tr>
<tr>
<td>b) Restructuring, asset impairments and other, net</td>
<td>0.5%</td>
<td>1.2%</td>
<td>1.1%</td>
<td>0.2%</td>
</tr>
<tr>
<td>c) Goodwill and intangible asset impairment</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>4.6%</td>
</tr>
<tr>
<td>d) Third party acquisition and divestiture-related costs</td>
<td>0.2%</td>
<td>0.0%</td>
<td>0.2%</td>
<td>0.2%</td>
</tr>
<tr>
<td>e) Non-recurring facility costs</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.0%</td>
</tr>
<tr>
<td>f) Impact of business wind down</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.2%</td>
</tr>
<tr>
<td>g) Amortization of fair market value step-up of inventory</td>
<td>0.4%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>h) Litigation settlement</td>
<td>3.1%</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Non-GAAP Operating Margin</td>
<td>14.1%</td>
<td>10.2%</td>
<td>21.9%</td>
<td>34.5%</td>
</tr>
</tbody>
</table>

### Reconciliation of net cash provided by operating activities to free cash flow:

<table>
<thead>
<tr>
<th></th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021</th>
<th>FY 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net cash provided by operating activities</td>
<td>$ 694.7</td>
<td>$ 884.3</td>
<td>$ 1,782.0</td>
<td>$ 2,633.1</td>
</tr>
<tr>
<td>Purchase of property, plant and equipment</td>
<td>(534.6)</td>
<td>(383.6)</td>
<td>(444.6)</td>
<td>(1,005.0)</td>
</tr>
<tr>
<td>Free Cash Flow</td>
<td>$ 160.1</td>
<td>$ 500.7</td>
<td>$ 1,337.4</td>
<td>$ 1,628.1</td>
</tr>
<tr>
<td>Free Cash Flow Margin</td>
<td>2.9%</td>
<td>9.5%</td>
<td>19.8%</td>
<td>19.6%</td>
</tr>
</tbody>
</table>
Notes and Sources – Welcome to the New World

What you are used to seeing (images)
- Maximize Market Research Pvt. Ltd
- Deloitte and Mordor Intelligence
- KBV Research
- Yole

Sustainable Ecosystem ‘22-’27 TAM CAGRs
- onsemi estimates
- LMC Automotive: Global Hybrid & Electric Vehicle Forecast - Quarter 4, 2022
- Omdia: Power IC Market Tracker, Sep 22

Sustainable Ecosystem Accelerating onsemi Content
- Based on total onsemi BOM opportunity

Markets that Matter
- onsemi estimates based on current market projections
- Semiconductor TAM excludes Memory

Winning Formula…and Execute
- >$17B: onsemi Form 10-Q filing for period ended March 31 2023
Notes and Sources – Powder to Power

Die Performance
- Internal benchmarking

Optimized Package Thermals 15% reduction in Rth
- Based on internal estimates

Lifetime LTSA Value
- Based on signed customer agreements
Notes and Sources - Accelerating The Flywheel

Winning at the Core – SiC and Si Power
• ‘22 – ‘27 CAGR, Global position and market share based on onsemi estimates

The Profound Impact of 1%
• 2022 Global Electricity Cost: https://www.globalpetrolprices.com/electricity_prices/
• 2022 Global Electricity Production: https://ourworldindata.org/electricity-mix
• 2022 WW data center power consumption: cc-ttechgroup.com
• 2022 US Household Total Power Usage: enerdata.net

Expanding from the Core - Power
• onsemi estimates
• Omdia: 1Q23 - Semiconductor Device Data By Application Markets
• Omdia: Industrial Semiconductor Market Tracker – 3Q22 Database, Jan’23
• LMC Automotive: Global Hybrid & Electric Vehicle Forecast - Quarter 4, 2022
• Omdia: Power IC Market Tracker, Sep'22
• Yole: Silicon Carbide Forecast 2023
• Yole: Imaging for Automotive 2022

Data Center Opportunity
• onsemi estimates based on total BOM opportunity

Electric Vehicle Opportunity
• onsemi estimates based on onsemi devices designed in BMW’s electric 7 Series vehicles

Winning at the Core - Image Sensor
• onsemi estimates
• TSR: Automotive Camera Market Analysis 2021-2022
• Yole: Status of CMOS Image Sensor Industry 2021 Report

Image Sensor – onsemi Advantage
• onsemi image sensor shipments

Image Sensor – Superior Technology
• onsemi estimates
Notes and Sources – Foundation Set: Ready to Accelerate

Stock Chart
- Stock Chart represents period from: December 7, 2020 to May 5, 2023; Source: FactSet

Structural Changes Set the Foundation for Growth
- Non-memory semiconductor device companies with market cap. of more than $5B & 100% revenue from semiconductor devices, adjusted for acquisitions; Source: FactSet
- 2019-2022 for Free Cash Flow & Operating Income growth; 2022 for ROIC ; Source: FactSet

Premium Businesses
- onsemi estimates
- Omdia: 1Q23 - Semiconductor Device Data By Application Markets
- Omdia: Industrial Semiconductor Market Tracker – 3Q22 Database, Jan’23
- Yole: Imaging for Automotive 2022
- LMC Automotive: Global Hybrid & Electric Vehicle Forecast - Quarter 4, 2022
- Omdia: Power IC Market Tracker, Sep’22
- Yole: Silicon Carbide Forecast 2023
- Bank of America Research
- Yole: 2022-27 SiC market forecast of 33% CAGR
- TSR: Automotive Camera Market Analysis 2021-2022

Markets that matter
- onsemi estimates based on current market projections, excludes Memory

Sustainable Ecosystem to Drive ~3x the Market Growth
- onsemi estimates based on current market projections

Fab Right, Revenue by End markets and technology
- onsemi estimates based on current market projections

Onsemi’s Path to net Zero
- Scope 2 Emissions normalized by annual revenue (Metric Tons CO2e per $ Million Revenue); 2022 GHG data is in progress for limited assurance
- Total Water Withdrawal normalized by annual revenue (Megaliters per $ Million Revenue)
- Total Waste Generation normalized by annual revenue (Metric Ton Waste per $ Million Revenue)
- Projected. Energy Savings based on internal estimates

The Next Milestone: Expand Gross Margin to 53%
- 2027 Target based on onsemi internal estimates

Market Success Driving Investments
- Capital Efficiency projections based on internal onsemi estimates

Driving Best in Class ROIC
- Factset
- Company reports, onsemi estimates
- Capital Intensity peer group includes TXN, IFX, Rohm, STM & WOLF
- ROIC = (Operating income – Tax)/(Shareholder equity + net debt)

Accelerating the Financial Model
- 2027 Target based on internal onsemi estimates

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