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

Date of Report (Date of earliest event reported): January 9, 2019

MKS INSTRUMENTS, INC.
(Exact name of registrant as specified in its charter)

Massachusetts	**000-23621**	**04-2277512**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

2 Tech Drive, Suite 201, Andover, Massachusetts	**01810**
Address of principal executive offices	**Zip Code**

Registrant's telephone number, including area code: (978) 645-5500
(Former name or former address if changed since last report)

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))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

PRELIMINARY NOTE

As previously announced, on October 29, 2018, MKS Instruments, Inc. ("MKS" or the "Company") entered into an agreement and plan of merger (the "Merger Agreement") with EAS Equipment, Inc. and Electro Scientific Industries, Inc. ("ESI"), pursuant to which MKS has agreed, subject to the terms and conditions of the Merger Agreement, to acquire ESI (the "Transaction"). This Current Report on Form 8-K is being filed in connection with the $650 million incremental term loan facility and $100 million asset-based revolving credit facility to be entered into by the Company in connection with the Transaction (the "Credit Facilities").

Item 2.02 Results of Operations and Financial Condition.

The Company reaffirms, as of the date hereof, its guidance for the fourth quarter of 2018, as provided in the Company's press release dated October 23, 2018, excluding all costs related to the Transaction.

Item 7.01 Regulation FD Disclosure.

On January 9, 2019, the Company will provide certain financial and other information, including the information attached as Exhibit 99.1 to this Current Report on Form 8-K, to prospective lenders (the "Lenders") under the Credit Facilities.

The information contained in Exhibit 99.1 constitutes only a portion of the materials being made available to the Lenders and is intended to be considered in the context of the Company's filings with the Securities and Exchange Commission and other public announcements that the Company may make, by press release or otherwise, from time to time. The Company disclaims any intention or obligation to update or revise any such information as a result of developments occurring after the date of this Current Report on Form 8-K, except as required by law. The information contained in this Current Report on Form 8-K, including the information contained in Exhibit 99.1, does not constitute an offer to sell, or the solicitation of an offer to buy, any securities and shall not constitute an offer, solicitation or sale in any jurisdiction in which such offer, solicitation or sale would be unlawful.

The information contained in Exhibit 99.1 includes financial measures of each of the Company and ESI that are not calculated in accordance with accounting principles generally accepted in the United States ("GAAP"). The Company's management believes that these non-GAAP financial measures provide supplemental information that enhances management's, investors' and prospective lenders' ability to evaluate each of the Company's and ESI's operating results and ability to repay its obligations.

These non-GAAP financial measures are not intended to be used in isolation and should not be considered a substitute for any other performance measure determined in accordance with GAAP. Investors and potential investors are cautioned that there are material limitations associated with the use of non-GAAP financial measures as an analytical tool, including that other companies may calculate similar non-GAAP financial measures differently than as defined in the attached materials, limiting their usefulness as a comparative tool. The Company compensates for these limitations by providing specific information regarding the GAAP amounts excluded from the non-GAAP financial measures. The Company further compensates for the limitations of its use of non-GAAP financial measures by presenting comparable GAAP measures. Investors and potential investors are encouraged to review the reconciliation of non-GAAP financial measures to the most directly comparable GAAP financial measures contained in Exhibit 99.1.

The information in Item 2.02 and Item 7.01 of this Current Report on Form 8-K and Exhibit 99.1 attached hereto shall not be deemed "filed" for purposes of Section 18 of the Securities and 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 expressly set forth by specific reference in such a filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

Exhibit No.	Description
99.1	Presentation Slides for January 9, 2019 meeting.

Forward-Looking Statements

Statements in this document and the accompanying exhibits regarding the proposed Transaction between MKS and ESI, the expected timetable for completing the Transaction, future financial and operating results, benefits and synergies of the Transaction, future opportunities for the combined company and any other statements about MKS' or ESI's managements' future expectations, beliefs, goals, plans or prospects constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any statements that are not statements of historical fact (including statements containing the words "will," "projects," "intends," "believes," "plans," "anticipates," "expects," "estimates," "forecasts," "continues" and similar expressions) should also be considered to be forward-looking statements. These statements are only predictions based on current assumptions and expectations. Actual events or results may differ materially from those in the forward-looking statements set forth herein. Among the important factors that could cause actual events to differ materially from those in the forward-looking statements are: the ability of the parties to complete the Transaction; the risk that the conditions to the closing of the Transaction, including approval of ESI shareholders, are not satisfied in a timely manner or at all; litigation relating to the Transaction; unexpected costs, charges or expenses resulting from the Transaction; the risk that disruption from the proposed Transaction materially and adversely affects the respective businesses and operations of MKS and ESI; the ability of MKS to realize the anticipated synergies, cost savings and other benefits of the proposed Transaction, including the risk that the anticipated benefits from the proposed Transaction may not be realized within the expected time period or at all; competition from larger or more established companies in the companies' respective markets; MKS' ability to successfully grow ESI's business; potential adverse reactions or changes to business relationships resulting from the announcement, pendency or completion of the Transaction; the ability of MKS to retain and hire key employees; legislative, regulatory and economic developments, including changing conditions affecting the markets in which MKS operates, including the fluctuations in capital spending in the semiconductor industry and other advanced manufacturing markets, the economy in general as well as fluctuations in net sales to MKS' and ESI's existing and prospective customers; the challenges, risks and costs involved with integrating the operations of ESI and the companies we have previously acquired, including our most recent acquisition of Newport Corporation; potential fluctuations in quarterly results, the terms of MKS' existing term loan and the availability and terms of the Credit Facilities to be entered into in connection with the Transaction; dependence on new product development, rapid technological and market change, acquisition strategy, manufacturing and sourcing risks, volatility of stock price, international operations, financial risk management, and the other factors described in MKS' most recent Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and its most recent quarterly report filed with the SEC and in ESI's most recent quarterly report filed with the SEC. MKS and ESI are under no obligation to, and expressly disclaim any obligation to, update or alter these forward-looking statements, whether as a result of new information, future events or otherwise after the date of this document.

SIGNATURE

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.

Dated: January 9, 2019

MKS Instruments, Inc.

By:	/s/ Seth H. Bagshaw
Name:	Seth H. Bagshaw
Title:	Sr. Vice President, Chief Financial Officer and Treasurer

Exhibit 99.1

Lenders Presentation

January 9, 2019

mks

Safe Harbor for Forward Looking Statements

Statements in this presentation regarding the proposed transaction between MKS Instruments, Inc. ("MKS") and Electro Scientific Industries Inc. ("ESI"), the expected timetable for completing the transaction, future financial and operating results, benefits and synergies of the transaction, future opportunities for the combined company and any other statements about MKS' or ESI's managements' future expectations, beliefs, goals, plans or prospects constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any statements that are not statements of historical fact (including statements containing the words "will," "projects," "intends," "believes," "plans," "anticipates," "expects," "estimates," "forecasts," "continues" and similar expressions) should also be considered to be forward-looking statements. These statements are only predictions based on current assumptions and expectations. Actual events or results may differ materially from those in the forward-looking statements set forth herein. Among the important factors that could cause actual events to differ materially from those in the forward-looking statements are: the ability of the parties to complete the transaction; the risk that the conditions to the closing of the transaction, including approval of ESI shareholders, are not satisfied in a timely manner or at all; litigation relating to the transaction; unexpected costs, charges or expenses resulting from the transaction; the risk that disruption from the proposed transaction materially and adversely affects the respective businesses and operations of MKS and ESI; the ability of MKS to realize the anticipated synergies, cost savings and other benefits of the proposed transaction, including the risk that the anticipated benefits from the proposed transaction may not be realized within the expected time period or at all; competition from larger or more established companies in the companies' respective markets; MKS' ability to successfully grow ESI's business; potential adverse reactions or changes to business relationships resulting from the announcement, pendency or completion of the transaction; the ability of MKS to retain and hire key employees; legislative, regulatory and economic developments, including changing conditions affecting the markets in which MKS operates, including the fluctuations in capital spending in the semiconductor industry and other advanced manufacturing markets, the economy in general as well as fluctuations in net sales to MKS' and ESI's existing and prospective customers; the challenges, risks and costs involved with integrating the operations of ESI and the companies we have previously acquired, including our most recent acquisition of Newport Corporation; potential fluctuations in quarterly results, the terms of our term loan and the availability and terms of the financing to be incurred in connection with the transaction; dependence on new product development, rapid technological and market change, acquisition strategy, manufacturing and sourcing risks, volatility of stock price, international operations, financial risk management, and the other factors described in MKS' most recent Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and its most recent quarterly report filed with the SEC and in ESI's most recent quarterly report filed with the SEC. MKS and ESI are under no obligation to, and expressly disclaim any obligation to, update or alter these forward-looking statements, whether as a result of new information, future events or otherwise after the date of this presentation.

Non-GAAP Measures

This presentation includes measures that are not in accordance with U.S. generally accepted accounting principles ("non-GAAP measures"). Non-GAAP measures exclude amortization of acquired intangible assets, asset impairments, costs associated with completed and announced acquisitions, acquisition integration costs, an inventory step-up adjustment related to an acquisition, restructuring charges, certain excess and obsolete inventory charges, fees and expenses related to the repricing of MKS' term loan, amortization of debt issuance costs, net proceeds from an insurance policy, costs associated with the sale of a business, the tax effect of the 2017 Tax Cut and Jobs Act, the tax effect of legal entity restructurings, other discrete tax benefits and charges, and the related tax effect of these adjustments. These non-GAAP measures should be viewed in addition to, and not as a substitute for, MKS' reported results, 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. MKS management believes the presentation of these non-GAAP measures is useful to investors for comparing prior periods and analyzing ongoing business trends and operating results.

Please see the Appendix entitled "GAAP to Non-GAAP Reconciliations and Combined Pro Forma Income Statement (9/30/18 LTM)" at the end of this presentation for reconciliations of our non-GAAP measures to the comparable GAAP measures and the definitions of terms used in this presentation.

Transaction Overview

Executive Summary and Transaction Background

- MKS Instruments, Inc. ("MKS" or the "Company") is a global provider of instruments, subsystems and process control solutions that measure, monitor, deliver, analyze, power and control critical parameters of advanced manufacturing processes to improve process performance and productivity
- On October 30, 2018, MKS Instruments, Inc. ("MKS" or the "Company") announced that they had entered into an agreement to acquire Electro Scientific Industries ("ESI") for US$30.00 per share in an all-cash transaction valued at approximately $1 billion (the "Transaction"). ESI is an innovator in laser-based manufacturing solutions for the micro-machining industry
- MKS intends to fund the acquisition with cash on hand, anticipated free cash flow generation and a fully-committed incremental Term Loan B Facility. Concurrent with the transaction, the Company will also be upsizing its existing ABL facility
  - $100 million Asset Based Revolver, which will remain undrawn upon transaction close (the "ABL")
  - $650 million incremental Term Loan B Facility (the "Term Loan")
- The Company is also seeking a variety of amendments to negative covenants in its existing Term Loan Credit Agreement that will be effective at close
- Pro Forma for the Transaction, total corporate leverage will be 1.3x, which includes the existing $348.5 million Term Loan B and is based on LTM 9/30/18 Pro Forma Adj. EBITDA of $773 million (includes $5 million of year 1 run-rate cost synergies from this Transaction)
- The Company reaffirms its guidance for the fourth quarter 2018, as provided in the Company's press release dated October 23, 2018, excluding all costs relating to the Company's proposed acquisition of ESI
- Closing and funding expected to occur in early February

Sources and Uses / Capitalization

Sources and Uses

($ in millions)

Sources	Amount		%
New Term Loan B	$ 650		60%
Pro Forma Cash on Hand	438		40%
Total Sources	**$1,088**		**100%**

Uses			
Purchase ESI Equity	$ 1,037		95%
Repay ESI Debt	13		1%
Transaction Fees and Payments	38	(1)	4%
Total Uses	**$1,088**		**100%**

Pro Forma Capitalization

	MKS 9/30/18	ESI 9/30/18	Pro Forma Adjustments	Pro Forma 9/30/18
Cash and Cash Equivalents	$620	$178	($438)	$360
Asset Based Revolver	-	-	-	-
Existing MKSI Term Loan B	348	-	-	348
New Term Loan B-2	-	-	650	650
Existing ESIO Debt	-	13	(13)	-
Total Secured Debt	**$348**	**$13**	**$637**	**$998**
Other[2]	6	-	-	6
Total Debt	**$355**	**$13**	**$637**	**$1,005**
Selected LTM Financials (9/30/18) [3,4]				
PF Adjusted EBITDA (with synergies)	$630	$138	$5	$773
Selected Credit Statistics				
Senior Secured Debt / PF Adj. EBITDA	*0.6x*			*1.3x*
Total Debt / PF Adj. EBITDA	*0.6x*			*1.3x*
Net Debt / PF Adj. EBITDA	*(0.4x)*			*0.8x*

Notes:
(1) Includes financing fees, advisory fees, and change in control payments.
(2) Includes Japanese lines of credit and Austrian loans.
(3) EBITDA figures adjusted to exclude stock-based compensation, purchase accounting changes, acquisition and integration costs, impairment charges and other one-time items. See Non-GAAP measures in Appendix.
(4) PF Adjusted EBITDA (with synergies) includes $5M of year 1 run rate synergies (excl. stock-based compensation purchase accounting expense of $6.4M).

MKS Overview

MKS is a Leading Global Provider
of process control solutions based on these critical technologies

PRECISE CONTROL
of pressure, flow, composition, position, motion and automation

GENERATION & DELIVERY
of reactive gases, laser power and electrical power

INTEGRATED SOLUTIONS
for process, inspection and lithography

Five Decades of Profitable Growth

(1) *Average revenue throughout the decade*

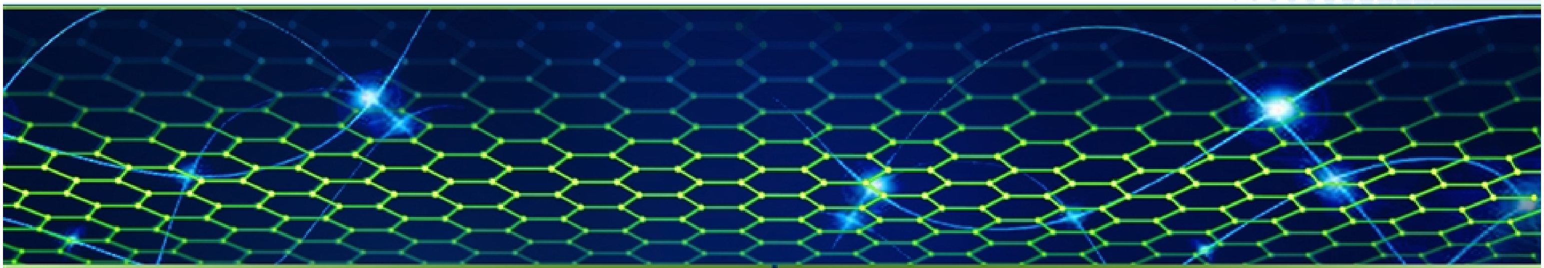
(2) *At midpoint of Q418 guidance*

Market Leader with Broad Technology Portfolio

	PRESSURE/ VACUUM	VACUUM COMPONENTS		FLOW	GAS ANALYSIS		PLASMA	POWER	DIGITAL CONTROL	PHOTONICS					LASERS	OPTICS			
	Direct/ Indirect Gauging	Vacuum Comps	Control & Iso Valves	Flow & Gas Delivery	RGA	FTIR	Reactive Gas	RF	Tool, Safety Chamber, Network	Instruments	Vibration Control	Motion	Opto-Mechanics	Laser Measurement	Lasers	Laser Optics	Gratings/ Filters	IR Optics	Integrated Solutions
mks	1	1	2	3	3	2	1	2	1	1-2	1-3	3	1	2	1-3	1-2	1-2	2-3	2-3
ADVANCED ENERGY							●	●											
AEROTECH												●							
BROOKS	●			●															
COHERENT														●	●	●			●
CVI MELLES GRIOT															●	●		●	●
DAIHEN							●	●											
EBARA							●												
GENTEC														●					
HORIBA				●	●	●											●		
HUTTINGER								●			●								
II-VI															●	●		●	●
INFICON	●	●			●														
IPG PHOTONICS															●				●
LUMENTUM															●				
NEWPOWER PLASMA							●	●											
PI												●							
QIOPTIQ													●			●		●	●
SEMROCK																	●		
SIGMA KOKI											●	●	●			●	●		●
SUMITOMO							●												
THORLABS										●	●	●	●	●	●	●			●
ULVAC	●		●		●														
VAT			●																

Source: Company information

Differentiated Technical Capability



Significant Investment

- Annual R&D spend $133M*
- Leverage across multiple markets
- >1,500* Patents worldwide

Technical Expertise

- ~750* R&D engineers and scientists
- Competencies in power, plasma, lasers and pressure

** Source 2017 MKS 10K*

Why MKS Instruments

COMPREHENSIVE PORTFOLIO
Largest breadth of products and services for the Semiconductor, Industrial Technologies, Life & Health Sciences, and Research & Defense markets

CRITICAL TECHNOLOGIES
World-class technology and development capabilities for leading-edge processes

PROVEN PARTNER
Recognized leader that delivers innovative and reliable long-term solutions, helping our customers solve the most complex problems

OPERATIONAL EXCELLENCE
Consistent execution across all aspects of our business

Solve Together. Succeed Together.

Acquisition Overview

MKS to Acquire Electro Scientific Industries (ESI)

EXECUTING ON A
Key Strategy for MKS

- Acquiring a market leading technology company that serves common markets with complementary customer solutions
- Expands Industrial segments of PCB, Electronic Thin Film, and Electronic Component manufacturing
- Expands MKS' addressable market by $2.2B and adds $304M in CY17 Revenue
- Expected to be accretive to Non-GAAP earnings and free cash flow in the first 12 months

Transaction Rationale

A Compelling Combination . . .

COMPLEMENT our technology platforms creating unique capabilities

INNOVATE by combining component and system expertise

ENHANCE strategic growth initiative in industrial laser processing

Complementary Technology Leaders

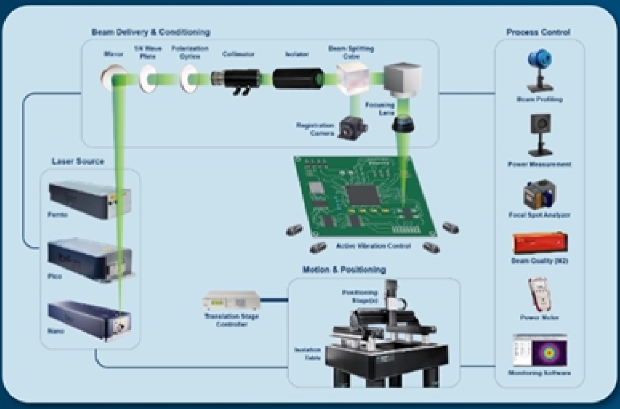
mks	esi
Founded 1961	Founded 1944
Headquarters in Andover, MA	Headquarters in Portland, OR
CY 2017 Revenue of $1.9B	CY 2017 Revenue of $304M
4,900+ Employees	600+ Employees*
1,500+ Global Patents	1,000+ Global Patents*
R&D Spending ~$133M	R&D Spending ~$35M
R&D Headcount ~750+	R&D Headcount ~140+*
Leadership in • UV and ultrafast lasers • Motion, photonics & optics • RF power & plasma • Vacuum processing; precise control of pressure, flow & composition	Leadership in • Laser-based process equipment – Advanced PCB processing – Semi manufacturing – Component manufacturing

Source 2017 MKS 10K

** Fiscal Year 2018 ESI 10K*

Advancing Our Strategy

Surround the Workpiece℠



EXTEND and differentiate leadership in the use of UV lasers for advanced manufacturing

DRIVE opportunities within both the Systems and Component businesses

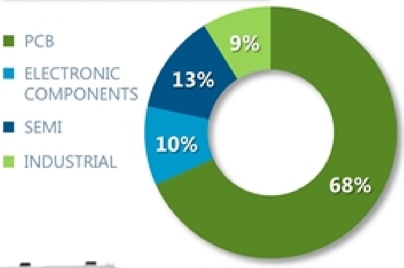
COMBINE applications knowledge (beam / Workpiece) with systems and technologies

ACCELERATE pursuit of additional Industrial applications of laser processing

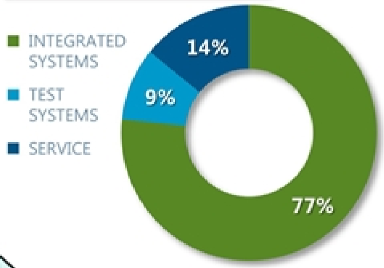
ESI – Background

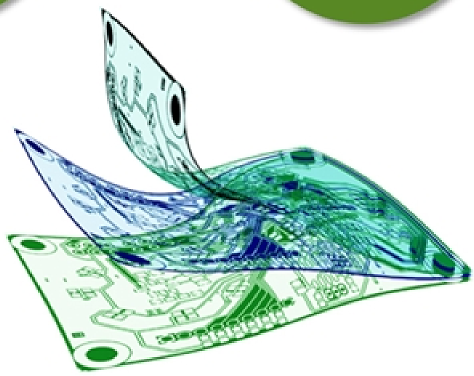
- Delivering over 70 years of innovation as a global leader in laser-based manufacturing solutions
- Systems enable precise engineering of micron to submicron features in
  - PCBs
  - Semiconductors
  - LEDs
- Advanced test systems for
  - MLCC

End Markets*



Business Segments*





* CY17 Data

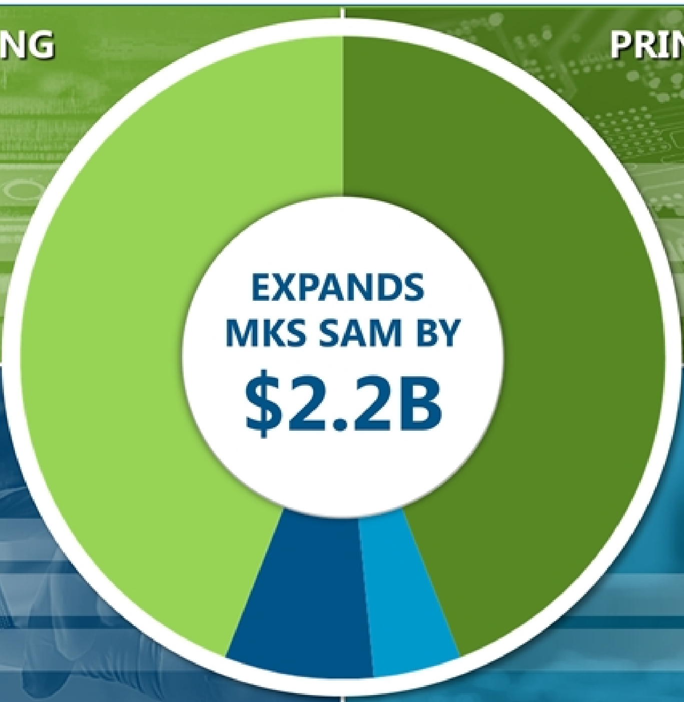
Significant Potential Growth Opportunities

INDUSTRIAL MACHINING
$1.0B

- MARKING
- ENGRAVING
- FINE METAL DRILLING

PRINTED CIRCUIT BOARDS
$1.0B

- FLEX PCB VIA DRILLING
- HDI PCB VIA DRILLING
- IC PACKAGING VIA DRILLING



SEMICONDUCTOR
$170M

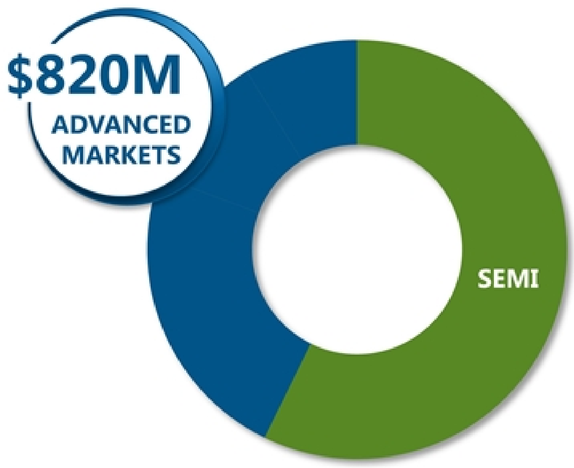
- WAFER MARKING
- WAFER SCRIBING/DICING
- WAFER TRIM

ELECTRONIC COMPONENTS
$100M

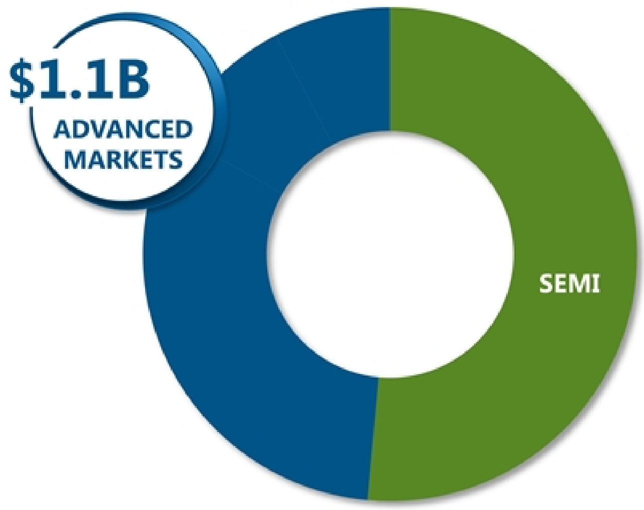
- MLCC TESTING
- RESISTOR TRIM

Strengthens Advanced Market Growth

MKS by End Market in CY2017



Pro Forma Combined in CY2017



34% increase in Advanced Market revenue

** Revenue is combined CY17 data from MKS and ESI*

MKS and ESI

- UV and ultrafast lasers
- Motion, photonics and optics
- RF power and plasma
- Vacuum processing; precise control of pressure, flow and composition

mks

esi

- Laser-based process equipment
  - Advanced PCB processing
  - Semi manufacturing
  - Component manufacturing

Credit Strengths

Credit Strengths

- Track record of **SUSTAINABLE & PROFITABLE GROWTH**
- Broad market exposure to **HIGH GROWTH SEGMENTS**
- **GLOBAL TECHNOLOGY LEADER** in served markets
- Proven M&A augments **ORGANIC GROWTH**

Disciplined Financial Management

OPTIMIZE FINANCIAL MODEL

- Continually improved financial performance
- Significant operating leverage in our financial model
- Strong free cash flow generation

DIVERSIFY MARKETS & TECHNOLOGY

- Technology leader across broad portfolio
- Diverse market exposure
- Expanding customer base

MANAGE LONG-TERM CAPITAL STRUCTURE

- Successful track record of growing and integrating acquisitions
- Voluntary prepayments and four debt repricings resulted in 67%+ reduction in annualized non-GAAP* interest expense since loan origination in 2016
- Maintain liquidity with on-shore and off-shore cash balances

** Non-GAAP interest expense excludes amortization of debt issuance costs. Annualized GAAP interest expense based upon $780 million principal outstanding and using the LIBOR based interest rate spread in effect on April 29, 2016, was $44 million and included $5 million in debt issuance costs. Annualized GAAP interest expense based upon $348.5 million in principal currently outstanding and LIBOR plus 175 basis points would be $15.6 million and includes $2.8 million in debt issuance costs.*

Track Record of Operational Excellence

	2013A		2017A		2018 Q3 LTM
Total Revenue	$669M	+186%	$1,916M	+11%	$2,126M
Non-GAAP Gross Margin	40.8%		46.6%		47.4%
Non-GAAP Operating Margin	10.5%		24.6%		26.8%
Non-GAAP Tax Rate	31.8%		26.5%		20.9%
Non-GAAP EPS	$0.90	+562%	$5.96	+34%	$7.99
Adj. EBITDA	$99M	+434%	$529M	+19%	$630M

2013 to 2018 Q3 revenue growth of ~28% CAGR, and 58% CAGR in Non-GAAP EPS

- Substantially improving operating model (+155% non-GAAP operating margin improvement from 2013 to 2018 Sep. LTM) driven by deep culture of continuous profitability improvement and proactive strategic initiatives across a variety of functions, such as:
  - Dedicated "Low Cost Country" sourcing teams to lower material costs
  - Leveraging flexible, low cost manufacturing footprint to outsource non-core functions
  - Streamlining cost structures through Centers of Excellence and prudent re-investment of savings into strategic R&D and S&M

Note: Non-GAAP measures exclude purchase accounting charges, impairment charges, amortization of intangible assets, acquisition & integration costs, restructuring costs, and other one-time items. Adj. EBITDA excludes stock-based compensation expense. See Non-GAAP measures in Appendix.

Strong and Stable Cash Flow Generation

Pro Forma Company Cumulative Free Cash Flow (1,2)

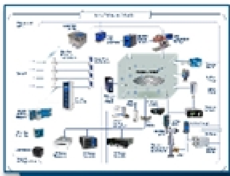
- **~$1.7B Combined Company Free Cash Flow generated since 2008[1]**

(1) Free Cash Flow is defined as net cash provided by operating activities less purchases of property, plant and equipment.
(2) From 2008 through 2018 September LTM.

Technology Leadership Across Broad Portfolio

Credit Strength

- Proven diverse market leadership & customer base
- Track record of operational excellence & acquisition integration
- Highly cash generative with history of stable & conservative financial policies



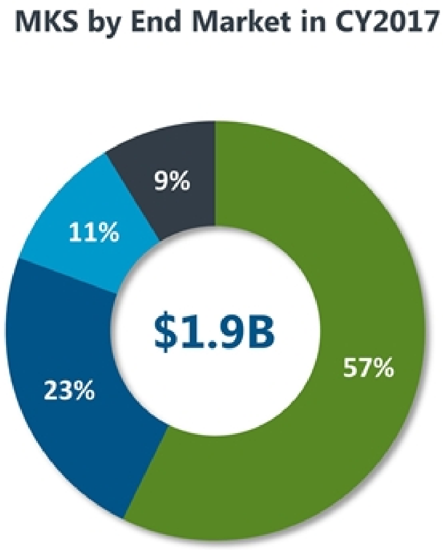
Broad Portfolio

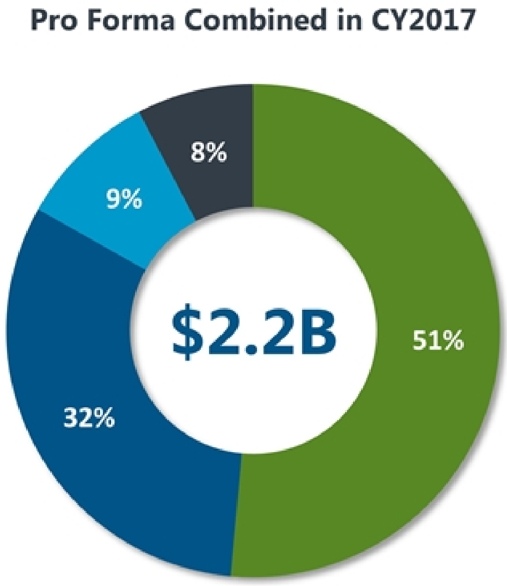
- 2,500 patents globally 1,500 (MKS), 1,000 (ESI)
- Enhanced breadth of products will be more appealing to customers with multiple requirements

Surround the Workpiece℠

- A familiar playbook to generate value
- Acquisition of ESI improves design of component technologies in laser solutions
- Enables optimized integrated solutions

Diverse Market Exposure





Semi | Industrial | Research & Defense | LHS

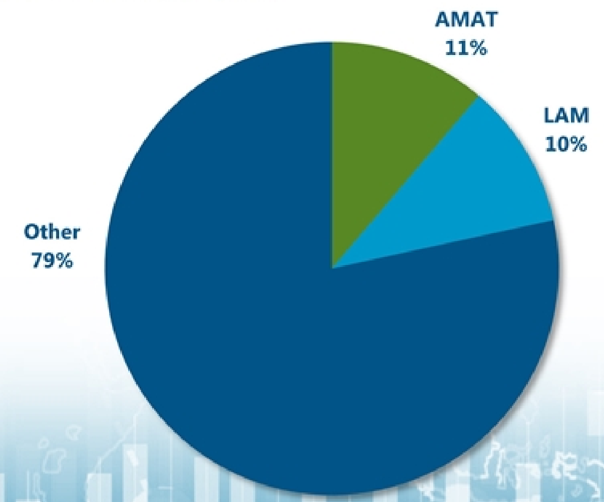
Expanding Customer Base

Customer Diversity

- On a pro forma basis, no customer represents more than 11% of combined revenue
- Deep collaborative customer relationships
- Strong history of design wins
- Long-term trusted partner

Pro Forma Combined by Customer(1)

CY17 PF Revenues: $2.2B



(1) Combined revenue by customer for MKS plus ESI for the year ended December 31, 2017

Successful Execution of Disciplined Acquisition Strategy

	PRESSURE/ VACUUM	VACUUM COMPONENTS		FLOW	GAS ANALYSIS		PLASMA	POWER	DIGITAL CONTROL	PHOTONICS					LASERS	OPTICS			
	Direct/ Indirect Gauging	Vacuum Comps	Control & Iso Valves	Flow & Gas Delivery	RGA	FTIR	Reactive Gas	RF	Tool, Safety Chamber, Network	Instruments	Vibration Control	Motion	Opto-Mechanics	Laser Measuremt	Lasers	Laser Optics	Gratings/ Filters	IR Optics	Integrated Solutions
mks	1	1	2	3	3	2	1	2	1	1-2	1-3	3	1	2	1-3	1-2	1-2	2-3	2-3

MKS CORE PRODUCT PORTFOLIO IN 2000

MARKET LEADING TECHNOLOGY

EXPANSION INTO HIGH GROWTH MARKETS

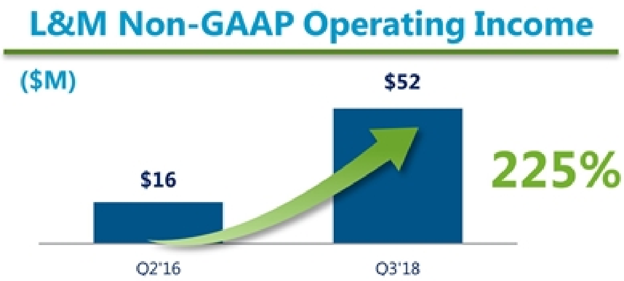
INNOVATIVE CUSTOMER SOLUTIONS

DRIVE SHAREHOLDER VALUE CREATION

Completed Over 15 Acquisitions Since 2000

Strong Post-Acquisition Performance from Newport

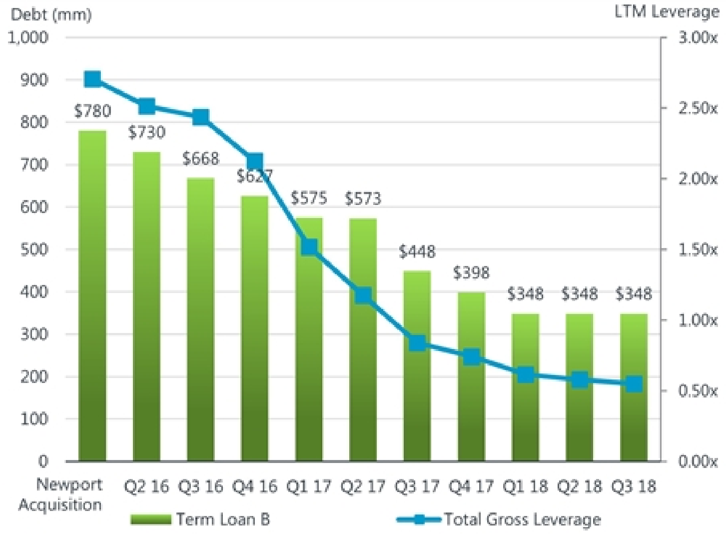
- Newport, now our Light and Motion Division, has experienced a **33% increase** in revenues
- Since closing, L&M has delivered a **225% increase** in non-GAAP operating income on a pro forma basis
- Synergy expectations for the Newport acquisition were revised upward from $35 million to **$40 million two years** post-acquisition



Proven Track Record of Debt Management and Paydown

- MKS has delivered on its stated intent to quickly de-lever following its acquisition of Newport Corporation in April 2016
  - Total Leverage following the transaction was ~2.7x, versus 0.6x today, representing a 78% reduction in Total Leverage
- The Company has made approximately $425 million of voluntary principal repayments. Four successful repricings combined with deleveraging have lowered annualized non-GAAP* interest expense by 67%+ in 30 months

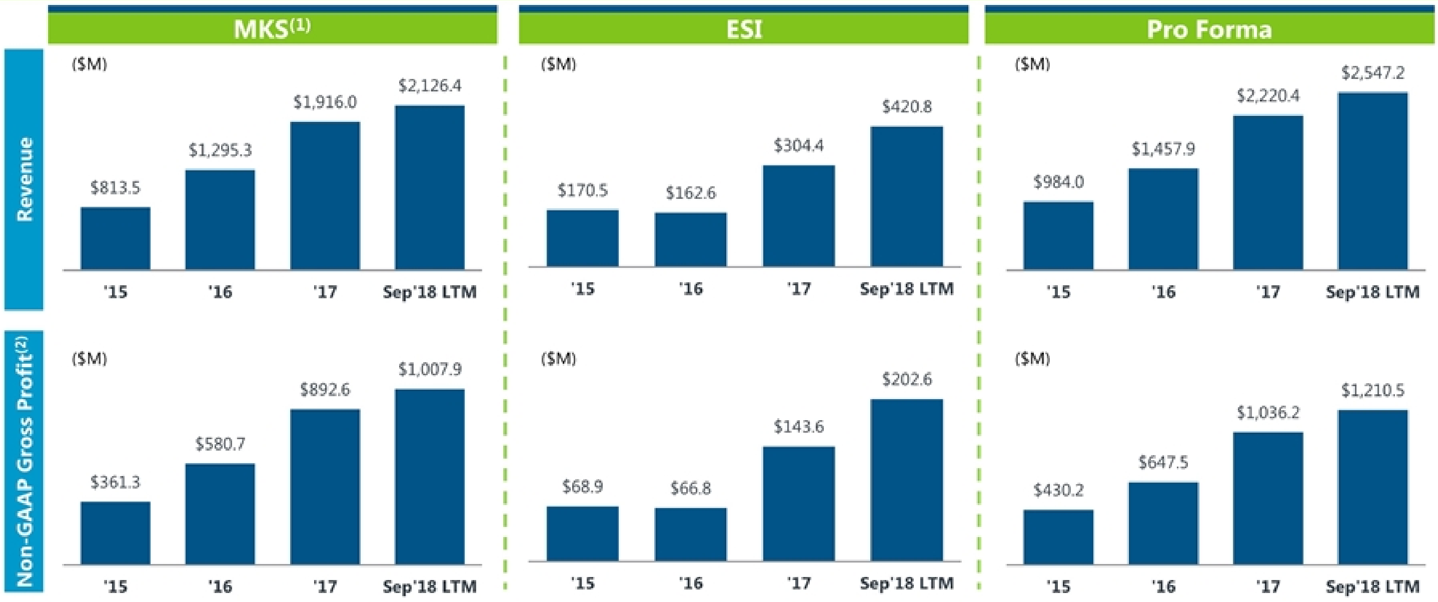
Quarterly Deleveraging since Newport Acquisition



** Non-GAAP interest expense excludes amortization of debt issuance costs. Annualized GAAP interest expense based upon $780 million principal outstanding and using the LIBOR based interest rate spread in effect on April 29, 2016, was $44 million and included $5 million in debt issuance costs. Annualized GAAP interest expense based upon $348.5 million in principal currently outstanding and LIBOR plus 175 basis points would be $15.6 million and includes $2.8 million in debt issuance costs.*

Financials

Historical Financial Performance – Revenue & Gross Margin



Note: Financials based on calendar year ended December 31st for '15 to '17.

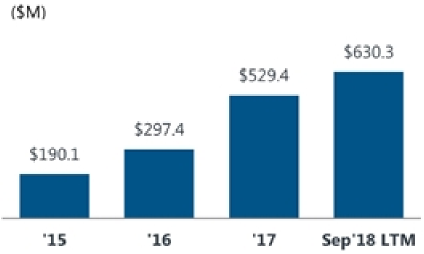
(1) MKS financials in '15 and '16 are not pro forma for NEWP acquisition which was completed on April 29, 2016.

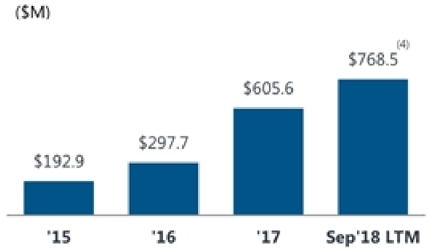
(2) Non-GAAP items include restructurings, costs associated with completed and announced acquisitions, certain excess and obsolete inventory charges, charges for a VAT audit, and sale of certain inventory previously reduced to its net realizable value.

Historical Financial Performance – Adj. EBITDA & Cash Flow

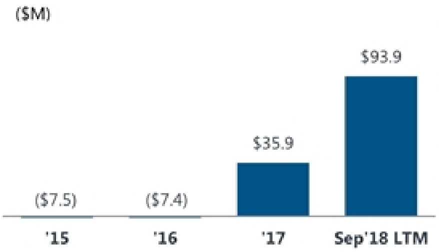
	MKS[1]	ESI	Pro Forma

Adjusted EBITDA[2]





Free Cash Flow[3]



Note: Financials based on calendar year ended December 31st for '15 to '17.
(1) MKS financials in '15 and '16 are not pro forma for NEWP acquisition which was completed on April 29, 2016.
(2) Adjusted EBITDA excludes stock-based compensation, purchase accounting charges, impairment charges, amortization of intangible assets, acquisition & integration costs, restructuring costs, and other one-time items.
(3) Free Cash Flow defined as Cash Flow from Operations less Capital Expenditures.
(4) Does not include $5 million of projected year 1 cost synergies.

Cost Synergies Overview

COGS

- $8.3M in projected savings in costs of goods sold, including leveraging combined purchasing capabilities & elimination of redundant costs over a 18-36 month period following the acquisition

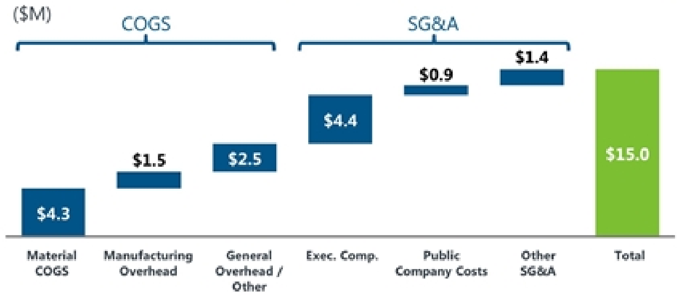
SG&A

- Board of Directors and executive comp savings
- Eliminate duplicate public company costs such as investor relations, insurance, and reduced audit fees
- Other corporate G&A cost reductions

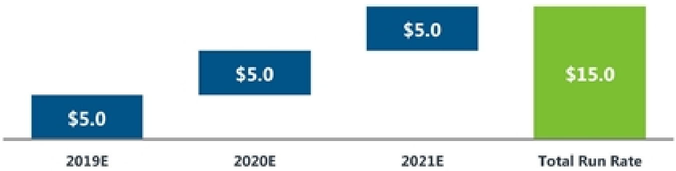
COST TO ACHIEVE SYNERGIES

- Transaction and integration costs include executive change of control payments, transaction costs, and system and integration costs

Cost Synergy Build



Timing of Cost Synergies



Source: Management estimates.

Summary Terms and Timing

Summary Term Sheet - TLB

Borrower	MKS Instruments, Inc. (the "Company" or the "Borrower")
Facility	Incremental Term Loan B ("TLB")
Size	$650 mm
Maturity	7 years
Indicative Margin	TBD
LIBOR Floor	0.00%
Upfront Fee/OID	TBD
Security	Similar to existing credit agreement
Guarantees	Similar to existing credit agreement
Amortization	1.00% per annum
Optional Prepayments	Prepayable at par, subject to a 101 soft call for 6 months for any prepayment in connection with a repricing
Mandatory Prepayments	Same as existing credit agreement
Financial Covenant	None (same as existing)
Negative Covenants	Similar to existing credit agreement, to include some changes to certain baskets (please refer to Marketing Term Sheet for detail)

Summary Term Sheet - ABL

Borrower	MKS Instruments and certain wholly-owned domestic restricted subsidiaries thereof (the "Borrower")
Facility	$100mm Asset Based Revolver (the "ABL Revolver") with availability subject to a Borrowing Base
L/C Sub-Facility	$25mm
Accordion	$50mm
Use of Proceeds	For general corporate and working capital purposes
Tenor	The earlier of (i) 5 years from the closing date and (ii) 91 days prior to the maturity of the existing Term Loan, should it remain outstanding
Indicative Margin	L+125-150 bps subject to an excess availability based grid
Commitment Fee	25 bps
Security	Perfected first priority liens on cash, cash equivalents, bank accounts, accounts receivable, other receivables, chattel paper, inventory, and rights, documents, general intangibles and insurance, instruments and books, and records relating thereto and all proceeds of the foregoing (the "ABL Collateral"); Second-priority lien on Term Priority Collateral
Guarantors	All existing and future wholly owned domestic subsidiaries of the Borrower
Borrowing Base	The Borrowing Base shall equal the sum of: • 85% of eligible accounts receivable; plus • At Borrower's option upon 45 days advance notice, the lesser of (i) the lesser of (a) 65% of the lower of cost or market (FIFO basis) and (b) 85% of the net orderly liquidation value of eligible inventory and (ii) 30% of the Borrowing Base; minus • Less customary reserves

Summary Term Sheet – ABL (Cont'd)

Financial Covenant	Springing Fixed Charge Coverage Ratio ("FCCR") of 1.0x if excess availability is less than the greater of (i) $8.5 million and (ii) 10% of the lesser of the borrowing base and the facility size (the "Line Cap"), or during an event of default
Cash Management	Springing cash dominion in the event that excess availability falls below the greater of (i) $8.5 million and (ii) 10% of the Line Cap for 3 consecutive business days, or during an event of default (a "Cash Dominion Period")
Reporting	• Financial Statements: Annually and quarterly • Borrowing Base: Monthly, springing to weekly during a Cash Dominion Period
Field Exam / Appraisal Frequency	Up to one field exam and inventory appraisal (if any eligible inventory has been included in the borrowing base) per annum, springing to two of each if excess availability falls below the greater of (i) $17.5 million and (ii) 20% of the Line Cap for 3 consecutive business days, and more frequently during an event of default
Negative Covenants	Similar to existing credit agreement, to include some changes to certain baskets (please refer to Marketing Term Sheet for detail)

Targeted Transaction Timeline

January 2019						
S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

February 2019						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28		

Date	Event
January 9	Lender Call
January 23	Lender Commitments Due
Early February	Close of ESI Acquisition

Q&A

Appendix: GAAP To Non-GAAP Reconciliations and Combined Pro Forma Income Statement (9/30/18 LTM)

mks

Light & Motion GAAP to Non-GAAP Operating Income Reconciliation

$ in millions

	Q2 '16	Q3 '18
Income from operations	**$ (23.7)**	**$ 42.3**
Adjustments:		
Acquisition and integration costs (1)	21.7	-
Acquisition inventory step-up (2)	10.1	-
Restructuring (3)	-	0.7
Amortization of intangible assets	7.9	9.0
Non-GAAP income from operations	**$ 16.0**	**$ 52.0**

(1) Acquisition and integration costs related to the acquisition of Newport Corporation by MKS Instruments, Inc. (the "Newport Merger"), which closed during the second quarter of 2016.
(2) Step-up adjustments recorded in cost of sales relate to the step-up of inventory to fair value as a result of the Newport Merger.
(3) Restructuring costs recorded during fiscal year 2018 primarily relate to severance costs related to a moderation in workforce and also include severance costs related to transferring a portion of the Company's shared accounting functions in the United States to a third party.

MKS and ESI GAAP to Non-GAAP Gross Profit Reconciliation

$ in millions

	MKS				ESI				Pro Forma Combined			
	Twelve Months Ended December 31,			LTM September	Twelve Months Ended December 31,			LTM September	Twelve Months Ended December 31,			LTM September
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
GAAP gross profit	**$ 362.9**	**$ 565.6**	**$ 891.5**	**$ 1,007.9**	**$ 65.5**	**$ 64.4**	**$ 124.3**	**$ 200.1**	**$ 428.3**	**$ 630.0**	**$ 1,015.8**	**$ 1,208.1**
Sale of previously written down inventory (1)	(2.1)	-	-	-	-	-	-	-	(2.1)	-	-	-
Acquisition inventory step-up (2)	-	15.1	-	-	-	-	-	-	-	15.1	-	-
Excess and obsolete inventory charge (3)	0.5	-	1.2	-	2.3	1.4	17.3	0.3	2.8	1.4	18.5	0.3
Charges for VAT audit (4)	-	-	-	-	-	-	0.8	1.2	-	-	0.8	1.2
ESI purchase accounting adjustments (5)	-	-	-	-	1.2	1.0	1.2	1.0	1.2	1.0	1.2	1.0
Non-GAAP gross profit	**$ 361.3**	**$ 580.7**	**$ 892.6**	**$ 1,007.9**	**$ 68.9**	**$ 66.8**	**$ 143.6**	**$ 202.6**	**$ 430.2**	**$ 647.5**	**$ 1,036.2**	**$ 1,210.5**

Note: Electro Scientific Industries excludes stock-based compensation expenses from non-GAAP financials for financial reporting purposes. Electro Scientific Industries non-GAAP financials shown above include stock-based compensation expenses to conform with MKS financial reporting.

(1) Cost of sales for MKS in 2015 includes a reversal of an excess and obsolete inventory charge for inventory that was subsequently sold.

(2) MKS recorded a charge in cost of sales related to the step-up of inventory to fair value as a result of the Newport Corporation acquisition during 2016.

(3) MKS recorded excess and obsolete inventory charges in cost of sales related to the discontinuation of a product line in connection with the consolidation of two manufacturing plants during 2017. ESI recorded excess and obsolete inventory charges related to an inventory impairment and various restructuring activities.

(4) ESI recorded certain charges related to a VAT audit.

(5) ESI recorded charges to cost of sales related to its acquisitions of Wuhan Topwin Optoelectronics Technology Co., Ltd. and Visicon Technologies, Inc.

MKS and ESI EBITDA to Adjusted EBITDA Reconciliation

$ in millions

	MKS				ESI				Pro Forma			
	Twelve Months Ended December 31,			LTM September	Twelve Months Ended December 31,			LTM September	Twelve Months Ended December 31,			LTM September
	2015	2016	2017	2018	2015	2016	2017	2018	2015	2016	2017	2018
Net income	$ 122.3	$ 104.8	$ 339.1	$ 398.9	$ (29.3)	$ (17.5)	$ 23.2	$ 157.0	$ 93.0	$ 87.3	$ 362.3	$ 555.9
Interest expense (income), net	(2.9)	28.1	28.0	15.9	(0.6)	(0.3)	(0.5)	(1.3)	(3.5)	27.8	27.5	14.5
Provision (benefit) for income taxes	37.2	23.2	108.5	101.9	0.8	(0.7)	0.4	(35.7)	37.9	22.5	108.8	66.2
Depreciation & Amortization	22.1	65.9	82.6	79.9	9.0	8.3	9.4	9.5	31.1	74.2	91.9	89.4
EBITDA	$ 178.7	$ 222.0	$ 558.2	$ 596.6	$ (20.1)	$ (10.2)	$ 32.5	$ 129.5	$ 158.6	$ 211.7	$ 590.6	$ 726.1
Stock-based compensation	13.0	25.2	24.4	26.5	5.1	6.3	5.5	5.2	18.1	31.5	29.9	31.7
Acquisition and integration costs (1)	-	27.3	5.3	(0.5)	0.7	0.4	-	-	0.7	27.6	5.3	(0.5)
Acquisition inventory step-up (2)	-	15.1	-	-	-	-	-	-	-	15.1	-	-
Expenses related to the sale of a business (3)	-	-	0.9	-	-	-	-	-	-	-	0.9	-
Excess and obsolete inventory charge (4)	0.5	-	1.2	-	2.3	1.4	17.3	0.3	2.8	1.4	18.5	0.3
Sale of previously written down inventory (5)	(2.1)	-	-	-	-	-	-	-	(2.1)	-	-	-
Fees and expenses relating to re-pricing of term loan (6)	-	1.2	0.5	0.4	-	-	-	-	-	1.2	0.5	0.4
Restructuring (7)	-	0.6	3.9	4.7	4.7	0.6	10.7	0.6	4.7	1.2	14.6	5.3
Asset impairment (8)	-	5.0	6.7	-	-	0.0	-	-	-	5.0	6.7	-
Gain on sale of business (9)	-	-	(74.9)	-	-	-	-	-	-	-	(74.9)	-
Net proceeds from an insurance policy (10)	-	(1.3)	-	-	-	-	-	-	-	(1.3)	-	-
Goodwill impairment (11)	-	-	-	-	7.9	-	7.4	-	7.9	-	7.4	-
ESI purchase accounting adjustments (12)	-	-	-	-	2.2	1.9	2.0	1.4	2.2	1.9	2.0	1.4
Charges for VAT audit (13)	-	-	-	-	-	-	0.8	1.2	-	-	0.8	1.2
Environmental Costs (14)	-	-	-	1.0	-	-	-	-	-	-	-	1.0
Other adjustments	-	2.3	3.2	1.6	-	-	-	-	-	2.3	3.2	1.6
Adjusted EBITDA	$ 190.1	$ 297.4	$ 529.4	$ 630.3	$ 2.7	$ 0.3	$ 76.2	$ 138.2	$ 192.9	$ 297.7	$ 605.6	$ 768.5

(1) MKS recorded acquisition and integration costs related to the Newport Corporation acquisition, which closed during the second quarter of 2016. ESI recorded acquisition costs related to its acquisitions of Wuhan Topwin Optoelectronics Technology Co., Ltd. ("Topwin") and Visicon Technologies, Inc.
(2) MKS recorded a charge in cost of sales related to the step-up of inventory to fair value as a result of the Newport Corporation acquisition during 2016.
(3) MKS recorded legal, consulting and compensation related expenses related to the sale of a business, during 2017.
(4) MKS recorded excess and obsolete inventory charges in cost of sales related to the discontinuation of a product line in connection with the consolidation of two manufacturing plants during 2017. ESI recorded excess and obsolete inventory charges related to an inventory impairment and various restructuring activities.
(5) MKS recorded income related to the sale of excess and obsolete inventory previously written down to net realizable value.
(6) MKS recorded fees and expenses related to re-pricings of the Company's Term Loan Credit Agreement.
(7) MKS recorded restructuring costs related to the consolidation of two manufacturing plants, a restructuring of one of the Company's international facilities and the consolidation of sales offices during 2017. MKS recorded restructuring costs related to one of the Company's international facilities during 2016. ESI recorded restructuring activities to improve business effectiveness and streamline operations.
(8) MKS recorded an asset impairment charge, primarily related to the write-off of goodwill and intangible assets, in conjunction with the consolidation of two manufacturing plants during 2017. MKS recorded an impairment charge related to a minority interest investment in a privately held company during 2016.
(9) MKS recorded a gain on the sale of the Company's Data Analytics Solutions business during 2017.
(10) MKS recorded net proceeds from a Company owned life insurance policy during 2016.
(11) ESI recorded goodwill impairment charges related to its Topwin acquisition.
(12) ESI recorded purchase accounting adjustments related to its Topwin and Visicon Technologies acquisitions.
(13) ESI recorded certain charges related to a VAT audit.
(14) MKS recorded additional environmental costs during 2018, related to an EPA-designated Superfund site, which was acquired as part of the Newport acquisition.

MKS GAAP to Non-GAAP Operating Income & Gross Margin Reconciliation, and MKS EBITDA to Adjusted EBITDA Reconciliation

MKS GAAP to Non-GAAP Operating Income & Gross Margin Reconciliation

$ in millions	Twelve Months Ended December 31, 2013	Twelve Months Ended December 31, 2017	LTM September 2018
Income from operations	$ 58.4	$ 406.6	$ 520.0
Adjustments:			
Acquisition and integration costs (1)	0.2	5.3	(0.5)
Insurance reimbursement (10)	(1.1)	-	-
Expenses related to the sale of a business (3)	-	0.9	-
Excess and obsolete inventory charge (4)	6.4	1.2	-
Fees and expenses relating to re-pricing of term loan (5)	-	0.5	0.4
Restructuring (7)	1.4	3.9	4.7
Executive retirement costs (2)	2.6	-	-
Asset impairment (8)	-	6.7	-
Environmental Costs (6)	-	-	1.0
Amortization of intangible assets	2.1	45.7	43.6
Non-GAAP income from operations	$ 70.0	$ 470.9	$ 569.2
Non-GAAP operating margin percentage	10.5%	24.6%	26.8%
Gross profit	$ 266.6	$ 891.5	$ 1,007.9
Acquisition inventory step-up	-	-	-
Excess and obsolete inventory charge (4)	6.4	1.2	-
Non-GAAP gross margin	$ 273.0	$ 892.6	$ 1,007.9
Non-GAAP gross margin percentage	40.8%	46.6%	47.4%

MKS EBITDA to Adjusted EBITDA Reconciliation

$ in millions	Twelve Months Ended December 31, 2013	Twelve Months Ended December 31, 2017	LTM September 2018
Net income	$ 35.8	$ 339.1	$ 398.9
Interest expense (income), net	(0.9)	28.0	15.9
Provision for income taxes	23.5	108.5	101.9
Depreciation & Amortization	17.1	82.6	79.9
EBITDA	$ 75.5	$ 558.2	$ 596.6
Stock-based compensation	14.1	24.4	26.5
Acquisition and integration costs (1)	0.2	5.3	(0.5)
Executive retirement costs (2)	2.6	-	-
Expenses related to the sale of a business (3)	-	0.9	-
Excess and obsolete inventory charge (4)	6.4	1.2	-
Fees and expenses relating to re-pricing of term loan (5)	-	0.5	0.4
Restructuring (7)	1.4	3.9	4.7
Asset impairment (8)	-	6.7	-
Gain on sale of business (9)	-	(74.9)	-
Insurance reimbursement (10)	(1.1)	-	-
Environmental Costs (6)	-	-	1.0
Other adjustments	-	3.2	1.6
Adjusted EBITDA	$ 99.1	$ 529.4	$ 630.3

(1) MKS recorded acquisition and integration costs for 2017 and 2018 related to the Newport Corporation acquisition, which closed during the second quarter of 2016.
(2) In 2013, the Company's Chief Executive Officer retired and $2.6 million of costs related to his supplemental executive retirement plan and other benefits were recognized and recorded in selling, general and administrative expenses.
(3) MKS recorded legal, consulting and compensation related expenses related to the sale of a business, during 2017.
(4) MKS recorded excess and obsolete inventory charges in cost of sales related to the discontinuation of a product line in connection with the consolidation of two manufacturing plants during 2017.
(5) MKS recorded fees and expenses related to re-pricings of the Company's Term Loan Credit Agreement.
(6) MKS recorded additional environmental costs during 2018, related to an EPA-designated Superfund site, which was acquired as part of the Newport acquisition.
(7) MKS recorded restructuring costs related to a reduction in workforce in 2013, the consolidation of two manufacturing plants and a restructuring of one of the Company's international facilities in 2017 and a worldwide reduction in workforce and the transferring of a portion of the Company's shared accounting functions to a third party in 2018.
(8) MKS recorded an asset impairment charge, primarily related to the write-off of goodwill and intangible assets, in conjunction with the consolidation of two manufacturing plants during 2017.
(9) MKS recorded a gain on the sale of the Company's Data Analytics Solutions business during 2017.
(10) In 2013, MKS recovered $1.1 million from the Company's insurance company related to a prior year legal settlement.

MKS GAAP to Non-GAAP EPS Reconciliation

$ in millions	Twelve Months Ended December 31, 2013	Twelve Months Ended December 31, 2017	LTM September 2018
Net income	**$ 35.8**	**$ 339.1**	**$ 398.9**
Adjustments:			
Acquisition and integration costs (1)	0.2	5.3	(0.5)
Executive retirement costs (2)	2.6	-	-
Expenses related to sale of a business (3)	-	0.9	-
Excess and obsolete inventory charge (4)	6.4	1.2	-
Fees and expenses relating to re-pricing of term loan (5)	-	0.5	0.4
Amortization of debt issuance costs (6)	-	9.4	7.2
Restructuring (7)	1.4	3.9	4.7
Asset impairment (8)	-	6.7	-
Gain on sale of business (9)	-	(74.9)	-
Insurance reimbursement (10)	(1.1)	-	-
Amortization of intangible assets	2.1	45.7	43.6
Taxes related to the sale of a business (11)	-	2.9	(12.1)
Windfall tax benefit on stock-based compensation (12)	-	(11.1)	(8.7)
Income tax charge (13)	6.5	-	-
Credits on U.S. tax expense (14)	(1.2)	-	-
Tax benefit (15)	(2.4)	-	-
Deferred tax adjustment (16)	-	(24.5)	(23.7)
Transition tax on accumulated foreign earnings (17)	-	28.7	27.2
Accrued tax on MKS subsidiary distribution (18)	-	14.0	11.2
Environmental costs (19)	-	-	1.0
Pro-forma tax adjustments	(1.9)	(19.6)	(8.2)
Non-GAAP net earnings	**$ 48.4**	**$ 328.2**	**$ 440.9**
Non-GAAP net earnings per share	**$ 0.90**	**$ 5.96**	**$ 7.99**
Weighted average shares outstanding (millions)	53.5	55.1	55.2

(1) MKS recorded acquisition and integration costs for 2017 and 2018 related to the Newport Corporation acquisition, which closed during the second quarter of 2016.
(2) In 2013, the Company's Chief Executive Officer retired and $2.6 million of costs related to his supplemental executive retirement plan and other benefits were recognized and recorded in selling, general and administrative expenses.
(3) MKS recorded legal, consulting and compensation related expenses related to the sale of a business, during 2017.
(4) MKS recorded excess and obsolete inventory charges in cost of sales related to the discontinuation of a product line in connection with the consolidation of two manufacturing plants during 2017.
(5) MKS recorded fees and expenses related to re-pricings of the Company's Term Loan Credit Agreement.
(6) MKS recorded additional interest expense related to the amortization of debt issuance costs affiliated with the Company's Term Loan Credit Agreement and ABL Facility.
(7) MKS recorded restructuring costs related to a reduction in workforce in 2013, the consolidation of two manufacturing plants and a restructuring of one of the Company's international facilities in 2017 and a worldwide reduction in workforce and the transferring of a portion of the Company's shared accounting functions to a third party in 2018.
(8) MKS recorded an asset impairment charge, primarily related to the write-off of goodwill and intangible assets, in conjunction with the consolidation of two manufacturing plants during 2017.
(9) MKS recorded a gain on the sale of the Company's Data Analytics Solutions business during 2017.
(10) In 2013, MKS recovered $1.1 million from the Company's insurance company related to a prior year legal settlement.
(11) MKS recorded taxes related to the sale of the Company's Data Analytics Solutions business.
(12) MKS recorded windfall tax benefits on the vesting of stock-based compensation.
(13) MKS incurred income tax charges related to an election to pay currently, at a substantially reduced rate, taxes on certain accumulated earnings from the years 2001 to 2011 of one of its foreign subsidiaries.
(14) MKS received credits against U.S. tax expense on amended returns related to prior years.
(15) MKS received a tax benefit related to the enactment of the American Taxpayer Relief Act of 2012 on January 2, 2013.
(16) MKS recorded a deferred tax adjustment, which also includes the reversal of a tax accrual on a French dividend, related to the 2017 Tax Cut and Jobs Act.
(17) MKS recorded a transition tax on accumulated foreign earnings related to the 2017 Tax Cut and Jobs Act.
(18) MKS recorded an accrual for tax expense on a potential distribution to a subsidiary, related to the 2017 Tax Cut and Jobs Act.
(19) MKS recorded additional environmental costs during 2018, related to an EPA-designated Superfund site, which was acquired as part of the Company's Newport acquisition.

MKS GAAP to Non-GAAP Tax Rate Reconciliation

$ in millions

	Twelve Months Ended December 31, 2013			Twelve Months Ended December 31, 2017			LTM Ended September 30, 2018		
	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate	Income Before Income Taxes	Provision (benefit) for Income Taxes	Effective Tax Rate
GAAP tax rate	$ 59.3	$ 23.5	39.7%	$ 447.6	$ 108.5	24.2%	$ 500.8	$ 101.9	20.3%
Adjustments:									
Acquisition and integration costs (1)	0.2	-		5.3	-		(0.5)	-	
Executive Retirement Costs (2)	2.6	-		-	-		-	-	
Insurance Reimbursement (3)	(1.1)	-		-	-		-	-	
Expenses related to the sale of a business (4)	-	-		0.9	-		-	-	
Excess and obsolete inventory charge (5)	6.4	-		1.2	-		-	-	
Fees and expenses relating to re-pricing of term loan (6)	-	-		0.5	-		0.4	-	
Amortization of debt issuance costs (7)	-	-		9.4	-		7.2	-	
Restructuring (8)	1.4	-		3.9	-		4.7	-	
Asset impairment (9)	-	-		6.7	-		-	-	
Gain on sale of business (10)	-	-		(74.9)	-		-	-	
Environmental Costs (11)	-	-		-	-		1.0	-	
Amortization of intangible assets	2.1	-		45.7	-		43.6	-	
Income tax charge (12)	-	(6.5)		-	-		-	-	
Credits on U.S. tax expense (13)	-	1.2		-	-		-	-	
Tax benefit (14)	-	2.4		-	-		-	-	
Windfall tax benefit on stock-based compensation (15)	-	-		-	11.1		-	8.7	
Taxes related to the sale of a business (16)	-	-		-	(2.9)		-	12.1	
Deferred tax adjustment (17)	-	-		-	24.5		-	23.7	
Transition tax on accumulated foreign earnings (18)	-	-		-	(28.7)		-	(27.2)	
Accrued tax on MKS subsidiary distribution (19)	-	-		-	(14.0)		-	(11.2)	
Tax effect of pro-forma adjustments	-	1.9		-	19.6		-	8.2	
Non-GAAP tax rate	$ 70.9	$ 22.5	31.8%	$ 446.4	$ 118.2	26.5%	$ 557.1	$ 116.2	20.9%

(1) Acquisition and integration costs in 2017 and 2018 related to the Newport Corporation acquisition, which closed during the second quarter of 2016.
(2) In 2013, the Company's Chief Executive Officer retired and MKS recorded $2.6 million of costs related to his supplemental executive retirement plan and other benefits.
(3) In 2013, MKS recovered $1.1 million from the Company's insurance company related to a prior year legal settlement.
(4) MKS recorded expenses related to the sale of a business, during 2017.
(5) In 2013, MKS incurred $6.4 million of special charges for obsolete inventory related to a unique product in a solar application in which slowing market conditions provide uncertainty as to the net realizable value of this inventory. In 2017 MKS recorded excess and obsolete inventory charges in cost of sales related to the discontinuation of a product line in connection with the consolidation of two manufacturing plants.
(6) MKS recorded fees and expenses related to the re-pricing of the Company's Term Loan Credit Agreement.
(7) Amortization of debt issuance costs are affiliated with the Company's Term Loan Credit Agreement and ABL Facility.
(8) MKS recorded restructuring costs related to a reduction in workforce in 2013, the consolidation of two manufacturing plants and a restructuring of one of the Company's international facilities in 2017 and a worldwide reduction in workforce and the transferring of a portion of the Company's shared accounting functions to a third party in 2018.
(9) MKS recorded an asset impairment charge in 2017, primarily related to the write-off of goodwill and intangible assets, in conjunction with the consolidation of two manufacturing plants.
(10) MKS recorded a gain on the sale of the Company's Data Analytics Solutions business during 2017.
(11) MKS recorded additional environmental costs during 2018, related to an EPA-designated Superfund site, which was acquired as part of the Company's Newport acquisition.
(12) In 2013, MKS incurred income tax charges of $6.5 million related to an election to pay currently, at a substantially reduced rate, taxes on certain accumulated earnings from the years 2001 to 2011 of one of the Company's foreign subsidiaries.
(13) In 2013, MKS received $1.2 million in credits against U.S. tax expense on amended returns related to prior years.
(14) Tax benefit related to the enactment of the American Taxpayer Relief Act of 2012 on January 2, 2013.
(15) MKS recorded windfall tax benefits on the vesting of stock-based compensation.
(16) MKS recorded taxes related to the sale of the Company's Data Analytics Solutions business in 2017.
(17) MKS recorded a deferred tax adjustment, which also includes the reversal of a tax accrual on a French dividend, related to the 2017 Tax Cut and Jobs Act.
(18) MKS recorded a transition tax on accumulated foreign earnings related to the 2017 Tax Cut and Jobs Act.
(19) MKS recorded an accrual for tax expense on a potential distribution to a subsidiary, related to the 2017 Tax Cut and Jobs Act.

Combined Pro Forma Income Statement (9/30/18 LTM)

$ in millions	MKS	ESI	Combined[1]
Revenue	**$2,126.4**	**$420.8**	**$2,547.2**
Cost of goods sold	1,118.4	220.6	1,339.1
Gross profit	**$1,007.9**	**$200.1**	**$1,208.1**
Operating expenses	487.9	80.1	568.0
Operating income	**$520.0**	**$120.0**	**$640.0**
Net interest expense and other expenses	19.2	(1.3)	17.9
Profit before tax	**$500.8**	**$121.4**	**$622.2**
Income tax expense	101.9	(35.7)	66.2
Net income	**$398.9**	**$157.0**	**$555.9**
Interest income (expense), net	15.9	(1.3)	14.6
Income tax expense	101.9	(35.7)	66.2
Depreciation & amortization	79.9	9.5	89.4
EBITDA	**$596.6**	**$129.5**	**$726.1**
Non-GAAP items (excluding amortization)[2,3]	7.2	3.5	10.7
Stock-based compensation	26.5	5.2	31.7
Adjusted EBITDA[2,3]	**$630.3**	**$138.2**	**$768.5**[4]

Note: Electro Scientific Industries excludes stock-based compensation expenses from non-GAAP financials for financial reporting purposes. Electro Scientific Industries non-GAAP financials shown above include stock-based compensation expenses to conform with MKS financial reporting.

(1) Pro forma combined results do not include transaction related adjustments or synergies.
(2) Adjusted for purchase accounting charges, asset and inventory impairment charges and other one-time expenses.
(3) Adjusted for acquisition and integration costs, restructuring charges, environmental costs, the amortization of intangible assets (unless otherwise noted) and other one-time expenses.
(4) Does not include $5 million of projected year 1 cost synergies.


Thank You!
mks