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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

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**FORM 8-K**

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

**Date of Report (Date of earliest event reported): October 30, 2018**

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**MKS INSTRUMENTS, INC.**

(Exact name of registrant as specified in its charter)

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**Massachusetts**  
(State or other jurisdiction  
of incorporation)

**000-23621**  
(Commission  
File Number)

**04-2277512**  
(IRS Employer  
Identification No.)

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

**01810**  
Zip Code

**Registrant's telephone number, including area code: (978) 645-5500**

(Former name or former address if changed since last report)

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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.

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**Item 8.01 Other Events.**

On October 30, 2018, MKS Instruments, Inc., a Massachusetts corporation (the “Company” or “MKS”) issued a press release announcing entry into an Agreement and Plan of Merger (the “Merger Agreement”) on October 29, 2018 with Electro Scientific Industries, Inc., an Oregon corporation (“ESI”), and the Company’s newly formed, wholly owned subsidiary, EAS Equipment, Inc., a Delaware corporation (“Merger Sub”), providing for, subject to the terms and conditions of the Merger Agreement, the acquisition of ESI by the Company at a price of \$30.00 per share in cash, without interest and subject to deduction for any required withholding tax (the “Merger Consideration”), through the merger of Merger Sub into ESI (the “Merger”), with ESI surviving the Merger as a wholly owned subsidiary of the Company. A copy of that press release is filed as Exhibit 99.1 hereto and is incorporated herein by reference.

On October 30, 2018, the Company made available to investors an investor presentation in connection with the execution of the Merger Agreement. A copy of that investor presentation is filed as Exhibit 99.2 hereto and is incorporated herein by reference.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits

<u>Exhibit No.</u>	<u>Description</u>
99.1	<a href="#">Press Release issued by the Company on October 30, 2018</a>
99.2	<a href="#">Investor Presentation made available by the Company on October 30, 2018</a>

**IMPORTANT ADDITIONAL INFORMATION WILL BE FILED WITH THE SEC**

ESI plans to file with the SEC and mail to its stockholders a Proxy Statement in connection with the transaction. Additionally, MKS and ESI will file other relevant documents with the SEC in connection with the transaction. The Proxy Statement and other documents to be filed with the SEC by MKS and ESI will contain important information about MKS, ESI, the transaction and related matters. Investors and security holders are urged to read the Proxy Statement and other documents to be filed with the SEC by MKS and ESI carefully when they are available.

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In addition, investors and security holders will be able to obtain free copies of the Proxy Statement from ESI by visiting the Investor Relations section of ESI web site ([www.esi.com](http://www.esi.com)) or by directing a request to ESI, Attn: Investor Relations, at 13900 N.W. Science Park Drive, Portland, Oregon 97229.

MKS and ESI, and their respective directors and executive officers, may be deemed to be participants in the solicitation of proxies in respect of the proposed transaction. Information regarding MKS' directors and executive officers is contained in MKS' Form 10-K for the fiscal year ended December 31, 2017 and its proxy statement dated March 28, 2018, which are filed with the SEC. Information regarding ESI's directors and executive officers is contained in ESI's Form 10-K for the fiscal year ended March 31, 2018 and its proxy statement dated July 10, 2018, which are filed with the SEC. To the extent holdings of securities by such directors or executive officers have changed since the amounts disclosed in each company's respective proxy statement, such changes have been or will be reflected on Statements of Change in Ownership on Form 4 filed with the SEC. Additional information regarding the participants in the solicitation of proxies in respect of the proposed transaction and a description of their direct and indirect interests, by security holdings or otherwise, will be contained in the Proxy Statement and other documents to be filed with the SEC by MKS and ESI when they are available.

#### **SAFE HARBOR FOR FORWARD-LOOKING STATEMENTS**

Statements in this document 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 receipt of required regulatory approvals and 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 the companies we have acquired, including ESI and MKS' most recent acquisition of Newport Corporation; potential fluctuations in quarterly results, the terms of MKS' 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 filed with the SEC and in ESI's Annual Report on Form 10-K for the fiscal year ended March 31, 2018 and its 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: October 30, 2018

MKS Instruments, Inc.

By: /s/ Seth H. Bagshaw

Name: Seth H. Bagshaw

Title: Vice President, Chief Financial Officer and  
Treasurer



### MKS Instruments Announces Agreement to Acquire Electro Scientific Industries, Inc.

- Complementary Solutions Broaden Position in Key Industrial Markets
- Acquiring a Leading Laser System Supplier, Advancing ‘Surround the Workpiece<sup>SM</sup>’ Offerings
- Expands MKS’ Addressable Market by \$2.2 Billion

ANDOVER, Mass., October 30, 2018 — (GLOBE NEWSWIRE) — MKS Instruments, Inc. (NASDAQ:MKSI) (“MKS”), a global provider of technologies that enable advanced processes and improve productivity, and Electro Scientific Industries, Inc. (NASDAQ:ESIO) (“ESI”), an innovator in laser-based manufacturing solutions for the micro-machining industry, today announced that they have entered into an agreement for MKS to acquire ESI for \$30.00 per share. The all-cash transaction is valued at approximately \$1 billion.

The combined company is expected to have approximately \$2.2 billion in pro forma annual revenue, based on the two companies’ calendar 2017 historical results. The transaction is expected to be accretive to MKS’ Non-GAAP net earnings and free cash flow during the first 12 months post-closing. The combined company expects to realize \$15 million in annualized cost synergies within 18 to 36 months.

“We believe the ESI acquisition will help us deliver on one of our long-term strategic objectives, which is to broaden our base as a technical solutions provider to additional customers and markets.” said MKS CEO Gerald Colella. “We anticipate that the addition of ESI will strengthen our expertise in the photonics and optics markets, enabling us to develop systems that provide rich and robust solutions to meet the challenges of evolving technology needs. We expect to further progress our philosophy of “Solve Together. Succeed Together” by bringing the best technologies and high quality, reliable solutions in partnership with our customers, as we have demonstrated with the Newport acquisition.”

MKS anticipates the acquisition will further advance the MKS strategy to enhance our *Surround the Workpiece<sup>SM</sup>* offerings by adding extraordinary systems expertise and deep technical understanding of laser materials processing interactions. ESI’s leadership in Printed Circuit Board processing systems and other capabilities will provide MKS the opportunity to accelerate the roadmaps and performance of our laser, motion, and photonics portfolio. In addition, ESI brings a new platform of industrial markets enabling MKS to leverage its expertise more broadly.

“We believe this combination will provide significant value for ESI’s customers, as well as create exciting opportunities for our employees,” said Michael Burger, President and Chief Executive Officer of ESI. “Over the years, MKS’ solutions have helped us improve our offerings for the Printed Circuit Board processing market. I anticipate that the continued close collaboration and expertise of these two outstanding companies will create even better and more valuable solutions for our customers.”

MKS intends to fund the transaction with a combination of available cash on hand and up to \$650 million in committed term loan debt financing. On a pro forma basis, as if the transaction closed on June 30, 2018, we expect the combined company to have a strong balance sheet with combined pro forma net cash and investments of approximately



\$400 million and total term loan debt outstanding of \$1 billion. This would result in pro forma trailing twelve month leverage, defined as debt to Adjusted EBITDA of 1.3 times and pro forma net leverage of 0.8 times. Actual leverage ratios will depend upon a number of factors and shall be determined at the time of the closing. The company has also obtained a commitment to upsize its asset based revolving credit facility to \$100 million.

The transaction has been unanimously approved by the MKS and ESI boards of directors and is subject to customary closing conditions, including regulatory approvals and approval by ESI's shareholders, and is expected to close in the first quarter of 2019.

Lazard is acting as financial advisor, Barclays is acting as a financial advisor and lead bank, and WilmerHale is acting as legal advisor to MKS. Stifel is acting as financial advisor and Wilson Sonsini Goodrich & Rosati P.C. is acting as legal advisor to ESI.

#### **Conference Call Details**

MKS will hold a conference call to discuss this announcement on October 30, 2018 at 8:00 a.m. (Eastern Time). To participate in the conference call, please dial +1 877-709-8150 for domestic callers and +1 201-689-8354 for international callers, and an operator will connect you. Participants should then ask to join the MKS Instruments conference call. A live and archived webcast of the call will be available on MKS' website at [www.mksinst.com](http://www.mksinst.com).

#### **Use of Non-GAAP Financial Results**

This release 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 re-pricings of our 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.

#### **About MKS Instruments**

MKS Instruments, Inc. 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 for our customers. Our products are derived from our core competencies in pressure measurement and control, flow measurement and control, gas and vapor delivery, gas composition analysis, residual gas analysis, leak detection, control technology, ozone generation and delivery, power, reactive gas generation, vacuum technology, lasers, photonics, sub-micron positioning, vibration control and optics. We also provide services relating to the maintenance and repair of our products, installation services and training. Our primary served markets include semiconductor, industrial technologies, life and health sciences, research and defense. Additional information can be found at [www.mksinst.com](http://www.mksinst.com).



## **About ESI**

ESI's manufacturing systems are designed to enable manufacturers of electronic components and devices to improve their production capabilities and commercialize technologies through laser processing. ESI's systems deliver more control, greater flexibility and more precise processing of a wider range of materials. The result is higher production quality, faster throughput and higher backend yields, allowing customers to more easily meet new and challenging customer requirements, consistently meet aggressive production goals and better control costs. ESI is headquartered in Portland, Oregon, with global operations from the Pacific Northwest to the Pacific Rim.

## **IMPORTANT ADDITIONAL INFORMATION WILL BE FILED WITH THE SEC**

ESI plans to file with the SEC and mail to its stockholders a Proxy Statement in connection with the transaction. Additionally, MKS and ESI will file other relevant documents with the SEC in connection with the transaction. The Proxy Statement and other documents to be filed with the SEC by MKS and ESI will contain important information about MKS, ESI, the transaction and related matters. Investors and security holders are urged to read the Proxy Statement and other documents to be filed with the SEC by MKS and ESI carefully when they are available.

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###

Company Contact: Seth H. Bagshaw  
Senior Vice President, Chief Financial Officer and Treasurer  
Telephone: 978.645.5578  
Email: seth\_bagshaw@mksinst.com

Investor Relations Contact: The Blueshirt Group  
Monica Gould  
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Telephone: 212.331.8417  
Email: lindsay@blueshirtgroup.com



ESI Announcement

10/30/2018



# Safe Harbor for Forward Looking Statements

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# Important Additional Information Will be Filed with the SEC

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Please see the Appendix entitled "GAAP to Non-GAAP Reconciliations" 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.



## 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

## 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



Founded 1961

Headquarters in Andover, MA

CY 2017 Revenue of \$1.9B

4,900+ Employees

1,500+ Global Patents

R&D Spending ~\$133M

R&D Headcount ~750+

Leadership in

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

Source 2017 MKSI 10K



Founded 1944

Headquarters in Portland, OR

CY 2017 Revenue of \$304M

600+ Employees\*

1,000+ Global Patents\*

R&D Spending ~\$35M

R&D Headcount ~140+\*

Leadership in

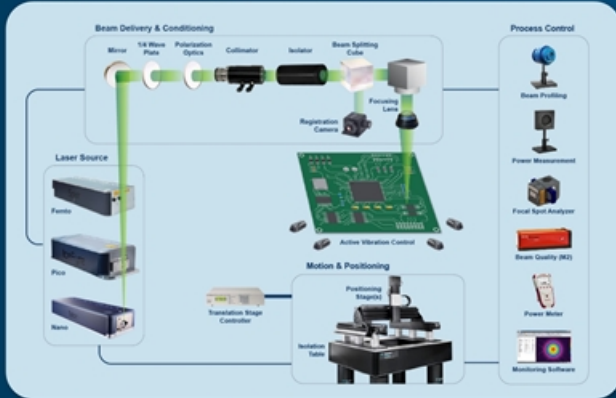
- Laser-based process equipment
  - Advanced PCB processing
  - Semi manufacturing
  - Component manufacturing

\* Fiscal Year 2018 ESIO 10K



MKS PROPRIETARY

## Surround the Workpiece<sup>SM</sup>



EXTEND

DRIVE

COMBINE

ACCELERATE

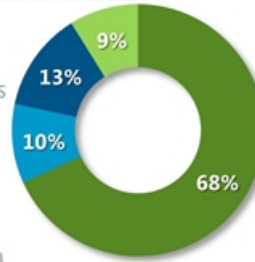


# ESI – Background

- Delivering over 70 years of innovation as the 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

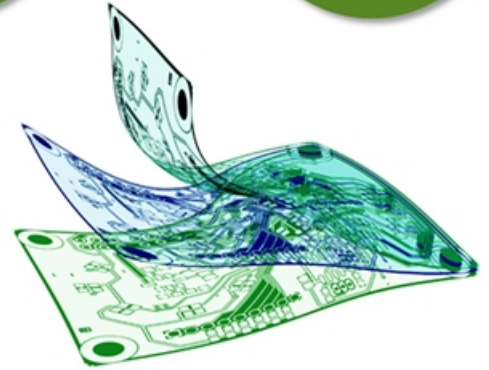
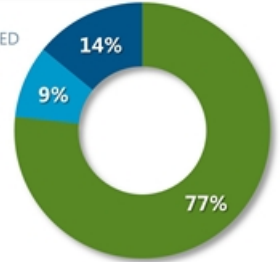
## End Markets

- PCB
- ELECTRONIC COMPONENTS
- SEMI
- INDUSTRIAL



## Business Segments

- INTEGRATED SYSTEMS
- TEST SYSTEMS
- SERVICE



# Significant Potential Growth Opportunities

**INDUSTRIAL MACHINING**  
**\$1.0B**

MARKING  
ENGRAVING  
FINE METAL DRILLING

**PRINTED CIRCUIT BOARDS**  
**\$1.0B**

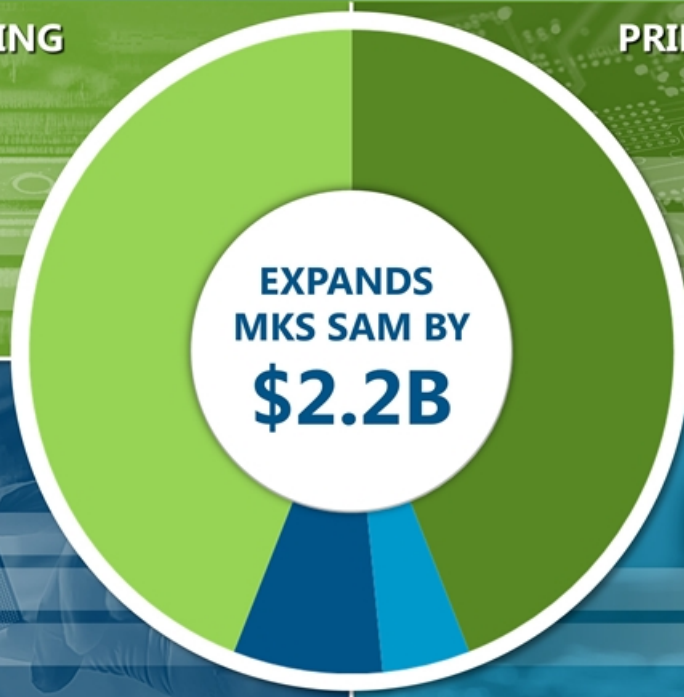
FLEX PCB VIA DRILLING  
HDI PCB VIA DRILLING  
IC PACKAGING VIA DRILLING

**SEMICONDUCTOR**  
**\$170M**

WAFER MARKING  
WAFER SCRIBING/DICING  
WAFER TRIM

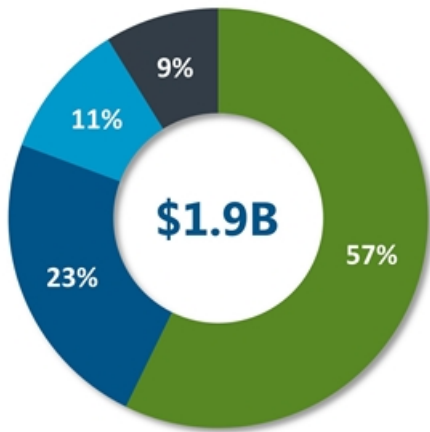
**ELECTRONIC COMPONENTS**  
**\$100M**

MLCC TESTING  
RESISTOR TRIM

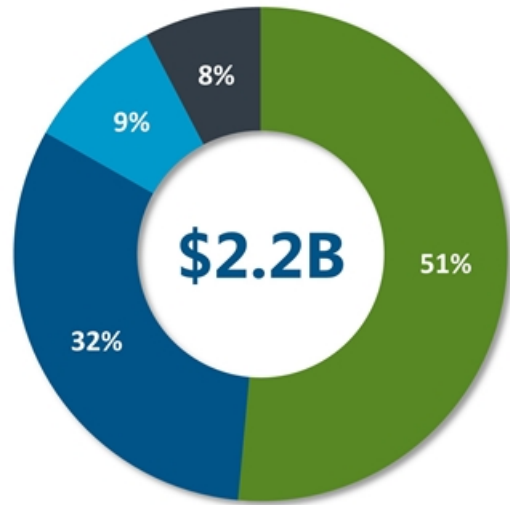


# Balanced and Diversified End Markets

MKSI by End Market in CY2017



Pro Forma Combined in CY2017

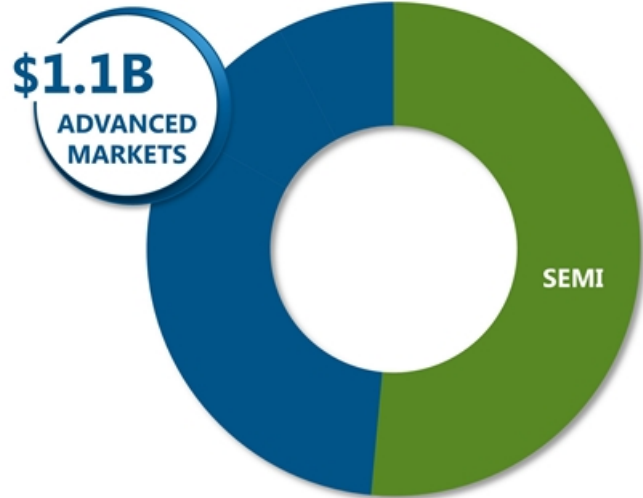
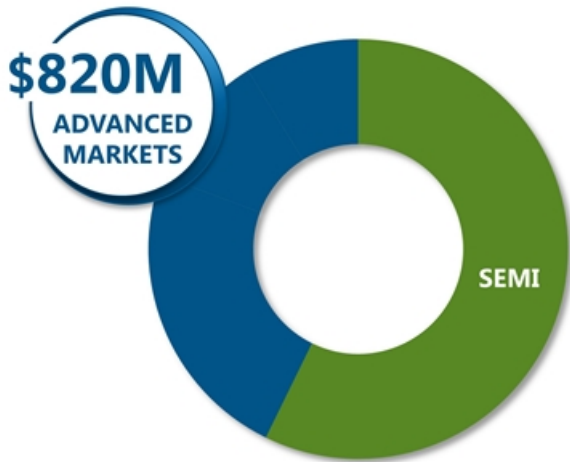


■ Semi ■ Industrial ■ Research & Defense ■ LHS

# Strengthens Advanced Market Growth

MKSI by End Market in CY2017

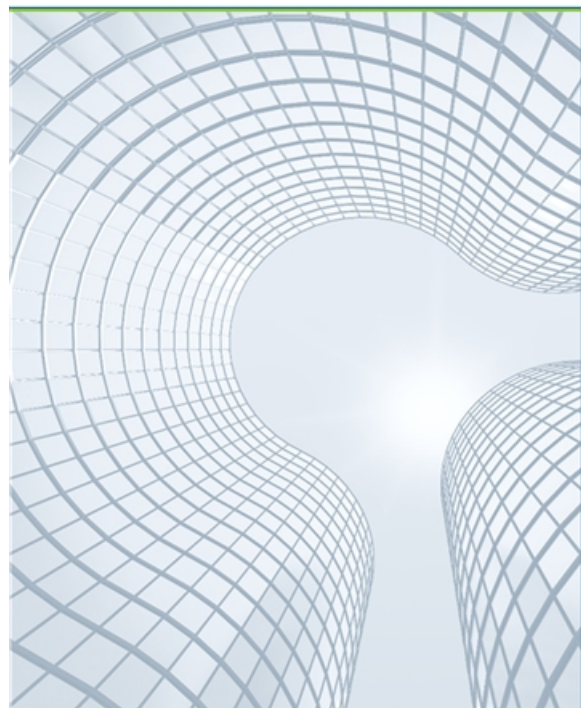
Pro Forma Combined in CY2017



**34% increase** in Advanced Market revenue

\* Revenue is combined CY17 data from MKSI and ESI

# Transaction Overview



<b>Per Share Consideration</b>	<ul style="list-style-type: none"> <li>• \$30.00, all cash transaction</li> </ul>
<b>Transaction Consideration</b>	<ul style="list-style-type: none"> <li>• \$1.0B equity value</li> </ul>
<b>Synergies and EPS Impact</b>	<ul style="list-style-type: none"> <li>• \$15M within 18-36 months</li> <li>• Accretive to Non-GAAP EPS and free cashflow in first 12 months after closing</li> </ul>
<b>Pro Forma Capitalization</b> <small>(as if the transaction had closed on June 30, 2018)</small>	<ul style="list-style-type: none"> <li>• Cash of approximately \$400M</li> <li>• Up to \$650M of new debt, total term loan debt of ~\$1.0B</li> <li>• Pro forma gross debt/EBITDA at closing 1.3X<sup>(1)</sup></li> <li>• Pro forma net debt/EBITDA at closing 0.8X<sup>(1)</sup></li> </ul> <p><small>(1) Based upon \$650M in debt financing and combined Pro Forma June 30, 2018 adjusted EBITDA as calculated in Appendix</small></p>
<b>Financial and Capital Return Policy</b>	<ul style="list-style-type: none"> <li>• Focus on de-levering</li> <li>• This transaction does not impact our ability to continue quarterly dividend payments</li> </ul>
<b>Expected Closing</b>	<ul style="list-style-type: none"> <li>• First Quarter 2019</li> </ul>

IN ALL AREAS OF **Our Business**



## ACCOUNTABILITY

- Embedded in culture
- Aligned compensation plans
- Deployed across the organization

## CUSTOMER FOCUS

- Developing customer inspired solutions
- Targeting high growth opportunities

## CONTINUOUS IMPROVEMENT

- Established Profit & Cash Recovery Team
- Streamlined Operations and Administrative functions
- Optimized Sales channels

## STRATEGIC PLANNING

- Active portfolio management
- Executing M&A strategy
- Aligning resources to support growth

# MKS and ESI

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

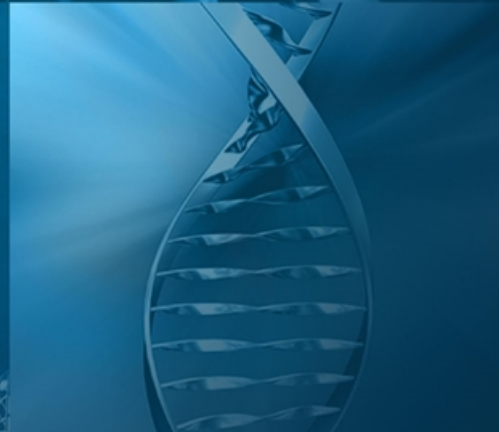


- Laser-based process equipment
  - Advanced PCB processing
  - Semi manufacturing
  - Component manufacturing

# Appendix



MKS PROPRIETARY





# Combined Pro Forma Income Statement<sup>(1)</sup>

Trailing twelve months ended June 30, 2018

	<u>MKS</u>	<u>ESI</u>	<u>Combined</u>
Net Revenues	\$ 2,125	\$ 406	\$ 2,531
Gross Profit	1,004	188	1,192
Operating Expenses	440	79	520
Other Expenses, net	51	3	53
Operating Income	513	105	619
Interest Income (Expense) and Other, net	(25)	-	(25)
Profit before Tax	488	105	593
Income Tax Expense (Benefit)	106	(38)	68
Net Income	<u>\$ 382</u>	<u>\$ 144</u>	<u>\$ 525</u>
<b>EBITDA</b>			
Interest Income (Expense), net	20	-	20
Income Tax Expense (Benefit)	106	(38)	68
Depreciation	37	7	44
Amortization	44	-	44
<b>EBITDA</b>	588	112	700
Non-GAAP Items (excluding Amortization) <sup>(2)</sup>	10	11	21
Stock Compensation	26	5	31
Adjusted EBITDA	<u>\$ 624</u>	<u>\$ 128</u>	<u>\$ 752</u>

(1) Pro forma combined results do not include transaction related adjustments or synergies.

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