UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D. C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

March 10, 2017

Date of Report (Date of earliest event reported)

ON Semiconductor Corporation

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation) 000-30419 (Commission File Number)

36-3840979 (IRS Employer Identification No.)

ON Semiconductor Corporation 5005 E. McDowell Road Phoenix, Arizona (Address of principal executive offices)

85008 (Zip Code)

(602) 244-6600 (Registrant's tele

Not applicable mer address, if changed since last report.) (Former name or former ad

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 7.01 Regulation FD Disclosure

On March 10, 2017, ON Semiconductor Corporation ("ON Semiconductor") presented business and financial information to institutional investors, analysts, members of the press and the general public at a publicly available webcast meeting (the "Analyst Day Meeting"). Attached hereto as exhibits and incorporated by reference herein are the Analyst Day Meeting presentations made by: (1) Keith Jackson, President and Chief Executive Officer; (2) Bob Klosterboer, Executive Vice President and General Manager, Analog Solutions Group; (3) Taner Ozcelik, Senior Vice President and General Manager, Image Sensor Group; (4) Bill Hall, Executive Vice President and General Manager, Power Solutions Group; and (5) Bernard Gutmann, Executive Vice President, Chief Financial Officer, and Treasurer.

During the course of the Analyst Day Meeting, ON Semiconductor's executives discussed the company's corporate strategy, the integration of Fairchild Semiconductor International, Inc., financial performance, and business updates. The presentations include forward-looking statements and accompanying risk factors, and these presentations may be found at onsemi.com.

The information in this report shall not be treated as filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that Section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by a specific reference in such a filing. The furnishing of this report is not intended to constitute a determination by ON Semiconductor that the information herein is material or that the dissemination of such information is required by Regulation FD.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

The below exhibits are furnished as part of this report.

Exhibit No. Description 99.1 Analyst Day Meeting Presentation by Keith Jackson dated March 10, 2017. 99.2 Analyst Day Meeting Presentation by Bob Klosterboer dated March 10, 2017. 99.3 Analyst Day Meeting Presentation by Taner Ozcelik dated March 10, 2017. 99.4 Analyst Day Meeting Presentation by Bill Hall dated March 10, 2017.

99.5 Analyst Day Meeting Presentation by Bernard Gutmann dated March 10, 2017.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ON SEMICONDUCTOR CORPORATION (Registrant)

By: /s/ BERNARD GUTMANN Bernard Gutmann Executive Vice President, Chief Financial Officer, & Treasurer

Date: March 10, 2017

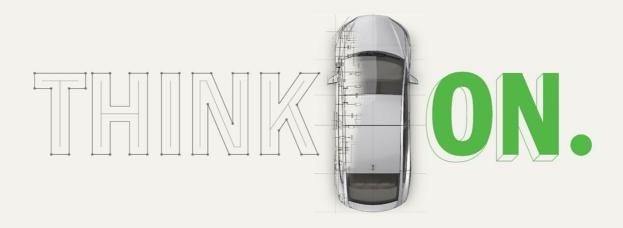
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Exhibit 99.1

ON Semiconductor®

Financial Analyst Day Phoenix, Arizona March 10, 2017

RETHINK ENERGY EFFICIENCY.



Financial Analyst Day | Phoenix, Arizona | March 10, 2017

Agenda

3

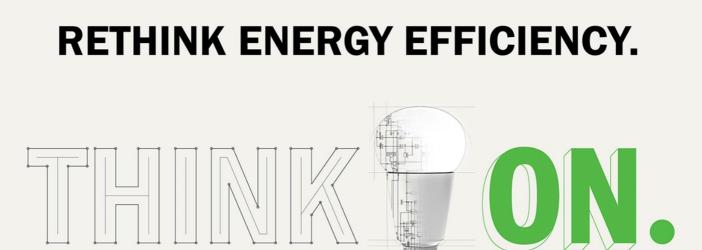
Introduction - Parag Agarwal	8:00-8:05
Strategic Overview - Keith Jackson	8:05-8:35
Q&A	
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Q&A	
Analyst Day 2017	ON Semiconductor®

Safe Harbor Statement and Non-GAAP and Forecast Information

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ON Semiconductor®



Keith Jackson, President and CEO

ON Semiconductor

DRIVING SHAREHOLDER VALUE THROUGH STRONG EXECUTION AND FREE CASH FLOW GENERATION

ON Semiconductor®



KEY TAKEAWAYS

ON has transformed itself into a provider of enabling technologies in strategic end-markets

Highly diversified & defensible business with high revenue visibility, & increasing exposure to Auto, Industrial, & Comm. markets

Strong execution on Fairchild integration, raising synergy targets Margin expansion & accelerated Free Cash Flow¹ generation, even if revenue growth fails to materialize

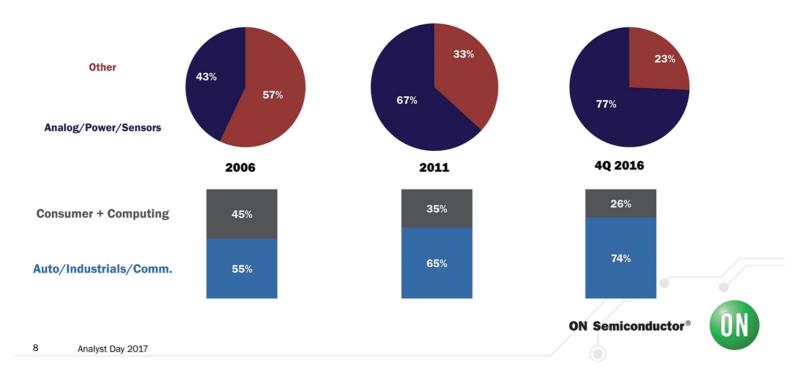
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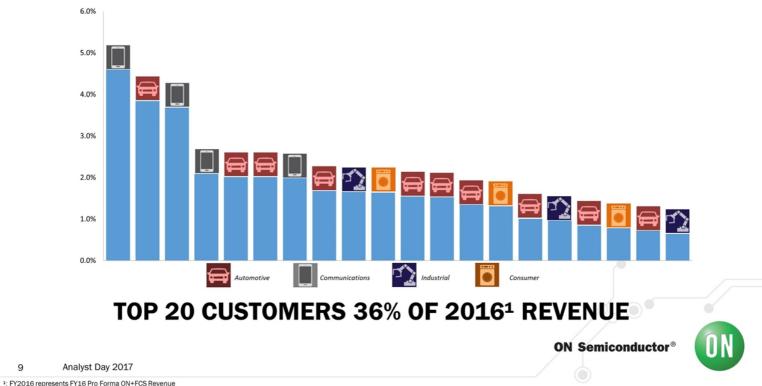
7 Analyst Day 2017

1: Free Cash Flow or FCF is defined as Operating Cash Flow less capital expenditure

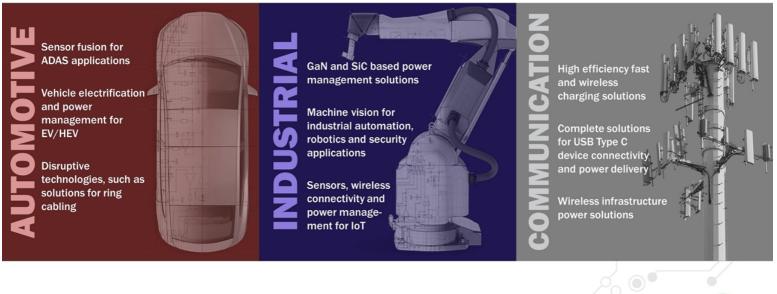
EVOLUTION INTO A POWER AND ANALOG PLAYER



HIGHLY DIVERSIFIED CUSTOMER BASE



ENABLING INNOVATION



ON Semiconductor®



STRATEGIC PRIORITIES

Growth with Profitability

Invest in markets with sustained profitability and growth: Auto, Industrial, Communications

Target innovative products to address power management, sensors, connectivity and other challenges

Leverage Sales Reach and Distribution Partnerships

Cross-sell products from ON and Fairchild

Leverage scale to drive sales through distribution channel

Continue to Improve Industry Leading Cost Structure

Optimization of front-end production (high volume & low cost) and insourcing of back-end

Synergies from Fairchild acquisition

Sharp focus on margin improvements



ACCELERATE FREE CASH FLOW GENERATION

ON Semiconductor®



FAIRCHILD INTEGRATION UPDATE

Exceeding Strategic and Financial Objectives

- Customer and market response better than expected
- Strong execution driving higher than expected synergies

Solid Strength in Fairchild Revenue

- Positive revenue synergies with Fairchild bookings up 49% year on year
- Significant cross-selling opportunities

Gross Margin Improvement Program on Track

- Optimization of front-end facilities
- Back-end insourcing to start towards the end of 2017

ON Semiconductor®



TRANSFORMATIVE IMPACT OF FAIRCHILD



•

Catapults ON to a leadership position in power market

- Customers looking for alternative to market leader
- Positions ON as one-stop shop for multiple products and technologies

Vastly improved scale and cost structure

- Addition of highly efficient fabs to ON's network
- Operating leverage and efficiency through higher volume



•

Addition of key technologies to ON's portfolio

Fast charging, USB-C, SiC, HV and MV IGBTs and MOSFETs, Superjunction MOSFETs

Strong Free Cash Flow Contribution

- Projected incremental FCF of \$260m by 2019
- Value creation through rapid deleveraging and capital returns

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THOUGHTS ON INDUSTRY CONSOLIDATION



14 Analyst Day 2017

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EXTENDING COMPETITIVE ADVANTAGE

Integrated manufacturing with unrivaled scale¹

Enabling new technologies to address key markets

Highly differentiated power management, analog & sensor products Synergistic and broad product portfolio with 84k SKUs

Industry leading cost structure

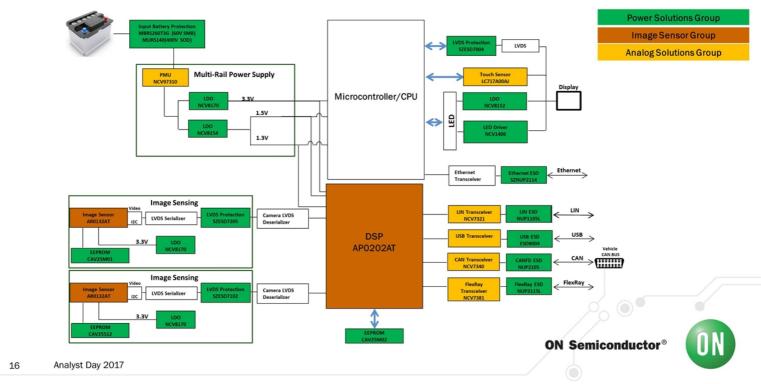
ACCELERATING MARGIN EXPANSION

15 Analyst Day 2017

1: ~1.3 billion units shipped per week in 4016



SYNERGISTIC PORTFOLIO EXAMPLE - ADAS



VALUE PROPOSITION TO CUSTOMERS

Enabler of new technologies in power, analog, sensors and connectivity for auto, industrial, and communications markets

Focused on providing solutions with synergistic and broad product portfolio of 84,000 SKUs

Reliable supplier with industry leading cost structure and operational efficiency

17 Analyst Day 2017

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STRATEGIC FOCUS ON KEY MARKETS

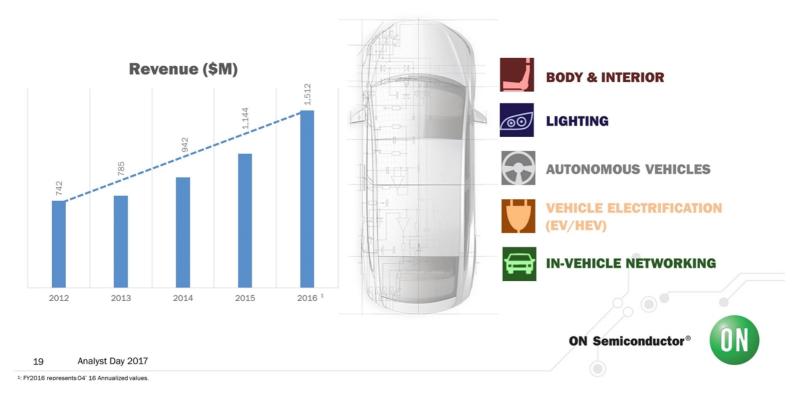


POSITIONED TO OUTGROW THE SEMICONDUCTOR INDUSTRY

ON Semiconductor®



AUTOMOTIVE- EXPECTED REVENUE CAGR 7-9%

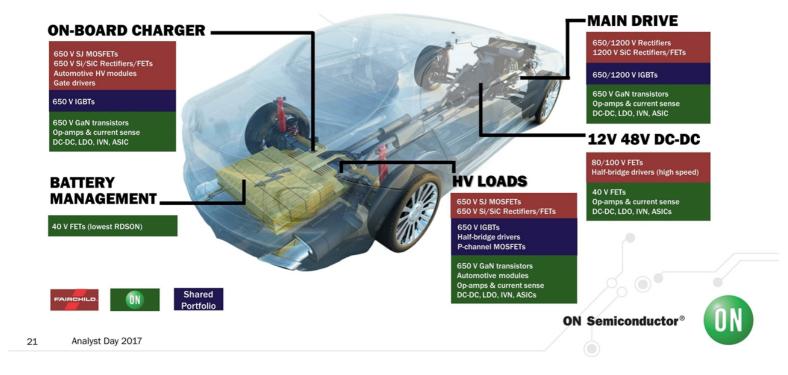


ADDRESSABLE CONTENT OF \$200-\$400¹ IN AUTOS

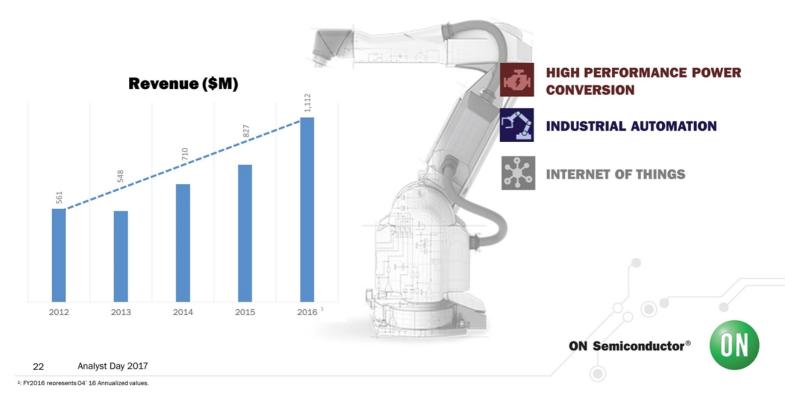
LIGHTING **LED Exterior** POWERTRAIN **LED Interior** Adaptive Front Lighting System **Engine Control** (AFLS) **Transmission Control Stepper Motor Control** Ignition **Pixel Lighting Throttle Control** Laser Lighting Start-Stop . 48 V System . Electrification . Charging **BODY & INTERIOR Body Computers & Gateways** ٠ **ACTIVE SAFETY** HVAC **Rear View Camera** Door & Seat **Surround View Camera Smart-Junction Box** . Park Assist Instrument Clusters • **IN-VEHICLE NETWORKING** Forward-Looking ADAS • Infotainment LIN/CAN, SBC, FlexRay & Ethernet In-Cabin ADAS Connectivity • E-Mirror Wireless Charging • **ON Semiconductor®** 20 Analyst Day 2017

1: Assuming level 2 autonomous features. \$200 for IC engines and \$400 for EV/PHEV

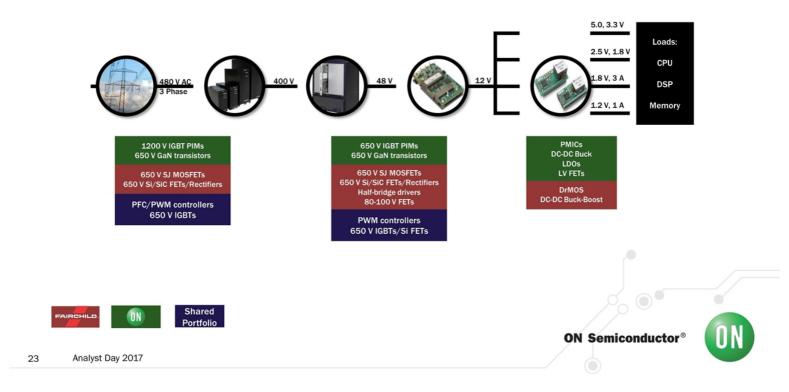
A LEADER IN VEHICLE ELECTRIFICATION



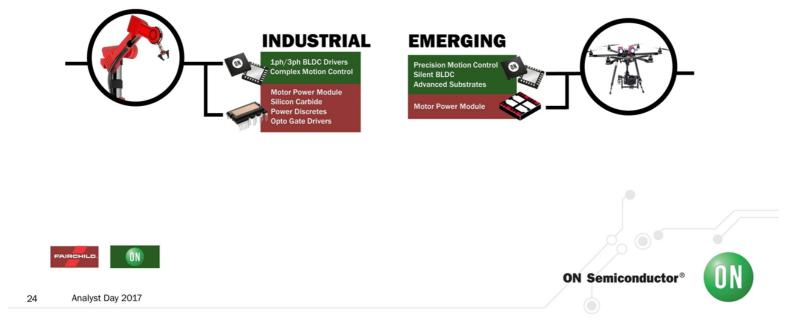
INDUSTRIALS- EXPECTED REVENUE CAGR 3-5%



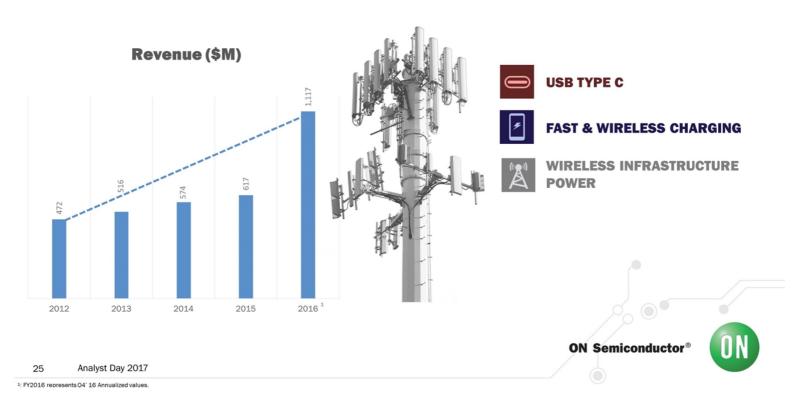
A LEADER IN HIGH PERFORMANCE POWER CONVERSION



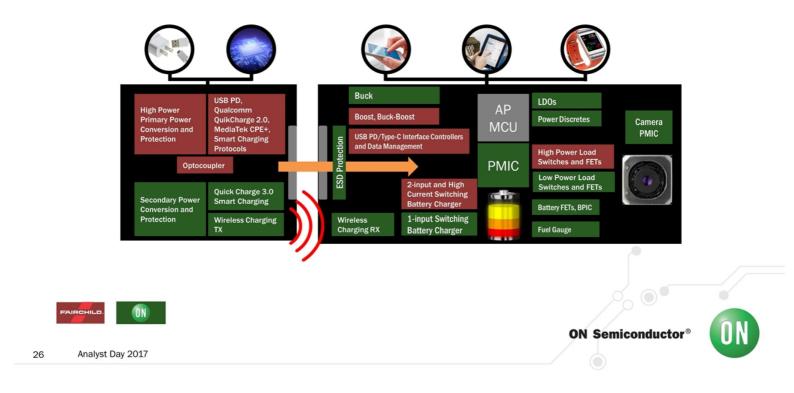
A LEADER IN MOTOR CONTROL



COMMUNICATIONS - EXPECTED REVENUE CAGR 2-4%



ADDRESSABLE CONTENT OF \$9 IN SMARTPHONES



SUMMARY



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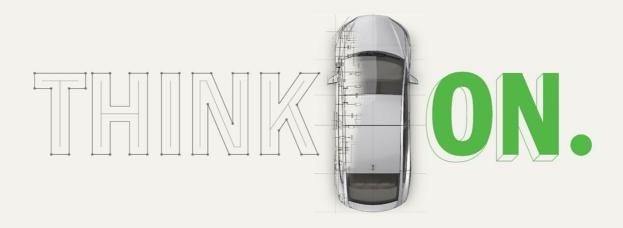
CON

Exhibit 99.2

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Financial Analyst Day Phoenix, Arizona March 10, 2017

RETHINK ENERGY EFFICIENCY.



Financial Analyst Day | Phoenix, Arizona | March 10, 2017

Agenda

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Analyst Day 2017	ON Semiconductor®

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Bob Klosterboer, Executive Vice President

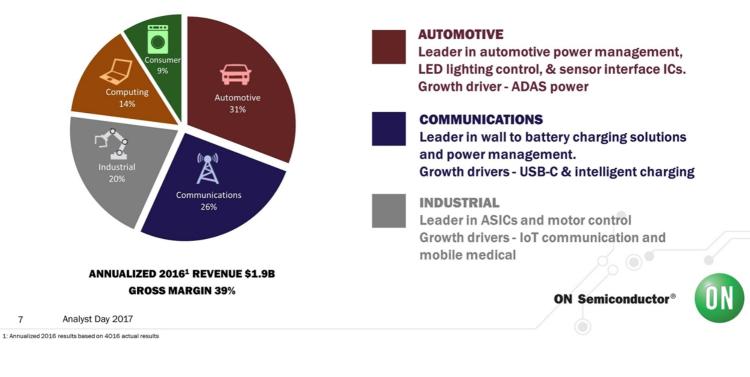
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ENERGY EFFICIENT ANALOG SOLUTIONS FOR AUTOMOTIVE, INDUSTRIAL & COMMUNICATIONS



ANALOG SOLUTIONS GROUP (ASG)

4Q16 REVENUE BY MARKET



KEY TAKEAWAYS

Continue to drive growth in key strategic markets – automotive, industrial, and communications Sharp focus on margin expansion through cost reduction and portfolio management

Innovative and disruptive products and technologies for IoT Edge devices

Expanding beyond ICs to providing complete solutions, including modules and software

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ASG STRATEGIC INTENT AND GOALS



FAIRCHILD ADDS TO STRENGTH



ASG GROWTH OPPORTUNITIES IN STRATEGIC MARKETS



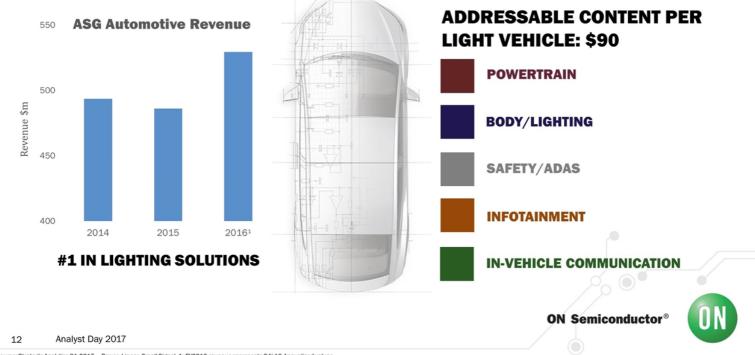
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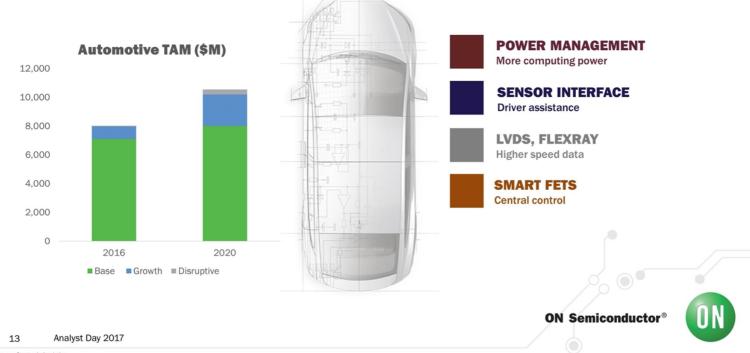
Based on 4016 actual results

ASG CURRENT AUTOMOTIVE MARKET



Source: Strategic Analytics 01 2017 - Power, Linear, Small Signal, 1: FY2016 revenue represents 04' 16 Annualized values.

ASG KEY AUTOMOTIVE GROWTH DRIVERS



Source: Strategic Analytics

AUTOMOTIVE "Expanding content and capabilities"

ADAS

Power Supplies System Basis Chips Motor Control Smart FETs Ultrasonic Sensor I/F Image Sensor support

ELECTRIFICATION

Inductive Senor I/F IP Start-Stop – ASIC/ASSP Power Supplies System Basis Chips Current Sense LDOs Battery Monitoring

Strong Offering Major Investment Fairchild Additions

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ACTIVE SAFETY

ASIC Power Supplies Current Sense LDO

IN-VEHICLE NETWORKING

System Basis Chips (SBC)

CAN Partial Network

FlexRay

Ethernet

LIN relay

INSTRUMENT CLUSTERS

LED Backlight Power Supplies Smart FETs System Basis Chips

LIGHTING

Full LED AFS LIN RGB SMPS SBC Motor Control Backlighting Smart FETs HS Pixel Lighting

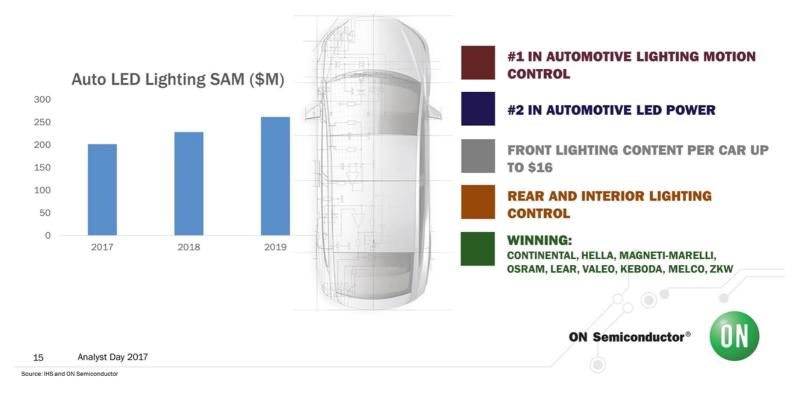
POWERTRAIN

Pressure Sensor I/F IP Multi-Spark IGBT Igniters Transmission Control Knock Sensor Interface

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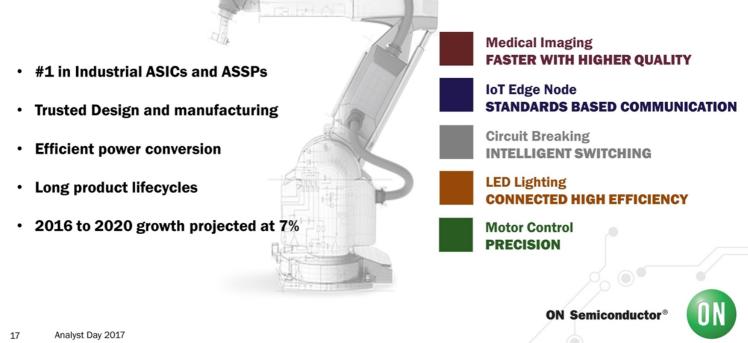
LEADERSHIP IN AUTOMOTIVE LED LIGHTING



EXTENDING POWER OPPORTUNITY IN ADAS

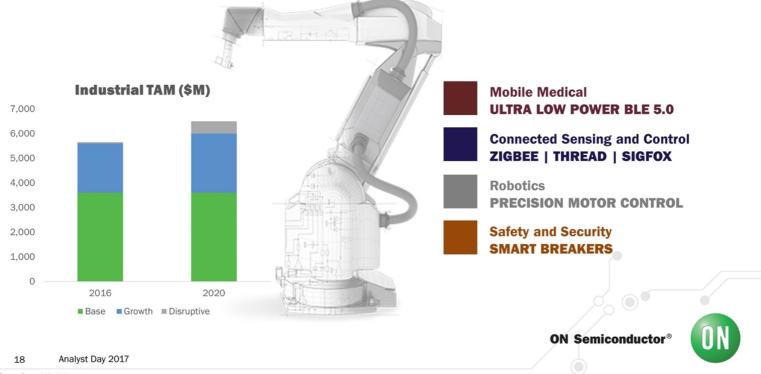


ASG CURRENT INDUSTRIAL MARKET



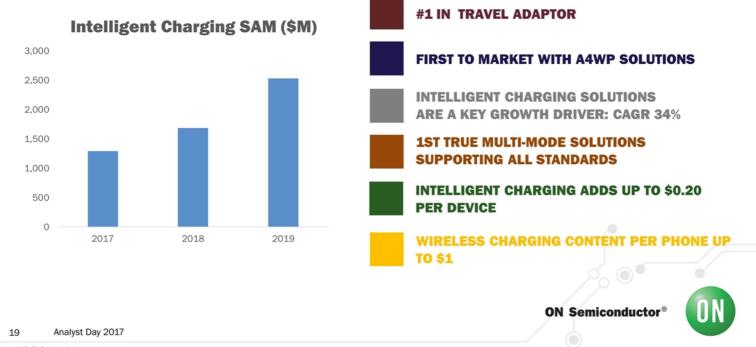
1: FY2016 represents Q4' 16 Annualized values.

ASG KEY INDUSTRIAL GROWTH DRIVERS



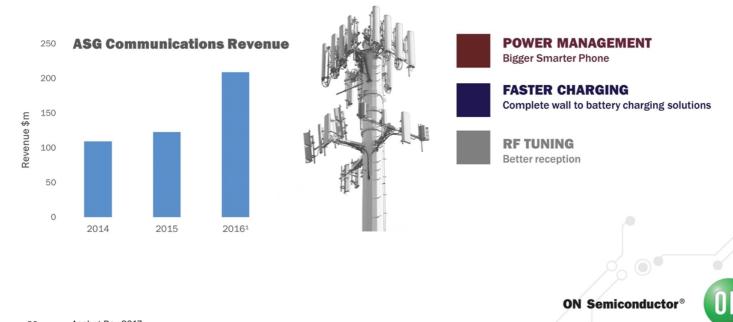
Source: Strategic Analytics

INTELLIGENT CHARGING



Source: IHS, ON Semiconductor

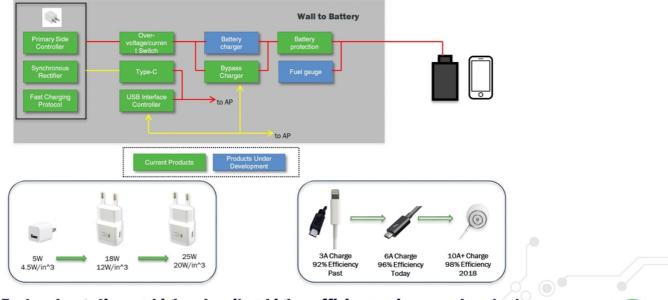
ASG COMMUNICATIONS MARKET



20 Analyst Day 2017

Source: Strategic Analytics Q1 2017 - Power, Linear, Small Signal. 4; FY2016 represents Q4' 16 Annualized values.

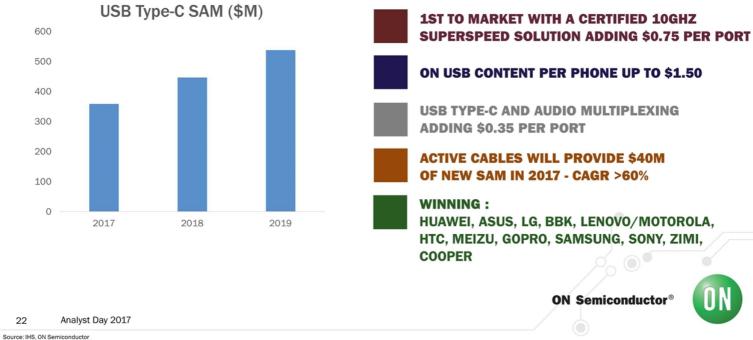
MOBILE SOLUTIONS - WALL TO BATTERY SOLUTION



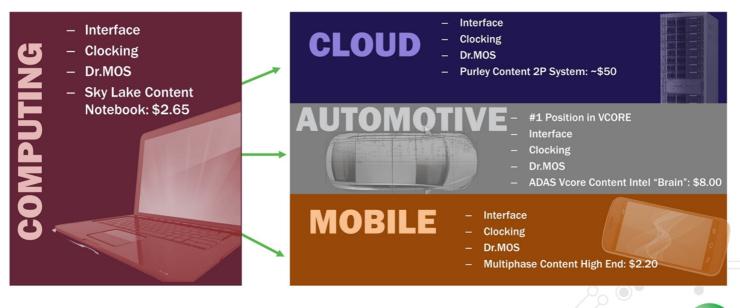
Faster charge times + higher density + higher efficiency = increased content

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LEADERSHIP IN USB TYPE-C



ASG LEVERAGING COMPUTING STRENGTH INTO GROWTH

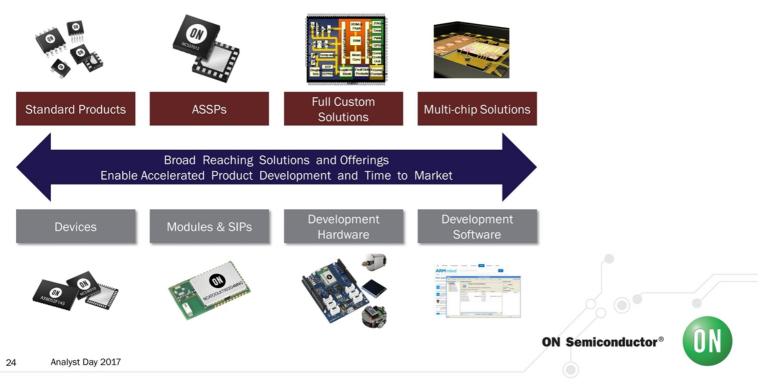


23 Analyst Day 2017

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ASG MARGIN IMPROVEMENT PLANS

GROSS MARGIN IMPROVEMENT OPPORTUNITIES

- Insourcing of Fairchild assembly and test
- Innovative test strategies
- Portfolio management
- Scrap reduction
- Factory rationalization

OPERATING MARGIN IMPROVEMENT OPPORTUNITIES

- Fairchild Synergies
- Eliminate redundant R&D activities
- Allocate headcount to higher growth markets
- Direct headcount growth to low cost development centers
- Innovative prototyping to reduce high cost tooling
- Closer customer collaboration to improve R&D yield

600 BPS OF GROSS MARGIN IMPROVEMENT¹

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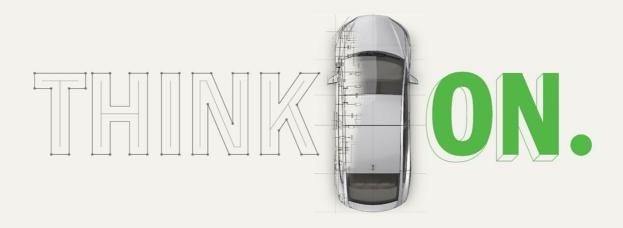
1: Gross margin improvement from 4Q16 base

SUMMARY





RETHINK ENERGY EFFICIENCY.



Financial Analyst Day | Phoenix, Arizona | March 10, 2017

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3 Analyst Da	ay 2017	ON Semiconductor®	

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IMAGE SENSOR GROUP



Taner Ozcelik, Senior Vice President

IMAGE SENSOR GROUP

INNOVATING VISION BEYOND THE HUMAN EYE





KEY TAKEAWAYS

Leader in fast growing automotive image sensor market, which is expected to grow 24% annually for next 5 years

Margin expansion through mix improvement, new high margin products for industrial market, supplier diversification, yield improvements and COGS reduction Optimized portfolio with approximately 80% exposure to automotive and industrial markets

Driving growth through innovation and extending ADAS portfolio to include radar for autonomous driving

ON Semiconductor®



#1 IN MISSION CRITICAL APPLICATIONS

AUTOMOTIVE

ADAS Surround View Mirror Replacement

Driver Monitor



INDUSTRIAL

Inspection systems Security Flat Panel Inspection Machine Vision Traffic cameras

SPACE



Planet Labs Satellites WorldView-4 Satellite

Star Trackers Mars Curiosity Rover Juno Orbiter

MEDICAL

Portable Diagnostics Digital Radiography Disposable Endoscopy Endoscopy X-ray Pill Cam

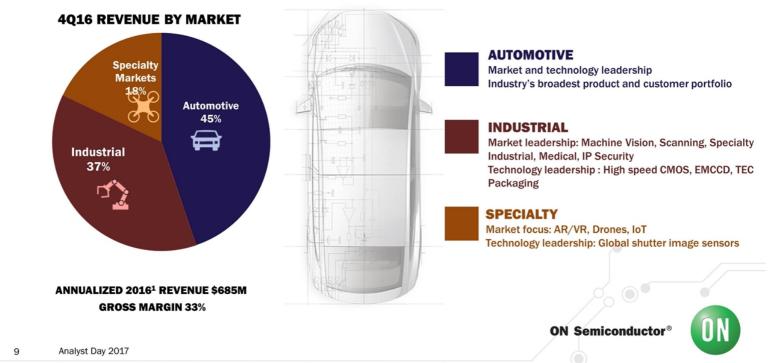


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8 Analyst Day 2017 1: AR - Augmented reality

IMAGE SENSOR GROUP (ISG)



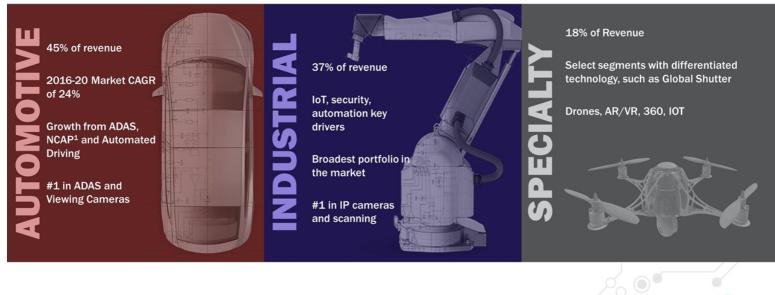
1: Annualized 2016 results based on 4Q16 actual results, 2: HDR - High Dynamic Range, 3: ASIL - Automotive Safety Integrity Level, 4: LFM - LED Flicker Mitigation

ISG STRATEGIC INTENT AND GOALS





SIGNIFICANT GROWTH OPPORTUNITIES IN STRATEGIC MARKETS



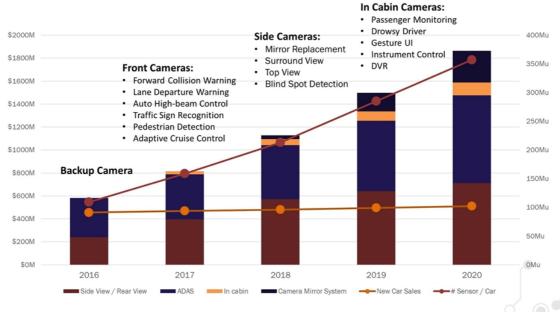
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1: NCAP - New Car Assessment Program

AUTOMOTIVE IMAGE SENSORS - FAST GROWING MARKET



2016-20 INDUSTRY REVENUE CAGR OF 24%

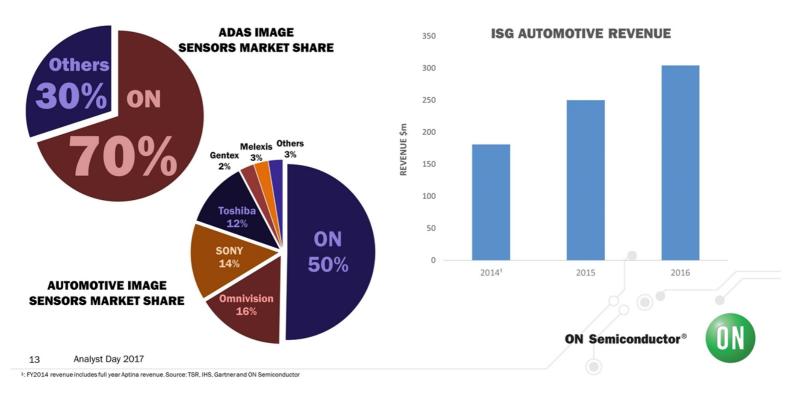
12 Analyst Day 2017

Source: TSR, IHS, Gartner, ON Semiconductor

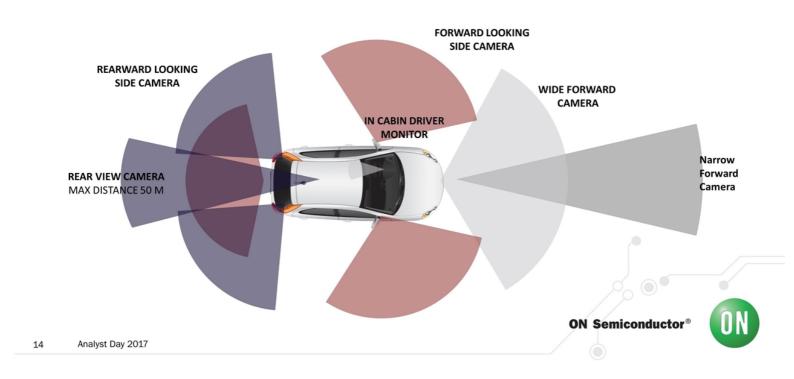
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AUTOMOTIVE GROWTH DRIVERS - #1 MARKET SHARE AND GROWING

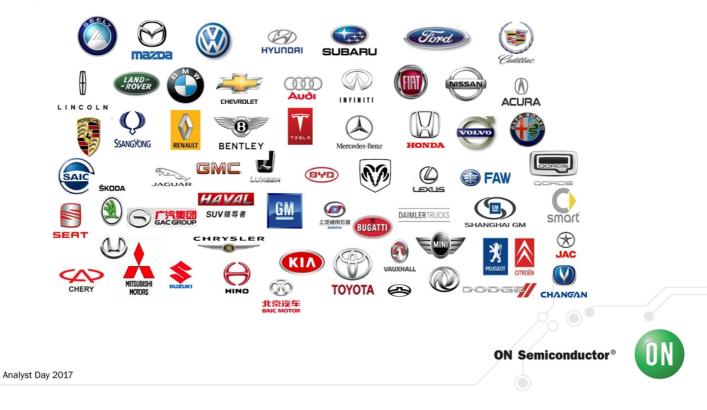


LEADING EV HAS 9 ON IMAGE SENSORS IN LATEST MODEL

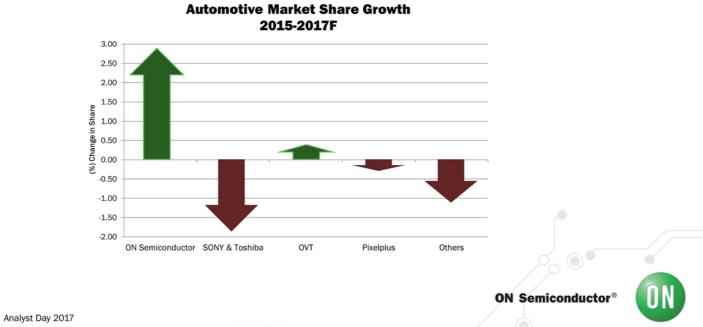


MARQUEE AUTOMOTIVE CUSTOMER LIST

15



CONTINUING TO GAIN MARKET SHARE



Source: Techno Systems Research (TSR), "Automotive Camera Market Analysis 2016", February 2017, http://www.t-s-r.co.jp

16

THE MOST COMPLETE CAMERA MODULE PORTFOLIO

Segment	Device		SONY	Omnivision
щ	Image Sensor		۲	
MAGE SENSOR IC & STORAGE	Image Signal Processor		\checkmark	
OR OR	EEPROM		•	•
ST ST	LIN Transceiver		-	•
IAGE C & S	Microcontroller	\checkmark	-	-
N N	In-Vehicle Networking	\checkmark	-	•
~	Voltage regulator		-	-
VEF	LDO		-	-
POWER	LV & HV FET		-	$\overline{}$
•	Rectifier		-	•
& ION	Std. Logic		-	•
	ESD/EMI		-	•
IEC	Diodes		•	•
SIGNAL & ROTECTION	eFuse/Current Prot.		-	-
. H	TVS		$\overline{\mathbf{\cdot}}$	$\overline{\mathbf{\cdot}}$
		Leading Capability	Competency	- Lacking Capability

SYNERGISTIC PRODUCTS FOR AUTOMOTIVE IMAGING

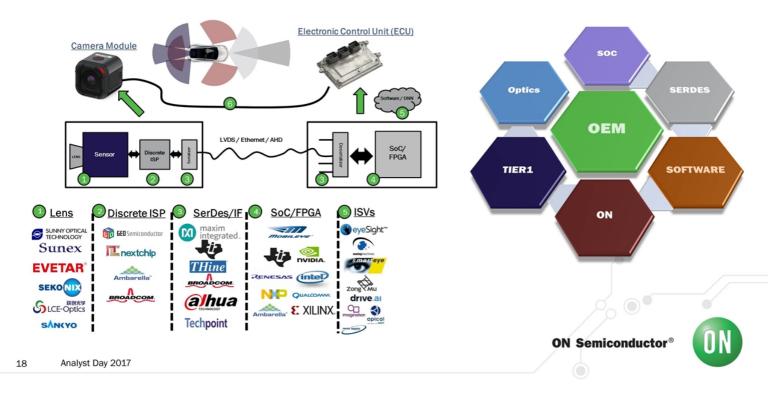
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ON

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Source: ON Semiconductor

MASTERS OF AUTOMOTIVE ECOSYSTEM



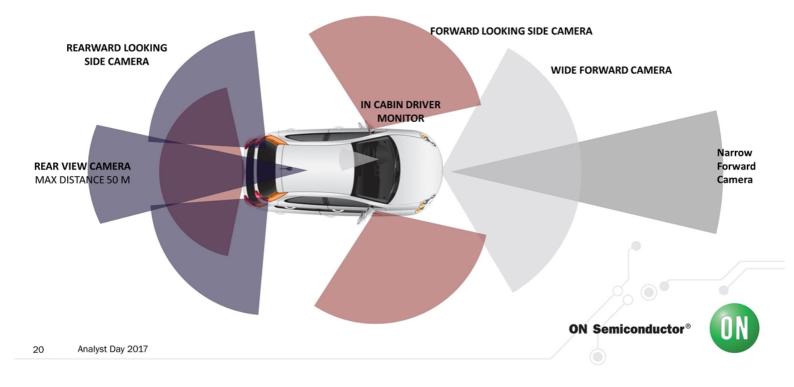


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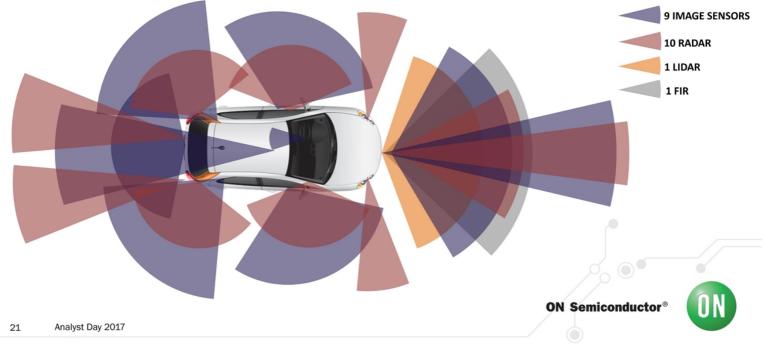


LEADING EV HAS 9 ON IMAGE SENSORS IN LATEST MODEL



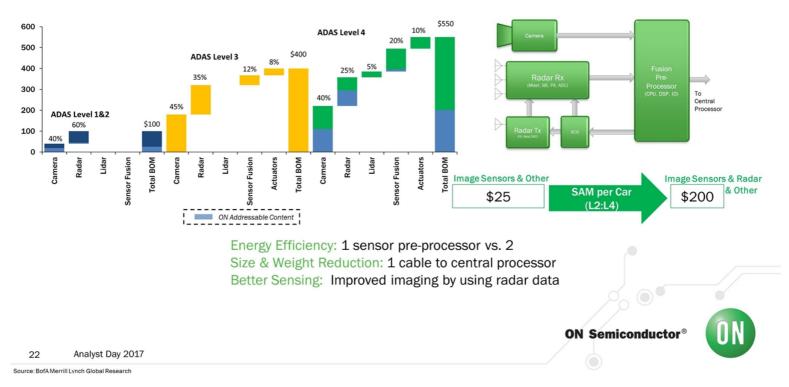
IMAGING + RADAR FUSION

Customers Requiring 9 Imagers and 10 Radar Transceivers



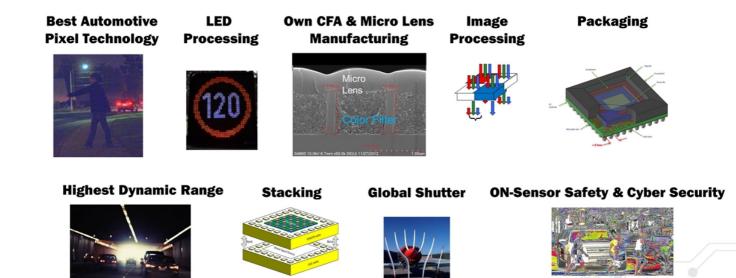
AUTONOMOUS DRIVING PORTFOLIO EXPANSION

Radar & Image Sensor Fusion – SAM growth of ~10x



ISG BEST IN CLASS TECHNOLOGIES

LARGEST IMAGE SENSOR AND PROCESSING PATENT PORTFOLIO WITH 2000 + PATENTS



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SUSTAINABLE COMPETITIVE ADVANTAGE IN AUTOMOTIVE

STRONG DESIGN PIPELINE

Automotive design win pipeline of more than \$1B with visibility of at least three years

ROBUST TECHNOLOGY LEAD

HDR¹, functional safety, cyber security, sensor fusion, ISP², uLens, packaging

COMPLETE SOLUTION

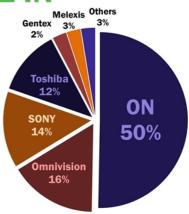
Sensor, power management, protection, Image signal processing, In-vehicle networking

FASTEST TIME TO MARKET

2x the products per year and largest automotive imaging team in the world

SENSOR FUSION

Complementing leadership in image sensors with investment in automotive radar



AUTOMOTIVE IMAGE SENSORS MARKET SHARE

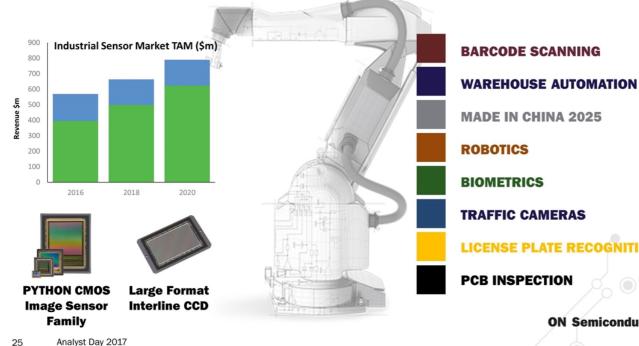
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Source: TSR, IHS, Gartner and ON Semiconductor; 1: HDR - High Dynamic Range, 2: ISP - Image Signal Processor

INDUSTRIAL GROWTH DRIVERS



BIOMETRICS TRAFFIC CAMERAS LICENSE PLATE RECOGNITION **PCB INSPECTION**

Source: MarketandMarkets

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AWARD WINNING DIGITAL CINEMATOGRAPHY 2016 Academy Award





ISG SPECIALTY IMAGING FOR GROWTH

GLOBAL SHUTTER

AR/VR, Drones,

- No motion blur or distortion
- Low read noise
- High reliability capture



3D DEPTH MAPPING

AR/VR, IP Cam, Gaming, IOT

- Highest depth range
- High shutter efficiency
- Low read noiseHigh frame rate



DRONES CAMERAS: IP, ACTION, DEPTH, 360, USB

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VACUUM CLEANERS

AR / VR / MR

EYE GLASSES

IOT DEVICES



ISG MARGIN IMPROVEMENT PLANS

MANUFACTURING

Dual Source

Transition to Lower Cost Fab & Process Nodes Yield Improvements (Fab Process and Binning) Test Time Reduction

PRODUCT DEVELOPMENT Die Shrink

BOM Cost Reductions

OPEX

Opex leverage and rationalization

900 BPS OF GROSS MARGIN IMPROVEMENT¹

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1: Gross margin improvement from 4Q16 base

SUMMARY



LEADERSHIP IN AUTOMOTIVE

50% market share and growing Technology and product portfolio leadership Robust design pipeline Broadest range of customer and partner relationships Investing in radar for sensor fusion

LEADERSHIP IN INDUSTRIAL IMAGING

#1 market share in several industrial segments Growing above market with Industry 4.0 and Made in China 2025 drivers Top to bottom portfolio of products Robust design win pipeline

MARGIN EXPANSION

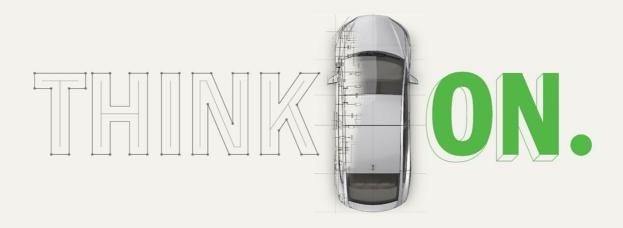
42% GM by 2020 driven by mix, yield improvement and cost reduction Strong opex control Leveraging ON's vast manufacturing scale & logistics networks

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RETHINK ENERGY EFFICIENCY.



Financial Analyst Day | Phoenix, Arizona | March 10, 2017

Agenda

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Introduction - Parag Agarwal	8:00-8:05
Strategic Overview - Keith Jackson	8:05-8:35
Q&A	
Analog Solutions Group - Bob Klosterboer	8:50-9:20
Image Sensor Group - Taner Ozcelik	9:20-9:50
Break	
Power Solutions Group – Bill Hall	10:05-10:35
Q&A	
Finance - Bernard Gutmann	10:50-11:20
Q&A	
Analyst Day 2017	ON Semiconductor®

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POWER SOLUTIONS GROUP



Bill Hall, Executive Vice President

ON Semiconductor

NEW POWERHOUSE IN POWER SEMICONDUCTORS



KEY TAKEAWAYS

The new powerhouse in power semiconductors, positioned to gain share and drive strong growth Industry leading cost structure and sharp focus on evolutionary & revolutionary cost reductions

Rapidly expanding portfolio for automotive, industrial and communications markets

Leading the charge in GaN & SiC and introducing disruptive technologies - eFuse & smart passive sensors (SPS) to address end-system technology challenges

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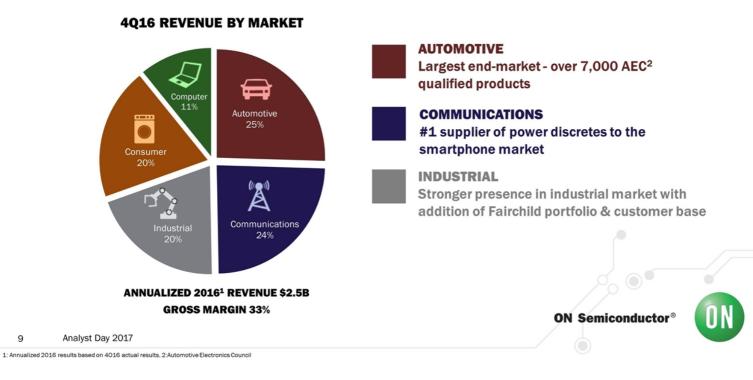


PSG STRATEGIC INTENT AND GOALS



POWER SOLUTIONS GROUP (PSG)

9



POWER SOLUTIONS GROUP

Linear Regulators ٠ Opto . Sensor, **Op-Amps** • Analog, & Other • LV, MV, HV/SuperJunction LED Protection **MOSFETs ESD Protection** • eFuse . Power • EEPROM HV Rectifiers **Products Small Signal Devices** • Intelligent Power Module **Standard Logic Power Integrated Module** • • **Smart Passive Sensors** • • IGBTs 0 . Wide Bandgap **Automotive Power** • Modules **Gate Drivers** • **Automotive MOSFETs** . **ON Semiconductor®** Analyst Day 2017

THE NEW POWERHOUSE IN POWER

		IFX	Mitsubishi	STM
Rectifiers Thyristor			+	
Thyristor				
LVFET		•	+	
LVFET MVFET		•	+	
HVEET		•	+	
SSFET			+	
Ignition		+	+	+
IGBTs		•	+	
BPT		•	+	
IGBTs BPT FET Modules		+		+
IPINIS				+
PIMs		•		+
GaN Hi Voltage		•	+	+
PIMs GaN Hi Voltage SiC		•		
Gate Dr		•		
	Leading Capability	Compe	etency (+)	Building Capability

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Source: IHS 2015 Power Discrete & Module Report

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IGBTS - NOW A PREMIER IGBT SUPPLIER



MOSFETS – SIGNIFICANTLY BROADER COVERAGE

					_	_								
			TO-3P	TO-24	7 1	r 0-22 0	D2PAK	DPAK	SO-8	TO-LL	8x8	SO8 DFN	SO8 LFPAK	
	8	25V						🕕 IFX	IFX			🕕 IFX		
	\$2B	30V		- ii	FX (🖲 ifx	🕕 IFX	🕕 IFX	🕕 IFX	IFX		🕕 IFX	<u>ON</u>	
		40V		ii ii	FX (🕕 ifx	🕕 IFX	🕕 IFX	🕕 IFX			🕕 IFX		
	-	60V		ii	FX (🜒 ifx	🕕 IFX	🕕 IFX	🕕 IFX	🕕 IFX		🕕 IFX		ĺ
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	\$2B	100V			FX (🕦 IFX	🕕 IFX	🕕 IFX	🕕 IFX	🕕 IFX		🕕 IFX		Í
	\$	150V	<u>ON</u>	<u>on</u> II	FX (🕦 iFX	🕕 IFX	🕕 IFX	🕕 IFX	🕕 IFX		🕕 IFX		ĺ
		250V		ii ii	FX (🕦 IFX	🕕 IFX	🕕 IFX		IFX		🕕 IFX		ĺ
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	\$1B	1.5kV	<u>ON</u>	ii	FX (ON								ĺ
		1.7 kV	ON	ii	FX									ĺ
												ON	Semico	; נ
3	A	nalyst Day	2017											

Source: ON Semiconductor

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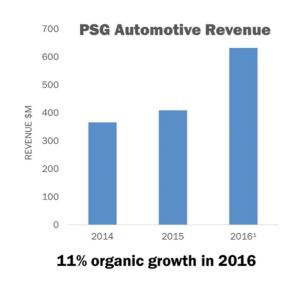
PSG GROWTH OPPORTUNITIES IN STRATEGIC MARKETS

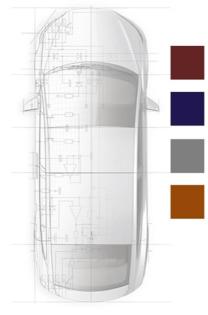


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PSG AUTOMOTIVE MARKET





POWERTRAIN HEV, EV, OBC, Aux pumps/motors, Charging Station

BODY/LIGHTING

Occupant Detection, Temp Zoning, QC, Body Motors, Matrix Lighting, & Ring Architecture

SAFETY/ADAS Electric Power Steering, Cameras, Intelligent Tires

INFOTAINMENT

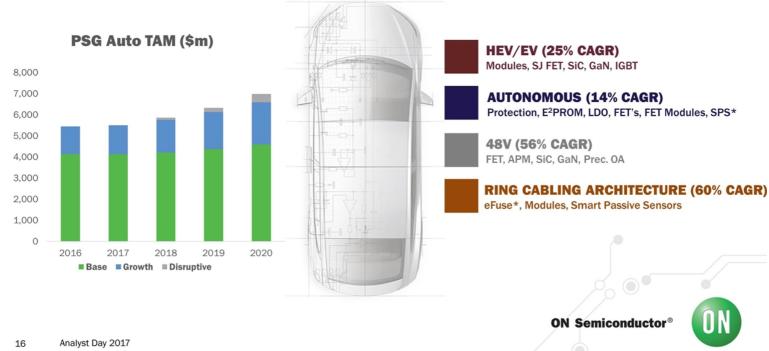
LCD Clusters, V2V Comm, High Speed Serial Interface

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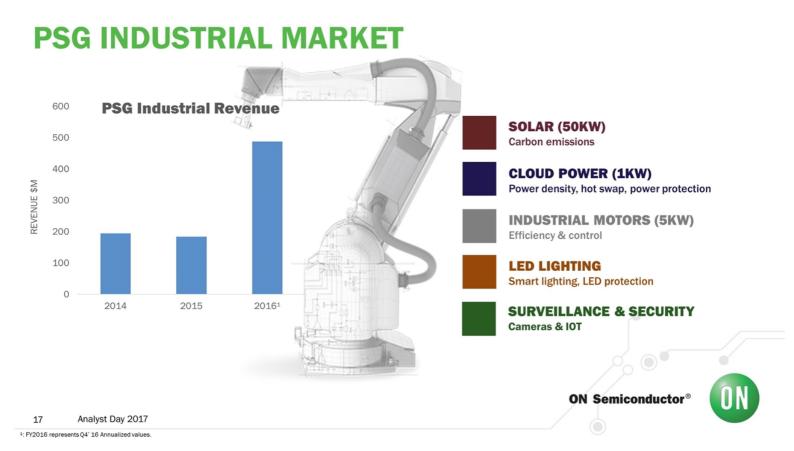


15 Analyst Day 2017 ¹: FY2016 represents Q4' 16 Annualized values

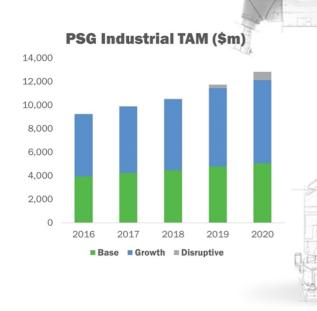
PSG KEY AUTOMOTIVE GROWTH DRIVERS



Source: IHS, Gartner, ON Semiconductor



PSG KEY INDUSTRIAL GROWTH DRIVERS



SOLAR (12% CAGR) PIMs, IGBTs, SiC/GaN, Hi Perf Analog, HV Gate Drivers

CLOUD POWER (12% CAGR) LV/MV FET, SJ FETs, IGBTs, GaN and SiC, High Performance Analog, eFuse

INDUSTRIAL MOTOR (9% CAGR) MV / SJ FETS, IGBTS, Power Modules, PIMS, GaN and SiC, E2PROM

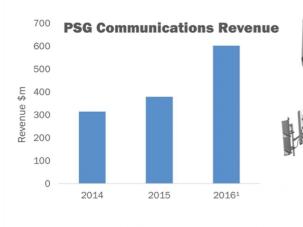
IOT (10% CAGR) Smart Passive Sensors, Hi Perf Analog, E²PROM, LC-ESD

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18 Analyst Day 2017 Source: IHS, Gartner, ON Semiconductor

PSG COMMUNICATIONS MARKET



11% ORGANIC GROWTH IN 2016

SMAR Cameras

SMART PHONE Cameras, biometrics, HSSI, battery life, clean power

WEARABLES Size, sensing & efficiency/battery life

CHARGING

Fast Charging, Wireless Charging, Smaller Form Factor, Efficiency, built in batteries

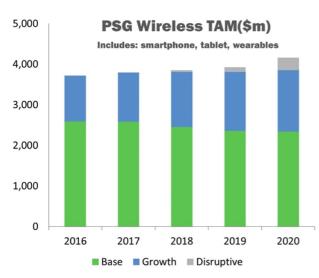


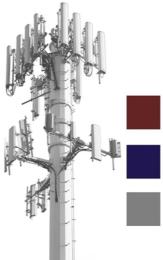


1: FY2016 represents Q4" 16 Annualized values.

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PSG KEY WIRELESS GROWTH DRIVERS





CAMERA MODULE (11% CAGR) LDO, E²PROM, Translator, LC-ESD

CHARGING (26% CAGR) LV/MVFETs, SiC/GaN, Schottky Diode, Hi PSRR LDO, E2PROM+Temp, Battery FET

SMALLER FORM FACTORS CSP & μPkg , SiC & GaN, Plasma Die Singulation, Capless LDO

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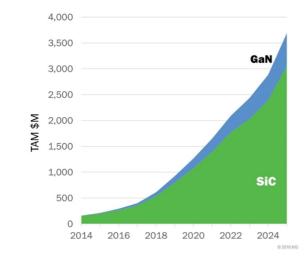


Source: IHS, Gartner, ON Semi

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PSG GaN AND SiC PROGRAMS



Currently producing and sampling all SiC & GaN power technologies

KEY SIC & GaN BENEFITS

Power Supplies: smaller form factor Automotive EV: no liquid cooling→ reduced weight Auto On Board Charging: faster charge time Solar Energy: higher power efficiency

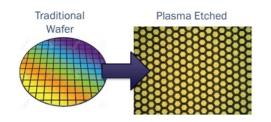


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21 Source: IHS

REVOLUTIONARY MARGIN IMPROVEMENT PLANS



Plasma Die Singulation

- Irregular shape die
- Narrow scribe streets
- More die per wafer
- Cleaner edge/high quality

REVOLUTIONARY

- High Density Lead Frames
- Rapid Test Metallization
- Bond Pad Over Active Silicon
- Plasma Die Singulation (Etched)

EVOLUTIONARY

- Larger Wafers/Bigger Fabs
- Die Shrinks
- BOM Change
- Test Time Reduction

500 BPS OF GROSS MARGIN IMPROVEMENT¹

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1: Gross margin improvement from 4Q16 base



SUMMARY



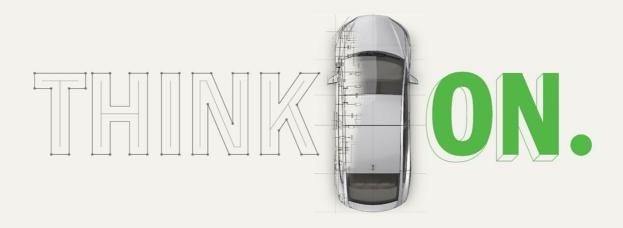
ON

Exhibit 99.5

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Financial Analyst Day Phoenix, Arizona March 10, 2017

RETHINK ENERGY EFFICIENCY.



Financial Analyst Day | Phoenix, Arizona | March 10, 2017

Agenda

3

Introduction - Parag Agarwal	8:00-8:05
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Q&A	
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This presentation contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are often characterized by the use of words such as "believes," "estimates," "expects," "projects," "may," "will," "intends," "plans," or "anticipates," 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. These factors include, among others: our revenues and operating performance; economic conditions and markets (including current financial conditions): risks related to our ability to meet our expectations regarding revenue growth, margin expansion, free cash flow generation, operational efficiency and the realization of synergies from our acquisition of Fairchild; effects of exchange rate fluctuations; the cyclical and seasonal nature of the semiconductor industry; changes in demand for our products; changes in inventories at our customers and distributors; technological and product development risks; enforcement and protection of our IP rights and related risks; risks related to the security of our information systems and secured network; availability of raw materials, electricity, gas, water and other supply chain uncertainties; our ability to effectively shift production to other facilities when required in order to maintain supply continuity for our customers; variable demand and the aggressive pricing environment for semiconductor products; our ability to successfully manufacture in increasing volumes on a cost-effective basis and with acceptable quality for our current products; risks associated with acquisitions and dispositions, including our recent acquisition of Fairchild (including our ability to realize the anticipated benefits of our acquisitions and dispositions; risks that acquisitions or dispositions disrupt our current plans and operations, the risk of unexpected costs, charges or expenses resulting from acquisitions or dispositions and difficulties encountered from integrating and consolidating and timely filing financial information with the SEC for acquired businesses and accurately predicting the future financial performance of acquired businesses); competitor actions, including the adverse impact of competitor product announcements; pricing and gross profit pressures; loss of key customers; order cancellations or reduced bookings; changes in manufacturing yields; control of costs and expenses and realization of cost savings and synergies from restructurings; significant litigation; risks associated with decisions to expend cash reserves for various uses in accordance with our capital allocation policy such as debt prepayment, stock repurchases, or acquisitions rather than to retain such cash for future needs; risks associated with financing and capital markets activities; risks associated with our substantial leverage and restrictive covenants in our debt agreements that may be in place from time to time; risks associated with our worldwide operations, including foreign employment and labor matters associated with unions and collective bargaining arrangements as well as man-made and/or natural disasters affecting our operations and finances / financials; the threat or occurrence of international armed conflict and terrorist activities both in the United States and internationally; risks and costs associated with increased and new regulation of corporate governance and disclosure standards; and risks related to new legal requirements and risks involving environmental or other governmental regulation. Additional factors that could affect our future results or events are described in our Annual Report on Form 10-K for the year ended December 31, 2016 and in other filings we make with the SEC. We caution you not to place undue reliance on any forward-looking statements, which are made only as of the date of this presentation. We do not undertake or assume any obligation to update publicly any of these forward-looking statements to reflect actual results, new information or future events, changes in assumptions or changes in other factors affecting forward-looking statements

This presentation, and the related discussion, also contain certain non-GAAP financial measures, including non-GAAP operating expenses, which should be considered only as supplemental to, and not as superior to, financial measures prepared in accordance with generally accepted accounting principles ("GAAP"). Please refer to the Appendix of this presentation for our calculation methodologies and a reconciliation of these non-GAAP financial measures to the most directly comparable financial measures prepared in accordance with GAAP.

RETHINK ENERGY EFFICIENCY.



Bernard Gutmann, Chief Financial Officer

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DRIVING OPERATING LEVERAGE AND FREE CASH FLOW GROWTH



KEY TAKEAWAYS

Target Model for 2020: 40% gross margin, 21% opex intensity,

and 19% operating margin

FCF Growth and Margin Expansion

Synergies, operational improvements & operating leverage to drive FCF growth & margin expansion – revenue growth not a prerequisite for margin, EPS & FCF growth

Raising Fairchild Synergy Targets

Efficient Deployment of Capital

Aggressive deleveraging followed by capital returns

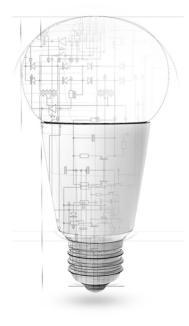
ACCELERATED FCF GROWTH: \$900M¹ BY 2020

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AGENDA

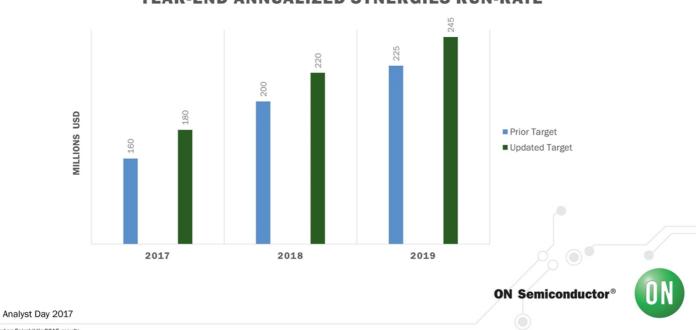


- Fairchild Synergies Update
- Target Financial Model
- Path to Target Model
- FCF Model
- Capital Allocation





RAISING FAIRCHILD SYNERGIES TARGET



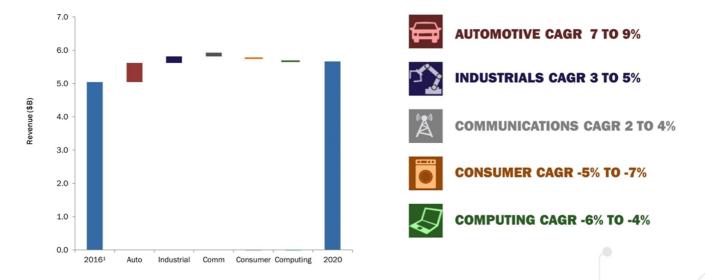
YEAR-END ANNUALIZED SYNERGIES RUN-RATE

Svnergv targets based on Fairchild's 2015 results

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PATH TO 2020 TARGET MODEL - REVENUE



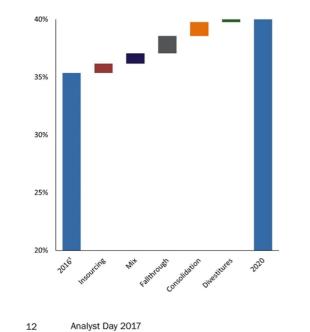
REVENUE CAGR OF 3%, ASSUMING INDUSTRY CAGR OF 1.5-2%

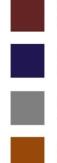
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1: FY2016 represents Q4' 16 Annualized values; The chart may not be to scale



PATH TO 2020 TARGET MODEL – GROSS MARGIN





MANUFACTURING EFFICIENCIES – 80 BPS Insourcing of back-end production

MIX – 90 BPS Improving mix of automotive, industrial and communications

FALLTHROUGH – 150 BPS 50% fall through on incremental revenue

MANUFACTURING CONSOLIDATION – 120 BPS Front-end manufacturing consolidation

DIVESTITURES- 40 BPS Divestiture of non-core businesses

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1: FY2016 represents Q4" 16 Annualized values.

MANUFACTURING CONSOLIDATION

Front End-Manufacturing

- 9 major fabs worldwide Four 8 inch and five 6 inch
- Transition production to 8 inch network
- Consolidation of 6 inch network
- Potential cost savings of \$60 million annually starting in 2019

Back-end manufacturing

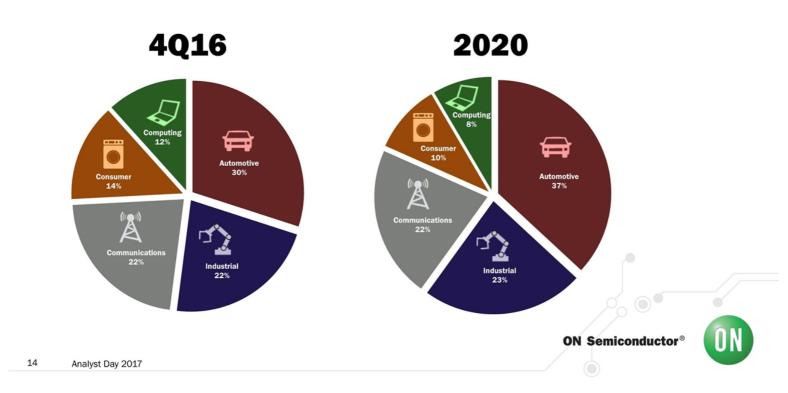
- Most efficient back-end operation in the world
- ~50% of Fairchild back-end production outsourced
- Insourcing on track to begin in late 2017
- Potential cost savings of \$20 million annually

CAPEX. INTENSITY TO REMAIN AT 6-7%

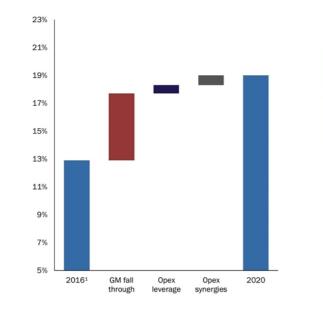




CHANGE IN MIX 2016 TO 2020



PATH TO 2020 TARGET MODEL – OPERATING MARGIN



GM FALL THROUGH – 480 BPS Gross margin improvement

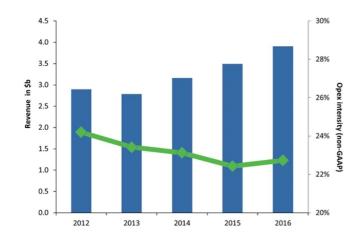
OPEX LEVERAGE- 60 BPS Leverage from revenue growth

OPEX SYNERGIES – 70 BPS Synergies from Fairchild Acquisition



15 Analyst Day 2017 ¹: FY2016 represents Q4' 16 Annualized values.

OPERATING EXPENSES



OPEX INTENSITY TO SUBSIDE



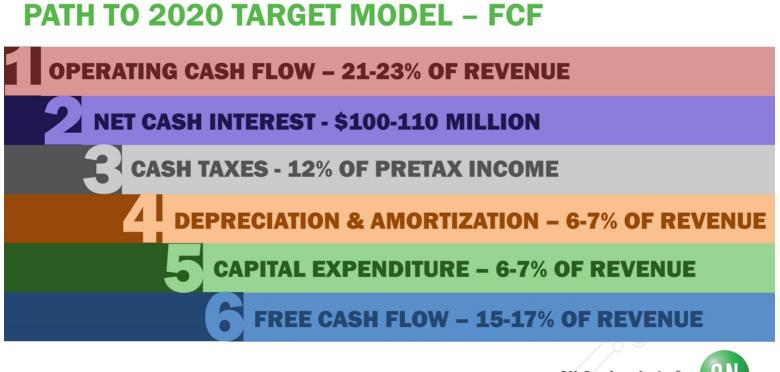
SYNERGIES FROM FAIRCHILD

OPEX TO GROW AT RATE HALF OF REVENUE GROWTH



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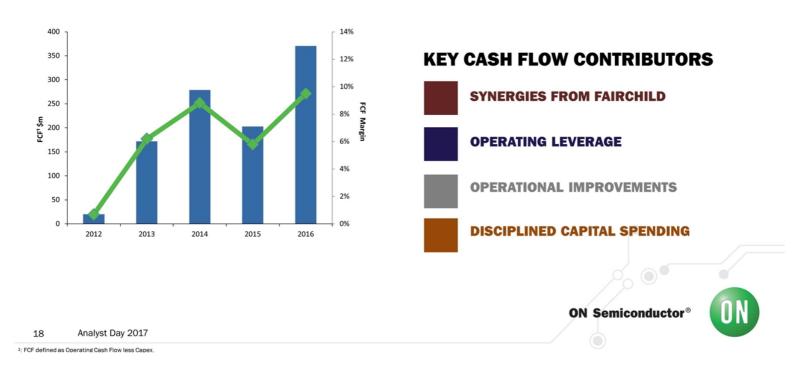




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ON TRACK TO GENERATE \$900M IN ANNUAL FREE CASH FLOW



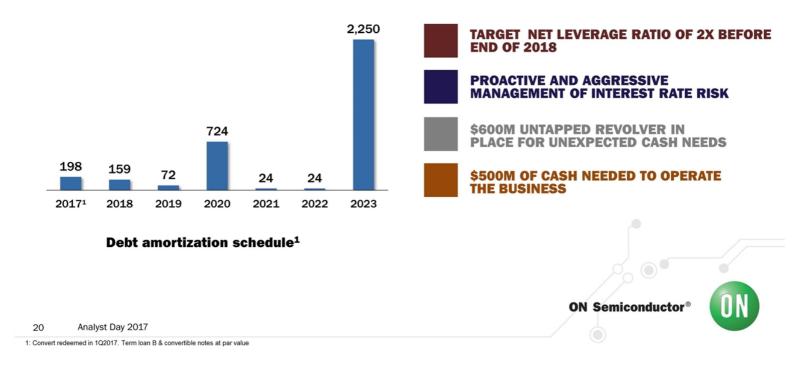
REVENUE SENSITIVITY TO 2020 TARGET MODEL



1: FY2016A represents 04' 16 Annualized values.

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AGGRESSIVE DELEVERAGING



CAPITAL DEPLOYMENT

Achieve 2x net leverage before end of 2018

80% of FCF cash return to shareholders after achieving 2x leverage

Acquisitions will need to return high RoIC

Sufficient access to domestic cash

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TAXES





SUMMARY





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Appendix: Non-GAAP Definitions and Reconciliations

Some data in this presentation includes non-GAAP financial measures. Following is the reconciliations of non-GAAP financial measures used in this presentation to the most directly comparable measures under GAAP.

	Year Ended										
		December 31, 2016		December 31, 2015		December 31, 2014		December 31, 2013		December 31, 2012	
Reconciliation of GAAP operating expenses to non-GAAP operating		2010		2010		2011					
expenses:											
GAAP operating expenses	\$	1,060.8	\$	932.1	\$	850.5	\$	720.2	S	968.2	
Special items:											
a) Amortization of acquisition related intangible assets		(104.8)		(135.7)		(68.4)		(33.1)		(44.4)	
b) Actuarial gains (losses) on pension plans and other pension benefits		(6.8)		4.2		(8.4)		(2.2)		(8.5)	
c) Restructuring, asset impairments and other, net		(33.2)		(9.3)		(30.0)		(33.2)		(165.3)	
d) Goodwill and intangible asset impairments		(2.2)		(3.8)		(4.6)		-		(49.5)	
e) Third party acquisition related costs		(25.8)		(3.5)		(8.1)		-			
Total special items	_	(172.8)		(148.1)		(119.5)		(68.5)		(267.7)	
Non-GAAP operating expenses 5	\$	888.0	\$	784.0	\$	731.0	\$	651.7	\$	700.5	
							ON Semiconductor				



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