UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K
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): November 1, 2018

MKS INSTRUMENTS, INC.

(Exact name of registrant as specified in its charter)

Massachusetts (State or other jurisdiction of incorporation) 000-23621 (Commission

04-2277512 (IRS Employer Identification No.)

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

new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box

01810 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).

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

Item 8.01 Other Events.

As previously disclosed in the Current Report on Form 8-K filed on October 30, 2018 by MKS Instruments, Inc., a Massachusetts corporation ("the Company" or "MKS"), on October 29, 2018, the Company and its newly formed, wholly owned subsidiary, EAS Equipment, Inc., a Delaware corporation ("Merger Sub"), entered into an Agreement and Plan of Merger (the "Merger Agreement") with Electro Scientific Industries, Inc., a Delaware corporation ("ESI"), 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.

On November 1, 2018, the Company and ESI made available to employees of the Company and ESI the presentation filed as Exhibit 99.1 hereto, which is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit

Description

99.1 Prese

Presentation made available by the Company and ESI to employees of the Company and ESI on November 1, 2018.

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.

Investors and security holders will be able to obtain free copies of the Proxy Statement and other documents filed with the SEC by MKS and ESI through the web site maintained by the SEC at www.sec.gov.

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) 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: November 1, 2018

MKS Instruments, Inc.

By: /s/ Seth H. Bagshaw

Name: Seth H. Bagshaw

Title: Vice President, Chief Financial Officer and

Treasurer



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 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 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 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 presentation.



MKS CONFIDENTIAL

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.

Investors and security holders will be able to obtain free copies of the Proxy Statement and other documents filed with the SEC by MKS and ESI through the web site maintained by the SEC at www.sec.gov.

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 website (www.esi.com) or by directing a request to ESI, Attn: Investor Relations, at 13900 N.W. Science ParkDrive, 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.



MKS CONFIDENTIAL

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" 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.



AVE CONFIDENTIAL

Introductions

- John Lee: President & COO
- Cathy Langtry: Senior Vice President of Human Resources
- Nate Armstrong: Senior Vice President of V&A Sales



IKS CONFIDENTIAL

MKS: Our Story



•*****mks

MKS CONFIDENTIAL

Five Decades of Profitable Growth



••mks

LIVE CONFIDENTIAL

- 7

Enabling Technology for 50+ Years



Our Focus: Technology-Intensive Markets









SEMICONDUCTOR

- Deposition Equipment
- Etch Equipment
- Lithography
- Inspection
- Packaging

INDUSTRIAL TECHNOLOGIES

- · Electronic Thin Film
- Industrial Manufacturing
- Electronic Component Manufacturing
- Process Industries
- Telecom/Datacom

LIFE & HEALTH SCIENCES

- Analytical & Medical Instrumentation
- Bio-Pharmaceutical
- · Medical & Bioimaging
- Medical Devices
- Ophthalmic Surgery

RESEARCH & DEFENSE

- · Atomic & Molecular Physics
- Spectroscopy
- High Energy Physics
- Ultrafast Laser Studies
- Infrared Technology
- Surveillance



MKS CONFIDENTIAL

MKS Business Process



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

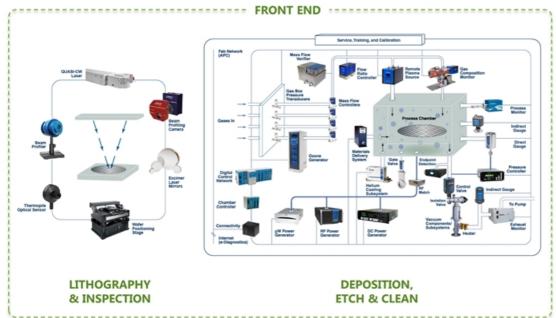
STRATEGIC PLANNING

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

•*****mks

MKS CONFIDENTIAL

Extended Leadership in the Semiconductor Market





•*****mks

MKS CONFIDENTIAL

Q3 2018 Financial Highlights

Revenue of \$487 million, in line with Q3 2017

L&M revenue: \$201 millionV&A revenue: \$286 million

- Non-GAAP net earnings of \$103 million, a 20% increase from Q3 2017
- Revenue for Semiconductor customers were down 8% from Q3 2017, primarily due to the moderation in semiconductor capital equipment spending
- Revenue for Advanced Markets was strong \$228 million – 11% increase from Q3 2017
 - Advanced Markets includes: Industrial Technologies, Life & Health Sciences, Research & Defense
- Advanced Markets comprised 47% of our total Q3 revenue

Quarterly Financial Results (in millions)

GAAP Results	Q3 2018	Q3 2017	
Net revenues	\$487	\$486	
Gross margin	47.6%	46.9%	
Operation margin	24.0%	22.7%	
Net income	\$93	\$76	
Diluted EPS	\$1.70	\$1.38	

•*****mks

AVE CONFIDENTIA

Delivering Sustainable and Profitable Growth



Vacuum & Analysis Division: Product Portfolio

Pressure/Vacuum Measurement, Flow/Gas Delivery & Valves

Pressure/Vacuum Measurement

- Baratron® Direct & Indirect Pressure/Vacuum Gauges
- Heaters, Traps, Effluent Management

Flow/Gas Delivery

- Mass Flow Controllers & Meters
- In-situ Flow Verifiers
- Flow Ratio Controllers
- Vapor Delivery

Valves & Pressure Controllers

- Gate, Isolation & Downstream Valves
- Pressure Controllers

i data

Analytical & Control

Automation & Control

- Automation Platforms
- Controls Hardware & Software

Mass Spectrometry

- Residual Gas Analyzers
- Atmospheric Pressure Gas Analyzers

Optical Gas Analyzers

- FTIR/NDIR Analyzers
- Tunable Filter Spectroscopy (TFS) Analyzers
- TFS Monitor

Power & Reactive Gas

- RF Generators
- Impedance Matching Networks
- RF Amplifiers for MRI

Microwave

- Integrated Plasma Subsystems
- Generators & Plasma Sources

Reactive Gas

- Ozone Gas Delivery Systems
- Dissolved CO₂

Remote Plasma Sources

- For NF₃ & Fluorine-based Gases
- For O₂, N₂, H₂, H₂O



























Successful Newport Acquisition

- Acquisition closed April 2016
- Great synergy between the two companies
 - Cross-selling to each other's customers
 - Technology sharing and leveraging best practices and know-how
 - Grew share in the laser and photonics markets
 - Improved financials for legacy Newport businesses
- Majority of the Newport team globally are still part of the MKS team



ANC CONFEDENTIA

Light & Motion Division: Product Portfolio

Newport[®]

Opto-mechanics, Optics, Motion Control & Light Analysis

Opto-mechanics, Optics & Optical Tables

- Optical Tables & Workstations
- Lenses, Mirrors, Filters & Beam Splitters
- Gratings
- Windows, Prisms & Fiber Optics

Motion Control

- Stages
- Hexapods
- Motion Controllers

Light Sources & Light Analysis

- Incoherent Light Sources
- Electro-Optic Modulators
- Laser Diode Control & Test Systems

Integrated Solutions

Custom Optical Subassemblies











Photonics & Optics

Photonics

- Laser Power & Energy Meters
- Laser Beam Profilers
- Non-contact Sensors & Scanners

Laser Optics

Lenses, Mirrors & Optics

Infrared Optics

- Radiometric, Athermalized & DFOV Lenses
- Zoom & Customized Lenses



Lasers

Ultrafast Lasers

Femtosecond/Picosecond

Pulsed Lasers

Nanosecond

CW & Quasi-CW Lasers

Tunable Lasers

· CW to Femtosecond





MIC CONFIDENTIA

Recent Industry-Leading Honors for MKS



MKS RANKS #17

in 2018 as a top performer for a 2nd year, ranking #1 in *Biggest Jumps*, moving from #89 to #17



MKS RANKS #89

as a newcomer to this prestigious list in 2017, joining ranks with Amazon, Facebook, Lam and Microsemi



LASER INDUSTRY CONTRIBUTION

for leading-edge laser technology in Japan



INNOVATORS

AWARD Platinum

Level, for Ophir's BeamWatch® AM™, the industry's first laser beam monitoring system



OUTSTANDING SUPPLIER for

technical collaboration to support AMEC's accelerated growth



SUPPLIER EXCELLENCE for

technology collaboration and exemplary operational excellence



SHARED GROWTH COLLABORATION

in support of Samsung Electronics

17



MKS China's support of NAURA's technology and product development

INNOVATION for



MKS PROPRIETARY

MKS to Acquire Electro Scientific Industries (ESI)



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

••mks

VC CONFIDENTIAL

Advancing Our Strategy

Surround the Workpiece



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

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

DRIVE opportunities within both the Systems and Component businesses

ACCELERATE pursuit of additional Industrial applications of laser processing



Laser Materials Processing Drivers



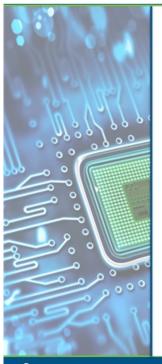
• mks

ADVANCED MATERIALS

LASER MANUFACTURING ())

MICRO-MACHINING ADDITIVE MANUFACTURING SURFACE MODIFICATION

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

Source 2017 MKSI 10K

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



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

* Fiscal Year 2018 ESIO 10K

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





21

Benefits for Key Stakeholders



- Stronger technology base
- Improved product roadmaps
- Enhanced technology innovation
- Strong solution provider



- Diverse and growing end markets
- Enhance scale and profitability
- Best in class financial model
- Strong cashflow

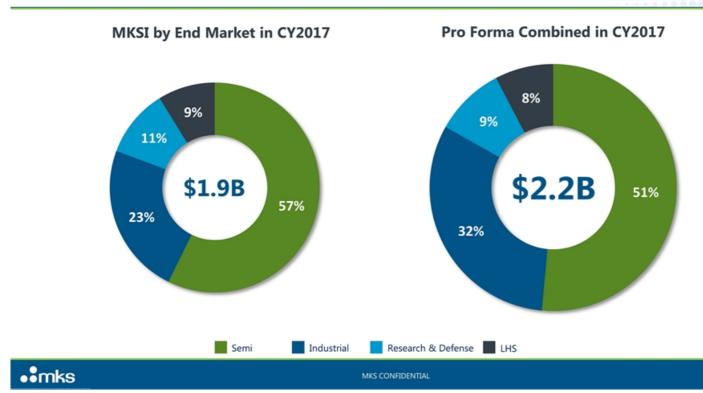


- Career growth opportunities
- Improved global footprint
- Good cultural fit between companies
- Larger and more diverse organization

•*mks

WC CONFIDENCE

Balanced and Diversified End Markets

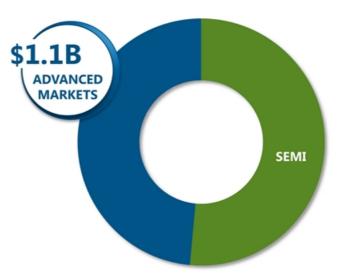


Strengthens Advanced Market Growth

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 E

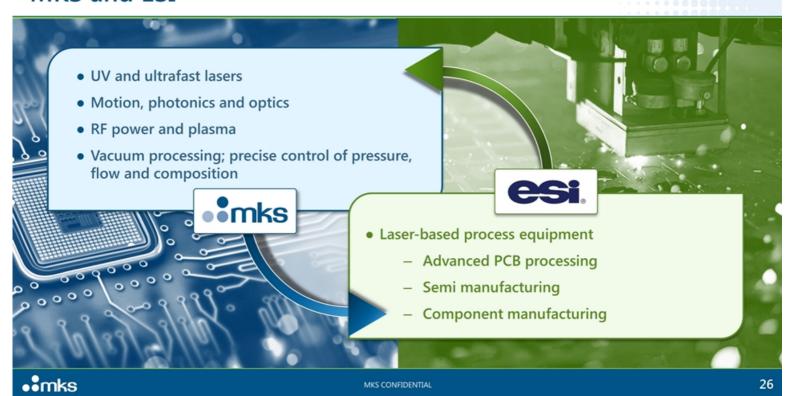


It May Take a Few Months for the Acquisition to Close

- Please note that the acquisition is not yet complete
- The transaction 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
- MKS and ESI are subject to special rules during this pre-closing period



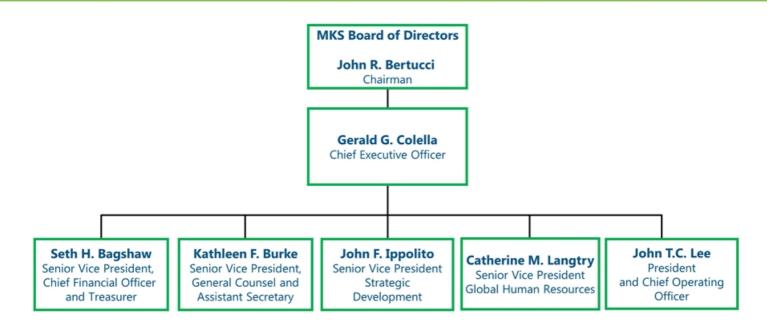
MKS and ESI







Senior Executive Organization



• mks

MKS CONFIDENTIAL

Significant Potential Growth Opportunities



Transaction Overview



••mks

MKS CONFIDENTIAL