



Advanced Energy®

**NEEDHAM GROWTH CONFERENCE
INVESTOR RELATIONS PRESENTATION**
January 2017

SAFE HARBOR

The company's guidance with respect to anticipated financial results for the fourth quarter ending December 31, 2016, expectations regarding future market trends and the company's future performance within specific markets (e.g., statements regarding anticipated semiconductor and industrial market growth) and other statements that are not historical information are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such statements. Such risks and uncertainties include, but are not limited to: (a) the effects of global macroeconomic conditions upon demand for our products and services; (b) the volatility and cyclical nature of the industries the company serves, particularly the semiconductor industry; (c) delays in capital spending by end-users in our served markets; (d) the accuracy of the company's estimates related to fulfilling solar inverter product warranty and post-warranty obligations; (e) the company's ability to realize its plan to avoid additional costs after the solar inverter wind-down; (f) the accuracy of the company's assumptions on which its financial statement projections are based; (g) the impact of price changes, which may result from a variety of factors; (h) the timing of orders received from customers; (i) the company's ability to realize benefits from cost improvement efforts including avoided costs, restructuring plans and inorganic growth; (j) the company's ability to obtain in a timely manner the materials necessary to manufacture its products; and (k) unanticipated changes to management's estimates, reserves or allowances. These and other risks are described in Advanced Energy's Form 10-K, Forms 10-Q and other reports and statements filed with the Securities and Exchange Commission (the "SEC"). These reports and statements are available on the SEC's website at www.sec.gov. Copies may also be obtained from Advanced Energy's investor relations page at <http://ir.advanced-energy.com> or by contacting Advanced Energy's investor relations at 970-407-6555. Forward-looking statements are made and based on information available to the company on the date of this presentation. Aspirational goals and targets discussed on the conference call or in the presentation materials should not be interpreted in any respect as guidance. The company assumes no obligation to update the information in this presentation.

NON-GAAP MEASURES

This presentation includes GAAP and non-GAAP income and per-share earnings data and other GAAP and non-GAAP financial information. Advanced Energy's non-GAAP measures exclude the impact of non-cash related charges such as stock based compensation, amortization of intangible assets and restructuring costs, as well as acquisition related costs and other non-recurring items. For the fourth quarter ending December 31, 2016 guidance, the company expects stock based compensation of \$1.3 million and amortization of intangibles of \$1.0 million. The non-GAAP measures included in this presentation are not in accordance with, or an alternative for, similar measures calculated under generally accepted accounting principles and may be different from non-GAAP measures used by other companies. In addition, these non-GAAP measures are not based on any comprehensive set of accounting rules or principles. Advanced Energy believes that these non-GAAP measures provide useful information to management and investors to evaluate business performance without the impacts of certain non-cash charges and other charges which are not part of the company's usual operations. The company uses these non-GAAP measures to assess performance against business objectives, make business decisions, develop budgets, forecast future periods, assess trends and evaluate financial impacts of various scenarios. In addition, management's incentive plans include these non-GAAP measures as criteria for achievements. Additionally, the company believes that these non-GAAP measures, in combination with its financial results calculated in accordance with GAAP, provide investors with additional perspective. While some of the excluded items may be incurred and reflected in the company's GAAP financial results in the foreseeable future, the company believes that the items excluded from certain non-GAAP measures do not accurately reflect the underlying performance of its continuing operations for the period in which they are incurred. The use of non-GAAP measures has limitations in that such measures do not reflect all of the amounts associated with the company's results of operations as determined in accordance with GAAP, and these measures should only be used to evaluate the company's results of operations in conjunction with the corresponding GAAP measures. Please refer to the Form 8-K for our latest earnings release filed with the Securities and Exchange Commission regarding this information.

AE HIGHLIGHTS

Yuval Wasserman, CEO and President



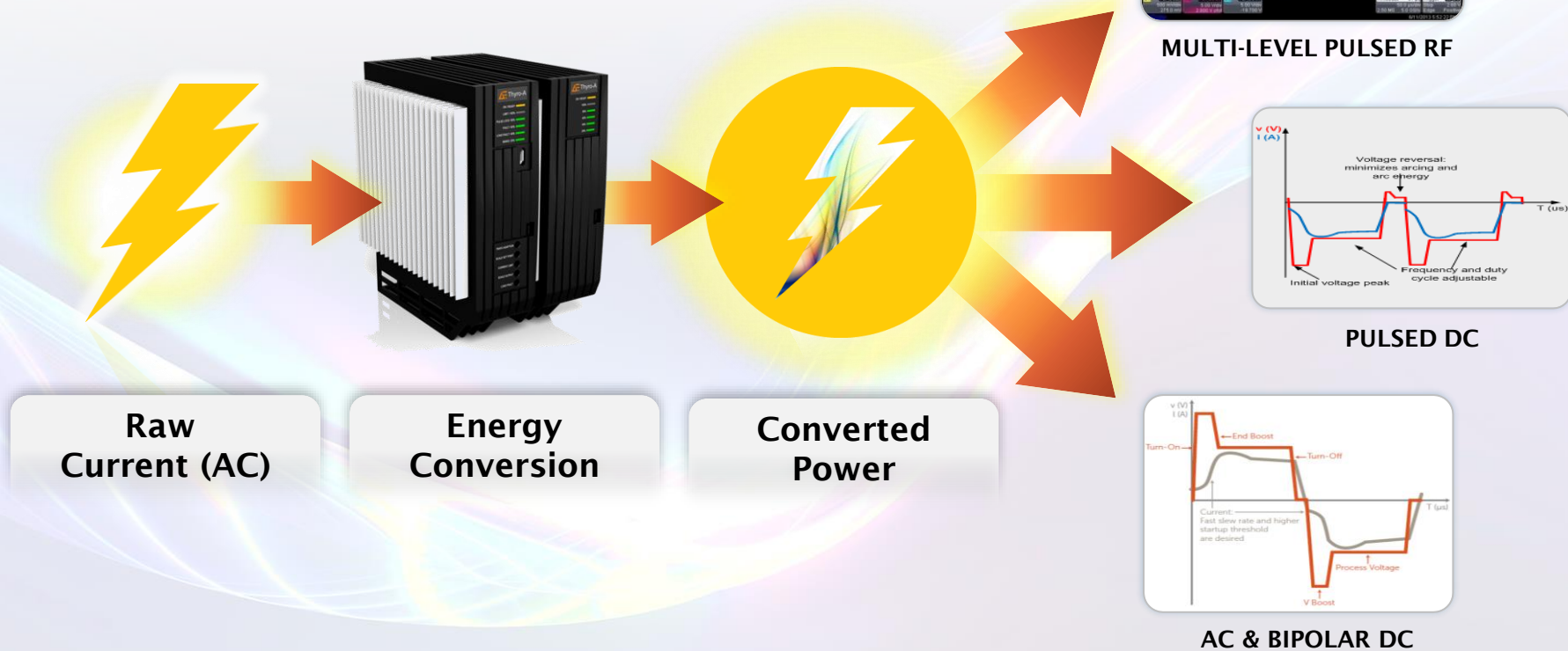
AE POWER TECHNOLOGY ENABLES EVERYDAY PRODUCTS



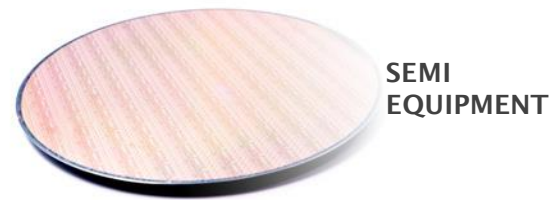
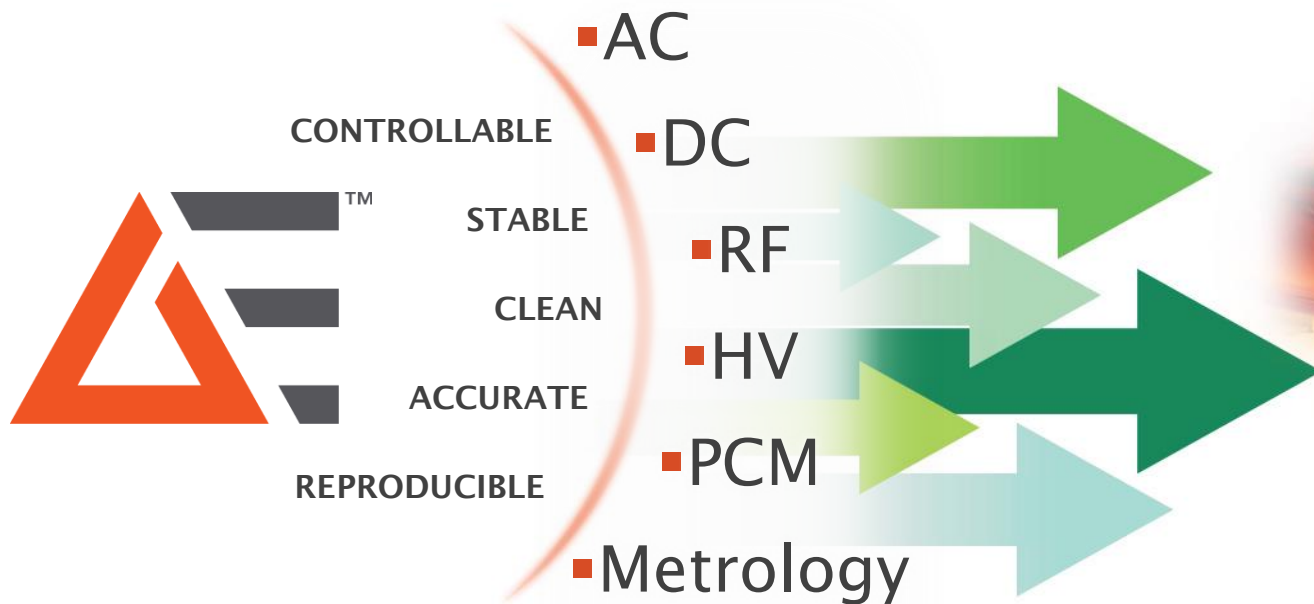
“BREAKTHROUGH POWER TECHNOLOGY FOR BREAKTHROUGH APPLICATIONS”

ELECTRIC POWER CONVERSION

PRECISION POWER DELIVERY



PRECISION POWER SOLUTIONS ENABLE CRITICAL APPLICATIONS



CRITICAL POSITION IN THE VALUE CHAIN



AE PRODUCTS & APPLICATIONS

PROCESS POWER



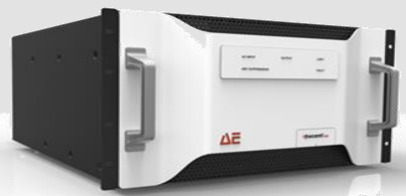
Paramount® RF
Power-Delivery Systems

APPLICATION: PLASMA ETCH

Ascent® DMS

(advanced Dual Magnetron Sputtering)

APPLICATION: THIN FILM DEPOSITION



Ascent® AMS
DC Power Supplies
30, 40 & 60kW

APPLICATION: SPUTTERING

Solvix®

DC & Pulsed DC Power Supplies

APPLICATION: METALLIC &
REACTIVE SPUTTERING



SPECIALTY POWER

HIGH VOLTAGE APPLICATION: Semiconductor implantation & inspection, X-ray, mass spectrometry, scientific, industrial, and medical



UltraVolt®



HiTek Power®



Thyro® PCMs
Thyristor Power Control Modules

APPLICATION: ELECTRICAL HEATING,
SWITCHING

Sekidenko®

Optical Temperature Measurement

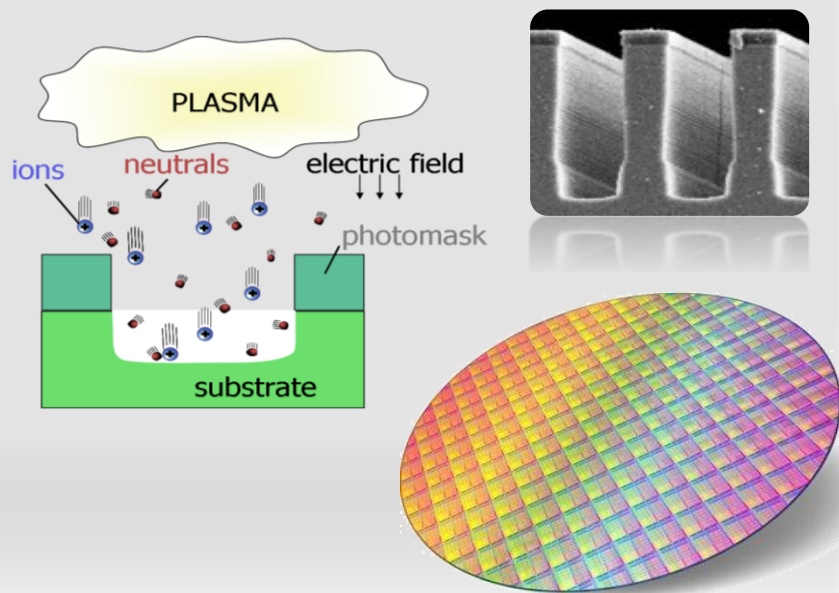
APPLICATION: NO-CONTACT
TEMPERATURE MEASUREMENT
(PYROMETRY)



AE LEADING PROCESS APPLICATIONS

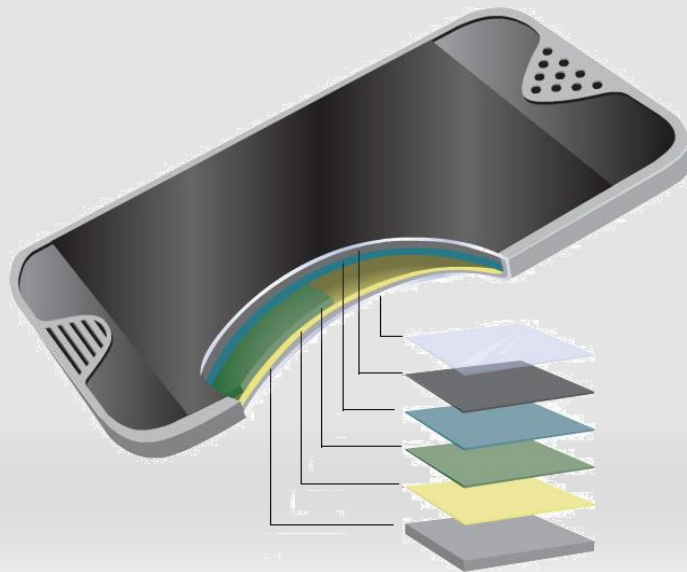
SEMICONDUCTOR

Plasma Etch: creating an energized gas (plasma) that is used to etch small features for fabrication of integrated circuits.



THIN FILM

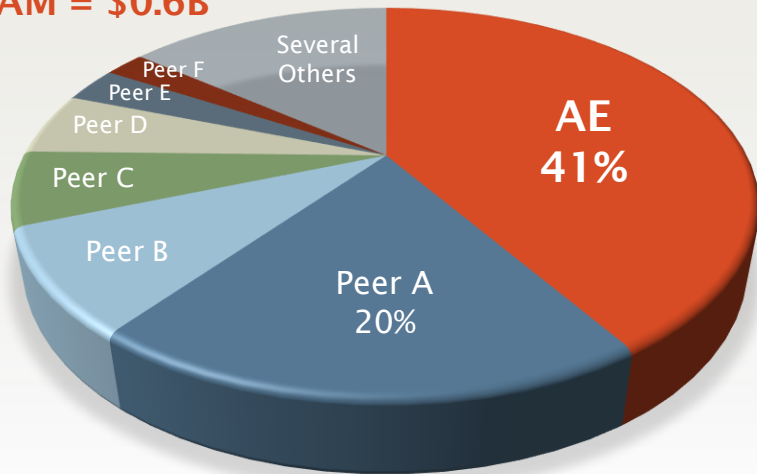
Sputtering: using an energized gas (plasma) to transfer material from a target to form thin films of metals or other materials for a variety of applications.



SHARE LEADER IN SERVED MARKETS

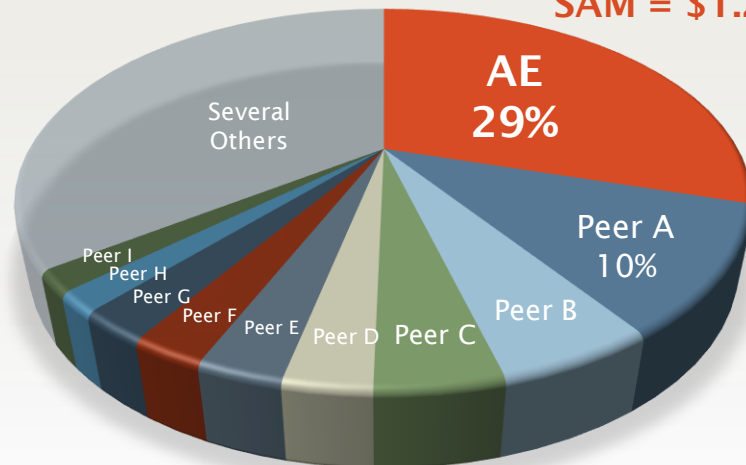
2015 VLSI PROCESS POWER
C-SUBS SHARE SEMI/FPD/DS/PV

SAM = \$0.6B



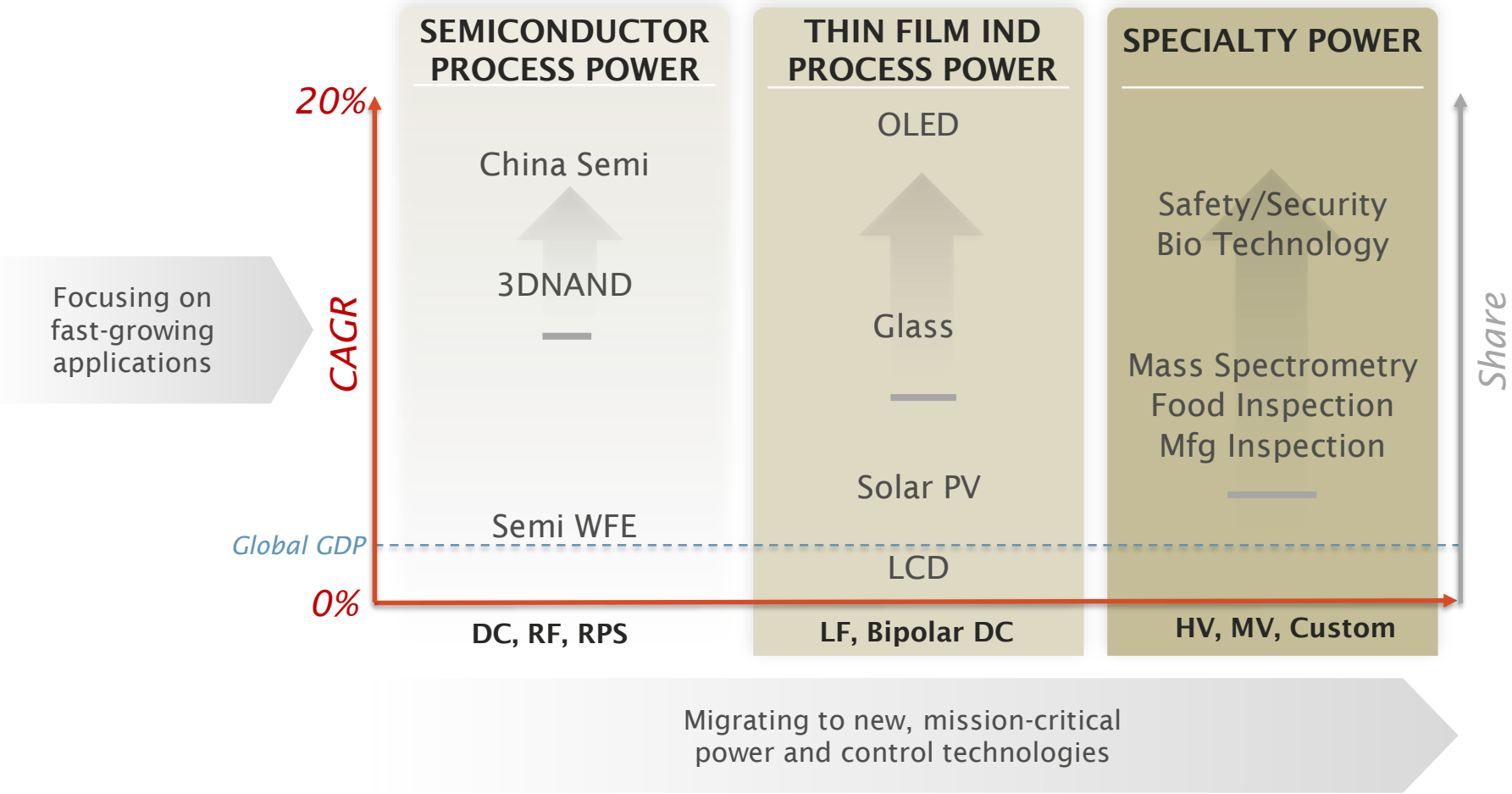
2015 AE TOTAL SHARE ESTIMATE
AE+MULT SOURCES ALL SERVED MARKETS

SAM = \$1.2B



- AE is #1 in Process Power for C-Subs, #1 in total (new) served markets
 - C-SUBS is mature/consolidated, new markets are fragmented and open for new players
- AE wins due to leading product performance, high product quality, localized R&D, Operations speed/responsiveness, and Global Service in key regions

EXPANDING SHARE IN HIGH GROWTH AREAS



LEADING PROVIDER OF CRITICAL SUBSYSTEMS

ENABLING FASTEST-GROWING 3D SEMI APPLICATIONS

Power Content is Increasing

SEMICONDUCTOR INDUSTRY AT INFLECTION POINT

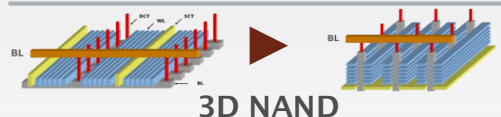
Transition from Planar to 3D



Multiple Patterning



FinFET



3D NAND



TSV

INCREASING DEPOSITION & ETCH INTENSITY

Lithography / Patterning

*Multi-patterning
below 32nm node*

3-5x Deposition & Etch Steps

3D Architectures

*More sophisticated deposition
& etch processes*

5-10x Deposition & Etch Steps

Advanced Packaging

Advanced Sensor Applications

*Through Silicon Via (TSV) for
Interconnects*

EMPHASIZING THE NEED FOR PRECISION POWER

Lithography / Patterning

*Expands SAM 20 - 50%
for Logic and Memory*

3D Architectures

*Expands SAM 50%+
for 3D NAND*

3D Architectures

Expands SAM 100%+

OUTPERFORMING SEMI WFE MARKET

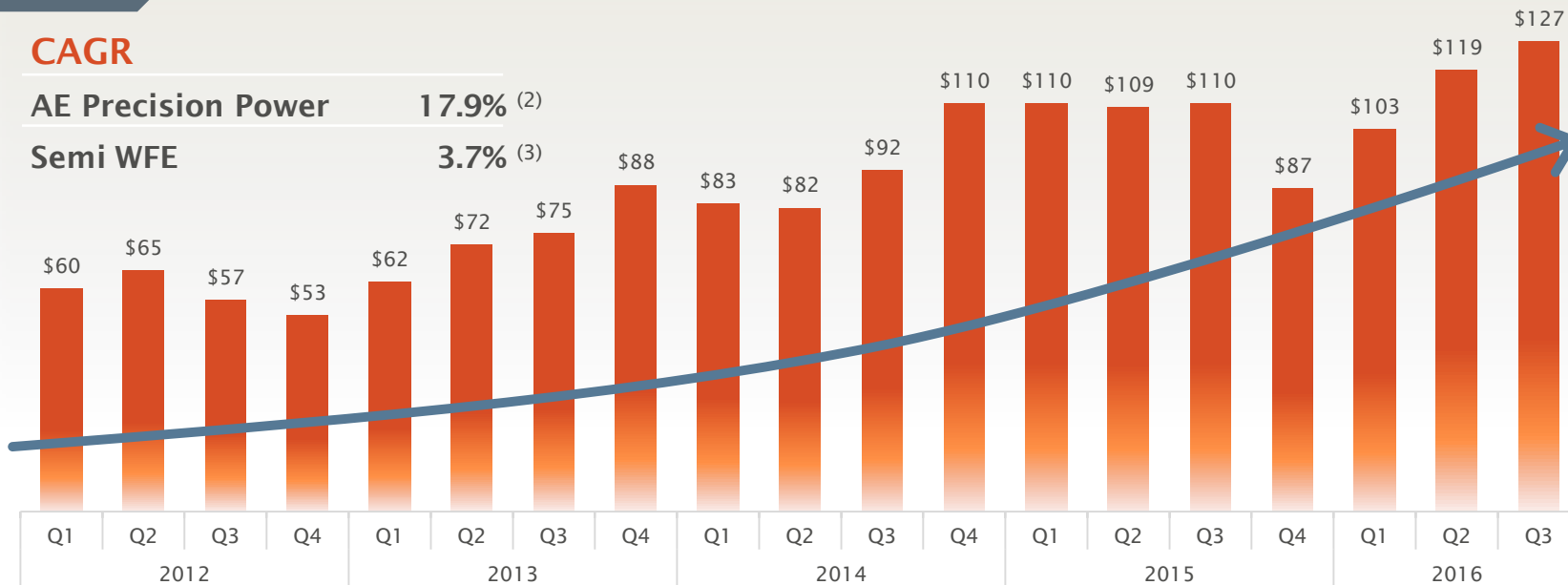
AEIS PRECISION POWER REVENUE⁽¹⁾

\$ IN MILLIONS

CAGR

AE Precision Power 17.9% ⁽²⁾

Semi WFE 3.7% ⁽³⁾

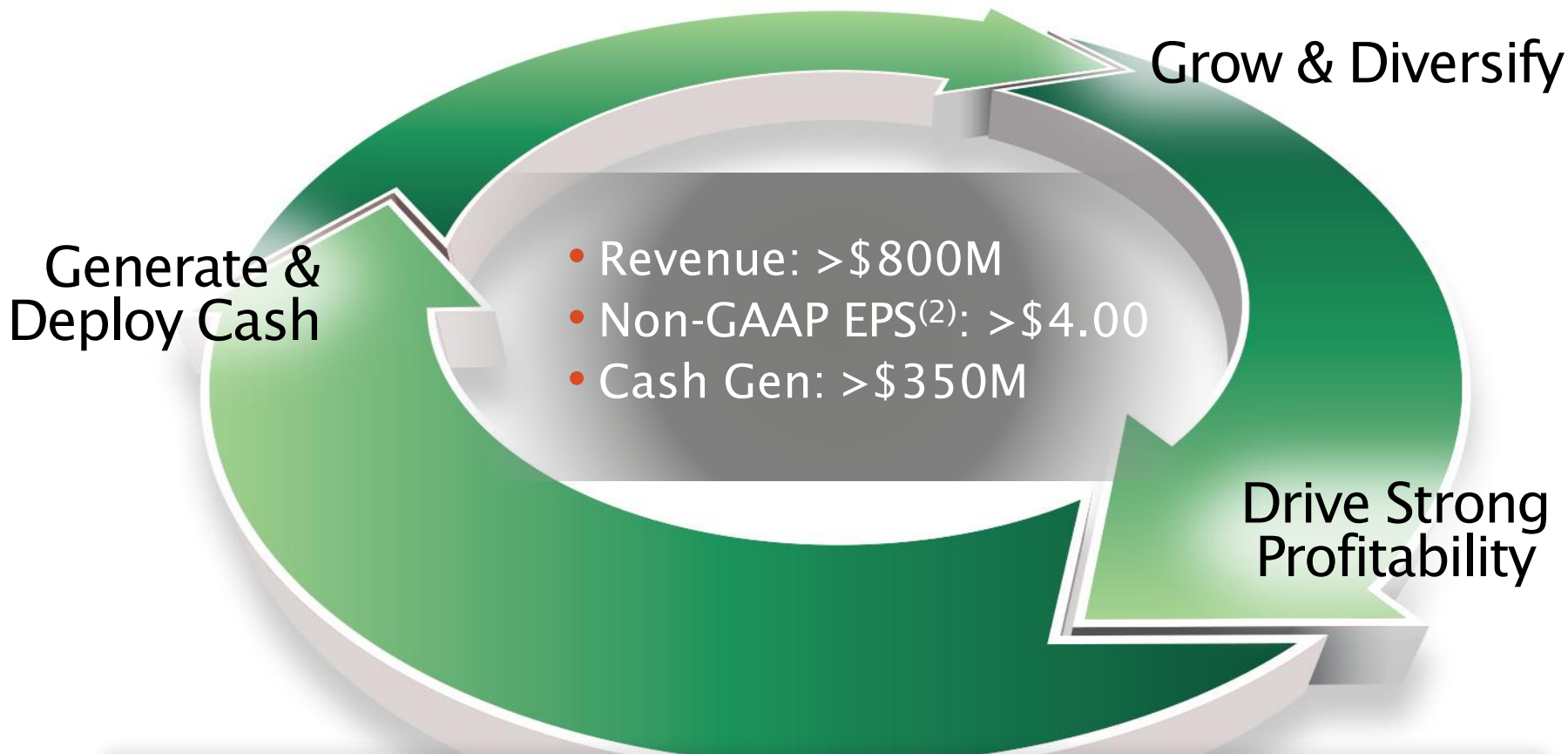


(1) Revenue from 2012 and 2013 derived from the Precision Power segment as reported. Revenue from 2014-2016 derived from continuing operations as reported

(2) CAGR derived from trailing 12 months revenue compared to 2012.

(3) Gartner "Semiconductor Wafer-Level Manufacturing Equipment, Worldwide, 2015-2020", update published December 2016.

ASPIRATIONAL GOALS⁽¹⁾ DRIVING STRONG SHAREHOLDER RETURNS



(1) Please note that hypothetical scenarios regarding revenue growth, EBITDA, EPS, cash generation, acquisitions, aspirational goals and targets and similar statements illustrate various possible outcomes of our different strategies if they are successful. These hypothetical scenarios and illustrations should not be treated as forecasts or projections or financial guidance. We cannot assure you that we will be able to accomplish any of these goals, metrics or opportunities at any point in the future (if at all), all of which are subject to significant risks and uncertainties.

(2) Refer to the non-GAAP reconciliation on slide 26 for additional detail.

ACCELERATING SHAREHOLDER VALUE

- Enabling critical applications with precision power solutions
- Leading in highest growth Semiconductor sectors
- Investing in organic growth (RD&E, S&M)
- Actively pursuing acquisitions
- Strategy in place to meet aspirational goals
- Driving significant earnings power through operational excellence

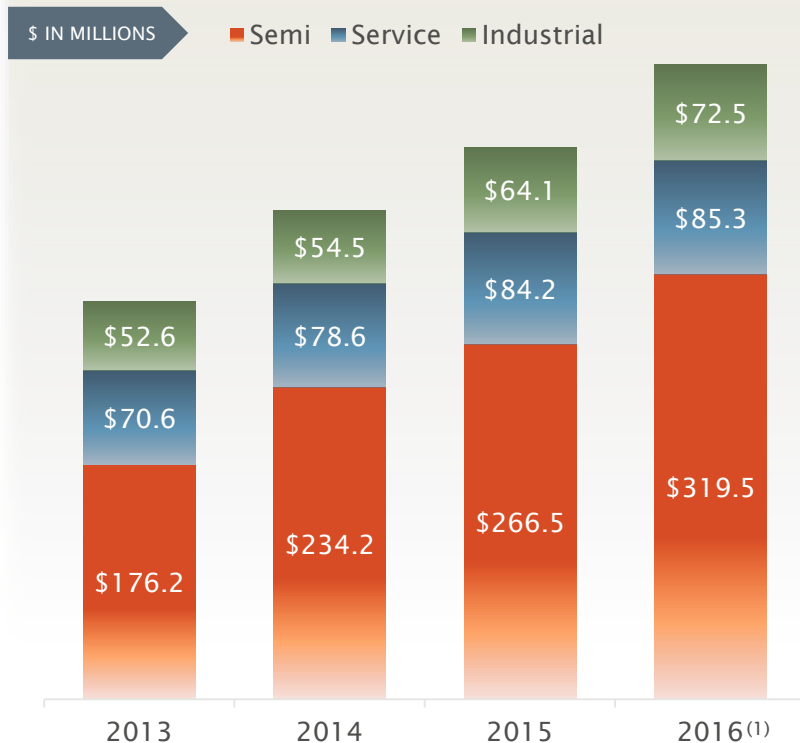
FINANCIALS

Tom Liguori, CFO

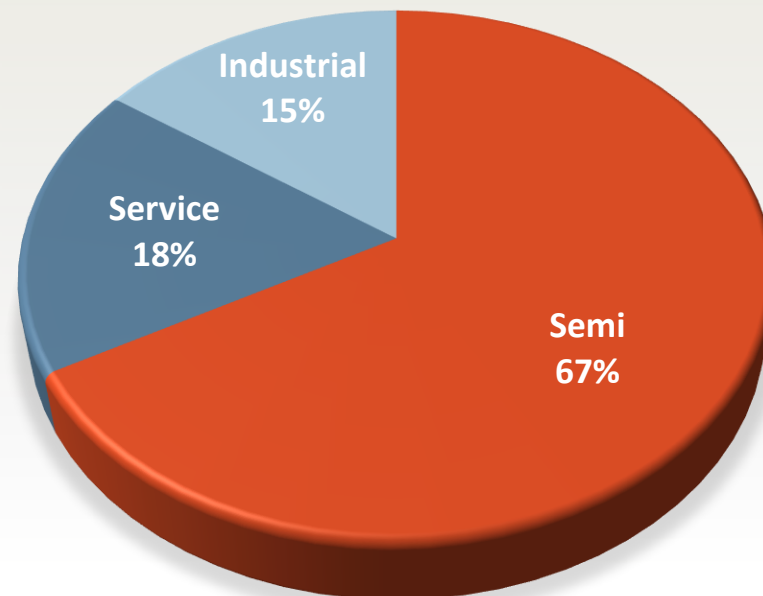


REVENUE GROWING – 17% CAGR

REVENUE GROWTH BY MARKET



2016 REVENUE MIX BY MARKET



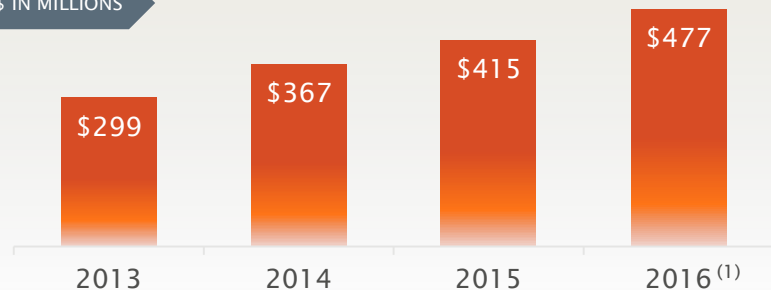
(1) 2016 full year projected based on 9 months actuals and mid-point of Q4 guidance.

EXPANDING MARGIN PROFILE

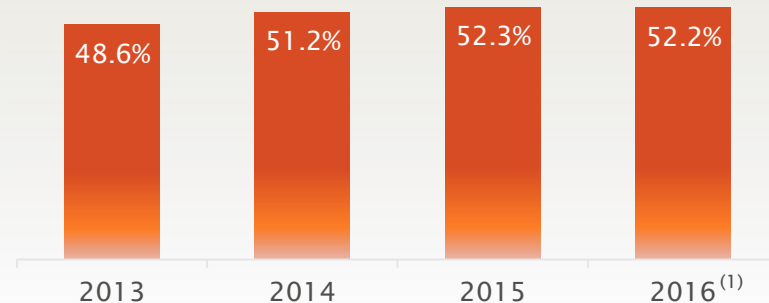
OPERATING MARGIN 25%-30%

REVENUE GROWTH

\$ IN MILLIONS

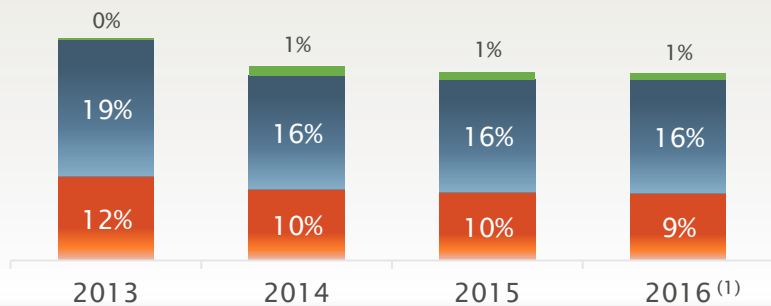


GROSS MARGIN

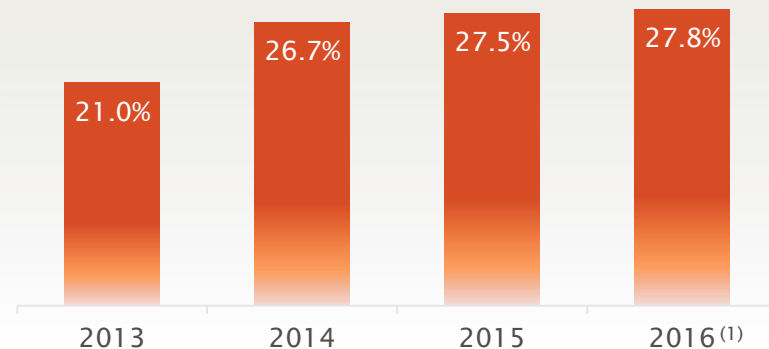


OPERATING EXPENSES % OF REVENUE

- Research and development
- Selling, general, and administrative
- Amortization of intangible assets



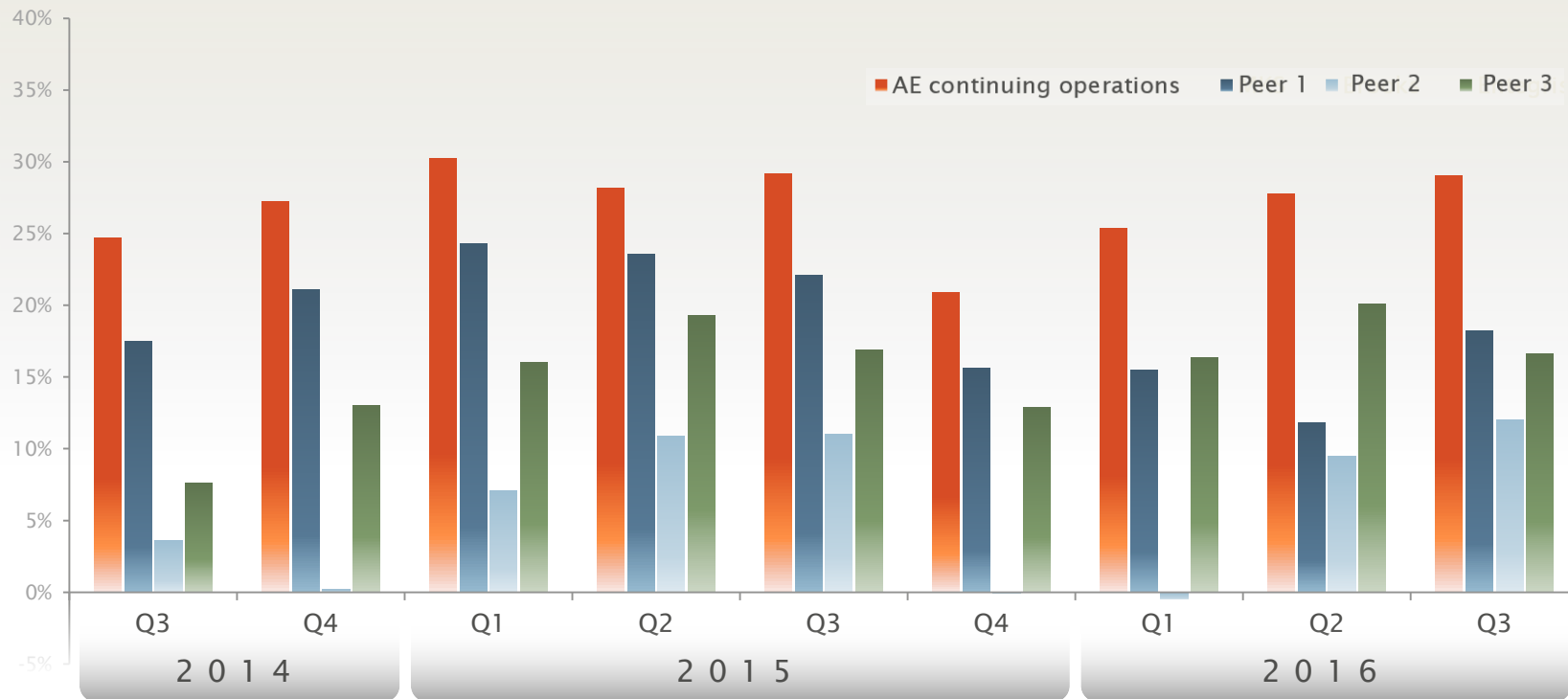
NON-GAAP OPERATING MARGIN



(1) 2016 full year projected based on 9 months actuals and mid-point of Q4 guidance.

OP MARGINS OUTPERFORMING PEERS

NON-GAAP⁽¹⁾ FROM CONTINUING OPERATIONS

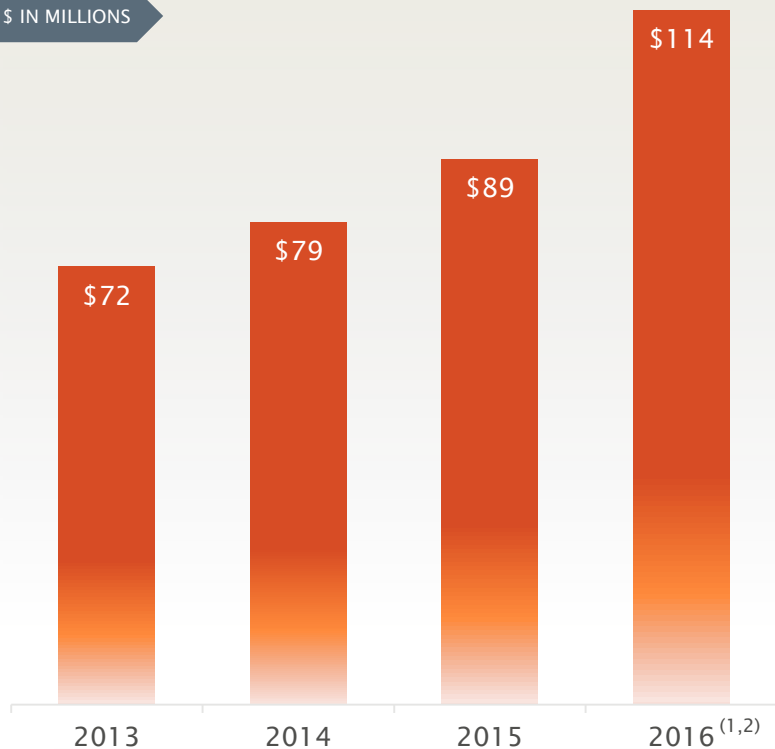


(1) These results have been adjusted from GAAP measures to exclude stock based compensation and amortization of intangible assets.

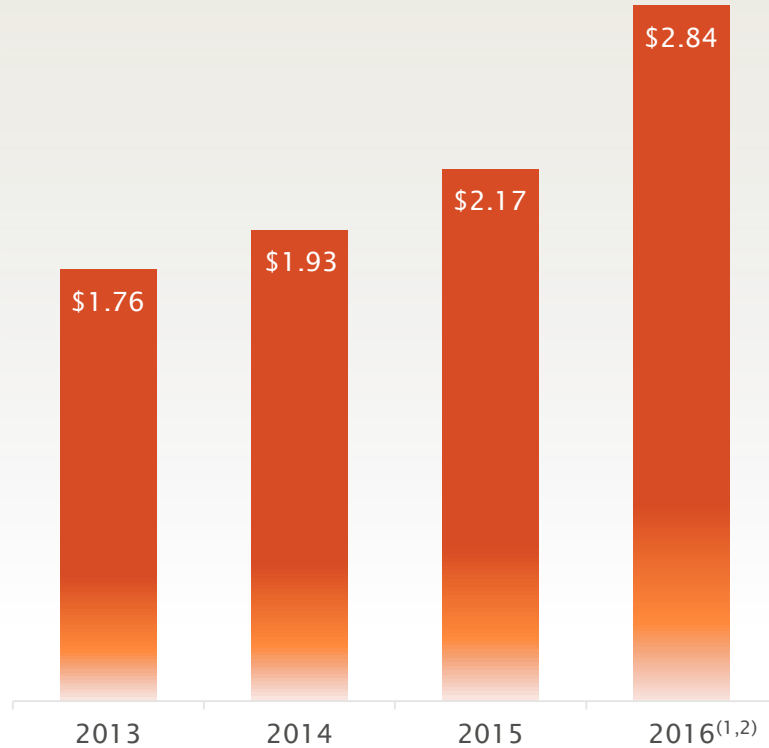
NON-GAAP⁽¹⁾ INCOME AND EPS GROWTH

NON-GAAP⁽¹⁾ NET INCOME

\$ IN MILLIONS



NON-GAAP⁽¹⁾ EARNINGS PER SHARE

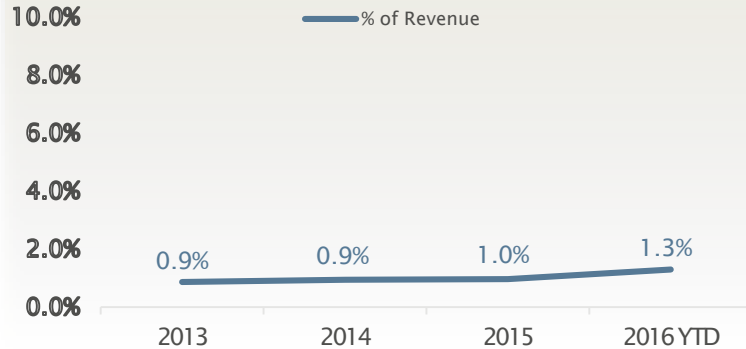


(1) Refer to the non-GAAP reconciliation on slide 26 for additional detail.

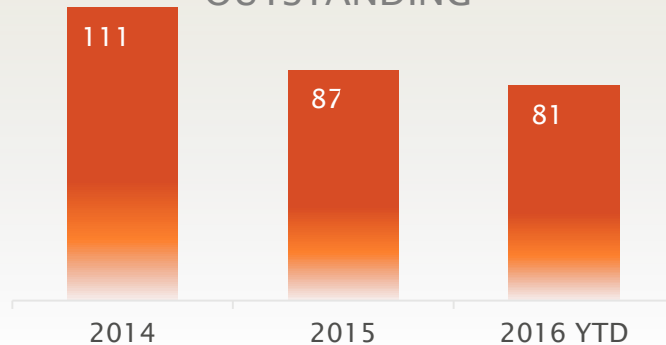
(2) 2016 full year projected based on 9 months actuals and mid-point of Q4 guidance.

CAPITAL “LIGHT” FINANCIAL MODEL: SOLID CASH FLOW

CAPITAL EXPENDITURES

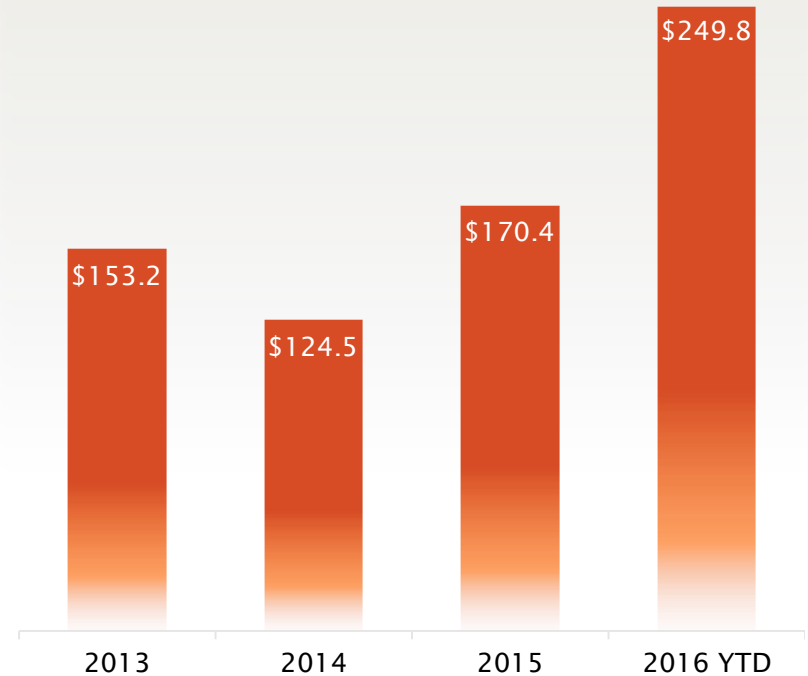


NET WORKING CAPITAL DAYS OUTSTANDING



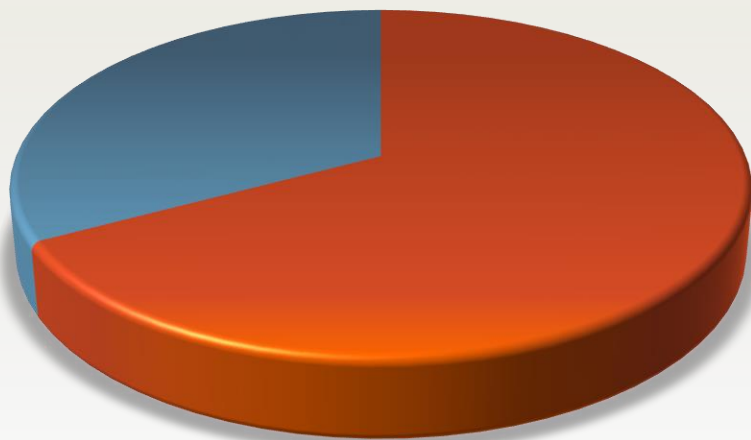
CASH AND MARKETABLE SECURITIES

\$ IN MILLIONS



CAPITAL DEPLOYMENT STRATEGY FOCUSED ON GROWTH

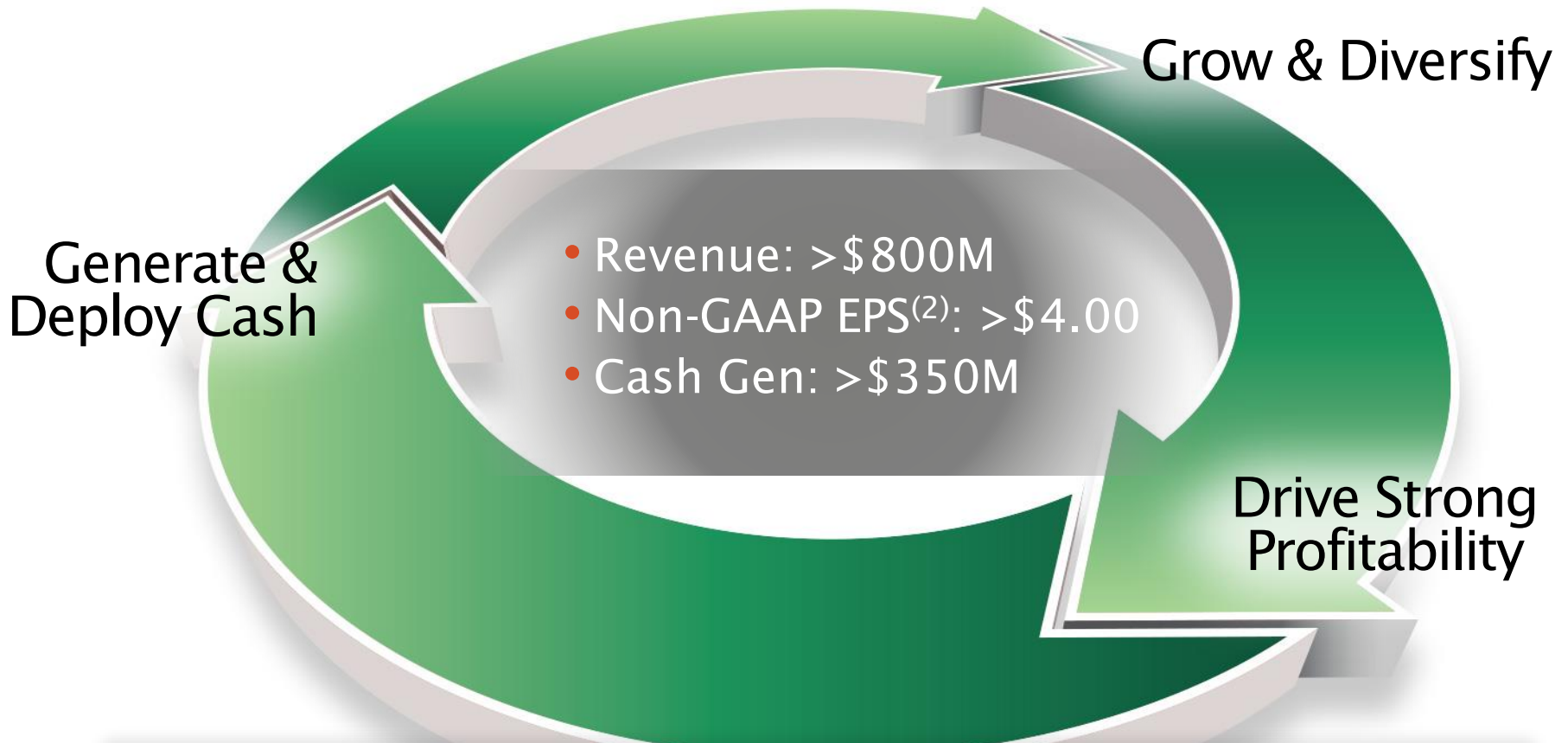
Capital Deployment



■ Growth ■ Shareholder Distributions

- M&A
 - Industrial power focus
 - Grow industrial revenues \$150M-\$200M/yr
 - Expand geographies and markets
- Financial Returns
 - Equal to or better than a buyback
 - IRR exceeds WACC
- Shareholder Distributions
 - Currently buybacks, \$100M authorization
 - Capital structure to include debt (1X EBITDA)

ASPIRATIONAL⁽¹⁾ FINANCIAL GOALS



(1) Please note that hypothetical scenarios regarding revenue growth, EBITDA, EPS, cash generation, acquisitions, aspirational goals and targets and similar statements illustrate various possible outcomes of our different strategies if they are successful. These hypothetical scenarios and illustrations should not be treated as forecasts or projections or financial guidance. We cannot assure you that we will be able to accomplish any of these goals, metrics or opportunities at any point in the future (if at all), all of which are subject to significant risks and uncertainties.

(2) Refer to the non-GAAP reconciliation on slide 26 for additional detail.

APPENDIX



RECONCILIATION OF NON-GAAP MEASURES

	Twelve months ended December 31,			Estimate: 12 months ended December 31,
	2013	2014	2015	2016*
Revenue	\$ 299.4	\$ 367.3	\$ 414.8	\$ 477.0
GAAP Operating Income	\$ 47.8	\$ 86.1	\$ 106.7	\$ 123.1
Add back:				
Restructuring Charges	4.2	1.5	0.2	-
Acquisition-related costs	-	0.7	-	-
Stock-based compensation	9.8	3.7	2.8	5.6
Amortization of Intangible assets	0.9	5.0	4.4	4.2
Non-recurring executive severance	-	0.9	-	-
Non-GAAP operating income	\$ 62.7	\$ 97.9	\$ 114.0	\$ 132.9
Operating margin % of revenue	21.0%	26.7%	27.5%	27.9%

	Twelve months ended December 31,			Estimate: 12 months ended December 31,
	2013	2014	2015	2016*
GAAP Income from continuing operations	\$ 59.7	\$ 69.5	\$ 83.5	\$ 106.7
Add back:				
Restructuring Charges	4.2	1.5	0.2	-
Acquisition-related costs	-	0.7	-	-
Stock-based compensation	9.8	3.7	2.8	5.6
Amortization of Intangible assets	0.9	5.0	4.4	4.2
Non-recurring executive severance	-	0.9	-	-
Tax effect of Non-GAAP Adjustments	(2.9)	(2.3)	(1.6)	(2.8)
Non-GAAP Income from continuing operations	\$ 71.7	\$ 79.0	\$ 89.3	\$ 113.7
Share outstanding (millions)	40.7	41.0	41.1	40.0
Non-GAAP Earnings per share	\$ 1.76	\$ 1.93	\$ 2.17	\$ 2.84

NOTE: 2016 estimated using 9 months ended September 30, 2016 plus mid point of guidance for Q4 2016.

2013, 2014, and 2015 as presented in the 10-K for December, 31 2015.

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