

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

**SCHEDULE 14A**

(Rule 14A-101)

INFORMATION REQUIRED IN  
PROXY STATEMENT

**SCHEDULE 14A INFORMATION**

Proxy Statement Pursuant to Section 14(a) of the  
Securities Exchange Act of 1934  
(Amendment No. )

Filed by the Registrant  Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material under §240.14a-12

**MKS Instruments, Inc.**

(Name of Registrant as Specified in its Charter)

Payment of Filing Fee (Check all boxes that apply):

- No fee required.
- Fee paid previously with preliminary materials.
- Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11



April 5, 2023

Dear Shareholder:

You are cordially invited to attend the 2023 Annual Meeting of Shareholders of MKS Instruments, Inc. to be held on Tuesday, May 16, 2023 at 10:00 a.m., Eastern Time, at our headquarters at 2 Tech Drive, Suite 201, Andover, Massachusetts 01810.

The attached notice of Annual Meeting and proxy statement describe the business to be transacted at the Annual Meeting and provide additional information about us that you should know when voting your shares. The principal business at the Annual Meeting will be (i) the election of two Class III Directors, each for a three-year term, (ii) the approval, on an advisory basis, of executive compensation, (iii) an advisory vote regarding the frequency of advisory votes on executive compensation, and (iv) the ratification of the selection of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2023.

Whether or not you plan to attend the Annual Meeting, please carefully review the attached proxy materials and take the time to cast your vote.

On behalf of MKS, I would like to express our appreciation for your continued interest in our Company.

Sincerely,

JOHN T.C. LEE  
President and Chief Executive Officer



**MKS INSTRUMENTS, INC.**  
2 Tech Drive, Suite 201  
Andover, Massachusetts 01810

**NOTICE OF 2023 ANNUAL MEETING OF SHAREHOLDERS  
TO BE HELD ON TUESDAY, MAY 16, 2023 at 10:00 A.M. EASTERN TIME**

To our Shareholders:

The 2023 Annual Meeting of Shareholders of MKS INSTRUMENTS, INC., a Massachusetts corporation, will be held on Tuesday, May 16, 2023 at 10:00 a.m., Eastern Time, at our headquarters at 2 Tech Drive, Suite 201, Andover, Massachusetts 01810, for the following purposes:

1. The election of two Class III Directors, each for a three-year term;
2. The approval, on an advisory basis, of executive compensation;
3. An advisory vote regarding the frequency of advisory votes on executive compensation; and
4. The ratification of the selection of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2023.

The shareholders will also act on any other business as may properly come before the meeting.

We provide access to our proxy materials over the Internet under the U.S. Securities and Exchange Commission's "notice and access" rules. As a result, we mail to our shareholders a Notice of Internet Availability of Proxy Materials, which we refer to as the Notice. We are mailing the Notice on or about April 5, 2023, and it contains instructions on how to access the proxy statement and our Annual Report for the fiscal year ended December 31, 2022, which we refer to as the 2022 Annual Report, over the Internet. The Notice also contains instructions on how our shareholders can receive a paper copy of our proxy materials, including this proxy statement, our 2022 Annual Report, and a form of proxy card or voting instruction card. All shareholders who do not receive the Notice, including shareholders who have previously requested to receive paper copies of proxy materials, will receive a paper copy of the proxy materials by mail unless they have previously requested delivery of proxy materials electronically.

The Board of Directors has fixed the close of business on March 8, 2023 as the record date for the determination of shareholders entitled to notice of, and to vote at, the Annual Meeting and any adjournment or postponement thereof. Your vote is important no matter how many shares you own. Whether or not you expect to attend the meeting, we urge you to vote your shares.

If you are a shareholder of record, you may vote by using the Internet or calling the toll-free telephone number as described in the instructions included in your Notice, or, if you received a paper copy of the proxy materials, by completing, signing, dating, and returning your proxy card or voting instruction card. If you are a beneficial shareholder (meaning the shares you own are held in "street name" by a bank, broker, or other nominee), you may vote by following the instructions your broker, bank, or other nominee provides to you. Your prompt response is necessary to ensure that your shares are represented at the meeting. You can change your vote and revoke your proxy any time before the polls close at the meeting by following the procedures described in the accompanying proxy statement.

By Order of the Board of Directors,

A handwritten signature in black ink that reads "Kathleen F. Burke".

KATHLEEN F. BURKE  
Secretary

Andover, Massachusetts  
April 5, 2023

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MKS INSTRUMENTS, INC.  
2 Tech Drive, Suite 201  
Andover, Massachusetts 01810

## PROXY STATEMENT

This proxy statement is furnished in connection with the solicitation of proxies by the Board of Directors of MKS Instruments, Inc., a Massachusetts corporation, for use at the 2023 Annual Meeting of Shareholders to be held on Tuesday, May 16, 2023 at 10:00 a.m., Eastern Time, at our headquarters at 2 Tech Drive, Suite 201, Andover, Massachusetts 01810, and at any adjournment or postponement thereof, which we refer to as the 2023 Annual Meeting. References in this proxy statement to “we,” “us,” the “Company,” or “MKS” refer to MKS Instruments, Inc. and its consolidated subsidiaries.

All proxies will be voted in accordance with the applicable shareholder’s instructions. If no choice is specified in the proxy, the shares will be voted in favor of the matters set forth in the accompanying Notice of 2023 Annual Meeting of Shareholders. Any proxy may be revoked by a shareholder at any time before its exercise by delivery of written revocation to the Secretary of MKS or by voting during the 2023 Annual Meeting. Attendance at the 2023 Annual Meeting will not in itself be deemed to revoke a proxy.

We provide access to our proxy materials over the Internet under the “notice and access” rules of the U.S. Securities and Exchange Commission, which we refer to as the SEC. As a result, we mail to our shareholders a Notice of Internet Availability of Proxy Materials, which we refer to as the Notice. We are mailing the Notice on or about April 5, 2023. The Notice contains instructions on how to access the proxy statement and our Annual Report for the fiscal year ended December 31, 2022, which we refer to as the 2022 Annual Report, over the Internet. The Notice also contains instructions on how our shareholders can receive a paper copy of our proxy materials, including this proxy statement, our 2022 Annual Report, and a form of proxy card or voting instruction card. All shareholders who do not receive the Notice, including shareholders who have previously requested to receive paper copies of proxy materials, will receive a paper copy of the proxy materials by mail unless they have previously requested delivery of proxy materials electronically.

### IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING OF SHAREHOLDERS TO BE HELD ON MAY 16, 2023

This proxy statement and the 2022 Annual Report are available for viewing, printing, and downloading at [investor.mks.com/annual-meeting-materials](http://investor.mks.com/annual-meeting-materials).

A COPY OF OUR ANNUAL REPORT ON FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2022 AS FILED WITH THE SEC, EXCLUDING EXHIBITS, WILL BE FURNISHED WITHOUT CHARGE TO ANY SHAREHOLDER UPON WRITTEN REQUEST TO: INVESTOR RELATIONS DEPARTMENT, MKS INSTRUMENTS, INC., 2 TECH DRIVE, SUITE 201, ANDOVER, MA 01810. EXHIBITS WILL BE PROVIDED UPON WRITTEN REQUEST AND PAYMENT OF AN APPROPRIATE PROCESSING FEE.

### VOTING OF SECURITIES AND VOTES REQUIRED

At the close of business on March 8, 2023, the record date for the determination of shareholders entitled to notice of, and to vote at, the 2023 Annual Meeting, there were issued and outstanding and entitled to vote 66,669,254 shares of our common stock, no par value per share, which we refer to as our Common Stock. Each outstanding share entitles the record holder to one vote on each matter submitted at the 2023 Annual Meeting.

In order to transact business at the 2023 Annual Meeting, we must have a quorum. Under our Amended and Restated By-Laws, or our By-Laws, the holders of a majority of the shares of Common Stock issued and outstanding and entitled to vote at the 2023 Annual Meeting shall constitute a quorum for the transaction of business at the 2023 Annual Meeting. Shares of Common Stock held by shareholders present at the 2023 Annual Meeting or represented by proxy (including “broker non-votes” and shares that abstain or do not vote with respect to a particular proposal to be voted upon) will be counted for purposes of determining whether a quorum exists at the 2023 Annual Meeting. If a quorum is not present, the meeting will be adjourned until a quorum is obtained.

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For the election of directors (Proposal One), you may vote “For” or “Withhold” for each director nominee. The affirmative vote of the holders of a plurality of the votes cast on the matter is required for the election of directors; provided, however, any director nominee who receives a greater number of withhold votes than affirmative votes, which we refer to as a Majority Withheld Vote, in an uncontested election must offer to tender to the Board of Directors his or her resignation promptly following the certification of election results. The Board of Directors must accept or reject a resignation within 90 days following the certification of election results and publicly disclose its decision. Accordingly, the nominees who receive the highest number of votes of the shares present, in person or by proxy, and entitled to vote shall be elected to the available Class III Director positions, and in the event any nominee receives a Majority Withheld Vote, the resignation policy will apply as summarized here and as set forth in Section B.4 of our Corporate Governance Guidelines, which are posted on our website at [www.mks.com/corporate-governance](http://www.mks.com/corporate-governance) under Corporate Governance Documents.

For the advisory vote on executive compensation (Proposal Two) and the ratification of PricewaterhouseCoopers LLP (Proposal Four), you may vote “For,” “Against” or “Abstain.” For the advisory vote regarding the frequency of advisory votes on executive compensation (Proposal Three), you may vote for “1 Year,” “2 Years,” “3 Years,” or “Abstain.” Proposal Two, Proposal Three, and Proposal Four require the affirmative vote of the holders of a majority of the votes cast on the matter. However, regarding Proposal Three, if none of the three frequencies (every one, two, or three years) receives a majority of the votes cast on this proposal, we will consider the frequency receiving the greatest number of votes to be the frequency recommended by shareholders. Proposal Two and Proposal Three are non-binding proposals.

Shares held by shareholders who abstain from voting as to a particular matter, and “broker non-votes,” which are shares held in “street name” by banks, brokers, or other nominees who indicate on their proxies that they do not have discretionary authority to vote such shares as to a particular matter, including the election of directors, the advisory vote on executive compensation, and the advisory vote regarding the frequency of advisory votes on executive compensation, will not be counted as votes in favor of, or as votes cast for, a matter. Accordingly, we expect abstentions and broker non-votes will have no effect on the voting on a matter that requires the affirmative vote of a majority of the votes cast on the matter. If the shares you own are held in street name by a bank, broker, or other nominee, then your bank, broker, or other nominee, as the record holder of your shares, is required to vote your shares according to your instructions. In order to vote your shares, you will need to follow the instructions your bank, broker, or other nominee provides to you.

For additional details about voting and attending the 2023 Annual Meeting, please see “Voting and Meeting Information” below.

## VOTING AND MEETING INFORMATION

The following sections provide additional details about voting and attending the 2023 Annual Meeting.

### Voting Your Shares

If you are a **shareholder of record**, you may vote your shares in any of the following ways:



#### *Internet*

You may vote your shares in advance of the 2023 Annual Meeting via the Internet by accessing our online portal at [www.proxyvote.com](http://www.proxyvote.com). Proxies submitted via the Internet must be received by 11:59 p.m. Eastern Time on May 15, 2023.

#### *Telephone*



You may vote your shares in advance of the 2023 Annual Meeting telephonically by calling 1-800-690-6903 and following the instructions on your proxy card. Proxies submitted by telephone must be received by 11:59 p.m. Eastern Time on May 15, 2023.

#### *Mail*



If you received a paper copy of the proxy materials, you may vote your shares in advance of the 2023 Annual Meeting by completing, signing, dating, and returning your proxy card or voting instruction card. Proxies submitted via mail must be received by May 15, 2023.

#### *In-Person at the 2023 Annual Meeting*



You may vote your shares during the 2023 Annual Meeting by (i) if you received a paper copy of the proxy materials, completing your proxy card or voting instruction card or (ii) if you did not receive a paper copy of the proxy materials, completing a ballot to be provided by the Company at the meeting. If you have previously submitted your proxy and you vote your shares in accordance with these instructions during the 2023 Annual Meeting, your previously submitted proxy will be revoked.

If you are a **beneficial shareholder** (meaning the shares you own are held in “street name” by a bank, broker, or other nominee), your bank, broker, or other nominee will provide a vote instruction form to you with this proxy statement, which you may use to direct how your shares will be voted. **You must instruct your bank, broker, or other nominee how to vote with respect to the election of directors, the executive compensation advisory vote, and the advisory vote regarding the frequency of advisory votes on executive compensation; your bank, broker, or other nominee cannot exercise its discretion to vote on these matters on your behalf.** Many banks and brokers offer the option of voting over the Internet or by telephone, instructions for which would be provided by your bank or broker on your vote instruction form. You may only vote your shares in-person at the 2023 Annual Meeting if you obtain a proxy issued in your name from your bank, broker, or other nominee. For instructions on how to revoke or change your vote, you should contact your bank, broker, or other nominee.

### Attending the 2023 Annual Meeting

Admission of shareholders of record and beneficial shareholders to the 2023 Annual Meeting will begin at 9:45 a.m. Eastern Time. Shareholders of record who wish to attend the meeting should be prepared to present photo identification and beneficial shareholders who wish to attend the meeting should be prepared to present photo identification and a letter from their bank, broker, or nominee confirming beneficial ownership of shares of our Common Stock.

### Proxy Materials

You can view and download our proxy materials and 2022 Annual Report at our online portal, available to shareholders at [www.proxyvote.com](http://www.proxyvote.com).



**Shareholder List**

During the 2023 Annual Meeting, a complete list of our shareholders of record will be available for viewing by shareholders for any purpose germane to the 2023 Annual Meeting. Shareholders submitting any such request will be asked to include the 16-digit control number found on their proxy card, voting instruction card, or Notice.

**Whether or not you plan to attend the 2023 Annual Meeting, we urge you to vote your shares over the Internet or by telephone, or complete, sign, date, and return the proxy card in the accompanying postage-prepaid envelope if you received a printed proxy card. A prompt response will greatly facilitate arrangements for the 2023 Annual Meeting and your cooperation will be appreciated. Shareholders who attend the 2023 Annual Meeting may vote their shares at the 2023 Annual Meeting even if they have previously sent in their proxies.**

## PROPOSAL ONE – ELECTION OF DIRECTORS

Our By-Laws provide for a Board of Directors that is divided into three classes. The term of the Class III Directors expires at the 2023 Annual Meeting, the term of the Class I Directors expires at the 2024 Annual Meeting of Shareholders, and the term of the Class II Directors expires at the 2025 Annual Meeting of Shareholders. Our Board of Directors, upon the recommendation of our Nominating and Corporate Governance Committee, has nominated Peter J. Cannone III and Joseph B. Donahue to serve as Class III Directors for a term to expire at the 2026 Annual Meeting of Shareholders. Mr. Cannone and Mr. Donahue currently serve as directors. Each nominee has consented to being named herein and, if elected, to serve as a director until his successor is duly elected and qualified.











Geoffrey Wild, who currently serves as a Class III Director, is not standing for re-election to the Board of Directors. The Board of Directors previously approved a decrease in the size of the Board of Directors effective immediately prior to the 2023 Annual Meeting, which eliminates the vacancy that would have existed at the 2023 Annual Meeting. Proxies cannot be voted for a greater number of persons than the number of nominees named in this proxy statement.


Shares represented by all proxies received by the Board of Directors and not so marked as to withhold authority to vote for an individual director will be voted (unless one or more nominees are unable or unwilling to serve) for the election of the nominees named below. The Board of Directors expects that each of the nominees named below will be available for election, but if any of them is not a candidate at the time the election occurs, it is intended that such proxies will be voted for the election of a substitute nominee to be designated by the Board of Directors.

**THE BOARD OF DIRECTORS BELIEVES THAT APPROVAL OF THE ELECTION OF PETER J. CANNONE III AND JOSEPH B. DONAHUE TO SERVE AS CLASS III DIRECTORS IS IN THE BEST INTERESTS OF MKS AND OUR SHAREHOLDERS AND THEREFORE RECOMMENDS A VOTE “FOR” BOTH NOMINEES.**

### DIRECTORS

Set forth below are the names and ages of each member of our Board of Directors (including those who are nominees for election as Class III Directors) and the positions and offices they hold with the Company. In addition, set forth below are biographies for each continuing director and director nominee, which include each individual's principal occupation and business experience during at least the past five years, the names of other publicly held companies on which the individual currently serves, or in the past five years has served, as a director, the year each individual joined our Board of Directors, and information about each individual's specific experience, qualifications, attributes, or skills that led the Board of Directors to conclude that he or she should serve as a director of MKS. Information with respect to the number of shares of Common Stock beneficially owned by each individual, directly or indirectly, as of March 8, 2023, appears in this proxy statement under the heading “Security Ownership of Certain Beneficial Owners and Management.”

Name	Age	Position	Audit Committee	Compensation Committee	Nominating and Corporate Governance Committee	Class to Which Director Currently Belongs
Rajeev Batra	55	Director				I
Peter J. Cannone III*	57	Director				III
Gerald G. Colella	66	Chair				I
Joseph B. Donahue*	64	Director				III
John T.C. Lee	60	Director, President and CEO				II
Jacqueline F. Moloney	69	Lead Director				II
Elizabeth A. Mora	62	Director				I
Michelle M. Warner	56	Director				II
Geoffrey Wild	66	Director				III

 Chair

 Member

\* Nominee for election at the 2023 Annual Meeting

**Director**

**Background and Qualifications**



**Rajeev Batra**  
**Director since 2018**  
**President, Siemens Digital Industries U.S.**

Mr. Batra has served as President of Siemens Digital Industries U.S., an innovation leader in automation and digital transformation in the process and discrete industries, since April 2019. Previously, Mr. Batra served in various senior roles at Siemens U.S., including President of the Digital Factory Division from October 2014 to April 2019, President of the Industry Automation Division from October 2009 to October 2014, Vice President and General Manager, Automation & Motion Division from October 2007 to October 2009, and Vice President and General Manager, Automotive & Aerospace Vertical Markets from October 2002 to October 2007. Mr. Batra is also a director of Shapeways Holdings, Inc., an online 3D printing service company, a director of Amsted Industries, a diversified global manufacturer of industrial components serving primarily the railroad, vehicular, and construction and building markets, Chairman of the Board of Trustees and a member of the Executive Committee of the Manufacturers Alliance, a non-profit manufacturing leadership network that offers benchmarking, professional development, and research services, and a former member of the Board of Governors of NEMA (National Electrical Manufacturers Association), a trade association of electrical equipment manufacturers, where he previously served as Chair. Mr. Batra received a B.S. in Electrical Engineering from Lawrence Technological University and an M.B.A. from the University of Michigan. Mr. Batra's 25-plus years in executive leadership roles in broad industrial markets, his extensive portfolio experience in the automation, digitalization, and I4.0/IoT areas, and his current role as President of Siemens Digital Industries U.S. qualify him to serve as a member of our Board of Directors.



**Peter J. Cannone III**  
**Director since 2021**  
**Chairman and CEO, Demand Science**

Mr. Cannone has served as Chairman and Chief Executive Officer of Demand Science Group, LLC, a global leading revenue intelligence platform delivering a comprehensive suite of business to business solutions, since August 2020. From April 2019 to July 2020, he served as General Partner of Optum Ventures, a healthcare-focused venture capital firm. From July 2018 to April 2019, he served as Chief Executive Officer of UpCurve, Inc., a management company, where he oversaw portfolio firms that provided critical digital, cloud, financial and healthcare solutions to small and midsize businesses. From November 2015 to December 2018, he served as Chief Executive Officer of ThriveHive, a provider of digital marketing services and one of UpCurve's portfolio firms. From January 2007 to November 2014, he served as President and Chief Executive Officer of OnForce, a leading vendor of SaaS technology-enabled workforce solutions. From 1997 to 2006, he held senior management positions at PC Connection, Inc. and MicroWarehouse. Mr. Cannone holds a B.A. in Economics from the University of Massachusetts, Amherst, and an M.B.A. from Rensselaer Polytechnic Institute. Mr. Cannone's 25-plus years of experience in executive leadership and senior management roles, including direct knowledge and experience in mergers and acquisitions, capital raising, and financial planning and analysis, qualifies him to serve as a member of our Board of Directors.

**Director**

**Background and Qualifications**



**Gerald G. Colella**  
**Director since 2014**  
**Chair of the Board and Former CEO, MKS Instruments**

Mr. Colella has served as our Chair of the Board of Directors since May 2020. He served as our Chief Executive Officer from January 2014 until his retirement in January 2020. Additionally, he served as our President from February 2013 to May 2018. He served as our Chief Operating Officer from January 2010 until December 2013 (additionally serving as Vice President until his promotion to President in February 2013). He served as our Vice President and Chief Business Officer from April 2005 until January 2010. Mr. Colella joined MKS in 1983 and progressed from materials planning and logistics to leading our global business and service operations before assuming his senior management roles. Mr. Colella has served as a director of Columbus McKinnon Corporation, a global leader in intelligent motion solutions, since November 2021, and since April 2023, he has served as Chair of the Board of Directors of Columbus McKinnon. Mr. Colella previously served as a director of GCP Applied Technologies Inc. from 2017 to 2020. He holds a B.A. in Secondary Education from the University of Massachusetts and an M.B.A. from Southern New Hampshire University. Mr. Colella's 35-plus years of experience within the Company, including direct knowledge and experience in operations, business strategy, and growth, both organically and by acquisitions, gives him particularly deep insight into our organization.



**Joseph B. Donahue**  
**Director since 2020**  
**Former EVP and COO, TE Connectivity**

Mr. Donahue served as Executive Vice President and Chief Operating Officer of TE Connectivity Ltd., a publicly held manufacturer of connectors, sensors, and minimally invasive surgical assemblies for the automotive, industrial, medical, aerospace and communications/consumer markets, from 2011 until 2017. He concurrently served as President of the Network Solutions segment of TE Connectivity from August 2012 until the divestiture of that business in August 2015. He also served at TE Connectivity (formerly Tyco Electronics Ltd.), including as President, Transportation Solutions segment from 2010 through July 2012, President of the Global Automotive Division from 2008 through 2009 and Senior Vice President of the same division beginning in September 2007. From September 2006 to August 2007, he was Group Vice President, Wood Coatings Division, for Valspar Corporation, a manufacturer of commercial and industrial coatings. Over the prior 16 years, Mr. Donahue held a variety of senior management roles at TE Connectivity and AMP Incorporated. Mr. Donahue holds a B.S. in Biological Sciences and an M.S. in Plastics Engineering from the University of Massachusetts Lowell. He also holds an M.S. in Manufacturing Systems Engineering from Lehigh University. Mr. Donahue's extensive experience in executive leadership roles for companies serving multiple markets, including industrial, as well as his experience managing all aspects of company global operations, including supply chain, manufacturing, environment, health and safety, and lean, his international experience having lived and worked in Japan, China, and Germany, and his merger and acquisition experience qualify him to serve as a member of our Board of Directors.

**Director**

**Background and Qualifications**



**John T.C. Lee**

**Director since 2020**

**President and CEO,  
MKS Instruments**

Dr. Lee has served as our President and Chief Executive Officer since January 2020. From September 2019 to January 2020, he served as our President, from May 2018 to September 2019, he served as our President and Chief Operating Officer, and from November 2016 to May 2018, he served as our Senior Vice President and Chief Operating Officer. From January 2014 until October 2016, Dr. Lee served as our Senior Vice President of Business Units. From November 2012 until December 2013, Dr. Lee served as our Senior Vice President, Controls, HPS (our integrated process solutions business), and Pressure, Flow, Measurement and Control, or PFMC. From January 2011 to November 2012, he served as our Senior Vice President, Controls and PFMC, and from October 2007 to January 2011, he served as our Group Vice President, Controls and Information Technology products. Prior to joining MKS, Dr. Lee served as the Managing Director of Factory Technology and Projects within the Solar Business Group at Applied Materials, Inc., a global leader providing processing equipment to the semiconductor and display markets, from February 2007 until October 2007. From 2002 until February 2007, he served as General Manager of the Cleans Product Group and the Maydan Technology Center at Applied Materials. Prior to Applied Materials, Dr. Lee served from 1997 until 2002 as Research Director of the Silicon Fabrication Research Department at Lucent Technologies, Inc., a voice, data, and video communications provider, and from 1991 until 1997 as a Member of the Technical Staff in the Plasma Processing Research Group within Bell Labs. He has served as a director of Cognex Corporation, a leading worldwide provider of machine vision products, since 2022, and as Vice Chair and a member of the Executive Committee of the Board of Directors of the Massachusetts High Technology Council since 2021. Dr. Lee holds a B.S. from Princeton University and both an M.S.CEP and a Ph.D. from the Massachusetts Institute of Technology, all in Chemical Engineering. Dr. Lee's education, combined with his technical understanding of our numerous and varied complex products, gained from over fifteen years of experience working in progressive leadership roles at our Company and previously at Applied Materials, one of our largest customers, provide him with a unique leadership perspective.

**Director**

**Background and Qualifications**



**Jacqueline F. Moloney**

**Director since 2016**

**Professor and  
Chancellor Emerita,  
the University of  
Massachusetts Lowell**

Dr. Moloney is a Professor and Chancellor Emerita at the University of Massachusetts Lowell, a public university with over 18,000 students. She served as Chancellor from 2015 to 2022, as Executive Vice Chancellor from 2007 to 2015, as the Dean of Online and Continuing Education from 1994 to 2007, and as a professor since 1986. Since 2008, Dr. Moloney has served as a director and member of the compensation, nominating and corporate governance, strategic planning, technology and executive committees of Enterprise Bancorp, Inc., a publicly held bank. She also served as a member of the Board of Directors of the Massachusetts High Technology Council from 2015 to 2022. Dr. Moloney holds a B.S. in Sociology from the University of Massachusetts, Lowell, an M.A. in Social Psychology from Goddard College, and an Ed.D. from the University of Massachusetts Lowell. She has over 35 years of experience as a leader in non-profit organizations. Dr. Moloney has a deep history of working with business and industry, and she established the first incubators at the University of Massachusetts Lowell, which are the home to approximately 65 early-stage companies. She has been recognized by numerous organizations for her leadership and business acumen. She and the University of Massachusetts Lowell were recognized in the top 20 of the Boston Globe's Top 100 Women-Led Businesses for five consecutive years. Dr. Moloney was also recognized as one of seven prominent "Women Who Mean Business" by the Boston Business Journal. She was selected by the Massachusetts Technology Leadership Council as a finalist for the CEO of the Year award in 2018 and 2019 and was named Chief Executive HR Champion by the College and University Professional Association for Human Resources in 2018. She provides valuable knowledge and insight on emerging strategic planning and management and business trends.


**Director**

**Background and Qualifications**



**Elizabeth A. Mora**  
**Director since 2012**  
**Former Chief Administrative Officer, The Charles Stark Draper Laboratory**

Ms. Mora served as the Chief Administrative Officer from March 2016 to August 2020, and as the Chief Financial Officer from 2008 to February 2016, of The Charles Stark Draper Laboratory, Inc., a non-profit engineering research and development laboratory serving the national interest in applied research, engineering development, advanced technical education, and technology transfer, or Draper Labs. From 1997 until 2008, she worked for Harvard University, ultimately serving as Chief Financial Officer and Vice President for Finance, and previously serving as Associate Vice President, Research Administration and the Director of the Office of Sponsored Research. Prior to joining Harvard, Ms. Mora worked for Coopers and Lybrand (now PricewaterhouseCoopers LLP) from 1989 to 1997 and was one of the founding members of its National Regulatory Consulting Practice. Since May 2021, Ms. Mora has served on the Board of Directors of Inogen, Inc., a medical technology company that primarily develops, manufactures, and markets portable oxygen concentrators, and since December 2021, she has served as Chairperson of the Board of Directors of Inogen. Since 2021, she has also served on the Board of Directors of Limoneira Company, an agribusiness and real estate development company, Everest Consolidator Acquisition Corporation, a special purpose acquisition company, and since 2023, on the Board of Directors of NUBURU, Inc., an innovator of blue laser technology. She previously served as a director of GCP Applied Technologies Inc. from 2016 to 2020. Ms. Mora is a Certified Public Accountant and has a B.A. in Political Science from the University of California, Berkeley and an M.B.A. from the Simmons College Graduate School of Management. Ms. Mora's extensive financial background, including her previous role as Chief Administrative Officer of a prominent research and development organization, provides valuable insights for our Board of Directors, the Audit Committee, and the Compensation Committee. Also, Ms. Mora provides valuable insights on cybersecurity based on her prior oversight of Information Technology at Draper Labs, a leader in cybersecurity threat detection.

Director	Background and Qualifications
 <p><b>Michelle M. Warner</b> <b>Director since 2019</b> <b>Executive Director, CEO Perspectives</b></p>	<p>Ms. Warner has served as Executive Director of CEO Perspectives, a leadership development program for executives of Fortune 500 and select growth companies, since January 2022. She also founded and has served as principal of MMW Advisors, LLC, where she serves as an independent advisor in the areas of M&amp;A execution and team and process development, as well as board and governance excellence, since July 2020. Ms. Warner served as Senior Vice President, General Counsel and Corporate Secretary for USG Corporation, a leading manufacturer of building products and solutions, from January 2016 until its acquisition by privately held Gebr. Knauf KG in April 2019. From 1997 until 2015, she worked in a variety of legal positions for Motorola Solutions, Inc. (formerly Motorola, Inc.), a provider of communication infrastructure, devices, accessories, software, and services, most recently as Deputy General Counsel and Corporate Secretary, prior to that, serving as Corporate Vice President, Law, Corporate, Securities and Transactions. She is a member of the President's Council of the Museum of Science and Industry, Chicago, where she completed a two-year term as Chair and as an ex officio member of the Board of Trustees. In addition, she serves on the Board of Advisors of Denison University. Ms. Warner received a J.D. from the Northwestern University School of Law and a B.S. in Economics from Denison University. Due to Ms. Warner's strong background in mergers and acquisitions, as well as securities and corporate governance, she provides valuable experience to our Board of Directors. In addition, her exposure to CEOs and board members from leading global organizations, as well as world-class academics and thought leaders, provides valuable insights and perspectives to our management team.</p>

**Director Skills, Experience and Background**

MKS enables technologies that transform our world, delivering foundational technology solutions to leading edge semiconductor manufacturing, electronics and packaging, and specialty industrial applications. As we discuss below under the heading “Corporate Governance – Director Candidates,” the Nominating and Corporate Governance Committee is responsible for evaluating the appropriate skills, experience, and background that MKS seeks in Board members in the context of our business and the existing composition of the Board of Directors. This evaluation includes numerous factors, such as integrity, business acumen, knowledge of our business and industries, effectiveness, experience, diligence, conflicts of interest, and the ability to act in the interests of all shareholders.

Listed below are the skills and experience that we consider important for our directors given our current business and organizational structure. The continuing directors' and director nominees' biographies and the matrix below note each director's and director nominee's relevant experience, qualifications, and skills relative to this list.

*Skills/Competencies*

- Industry Experience

We primarily serve the semiconductor, electronics and packaging, and specialty industrial markets. Directors with education and experience in technologies in these markets provide valuable perspectives on our research and development efforts, competing technologies, the products and processes we develop, our manufacturing and assembly, and the markets in which we compete.

- Mergers and Acquisitions/Business Development Experience

Directors with a background in mergers and acquisitions and business development provide insights into developing and implementing strategies for growing our business. Useful experience in this area includes



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skills in assessing and analyzing the “fit” of a proposed acquisition with our long-term strategy, valuing transactions, and assessing management’s integration plans and overseeing integration activities for completed acquisitions into our existing operations.

- CEO/COO/CFO Experience

Directors who have served in senior leadership positions are important to us because they have the experience and perspective to analyze, shape, and oversee the execution of important operational and policy issues.

- Experienced Public Company Director

Directors with public company board experience understand the dynamics and operation of a corporate board, the relationship of a public company board to the Chief Executive Officer and other executive officers, the legal and regulatory landscape in which public companies must operate, and how to oversee an ever-changing mix of strategic, operational, and compliance-related matters.

- International Experience

We are a global organization with manufacturing, research and development, and sales offices in many countries. We sell our products to thousands of customers worldwide and a significant portion of our revenues are from sales to customers in international markets. Our manufacturing facility locations include Austria, Brazil, Canada, China, Czech Republic, France, Germany, India, Israel, Italy, Malaysia, Mexico, Romania, Singapore, South Korea, and the United States. Because of these factors, directors with international experience can provide valuable business, regulatory, and cultural perspectives regarding many important aspects of our business.

### *Functional Background*

- Accounting/Finance

Directors with knowledge of financial markets, financing operations, and accounting and financial reporting processes assist the Board of Directors with advising on and overseeing our capital structure, our financing and investing activities as well as our financial reporting and internal controls.

- Engineering/Research and Development

Our products incorporate sophisticated technologies to measure, monitor, deliver, analyze, power, control, and improve complex semiconductor and advanced manufacturing processes, thereby enhancing uptime, yield, and throughput for our customers. Following our acquisition of Atotech Limited, or Atotech, in August 2022, which we refer to as the Atotech Acquisition, we also possess a broad portfolio of specialty chemistry solutions for surface finishing, functional coating, and corrosion resistance applications. We have developed, and continue to develop, new products to address industry trends. Directors with education and experience in engineering and research and development provide valuable perspectives regarding our research and development efforts, competing technologies, the products and processes we develop, our manufacturing and assembly, and the markets in which we compete.

- Regulatory/Legal/Governance

Directors with a regulatory, legal, or governance background can assist the Board of Directors in fulfilling its oversight responsibilities regarding our compliance, engagement with regulatory authorities, and governance structure.

- Marketing/Sales

Directors with marketing, brand management and sales experience can provide expertise and guidance as we seek to expand the markets in which we compete, grow sales, and strengthen our brands.

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- [Operations](#)

As we operate in many cyclical markets, with rapid demand changes, and have a broad footprint of international manufacturing operations, understanding of and experience with manufacturing and other operational processes are valuable assets to our Board of Directors.

- [Digitization/Cybersecurity/Internet of Things](#)

The markets we serve increasingly rely on digitization and electronic connectivity as growth drivers, including, for example, the Internet of Things, or IoT. Further, we rely on various information technology networks and systems, some of which are managed by third parties, to process, transmit, and store electronic information and to carry out and support a variety of business activities. The safety and security of our digital information, and the digital information of our customers, suppliers, and other business partners, are paramount to our success. Directors who have a sophisticated understanding of global digitization and/or cybersecurity literacy can assist with the Board of Directors' oversight of driving future growth and securing our digital information in the rapidly evolving digital landscape.

### *Personal Demographics*

Representation of a mix of ages, genders, and races brings diversity of thought to the Board of Directors and helps expand the Board of Directors' understanding of the needs and perspectives of all of our stakeholders. In addition, we consider the tenure each director has on our Board of Directors to ensure the continued independence and effectiveness of the Board of Directors.

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**Board Skills Matrix**

The below matrix and the directors' biographies note each director's relevant experience, qualifications, and skills relative to the skills and experience we consider important for our directors.

	Directors								
	1	2	3	4	5	6	7	8	9
	Rajeev Batra	Peter J. Cannone III	Gerald G. Colella	Joseph B. Donahue	John T.C. Lee	Jacqueline F. Moloney	Elizabeth A. Mora	Michelle M. Warner	Geoffrey Wild
<b>SKILL/COMPETENCIES</b>									
• Industry Experience	✓		✓	✓	✓			✓	✓
• M&A/Business Development Experience		✓	✓	✓	✓	✓		✓	✓
• CEO/COO/CFO Experience	✓	✓	✓	✓	✓	✓	✓		✓
• Experienced Public Company Director	✓		✓			✓	✓		✓
• International Experience		✓	✓	✓	✓	✓		✓	✓
<b>FUNCTIONAL BACKGROUND</b>									
• Accounting/Finance							✓		
• Engineering/R&D	✓			✓	✓				✓
• Regulatory/Legal/Governance							✓	✓	
• Marketing/Sales	✓	✓	✓						✓
• Operations	✓		✓	✓					
• Digitization/Cybersecurity/IoT	✓						✓		
<b>PERSONAL DEMOGRAPHICS</b>									
• Tenure (years)	5	2	9	3	3	7	11	4	0
• Age	55	57	66	64	60	69	62	56	66

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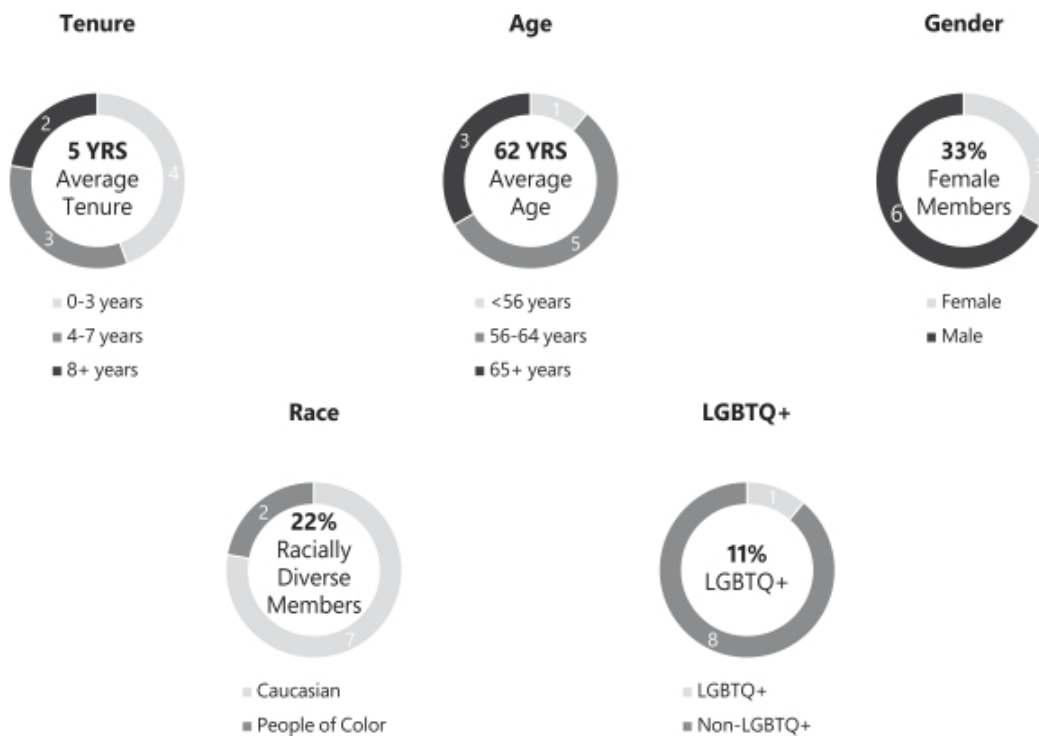
**Board Diversity Matrix**

The below matrix shows diversity statistics for our directors as of April 5, 2023.

Total Number of Directors	9			
	Female	Male	Non-Binary	Did Not Disclose Gender
<b>PART I: Gender Identity</b>				
• Directors	3	6	—	—
<b>PART II: Demographic Background</b>				
• African American or Black	—	—	—	—
• Alaskan Native or Native American	—	—	—	—
• Asian	0	2	—	—
• Hispanic or Latinx	—	—	—	—
• Native Hawaiian or Pacific Islander	—	—	—	—
• White	3	4	—	—
• Two or More Races or Ethnicities	—	—	—	—
• LGBTQ+			1	
• Did Not Disclose Demographic Background			—	

### Demographic Ratio Graphs

The following demographic ratio graphs show data for our directors.



## PROPOSAL TWO – ADVISORY VOTE ON EXECUTIVE COMPENSATION

The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, or the Dodd-Frank Act, enables our shareholders to vote to approve, on a non-binding, advisory basis, the compensation of our Named Executive Officers as disclosed in this proxy statement under the heading “Executive Compensation,” including “Compensation Discussion and Analysis,” the tabular disclosure regarding such compensation, and the accompanying narrative disclosure. This vote is not intended to address any specific item of compensation but rather the overall compensation of our Named Executive Officers and the philosophy, policies, and practices of executive compensation described in this proxy statement. The advisory vote is not a vote on our compensation practices for non-executive employees or our Board of Directors. The Dodd-Frank Act requires the Company to hold the advisory vote on executive compensation at least once every three years, but we have elected to submit the advisory vote to shareholders annually.

As described in detail under the heading “Executive Compensation — Compensation Discussion and Analysis,” our executive compensation program is designed to attract, motivate, and retain our executive officers, who are critical to our success. Under this program, our executive officers are rewarded for the achievement of specific short-term and long-term goals. Please see the “Compensation Discussion and Analysis” for additional details about our executive compensation program and philosophy, including information about the compensation of our Named Executive Officers.

The Compensation Committee continually reviews the compensation program for our executive officers to ensure it achieves the desired goals of aligning our executive compensation structure with our shareholders’ interests and current market practices. At the 2022 Annual Meeting of Shareholders, our shareholders overwhelmingly approved our executive compensation, with over 97% of the votes cast voting in favor of the “say-on-pay” proposal. The Compensation Committee considered the results of the 2022 “say-on-pay” vote, and based upon strong shareholder support, determined that our executive compensation program did not require any material changes in response to the 2022 “say-on-pay” vote.

Our Board of Directors is asking shareholders to approve a non-binding advisory vote on the following resolution:

RESOLVED, that the compensation paid to the Company’s Named Executive Officers, as disclosed pursuant to the compensation disclosure rules of the SEC, including the Compensation Discussion and Analysis, the compensation tables, and any related material disclosed in this proxy statement, is hereby approved.

This vote on the compensation of our Named Executive Officers is advisory, and therefore not binding on the Company, the Compensation Committee, or our Board of Directors. Our Board of Directors and our Compensation Committee value the opinions of our shareholders and, to the extent there is any significant vote against the Named Executive Officers’ compensation as disclosed in this proxy statement, we will consider our shareholders’ concerns and the Compensation Committee will evaluate whether any actions are necessary to address those concerns.

**THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSAL TO APPROVE, ON A NON-BINDING ADVISORY BASIS, THE EXECUTIVE COMPENSATION CONTAINED IN THIS PROXY STATEMENT IS IN THE BEST INTERESTS OF MKS AND OUR SHAREHOLDERS AND THEREFORE RECOMMENDS A VOTE “FOR” THIS PROPOSAL.**

## **PROPOSAL THREE – ADVISORY VOTE REGARDING FREQUENCY OF ADVISORY VOTES ON EXECUTIVE COMPENSATION**

We are also asking shareholders to cast a non-binding, advisory vote on whether an advisory vote to approve the compensation of our Named Executive Officers as described in Proposal Two above (“say-on-pay vote”) should take place every year, every two years, or every three years.

Currently, a say-on-pay vote is submitted to our shareholders every year. The advisory vote on the frequency of the say-on-pay vote is a non-binding vote as to how often the say-on-pay vote should occur: every year, every two years, or every three years. Section 14A of the Securities Exchange Act of 1934, as amended, or the Exchange Act, requires us to submit a non-binding advisory vote on the frequency of the say-on-pay vote at least once every six years to determine whether advisory votes on executive compensation, such as Proposal Two, should be held every one, two or three years. On May 10, 2017, we held an annual meeting of shareholders at which shareholders voted on, among other matters, a non-binding proposal regarding the frequency of future say-on-pay votes. At that meeting, a majority of the votes cast on the frequency proposal were cast in favor of holding annual say-on-pay votes, and after considering the voting results, our Board of Directors decided to conduct an advisory vote on the compensation of our Named Executive Officers on an annual basis until the next advisory vote on the frequency of such say-on-pay votes.

After careful consideration, our Board of Directors has determined that a non-binding, advisory vote on executive compensation that occurs on an annual basis continues to be the most appropriate option for the Company, and therefore our Board of Directors recommends that shareholders approve continuing to hold the advisory vote on the compensation of our Named Executive Officers every year.

In formulating its recommendation, our Board of Directors considered that an annual say-on-pay vote will allow our shareholders to provide us with their direct input on our compensation philosophy, policies, and practices as disclosed in our proxy statement every year. While the Company currently recommends a vote in favor of an annual vote, you may cast your vote on your preferred voting frequency by choosing the option of one year, two years, three years or abstaining from voting when you vote on this proposal. However, because this vote is advisory and non-binding, the Board of Directors may decide that it is in the best interests of our shareholders and the Company to hold a say-on-pay vote more or less frequently than the option approved by our shareholders.

**THE BOARD OF DIRECTORS BELIEVES THAT HAVING AN ADVISORY VOTE TO APPROVE EXECUTIVE COMPENSATION ONCE EVERY YEAR IS IN THE BEST INTERESTS OF MKS AND OUR SHAREHOLDERS AND THEREFORE RECOMMENDS A VOTE “FOR” AN ADVISORY VOTE ON EXECUTIVE COMPENSATION ONCE EVERY YEAR.**

## PROPOSAL FOUR – RATIFICATION OF SELECTION OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Our Audit Committee has selected PricewaterhouseCoopers LLP, or PwC, as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2023. PwC was our independent registered public accounting firm for the fiscal year ended December 31, 2022.

Representatives of PwC have been invited to and are expected to attend the 2023 Annual Meeting. They will have the opportunity to make a statement if they so desire and will be available to respond to appropriate questions from shareholders. In the event that the ratification of the selection of PwC as our independent registered public accounting firm is not obtained at the 2023 Annual Meeting, the Board of Directors will reconsider its appointment.

**THE BOARD OF DIRECTORS BELIEVES THAT THE PROPOSAL TO RATIFY THE SELECTION OF PWC AS OUR INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2023 IS IN THE BEST INTERESTS OF MKS AND OUR SHAREHOLDERS AND THEREFORE RECOMMENDS A VOTE "FOR" THIS PROPOSAL.**

## CORPORATE GOVERNANCE

### Board Independence

The Board of Directors has determined that all of the members of the Board of Directors, other than Mr. Colella and Dr. Lee, are independent as defined under applicable Nasdaq rules. Mr. Colella is not independent as he received a retirement payment from the Company in July 2020 in connection with his previous role as our Chief Executive Officer, and under applicable Nasdaq rules, there is a three-year look-back period from the determination of independence that is applicable to such payment. Dr. Lee is not independent as he currently serves as our President and Chief Executive Officer.

### Board Leadership Structure

Since 2005, we have separated the roles of Chief Executive Officer and Chair of the Board of Directors in recognition of the differences between the two roles. The Chief Executive Officer is responsible for setting the strategic direction of the Company and the day-to-day leadership and performance of the Company, while the Chair of the Board of Directors provides guidance to the Chief Executive Officer, sets the agenda for Board meetings, and presides over meetings of the Board of Directors.

In addition, our Corporate Governance Guidelines provide that during any period in which the Chair of the Board of Directors is not an independent director, and in such other instances as the Board of Directors may determine from time to time, a Lead Director shall be elected by and from the independent directors. As Mr. Colella, the Chair of our Board of Directors, is not independent, we are currently obligated under our Corporate Governance Guidelines, which are posted on our website at [www.mks.com/corporate-governance](http://www.mks.com/corporate-governance) under Corporate Governance Documents, to have a Lead Director. Dr. Moloney has served as our Lead Director since 2020.

The primary role of the Lead Director is to serve as a liaison between the independent directors and the Chair of the Board of Directors and/or the Chief Executive Officer and to represent the independent directors, as appropriate. Pursuant to our Corporate Governance Guidelines, the Lead Director shall, among other matters:

- have the authority to call meetings of the independent directors;
- preside at all meetings of the Board of Directors at which the Chair of the Board of Directors is not present;
- assure that at least two meetings per year of only the independent directors are held and chair any such meetings;



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- facilitate communications and serve as a liaison between the independent directors and the Chair of the Board of Directors and/or the Chief Executive Officer, provided that any director is free to communicate directly with the Chair of the Board of Directors and with the Chief Executive Officer;
- work with the Chair of the Board of Directors and the Chief Executive Officer in the preparation of the agenda for each Board of Directors meeting and approve each such agenda;
- if a meeting is held between a major shareholder and a representative of the independent directors, the Lead Director shall serve, subject to availability, as such representative of the independent directors; and
- otherwise consult with the Chair of the Board of Directors and the Chief Executive Officer on matters relating to corporate governance and performance of the Board of Directors.

Our Board of Directors believes that its leadership structure is appropriate at this time for our Company because it strikes an effective balance between management and independent leadership participation in the Board of Directors' process.

### **Communications from Shareholders**

The Board of Directors will give attention to written communications that are submitted by shareholders and will respond if appropriate. The Chair of the Nominating and Corporate Governance Committee, with the assistance of our General Counsel, is primarily responsible for monitoring communications from shareholders and for providing copies or summaries to the other directors as he or she considers appropriate. Communications are forwarded to all directors if they relate to important substantive matters and include suggestions or comments that the Chair of the Nominating and Corporate Governance Committee considers to be important for the directors to know. In general, communications relating to corporate governance and long-term corporate strategy are more likely to be forwarded than communications relating to ordinary business affairs, personal grievances, and matters as to which we tend to receive repetitive or duplicative communications.

Shareholders who wish to send communications on any topic to the Board of Directors should address such communications to the Board of Directors in care of Kathleen F. Burke, Esq., Executive Vice President, General Counsel and Secretary, MKS Instruments, Inc., 2 Tech Drive, Suite 201, Andover, MA 01810.

### **Code of Business Conduct and Ethics**

We have adopted a Code of Business Conduct and Ethics that applies to all of our directors, officers, and employees (including the principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions), which is posted on our website at [www.mks.com/corporate-governance](http://www.mks.com/corporate-governance) under Corporate Governance Documents. We intend to disclose on our website any amendments to, or waivers for our executive officers or directors from, our Code of Business Conduct and Ethics.

### **Board's Role in Risk Oversight**

Management is responsible for the day-to-day management of risks the Company faces, while the Board of Directors, as a whole and through its committees, has the ultimate responsibility for the oversight of risk management. Senior management attends quarterly meetings of the Board of Directors, provides presentations on operations, including significant risks, and is available to address any questions or concerns raised by the Board of Directors. Additionally, our three standing board committees assist the Board of Directors in fulfilling its oversight responsibilities in certain areas of risk. Pursuant to its charter, the Audit Committee coordinates the Board of Directors' oversight of the Company's internal controls over financial reporting, disclosure controls and procedures, and code of business conduct and ethics. The Audit Committee also is responsible for discussing the Company's policies with respect to financial risk assessment and financial risk management and overseeing the steps management has taken with respect to data privacy and cybersecurity risk exposure. Management regularly reports to the Audit Committee on these areas. The Compensation Committee assists the Board of Directors in fulfilling its oversight responsibilities with respect to the management of risks arising from our compensation policies and programs as well as succession planning. The Nominating and Corporate Governance Committee assists the Board of Directors in fulfilling its oversight responsibilities with respect to the management of risks associated with board organization, membership and structure, succession planning for our directors, corporate governance, and environmental, social and governance, or ESG, including climate-related risks.

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In addition, from time to time, the Board of Directors may constitute a special committee to focus on a particular matter or risk. As previously disclosed, on February 3, 2023, we identified that we had become subject to a ransomware event and took immediate action to activate our incident response and business continuity protocols to contain the incident. Our Board of Directors responded quickly and constituted a special committee of the Board for cybersecurity, which included Mr. Colella, the Chair of our Board, Ms. Mora, the Chair of our Audit Committee, and Mr. Cannone and Mr. Donahue, each a member of our Audit Committee, to oversee the investigation, recovery, and restoration phases following the incident. The special committee held 15 meetings during the first two months following the identification of the incident. At these meetings, our Chief Executive Officer, our Chief Financial Officer, our General Counsel, our Executive Vice President of Operations and Corporate Marketing, and our Chief Information Officer reported to the special committee on various aspects of the incident, including the IT forensic investigation, business restoration and recovery activities, and the impact of the incident on our annual audit and assessment of internal controls as well as the filing of our Annual Report on Form 10-K for the year ended December 31, 2022. The Special Committee continues to oversee the response to the incident.

When any of the committees receives a report related to material risk oversight, the chair of the relevant committee reports on the discussion to the full Board of Directors.

### **Transactions with Related Persons**

Our code of business conduct and ethics sets forth the general principle that our directors, officers, and employees should refrain from engaging in any activity having a personal interest that presents a conflict of interest. The code of business conduct and ethics prohibits directors, officers, and employees from engaging in any activity that may reasonably be expected to give rise to a conflict of interest or to adversely affect our interests. The code of business conduct and ethics provides that all employees are responsible for disclosing to the Company any transaction or relationship that reasonably could be expected to give rise to a conflict of interest, and executive officers and directors must report such transactions to the Board of Directors, which shall be responsible for determining whether such transaction or relationship constitutes a conflict of interest.

In addition, our written Related Person Transaction Procedures set forth the procedures for reviewing transactions that could be deemed to be “related person transactions” (defined as transactions required to be disclosed pursuant to Item 404 of Regulation S-K of applicable U.S. Securities and Exchange Commission, or SEC, regulations). In accordance with these procedures, directors and executive officers are required to submit annual certifications regarding interests and affiliations held by them and certain of their family members. We then review our records to determine whether we have engaged in any transactions since the beginning of our prior fiscal year with such affiliated persons and entities or with any person or entity known by MKS to be the beneficial owner of more than 5% of our voting securities, and provide a summary to the Audit Committee of any such material transaction in which the related person has a direct or indirect interest. In accordance with the procedures, the Audit Committee reviews any such transactions (including, but not limited to, transactions constituting related person transactions). In reviewing any such transaction, the Audit Committee considers, among other things, the related person’s interest in the transaction, the approximate dollar value of the transaction, whether the transaction was undertaken in the ordinary course of business, whether the terms of the transaction were at arm’s length, the purpose and potential benefits to the Company of the transaction, and whether the transaction is in the best interests of the Company. The Audit Committee may, in its sole discretion, impose such conditions as it deems appropriate in connection with any related person transaction. In accordance with the Audit Committee charter, the Audit Committee reviews the Related Person Transaction Procedures from time to time.

Mr. Wild, a director of the Company, was President and Chief Executive Officer and a director of Atotech prior to the closing of the Atotech Acquisition for a total purchase price of \$5.7 billion. As a result of the termination of Mr. Wild’s employment immediately prior to the closing of the Atotech Acquisition, under the terms of his Atotech employment agreement and his Atotech award agreements for time-based restricted stock units and performance-based restricted stock units, Mr. Wild received approximately \$4.5 million immediately following the Atotech Acquisition and will receive approximately \$1.1 million on the 18-month anniversary of the Atotech Acquisition.

Carlyle Partners VI Cayman Holdings, L.P., CEP IV Participations, S.à r.l. SICAR, and Gamma Holding Company Limited, which we refer to collectively as Carlyle, collectively beneficially owned approximately 13% of the Company’s outstanding voting shares as of March 8, 2023, based on a filing they made with the SEC. Carlyle was the controlling shareholder of Atotech prior to the Atotech Acquisition. In connection with the Atotech Acquisition,

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on the closing date of the Atotech Acquisition, the Company and Carlyle entered into an investment rights agreement, pursuant to which the Company granted Carlyle certain registration rights with respect to the shares of Common Stock Carlyle received as a result of the Atotech Acquisition, or the Company Shares.

Wellington Management Group LLP, Wellington Group Holdings LLP, Wellington Investment Advisors Holdings LLP, and Wellington Management Company LLP, which we refer to collectively as the Wellington Group, previously collectively beneficially owned more than 5% of the Company's outstanding voting shares. Based on filings they made with the SEC, the Wellington Group collectively beneficially owned approximately 8% of the Company's outstanding voting shares as of March 2, 2022 and approximately 3% of the Company's voting shares as of March 8, 2023. Wellington Management LLP, an affiliate of the Wellington Group, managed a cash and investment account of MKS with an average cash balance of approximately \$306 million in 2022 before MKS withdrew all funds from the account in October 2022. MKS paid Wellington Management LLP approximately \$257,000 for these cash and investment management services in 2022. Wellington Management LLP was required to manage this account in accordance with, and subject to, the Company's Corporate Investment Policy, which establishes clear guidelines for acceptable investments.

As part of our Related Person Transaction Procedures, our Audit Committee reviewed the foregoing relationships with Mr. Wild, Carlyle, and the Wellington Group.

### **Board of Director Meetings and Committees of the Board of Directors**

The Board of Directors held nine meetings in 2022. During 2022, each director attended at least 75% of the aggregate of the total number of meetings of the Board of Directors and the total number of meetings of all committees of the Board of Directors on which he or she served. Pursuant to our Corporate Governance Guidelines, directors are encouraged to attend our annual meeting of shareholders. All of the directors then serving on the Board of Directors attended the 2022 Annual Meeting of Shareholders.

The Board of Directors has established three standing committees — Audit, Compensation, and Nominating and Corporate Governance — each of which operates under a charter that has been approved by the Board of Directors. Each committee's current charter is posted on our website at [www.mks.com/corporate-governance](http://www.mks.com/corporate-governance) under Corporate Governance Documents.

#### **Audit Committee**

The Audit Committee consists of Ms. Mora (Chair), Mr. Cannone, Mr. Donahue, and Mr. Wild. Mr. Wild joined the Audit Committee in October 2022, shortly after he joined the Board of Directors. The Board of Directors has determined that each of Ms. Mora and Mr. Cannone is an "audit committee financial expert" as defined in applicable SEC regulations. Each member of the Audit Committee also meets the requirements for independence under applicable Nasdaq and SEC rules. The Audit Committee's responsibilities include:

- appointing, approving the fees of, assessing the independence of, evaluating, retaining and, when necessary, terminating the engagement of our independent registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of certain reports from the independent registered public accounting firm;
- reviewing and discussing our annual audited financial statements and related disclosures with management and the independent registered public accounting firm;
- reviewing our quarterly unaudited financial statements;
- coordinating oversight of our internal controls over financial reporting, disclosure controls and procedures, and code of business conduct and ethics;
- overseeing our internal audit function;
- discussing our policies with respect to financial risk assessment and financial risk management;
- establishing procedures for the receipt and retention of accounting-related complaints and concerns;
- discussing our earnings press releases in advance of public disclosure, as well as generally discussing the types of financial information and earnings guidance, including "pro forma" and other "adjusted" non-GAAP information, provided to analysts, rating agencies, and others;

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- meeting independently with our internal audit staff, independent registered public accounting firm, and management;
- reviewing our procedures for reviewing related person transactions, recommending any changes to these procedures, and reviewing any related person transactions;
- reviewing and approving our corporate investment policy, including our hedging policy;
- reviewing and approving derivative financial instruments, including those subject to mandatory clearing;
- overseeing the work of management to monitor and control data privacy and cybersecurity risk exposure;
- reviewing with management our overall tax strategy, including areas requiring significant judgment or risk; and
- preparing the Audit Committee report required to be included in the annual proxy statement.

The Audit Committee held five meetings in 2022.

### **Compensation Committee**

The Compensation Committee consists of Mr. Batra (Chair), Dr. Moloney, and Ms. Mora. Each member of the Compensation Committee meets the requirements for independence under applicable Nasdaq and SEC rules. The Compensation Committee's responsibilities include:

- reviewing and approving the compensation of our Chief Executive Officer, our other executive officers and, at the discretion of the Compensation Committee, other direct reports to our Chief Executive Officer;
- overseeing the evaluation of our Chief Executive Officer, our other executive officers and, at the discretion of the Compensation Committee, other direct reports to our Chief Executive Officer;
- overseeing our Chief Executive Officer and our other executives' succession planning;
- periodically reviewing and approving our management incentive bonus plans;
- overseeing the risks associated with our compensation policies and practices and annually reviewing whether such policies and practices are reasonably likely to have a material adverse effect on the Company;
- reviewing the Compensation Discussion and Analysis required to be included in the annual proxy statement;
- preparing the annual Compensation Committee Report required to be included in the annual proxy statement;
- overseeing and administering our equity incentive plans;
- reviewing the results of advisory shareholder votes on executive compensation and recommending how frequently the Company should conduct such votes;
- overseeing our stock ownership guidelines and monitoring compliance therewith;
- reviewing and approving our clawback policy and monitoring compliance therewith;
- overseeing, reviewing, and reporting to the Board on the development, implementation, and effectiveness of the Company's initiatives and strategies regarding human capital management;
- reviewing and making recommendations to the Board of Directors with respect to director compensation; and
- appointing, compensating, assessing the independence of, and overseeing the work of any compensation consultant.

The Compensation Committee held six meetings in 2022. See the section below entitled "Executive Compensation — Compensation Discussion and Analysis" for further information about the role of the Compensation Committee and the scope of its activities.

### *Compensation Risk Assessment*

Our Compensation Committee engaged its independent compensation consultant, Pearl Meyer & Partners, LLC, or Pearl Meyer, to conduct a risk assessment of our compensation programs and practices to understand if any risks exist that are reasonably likely to have a material adverse effect on our Company, and the results were reviewed by our Compensation Committee. Based on this assessment, our Compensation Committee concluded that our compensation programs and practices, as a whole, are appropriately structured and do not pose a material risk to our Company. Our compensation programs are intended to reward our executive officers and other employees for strong performance over the long-term, with consideration to short-term actions and results that strengthen and grow our Company. We believe our compensation programs provide the appropriate balance between short-term and long-term incentives, focusing on sustainable and profitable growth for our Company.

### *Compensation Committee Interlocks and Insider Participation*

In 2022, Mr. Batra, Dr. Moloney, and Ms. Mora served on the Compensation Committee. None of the members of the Compensation Committee during 2022 were, at any time, officers or employees of MKS or our subsidiaries, and none of them had any relationship with us requiring disclosure under applicable SEC rules and regulations. None of our executive officers serves, or has served, as a member of the Board of Directors or Compensation Committee (or other committee serving an equivalent function) of any other entity which has one or more executive officers serving as a member of our Board of Directors or Compensation Committee.

### **Nominating and Corporate Governance Committee**

The Nominating and Corporate Governance Committee consists of Dr. Moloney (Chair), Mr. Batra, and Ms. Warner. Each member of the Nominating and Corporate Governance Committee meets the requirements for independence under applicable Nasdaq and SEC rules. The Nominating and Corporate Governance Committee's responsibilities include:

- identifying individuals qualified to become members of the Board of Directors, consistent with criteria approved by the Board of Directors;
- recommending to the Board of Directors the persons to be nominated for election as directors and to each of the committees of the Board of Directors, including the director recommended to serve as chair of each committee;
- designating a Lead Director (if any), subject to the approval of the independent directors;
- reviewing each director's continuation on the Board of Directors at least once every three years;
- overseeing the director succession planning process;
- reviewing each director's independence under Nasdaq listing standards and the applicable rules of the SEC;
- overseeing corporate governance policies and reviewing the Company's charter, by-laws, corporate governance guidelines and other key corporate governance policies, including reviewing and monitoring compliance with the Company's overboarding policy;
- overseeing, reviewing, and reporting to the Board of Directors on the Company's ESG strategy, goals, and initiatives, including climate-related risks and opportunities;
- retaining and terminating any search firm to be used to identify director nominees;
- periodically reviewing the Board of Directors' leadership structure to assess whether it is appropriate;
- conducting the annual evaluations of the Board of Directors, each of the committees of the Board of Directors and the directors who are up for nomination; and
- monitoring communications from shareholders and other interested parties, including shareholder proposals, such as those related to ESG.

The Nominating and Corporate Governance Committee held three meetings in 2022.

For information relating to the nomination of directors, see "Director Candidates" below.

## Director Candidates

The Nominating and Corporate Governance Committee recommended to the Board of Directors that the director nominees be nominated by the Board of Directors for election as Class III Directors. The Nominating and Corporate Governance Committee utilizes a number of processes to identify and evaluate director candidates, including the engagement of a third-party executive search firm and other resources to identify potential director candidates, as needed. Activities relating to identifying and selecting nominees include Board assessments of each incumbent director nominee for the current year, requests to Board members and others for recommendations of potential candidates, meetings from time to time to evaluate biographical information and background material relating to potential candidates, and interviews of selected candidates by the members of the Nominating and Corporate Governance Committee and other members of the Board of Directors. The Nominating and Corporate Governance Committee recommended to the Board of Directors the nomination of Mr. Cannone and Mr. Donahue for election at the 2023 Annual Meeting.

In considering whether to recommend any particular candidate for inclusion in the Board of Directors' slate of recommended director nominees, the Nominating and Corporate Governance Committee applies the criteria attached to the Company's Corporate Governance Guidelines. These criteria include the candidate's integrity, business acumen, knowledge of our business and industries, effectiveness, experience, diligence, conflicts of interest, and the ability to act in the interests of all shareholders. The Nominating and Corporate Governance Committee does not assign specific weights to particular criteria and no particular criterion is a prerequisite for each prospective nominee. The Nominating and Corporate Governance Committee also assesses the candidate's professional background and skills against those of the existing Board members to ensure a breadth and diversity of expertise that suits the Company's current and future business risks, industries, and challenges. See "Directors — Board Skills Matrix." Nominees shall not be discriminated against on the basis of race, religion, national origin, sex, sexual orientation, disability, or any other basis proscribed by law. While the Nominating and Corporate Governance Committee does not have a formal policy with respect to diversity, the Board of Directors and the Nominating and Corporate Governance Committee believe that it is essential that the members of the Board of Directors represent diverse viewpoints, and the Nominating and Corporate Governance Committee actively seeks diverse candidates for the pool from which candidates are chosen. In considering candidates for the Board of Directors, the Nominating and Corporate Governance Committee considers the entirety of each candidate's credentials in the context of these standards. We believe that the backgrounds and qualifications of our directors, considered as a group, should provide a composite mix of experience, knowledge, and abilities that will allow the Board of Directors to fulfill its responsibilities.

Shareholders may recommend individuals to the Nominating and Corporate Governance Committee for consideration as potential director candidates by submitting their names, together with appropriate biographical information and background material and a statement as to whether the shareholder or group of shareholders making the recommendation has beneficially owned at least \$2,000 in market value or 1% of our Common Stock, whichever is less, for at least a year as of the date such recommendation is made, to the Nominating and Corporate Governance Committee, in care of Kathleen F. Burke, Esq., Executive Vice President, General Counsel and Secretary, MKS Instruments, Inc., 2 Tech Drive, Suite 201, Andover, MA 01810. Assuming that appropriate biographical and background material has been provided on a timely basis, the Nominating and Corporate Governance Committee will evaluate shareholder-recommended candidates by following substantially the same process, and applying the same criteria, as it does in considering other candidates.

Shareholders also have the right under our By-Laws to directly nominate director candidates, without any action or recommendation on the part of the Nominating and Corporate Governance Committee or the Board of Directors, by following the procedures set forth under the heading "Deadline for Submission of Shareholder Proposals for the 2024 Annual Meeting" below.

## ENVIRONMENTAL, SOCIAL, AND GOVERNANCE

### Governance

ESG is a key priority for MKS and our leaders. As such, our ESG Program and overall ESG Management System is overseen by the CEO and the Nominating and Corporate Governance Committee.

MKS' cross-functional ESG Steering Committee meets throughout the year, and sets program strategy, defines annual objectives, provides guidance on high-level tactics to achieve its stated objectives, communicates the ESG Program to internal and external stakeholders, and monitors ESG industry trends. In accordance with its charter, the Nominating and Corporate Governance Committee also reviews and reports to the Board of Directors on the Company's ESG strategy, goals, and initiatives, including climate-related risks and opportunities as well as the impact of other ESG issues on the Company.

In addition, our leadership approach is based on our commitment to conduct business with the highest standards of integrity. Our Code of Business Conduct and Ethics and our Human Rights and Labor Standards Policy are designed to ensure that we deliver on this commitment every day.

### Human Capital Management

We are committed to our people and strive to foster a diverse, equitable, and inclusive community, invest in continuous learning and development, engage meaningfully with employees, offer a competitive compensation and benefits program, and provide a safe and healthy workplace. We believe that diversity of gender, race, ethnicity, sexual orientation, culture, education, background, and experience fuels innovation and results as well as enables our employees to succeed. Our executive team is comprised of 22% female members and 22% racially diverse members, our Board of Directors is comprised of 33% female members, 22% racially diverse members and 11% LGBTQ+ members, and our Lead Director is a woman.

In 2022, we continued to offer diversity, equity and inclusion, or DE&I, training for all employees and bias awareness training for our global talent acquisition and management teams. We proactively provide our hiring managers with diverse candidate slates in our employee recruiting process and, in accordance with our Corporate Governance Guidelines, seek diverse candidates for the pool from which our Board of Director nominees are chosen. We also regularly conduct robust analyses of pay practices across gender globally and other diversity factors within the United States to detect any existing disparities within base and total compensation, taking prompt and effective action to correct any identified disparities.

MKS is committed to investing in learning and professional development. Our employees have access to a wide range of programs, classes, and resources to help them excel in their careers and share what they learn with their colleagues. Our performance management process includes performance feedback and career development discussions that are dynamic and actionable throughout the year. In 2022, we continued to broadly roll out courses to develop our focus on employee engagement, change management, and leadership excellence. Over the past three years, approximately 320 of our leaders around the world also completed a six-week DE&I course hosted by a consulting firm recognized as best-in-class in the area of DE&I capability building. In addition, we provide financial support for college and graduate education for U.S. employees and access to online learning for all employees in local languages to help further the careers of our entire workforce.

In 2022, we engaged a firm that specializes in corporate culture to conduct a global survey on company culture, in order to understand the values, beliefs, and behaviors that shape our organization. The results of the survey are expected to inform how we manage our business and build relationships. In addition, in 2022, MKS conducted its second annual global employee engagement survey, which, due to the timing of the closing of the Atotech Acquisition, did not include Atotech employees. The results of the survey were thoroughly assessed and shared with our CEO and executive leadership team as well as our Board of Directors, and areas of focus for the coming year were identified and communicated to employees. In 2023, we plan to include all employees in our third annual global employee engagement survey, using the feedback we receive to examine current practices and drive new initiatives. MKS is also committed to providing total compensation packages that attract, motivate, and retain our employees, as well as recognizing and rewarding each employee's sustained performance and results. In



addition, we are committed to ensuring that our total compensation packages are externally competitive while supporting our business plans and strategies. As employee turnover is an indicator of employee satisfaction, we monitor turnover globally. MKS has a very stable and committed workforce, as evidenced by low voluntary turnover. Our 12-month rolling average for voluntary turnover at the end of 2022 was below 6%. Our employee average tenure is more than nine years.

### **Health & Safety**

MKS is committed to providing a safe and healthy workplace for all employees. We accomplish this through compliance with applicable laws and regulations regarding workplace safety, including recognition and control of workplace hazards, tracking injury and illness rates, and maintaining detailed emergency and business continuity plans. We also offer employees and eligible family members a full range of health and wellness programs, as well as many clinical and administrative services.

In 2022, we instituted a formal Global MKS Management System for Environmental, Health, and Safety to protect our employees, other stakeholders, and the environment. We are implementing this strong foundation for MKS' corporate Environmental, Health, and Safety system in a stepwise process across the organization into 2026.

### **Environmental Management**

We value the environment and the communities in which we live and work. We are committed to operating our business in an environmentally and socially responsible manner, in tandem with our employees, customers, suppliers, and communities.

Innovation is a key part of our ability to sustain our product differentiation and increase our relevance to customers. Our products are used in a broad range of industries and applications. In particular, our products contribute to indirectly driving positive environmental and social impact and progress, including through supporting the development of renewable energy infrastructure, enhancing health and safety for the customers who use our products, and increasing customers' energy and water efficiencies in certain production processes.

As reported in our 2022 Environmental, Social, Governance Report, we were able to significantly increase the data coverage of our collection efforts for our greenhouse gas emissions, energy usage, and water usage across our sites in 2021. We assessed the Scope 3 emissions categories relevant to us and collected and calculated Scope 3 emissions metrics for not only business travel but also upstream transportation and distribution. We aim to continue evaluating and reporting on additional Scope 3 emissions categories that are applicable to our business. In addition, with a better understanding of our Scope 1 and 2 emissions baseline in 2021, we are engaging with our internal teams to develop a plan for how to reduce our operational emissions across the business. Following the Atotech Acquisition in August 2022, we are consolidating the environmental metrics for all of MKS and have begun working on developing emission reduction targets for the entire company.

Over the past few years, MKS' business has evolved, and with the Atotech Acquisition, continues to grow in ways that we believe drive value for our stakeholders. While there have been many exciting developments at MKS, one goal remains the same: developing products that enable our customers to be more successful, our planet more sustainable, and our communities safer and more productive.

Additional information regarding MKS' activities related to its people and sustainability can be found in our 2022 Environmental, Social, Governance Report, which is accessible through the ESG section of our website at [www.mks.com/environmental-social-governance](http://www.mks.com/environmental-social-governance). Our Environmental, Social, Governance Report is updated periodically.



## DIRECTOR COMPENSATION

### Cash Compensation

The following table summarizes the cash compensation payable by us to non-employee directors in 2022:

	<u>Annual Retainer</u>
Base Retainer for All Non-Employee Board Members	\$70,000
<i>Additional Retainers for Services:</i>	
Chair	\$75,000
Lead Director	\$25,000
Audit Committee Chair	\$25,000
Other Audit Committee Members	\$12,500
Compensation Committee Chair	\$20,000
Other Compensation Committee Members	\$10,000
Nominating and Corporate Governance Committee Chair	\$15,000
Other Nominating and Corporate Governance Committee Members	\$ 7,500

In October 2022, following the Atotech Acquisition, the Board of Directors, upon the recommendation of the Compensation Committee, approved several changes to our non-employee director cash compensation program. The Compensation Committee recommended these changes after reviewing a competitive analysis of director compensation programs of our peer group prepared by the Committee's independent compensation consultant, Pearl Meyer, and finding that certain components of board compensation fell below the median of our peer group. The table below sets forth the cash compensation payable by us to non-employee directors under the new cash compensation program effective as of January 1, 2023:

	<u>Annual Retainer</u>
Base Retainer for All Non-Employee Board Members	\$ 85,000
<i>Additional Retainers for Services:</i>	
Chair	\$105,000
Lead Director	\$ 30,000
Audit Committee Chair	\$ 25,000
Other Audit Committee Members	\$ 12,500
Compensation Committee Chair	\$ 20,000
Other Compensation Committee Members	\$ 10,000
Nominating and Corporate Governance Committee Chair	\$ 15,000
Other Nominating and Corporate Governance Committee Members	\$ 7,500

Retainers are pro-rated based on the time a director serves in the capacities listed. In addition, from time to time, the Board of Directors may establish special committees related to specific matters and may include a retainer for service on such special committees in its discretion.

### Equity Compensation

Non-employee directors are eligible for awards under our 2022 Stock Incentive Plan, which is administered by the Compensation Committee. In 2022, under our director compensation program, non-employee directors received automatic grants of restricted stock units, or RSUs, on the date of the 2022 Annual Meeting of Shareholders, with a grant date value of \$200,000, which RSUs shall vest in full on the day prior to the 2023 Annual Meeting.

If a new non-employee director joins our Board of Directors after our annual meeting of shareholders but before January 1st of the following year, he or she will be entitled to an initial RSU grant with a value equal to the annual RSU grant. In the event a non-employee director joins our Board of Directors during the period from January 1st through the date of that year's annual meeting of shareholders, he or she will not be entitled to an initial RSU grant but will be entitled to the annual RSU grant on the date of the annual meeting of shareholders.

**Director Compensation Table for 2022**

The following table summarizes compensation earned by or paid to non-employee directors in 2022. Dr. Lee is excluded from the table because he was an executive officer in 2022 and his compensation is set forth in the Executive Compensation section below, under the heading “Executive Compensation Tables — Summary Compensation Table for 2022.”

<b>Name</b>	<b>Fees Earned or Paid in Cash (\$)</b>	<b>Stock Awards (\$)(1)</b>	<b>Total (\$)</b>
Rajeev Batra	\$ 97,500	\$ 200,000	\$297,500
Peter J. Cannone III	\$ 88,500(2)	\$ 200,000	\$288,500
Gerald G. Colella	\$ 151,000(2)(3)	\$ 200,000	\$351,000
Joseph B. Donahue	\$ 88,500(2)	\$ 200,000	\$288,500
Jacqueline F. Moloney	\$ 120,000	\$ 200,000	\$320,000
Elizabeth A. Mora	\$ 105,000	\$ 200,000	\$305,000
Michelle M. Warner	\$ 83,500(2)	\$ 200,000	\$283,500
Geoffrey Wild(4)	\$ 26,060	\$ 200,000	\$226,060

- (1) Represents the aggregate grant date fair value for each RSU granted during the year, calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification 718, or ASC 718. The assumptions used in determining the grant date fair values of these awards are set forth in Note 16 to our consolidated financial statements, which were included in our Annual Report on Form 10-K that was filed with the SEC on March 14, 2023. The outstanding stock awards held as of December 31, 2022 by Mr. Wild consisted of 1,813 RSUs and for each of the other non-employee directors consisted of 1,745 RSUs.
- (2) Includes consideration for services on a special committee of the Board of Directors, which compensation consisted of a flat fee of \$3,000 for up to five meetings and \$1,000 per meeting thereafter up to a maximum of \$10,000. In connection with their service on the special committee, Mr. Colella, Mr. Cannone, Mr. Donahue, and Ms. Warner each received \$6,000.
- (3) In connection with his retirement as Chief Executive Officer in January 2020, Mr. Colella receives retiree medical benefits for life for himself and his spouse. In addition, Mr. Colella is reimbursed for certain out-of-pocket health care costs capped at \$6,000 annually. The net present value of these benefits was \$444,141 as of December 31, 2022 and we paid \$25,350 for these benefits in 2022. Mr. Colella receives no other retirement benefits.
- (4) Mr. Wild became a director in August 2022.

## AUDIT AND FINANCIAL ACCOUNTING OVERSIGHT

### Audit Committee Report

The Audit Committee of our Board of Directors has reviewed our audited financial statements for the year ended December 31, 2022 and discussed them with our management.

The Audit Committee discussed with PricewaterhouseCoopers LLP, or PwC, our independent registered public accounting firm, the matters required to be discussed by the applicable requirements of the Public Company Accounting Oversight Board and the SEC.

The Audit Committee has received the written disclosures and the letter from our independent registered public accounting firm required by the applicable requirements of the Public Company Accounting Oversight Board regarding the independent accountant’s communications with the Audit Committee concerning independence, and has discussed with the independent accountant the independent accountant’s independence.

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Based on the review and discussions referred to above, the Audit Committee recommended to our Board of Directors that the audited financial statements be included in our Annual Report on Form 10-K for the year ended December 31, 2022.

Respectfully submitted,

Elizabeth A. Mora, Chair  
Peter J. Cannone III  
Joseph B. Donahue  
Geoffrey Wild

### **Principal Accountant Fees and Services**

For the years ended December 31, 2022 and 2021, aggregate fees for professional services rendered by our independent registered public accounting firm, PwC, in the following categories were as follows:

	<u>2022</u>	<u>2021</u>
Audit Fees	\$8,158,897	\$4,093,450
Audit-Related Fees	—	172,500
Tax Fees	756,377	239,483
All Other Fees	4,500	376,150
Total	<u>\$8,919,774</u>	<u>\$4,881,583</u>

#### ***Audit Fees***

Audit fees billed for both years consisted of fees for professional services rendered for: (i) the audit of our annual consolidated financial statements, (ii) statutory audits, (iii) the review of our consolidated financial statements included in our quarterly reports on Form 10-Q, (iv) audit services related to other reports filed with the SEC, and (v) the audit of our internal controls over financial reporting as required by the rules and regulations promulgated under Section 404 of the Sarbanes-Oxley Act of 2002.

#### ***Audit-Related Fees***

Audit-related fees for the year ended December 31, 2021 were for professional services associated with the then-pending Atotech Acquisition. There were no audit-related fees for the year ended December 31, 2022.

#### ***Tax Fees***

Tax fees for the years ended December 31, 2022 and December 31, 2021 were for services related to tax compliance, including the preparation of tax returns, and tax planning and tax advice, including assistance with foreign operations and foreign tax audits.

#### ***All Other Fees***

All other fees for the year ended December 31, 2022 were for accounting research software. All other fees for the year ended December 31, 2021 were for due diligence services performed in connection with potential acquisitions and for accounting research software.

In 2022 and 2021, all fees for professional services rendered by our independent registered public accounting firm were pre-approved pursuant to the Audit Committee's pre-approval requirements, described below.

#### ***Pre-Approval Policy and Procedures***

The Audit Committee's charter sets forth the Audit Committee's obligations relating to the approval of all audit and non-audit services that are to be performed by our independent registered public accounting firm. The

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charter provides that we will not engage our independent registered public accounting firm to provide audit or non-audit services unless the service is pre-approved by the Audit Committee. In addition, we will not engage any other accounting firm to provide audit services unless such services are pre-approved by the Audit Committee. It is the Audit Committee's policy that with respect to services performed or to be performed by PwC in connection with each fiscal year of the Company, the annual fees for non-audit services in such year shall not exceed one half of the aggregate fees payable to PwC for such year, without the prior express approval of the Audit Committee.

In connection with the foregoing, the Audit Committee may approve specific services in advance. In addition, from time to time, the Audit Committee may pre-approve specified types of services that are expected to be provided to us by our independent registered public accounting firm during the next 12 months. Any such pre-approval of types of services is detailed as to the particular service or type of service to be provided and is also generally subject to a maximum dollar amount.

The Audit Committee has also delegated to the Chair of the Audit Committee the authority to approve any audit or non-audit services to be provided to us by our independent registered public accounting firm. Any approval of services by the Chair of the Audit Committee pursuant to this delegated authority is reported on at the next meeting of the Audit Committee.

The Audit Committee has considered and determined that the provision of the non-audit services noted in the foregoing table is compatible with maintaining PwC's independence.

## SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth certain information with respect to the beneficial ownership of our Common Stock by (i) each shareholder known to us to be the beneficial owner of more than 5% of the outstanding shares of our Common Stock; (ii) the Named Executive Officers named in the Summary Compensation Table below; (iii) each of our current directors; and (iv) all of our directors and executive officers as a group. Unless otherwise indicated in the footnotes to the table, all equity amounts set forth in the table are as of March 8, 2023. The address for each of our directors and executive officers is: c/o MKS Instruments, Inc., 2 Tech Drive, Suite 201, Andover, Massachusetts 01810.

<u>Name of Beneficial Owner</u>	<u>Number of Shares Beneficially Owned(1)</u>	<u>Percentage of Common Stock Beneficially Owned</u>
<i>5% shareholders</i>		
Investment funds affiliated with The Carlyle Group Inc.	8,482,732(2)	12.72%
Capital International Investors	6,828,763(3)	10.24%
The Vanguard Group	6,344,398(4)	9.52%
BlackRock, Inc.	5,490,257(5)	8.24%
Victory Capital Management Inc.	3,840,757(6)	5.76%
<i>Named Executive Officers</i>		
John T.C. Lee	77,862	*
Seth H. Bagshaw	45,397	*
Kathleen F. Burke	54,151	*
David P. Henry	8,423	*
James A. Schreiner	11,291	*
<i>Non-Employee Directors</i>		
Rajeev Batra	7,230	*
Joseph B. Donahue	3,135	*
Peter J. Cannone III	1,397	*
Gerald G. Colella	99,019(7)	*
Jacqueline F. Moloney	8,164	*
Elizabeth A. Mora	14,148	*
Michelle M. Warner	5,116	*
Geoffrey Wild	103,994	*
All directors and executive officers as a group (15 persons)	460,503(8)	*

\* Represents less than 1% of the outstanding Common Stock.

- (1) We believe that each shareholder has sole voting and investment power with respect to the shares listed, except as otherwise noted. The number of shares beneficially owned by each shareholder is determined under SEC rules, and the information is not necessarily indicative of ownership for any other purpose. Under such rules, beneficial ownership includes any shares as to which the person has sole or shared voting or investment power and also any shares that the individual has the right to acquire within 60 days after March 8, 2023, subject to the vesting of RSUs or the exercise of any stock option or other right. The inclusion herein of any shares of Common Stock deemed beneficially owned does not constitute an admission by such shareholder of beneficial ownership of those shares of Common Stock. Percentage ownership calculations are based on 66,669,254 shares of Common Stock outstanding as of March 8, 2023. Shares of Common Stock which an individual or entity has a right to acquire within the 60-day period following March 8, 2023, pursuant to the vesting of RSUs or the exercise of any stock options or other right, are deemed to be outstanding for the purpose of computing the percentage ownership of such individual or entity, but are not deemed to be



outstanding for the purpose of computing the percentage ownership of any other person or entity shown in the table.

- (2) Based on information set forth in a Schedule 13G filed by The Carlyle Group Inc. on August 29, 2022, reporting stock ownership as of August 17, 2022, including 5,180,030 shares held by Carlyle Partners VI Cayman Holdings, L.P., 2,259,743 shares held by CEP IV Participations, S.à r.l. SICAR, and 1,042,959 shares held by Gamma Holding Company Limited. The Carlyle Group Inc., which is a publicly traded entity listed on Nasdaq, is the sole member of Carlyle Holdings II GP L.L.C., which is the managing member of Carlyle Holdings II L.L.C., which, with respect to the securities reported herein, is the managing member of CG Subsidiary Holdings L.L.C., which is the general partner of TC Group Cayman Investment Holdings, L.P., which is the general partner of TC Group Cayman Investment Holdings Sub L.P., which is the sole shareholder of TC Group VI Cayman, L.L.C., which is the general partner of TC Group VI Cayman, L.P., which is the general partner of Carlyle Partners VI Cayman Holdings, L.P. TC Group Cayman Investment Holdings Sub L.P. is also the sole shareholder of CEP IV Managing GP Holdings, Ltd. and the sole member of CAP IV, L.L.C. CEP IV Managing GP Holdings, Ltd. is the general partner of CEP IV Managing GP, L.P., which is the managing general partner of Carlyle Europe Partners IV, L.P., which is the majority shareholder of CEP IV Participations, S.à r.l. SICAR. CAP IV, L.L.C. is the general partner of CAP IV General Partner, L.P., which is the general partner of Carlyle Asia Partners IV, L.P., which is the majority shareholder of Gamma Holding Company Limited. Accordingly, each of these entities may be deemed to share beneficial ownership of the securities held of record by Carlyle Partners VI Cayman Holdings, L.P., CEP IV Participations, S.à r.l. SICAR and Gamma Holding Company Limited. Each of them disclaims beneficial ownership of such securities. The address for each of TC Group Cayman Investment Holdings, L.P., TC Group Cayman Investment Holdings Sub L.P., TC Group VI Cayman, L.P., Carlyle Partners VI Cayman Holdings, L.P., CEP IV Managing GP Holdings, Ltd., CAP IV General Partner, L.P., Carlyle Asia Partners IV, L.P. and Gamma Holding Company Limited is c/o Walkers, 190 Elgin Avenue, George Town, Grand Cayman KY1-9001, Cayman Islands. The address for CEP IV Participations, S.à r.l. SICAR is c/o The Carlyle Group, 2, avenue Charles de Gaulle, L-1653 Luxembourg, Luxembourg. The address for each of the remaining entities named in this footnote is c/o The Carlyle Group Inc., 1001 Pennsylvania Avenue NW, Suite 220 South, Washington, D.C. 20004-2505.
- (3) Based on information set forth in a Schedule 13G/A filed by Capital International Investors, a division of Capital Research and Management Company, on February 10, 2023, reporting stock ownership as of January 31, 2023. Capital International Investors has sole voting power and sole investment power with respect to 6,828,763 shares. Capital International Investors' address is 333 South Hope Street, 55th Fl, Los Angeles, CA 90071.
- (4) Based on information set forth in a Schedule 13G/A filed by The Vanguard Group on February 9, 2023, reporting stock ownership as of December 30, 2022. The Vanguard Group, Inc. has shared voting power with respect to 32,889 shares, sole investment power with respect to 6,253,367 shares and shared investment power with respect to 91,031 shares. The Vanguard Group, Inc.'s address is 100 Vanguard Blvd. Malvern, PA 19355.
- (5) Based on information set forth in a Schedule 13G/A filed by BlackRock, Inc. on February 7, 2023, reporting stock ownership as of December 31, 2022. BlackRock, Inc. has sole voting power with respect to 5,337,646 shares and sole investment power with respect to 5,490,257 shares. BlackRock, Inc.'s address is 55 East 52<sup>nd</sup> Street, New York, NY 10055.
- (6) Based on information set forth in a Schedule 13G filed by Victory Capital Management Inc. on February 2, 2023, reporting stock ownership as of December 31, 2022. Victory Capital Management Inc. has sole voting power with respect to 3,762,951 shares and sole investment power with respect to 3,840,757 shares. Victory Capital Management Inc.'s address is 4900 Tiedeman Rd. 4th Floor Brooklyn, OH 44144.
- (7) Consists of two shares held directly by Mr. Colella and 99,017 shares held in the name of The Gerald G. Colella Living Trust.
- (8) Consists of 457,771 shares held directly or indirectly by such directors and executive officers and 2,732 shares subject to RSUs that vest within 60 days of March 8, 2023.

To our knowledge, there are no voting trusts or similar arrangements among any of the foregoing persons or entities with respect to the voting of shares of Common Stock.

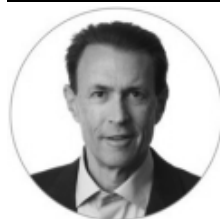
## EXECUTIVE OFFICERS

The following is a brief summary of the background of each of our current executive officers, other than Dr. Lee, whose background is described under the heading “Directors” above:

Executive Officer	Background and Qualifications
	<p><b>Seth H. Bagshaw, 63</b></p> <p><b>Executive Vice President, Chief Financial Officer and Treasurer</b></p> <p>Mr. Bagshaw has served as Executive Vice President, Chief Financial Officer and Treasurer since February 2023. From May 2017 to February 2023, he served as Senior Vice President, Chief Financial Officer and Treasurer. From January 2010 to May 2017, he served as Vice President and Chief Financial Officer, becoming Treasurer in March 2011. From March 2006 until January 2010, Mr. Bagshaw served as Vice President and Corporate Controller. Prior to joining MKS, Mr. Bagshaw served as Vice President and Chief Financial Officer of Vette Corp., an integrated global supplier of thermal management systems, from 2004 until 2006. From 1999 until 2004, Mr. Bagshaw served as Vice President and Corporate Controller of Varian Semiconductor Equipment Associates, Inc., a leading producer of ion implantation equipment used in the semiconductor manufacturing industry, and from 1998 until 1999, he served as Vice President and Chief Financial Officer of Palo Alto Products International, Inc., an industrial design, engineering and manufacturing company, until its acquisition by Flextronics International, Ltd. Prior to that, Mr. Bagshaw held several senior financial management positions at Waters Corporation, a developer of innovative analytical science solutions, most recently as Vice President and Chief Financial Officer of its Asia-Pacific region, and was a Senior Manager at PricewaterhouseCoopers LLP. Mr. Bagshaw has been a member of the Board of Directors of Associated Industries of Massachusetts, a non-profit state-wide employer advocacy and service organization, since 2010 and has served on its Audit Committee since 2014. Mr. Bagshaw is a Certified Public Accountant and has a B.S. in Business Administration from Boston University and an M.B.A. from Cornell University.</p>
	<p><b>Kathleen F. Burke, 58</b></p> <p><b>Executive Vice President, General Counsel and Secretary</b></p> <p>Ms. Burke has served as Executive Vice President, General Counsel and Secretary since February 2023. From May 2017 to February 2023, she served as Senior Vice President and General Counsel, becoming Secretary in May 2019. From April 2011 to May 2017, she served as Vice President and General Counsel, and from January 2005 to May 2019, she served as Assistant Secretary. From January 2005 to April 2011, Ms. Burke served as General Counsel, and from February 2004 to January 2005, she served as Corporate Counsel. Prior to joining MKS, Ms. Burke was a corporate attorney at Wilmer Cutler Pickering Hale and Dorr LLP (formerly Hale and Dorr LLP), a full-service international law firm, from 1994 to 2004. Ms. Burke served as a member of the Board of Directors of the Northeast Chapter of the Association of Corporate Counsel, a global legal association, from 2009 to 2020 and served as the Chapter’s President from 2011 to 2013, and its Vice President from 2010 to 2011 and its Treasurer from 2009 to 2011. Ms. Burke holds a B.A. from Boston College and a J.D. from Boston College Law School.</p>

**Executive Officer**

**Background and Qualifications**



**Mark M. Gitin, 56**

**Executive Vice President and General Manager, Photonics Solutions Division**

Dr. Gitin has served as an Executive Vice President since February 2023 and General Manager, Photonics Solutions Division since January 2019. From January 2019 to February 2023, he served as a Senior Vice President. From June 2018 to December 2018, he served as Vice President and General Manager of the Photonics Business Unit and Instruments and Motion Business Unit, and from September 2017 to December 2018, he served as Vice President and General Manager of the Photonics Business Unit. Prior to joining MKS, from March 1995 to September 2017, Dr. Gitin held various management positions covering a wide range of technologies at Coherent, Inc., a leading provider of laser solutions and optics for microelectronics, life sciences, industrial manufacturing and scientific markets, including Vice President of Strategic Marketing, Vice President of Business Development and Vice President and General Manager of the Diodes, Fibers and Systems Business Unit. Dr. Gitin holds a B.S. in Electrical Engineering from University of California, Davis and an M.Eng. and Ph.D. in Electrical Engineering from Cornell University.



**David P. Henry, 51**

**Executive Vice President, Operations and Corporate Marketing**

Mr. Henry has served as Executive Vice President, Operations and Corporate Marketing since February 2023, where he leads global operations for the Vacuum Solutions Division and Photonics Solutions Division, including manufacturing, supply chain, quality, reliability and EHS functions, and oversees global corporate marketing and the global service business. From August 2022 to February 2023, he served as Senior Vice President, Operations and Corporate Marketing. From November 2020 to August 2022, he served as Senior Vice President, Corporate Marketing, Project Management Office and Global Service. From January 2020 to November 2020, he served as Senior Vice President of Corporate Marketing and Project Management Office. From July 2016 to December 2019, Mr. Henry served as Vice President of Corporate Marketing. From February 2014 to July 2016, he served as Senior Director of Strategic Marketing. Prior to joining MKS, from December 1999 to February 2014, Mr. Henry served in various supply chain and marketing positions at 3M Company, a diversified technology company with a global presence in the safety and industrial, transportation and electronics, health care and consumer businesses. Mr. Henry holds a B.S. in Industrial Engineering from Worcester Polytechnic Institute and an M.B.A. from Bentley College.



**Executive Officer**

**Background and Qualifications**



**James A. Schreiner, 61**  
**Executive Vice President and Chief Operating Officer, Materials Solutions Division**

Mr. Schreiner has served as an Executive Vice President since February 2023 and Chief Operating Officer, Materials Solutions Division, since August 2022, a position he assumed upon the Atotech Acquisition. The Materials Solutions Division was a third division created at the time of this acquisition to represent the Atotech business. From September 2019 to February 2023, he served as a Senior Vice President and from September 2019 to August 2022, he served as Chief Operating Officer. From July 2017 to September 2019, he served as the Senior Vice President of Global Operations for the Rosemount Measurement & Analytical Group of Automation Solutions at Emerson Electric Co., a multinational corporation that manufactures products and provides engineering services for a wide range of industrial, commercial, and consumer markets. Mr. Schreiner served in other senior roles at Emerson Electric, including Vice President of North America from March 2016 to July 2017, and Vice President of Europe from November 2010 to March 2016, both for the Rosemount Measurement & Analytical Group, as well as Vice President of Global Operations for the Micro Motion Division. Prior to Emerson Electric, Mr. Schreiner served in progressive leadership roles at Plexus Corp., ILX Lightwave Corporation, Tetra Pak and 3M Company. Mr. Schreiner holds a B.S. in Electrical Engineering from Montana State University, Bozeman as well as an Executive M.B.A. from the University of Colorado, Denver.



**Eric R. Taranto, 55**  
**Executive Vice President and General Manager, Vacuum Solutions Division**

Mr. Taranto has served as an Executive Vice President since February 2023 and General Manager, Vacuum Solutions Division since November 2020. From November 2020 to February 2023, he served as a Senior Vice President. From September 2014 to November 2020, he served as Vice President and General Manager of Business Units in our Vacuum & Analysis Division (now known as our Vacuum Solutions Division). In that position, he managed business units in our Company that primarily serve the semiconductor capital equipment market, including Automation and Control, Mass Spectrometry, Process and Environmental Gas, Integrated Systems, Plasma & Reactive Gas, and Power Solutions. From July 2014 to December 2020, he was also a member of our Office of the Chief Technology Officer (OCTO), and he chaired the OCTO from January 2018 to December 2020. From September 2000 to September 2014, Mr. Taranto served in a range of managerial and senior engineering positions at MKS. From December 1997 to September 2000, he served as a senior engineer for D.I.P. Inc., a digital-control network supplier, until it was acquired by MKS in September 2000.

Our executive officers are appointed by the Board of Directors on an annual basis and serve until their successors are duly appointed and qualified. There are no family relationships among any of our executive officers or directors.

## EXECUTIVE COMPENSATION

### Compensation Discussion and Analysis

#### Introduction

The purpose of this section of our proxy statement is to provide an overview of our executive compensation program, our compensation philosophy and objectives, and the material decisions we made with respect to each element of our executive compensation program. Throughout this proxy statement, we refer to the “Named Executive Officers” listed below.

<u>Name</u>	<u>Title</u>
John T.C. Lee	President and Chief Executive Officer
Seth H. Bagshaw	Executive Vice President, Chief Financial Officer and Treasurer
Kathleen F. Burke	Executive Vice President, General Counsel and Secretary
David P. Henry	Executive Vice President, Operations and Corporate Marketing
James A. Schreiner	Executive Vice President and Chief Operating Officer, Materials Solutions Division

Effective upon the closing of the Atotech Acquisition, Mr. Henry, who previously served as our Senior Vice President, Corporate Marketing, Project Management Office and Global Service, assumed the position of Senior Vice President, Operations and Corporate Marketing, and Mr. Schreiner, who previously served as our Senior Vice President and Chief Operating Officer, assumed the position of Senior Vice President and Chief Operating Officer, Materials Solutions Division, which division refers to our newly acquired Atotech business. In addition, in February 2023, Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner, who each previously served as a Senior Vice President, assumed the position of Executive Vice President, to identify these officers as members of our executive management team.

Following this Compensation Discussion and Analysis, you will find a series of tables containing specific information about the compensation earned by or paid to our Named Executive Officers in 2022.

#### Executive Summary

##### *Our Business*

We enable technologies that transform our world. We deliver foundational technology solutions to leading edge semiconductor manufacturing, electronics and packaging, and specialty industrial applications. We apply our broad science and engineering capabilities to create instruments, subsystems, systems, process control solutions, and specialty chemicals technology that improve process performance, optimize productivity, and enable unique innovations for many of the world’s leading technology and industrial companies. Our solutions are critical to addressing the challenges of miniaturization and complexity in advanced device manufacturing by enabling increased power, speed, feature enhancement, and optimized connectivity. Our solutions are also critical to addressing ever-increasing performance requirements across a wide array of specialty industrial applications.

##### *Company Performance in 2022*

We executed well in 2022, despite a rapidly changing macroeconomic environment, continued supply chain constraints, and notable inflationary impacts.

2022 also marked a major advancement in our long-term strategy, as we completed the Atotech Acquisition. Atotech adds leading critical chemistry solutions for advanced printed circuit board (“PCB”) and package substrate manufacturing. Combined with our laser processing solutions, we now have a unique and comprehensive portfolio that positions us to accelerate customer technology roadmaps. Together with our leading portfolio of solutions enabling semiconductor manufacturing, MKS has established itself as a foundational technology enabler of the core building blocks of advanced electronic devices. Atotech also provides us with an attractive proprietary chemistry and equipment portfolio for general metal finishing, which aligns well with our strategy of leveraging core domain expertise to address a wide variety of specialty industrial applications.

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Despite continued supply chain constraints, we delivered record revenue from the Semiconductor Market. Our global operations team executed well in navigating supply chain constraints amid record customer demand. At the same time, we remained focused on investing in innovation to drive technology enablement for our customers. MKS is well-positioned to remain a key beneficiary of long-term secular growth in demand for semiconductor capital equipment, given our broad and unique capabilities, which we believe enable more manufacturing steps than any other company in the industry.

In 2022, in an effort to provide further insight into our business, we updated our end market classifications by replacing Advanced Markets with two separate end markets, Electronics and Packaging, and Specialty Industrial, which more effectively reflect our distinct end-market opportunities. Our Electronics and Packaging Market refers to our opportunities in advanced PCB, package substrate, and display manufacturing. Our Specialty Industrial Market includes a broad array of applications across industrial, life and health sciences, and research and defense. Revenue from the Electronics and Packaging and Specialty Industrial Markets reached new records in 2022, primarily due to the Atotech Acquisition.

In 2022, key results include:

- the successful closing of the Atotech Acquisition for a total purchase price of \$5.7 billion;
- record revenue of \$3.5 billion, an increase of 20% from \$2.9 billion in 2021;
- record Semiconductor Market revenue of \$2.0 billion, an increase of 12% from \$1.8 billion in 2021, led by continued strength in our Vacuum Solutions Division for deposition and etch applications, as well as strong growth in our Photonics Solutions Division, primarily for lithography, metrology and inspection applications;
- record Electronics and Packaging Market revenue of \$541 million, an increase of 57% from \$344 million in 2021, primarily due to the Atotech Acquisition, partially offset by a digestion of flexible PCB laser drilling equipment;
- record Specialty Industrial Market revenue of \$964 million, an increase of 24% from \$780 million in 2021, primarily due to the Atotech Acquisition;
- record Services revenue of \$428 million, an increase of 15% from \$371 million in 2021, primarily as a result of continued strength across our Vacuum and Photonics Solutions Divisions, as well as the addition of Services revenue from Atotech;
- net income of \$333 million, or \$5.56 per diluted share, compared to net income of \$551 million, or \$9.90 per diluted share, in 2021, reflecting acquisition and integration costs and interest expense associated with the Atotech Acquisition in 2022;
- operating cash flow of \$529 million, compared to \$640 million in 2021, reflecting acquisition and integration costs and interest expense associated with the Atotech Acquisition in 2022;
- the successful progress of Atotech integration activities targeting cost synergies; and
- a return of \$52 million to MKS shareholders in cash dividends.

### *2022 Compensation Outcomes*

Our executive compensation program is designed to reward our Named Executive Officers for performance and to align their interests with those of our shareholders. As a result of our financial performance in 2022, our Named Executive Officers received 100% of their target variable cash compensation under our Management Incentive Plan, which was measured against non-GAAP operating income after bonus and annualized cost savings, and 139% of their target performance-based equity compensation, which was measured against Adjusted EBITDA (each financial metric as further described under “Elements of Compensation” below). We believe these financial metrics are important to our shareholders because each is an indicator of how well we manage the operations and profitability of our Company. The successful alignment of our financial performance goals with our incentive payout opportunities for 2022 is evidenced by the fact that our Management Incentive Plan paid out at target achievement and our performance-based equity awards paid out at above-target achievement in a year where our Company achieved record revenue and strong non-GAAP operating income, annualized cost savings and Adjusted EBITDA.

*Consideration of 2022 Advisory Vote on Executive Compensation*

At our 2022 Annual Meeting of Shareholders, held on May 10, 2022, we submitted to our shareholders an advisory vote on executive compensation. Although annual advisory say-on-pay votes are non-binding, our Compensation Committee considers the outcome of this vote each year when making compensation decisions for our Named Executive Officers. At the 2022 Annual Meeting, our shareholders overwhelmingly approved our executive compensation, with over 97% of the votes cast voting in favor of the say-on-pay proposal.

The Compensation Committee considered the results of the 2022 say-on-pay vote, and based upon strong shareholder support, determined that our executive compensation program did not require any material changes in response to the 2022 say-on-pay vote. The Compensation Committee will continue to consider the views of our shareholders in connection with our executive compensation program, in addition to considering evolving best practices, market compensation information, and changing regulatory requirements. The Compensation Committee believes that the results of the 2022 say-on-pay vote were an endorsement of our compensation and pay decisions made in relation to our performance.

**Compensation Philosophy and Objectives**

The primary objectives of our executive compensation program are to:

- attract and retain high caliber executive talent;
- motivate and reward the attainment of short-term objectives that drive long-term value; and
- foster long-term alignment of executive and shareholder interests.

We target each of our Named Executed Officers' various compensation elements, including base salary, annual cash incentive compensation, and long-term equity incentive compensation, to be within a competitive range around median levels (plus or minus 15% of median) for each such respective position in the market. The competitive range is considered alongside other key factors when setting compensation levels, and final values may range from approximately the 25<sup>th</sup> percentile to approximately the 75<sup>th</sup> percentile, determined on an individual basis. In considering the compensation of our Named Executive Officers relative to the market, we also qualitatively assess each Named Executive Officer's overall performance, tenure, and potential contributions to MKS' ongoing growth. For 2022, the total target compensation of each of our Named Executive Officers fell within the competitive range of the median of our peer group.

Base salaries are designed to provide executives with a level of predictability and stability with respect to a portion of their total compensation package. Base salaries are a relatively small component of the overall pay packages of our Named Executive Officers because we believe a significant majority of executive compensation should be variable and based on performance.

Our annual cash incentive compensation program is designed to reward the attainment of short-term earnings and cost savings goals that drive the long-term growth of MKS. We believe that these goals are aligned with significant value creation, and that our plan creates a strong link between pay and performance while providing a meaningful incentive for our Named Executive Officers to deliver financial results that exceed our goals.

We provide our Named Executive Officers with long-term equity incentive compensation in the form of RSUs, approximately half of which are performance-based, in order to:

- foster long-term alignment of executive and shareholder interests;
- balance the short-term focus on annual cash incentive compensation with creating long-term shareholder value;
- reward strong operational performance; and
- retain executives by providing equity-based compensation that generally vests over a three-year period.

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In order to further underscore our compensation values and enhance the efficacy of our pay programs, we also adhere to the following practices:

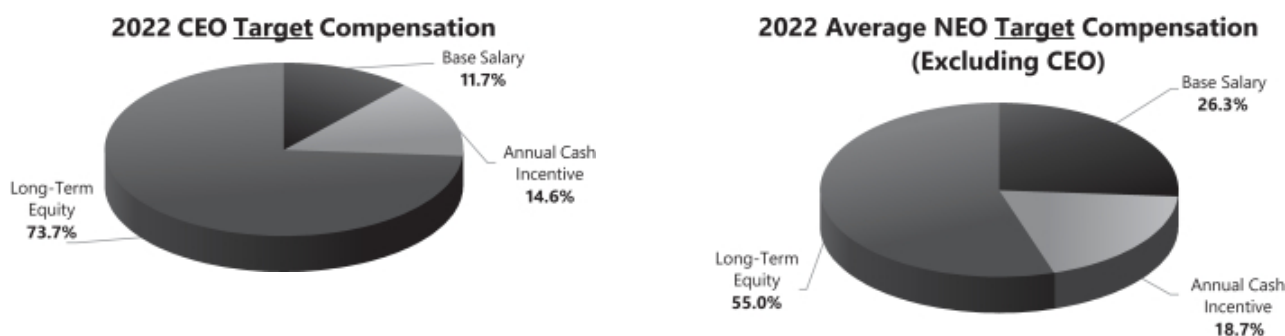
### **What We Do**

- ✓ Offer a balanced compensation program designed to align with our business strategy, market practices, and shareholder interests
- ✓ Provide maximum payout caps under incentive plans
- ✓ Conduct robust annual reviews and validation of our peer group
- ✓ Conduct annually a comprehensive risk assessment of all compensation programs
- ✓ Maintain a clawback policy for incentive-based compensation
- ✓ Provide change-in-control benefits only upon a qualified double-trigger termination of employment
- ✓ Review prior levels of compensation when making executive compensation decisions
- ✓ Maintain stock ownership guidelines
- ✓ Maintain a fully independent Compensation Committee
- ✓ Utilize an independent compensation consultant
- ✓ Executing on plan to eliminate perquisites altogether

### **What We Do Not Do**

- x No repricing of underwater options without shareholder approval
- x No hedging or pledging of MKS shares
- x No incentives for excessive risk taking
- x No excessive perquisites

The following charts show the components of total target compensation on a percentage basis for our Chief Executive Officer and our other Named Executive Officers as a group for 2022.



When the Compensation Committee met in May 2021 to review the peer companies to be used to determine 2022 executive compensation, the Committee elected to remove KLA Corporation from and add Advanced Energy Industries, Inc., Ciena Corporation, and IDEX Corporation to the existing peer group, which at that time consisted of 17 U.S. publicly traded companies that had been primarily selected based on similar industry and size. In determining whether these companies remained appropriate for continued inclusion in the peer group, the Compensation Committee considered whether they had a revenue range relative to our trailing 12-month revenue as of December 31, 2020 between approximately 0.5 to 2.5 times and a market capitalization range relative to our market capitalization as of March 31, 2021 between approximately 0.3 and 3.0 times. The Compensation

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Committee also considered secondary factors including other relevant peer groups, commonality of peers, other performance considerations, and whether a company is a competitor for talent. Publicly available compensation data from the following 19 peer companies was used in determining executive compensation for 2022:

Advanced Energy Industries, Inc.	IPG Photonics Corporation
AMETEK, Inc.	Keysight Technologies, Inc.
Amkor Technology, Inc.	Lumentum Holdings Inc.
Brooks Automation, Inc.*	National Instruments Corporation
Ciena Corporation	Sensata Technologies Holding plc
Coherent, Inc.*	Skyworks Solutions, Inc.
Entegris, Inc.	Teradyne, Inc.
FLIR Systems, Inc.*	Trimble Inc.
IDEX Corporation	Zebra Technologies Corporation
II-VI Incorporated*	

\* Brooks Automation, Inc. changed its name to Azenta, Inc. in December 2021. Coherent, Inc. was acquired by II-VI Incorporated in July 2022, which then changed its name to Coherent Corp. FLIR Systems, Inc. was acquired by Teledyne Technologies Incorporated in May 2021.

In certain instances where robust peer group benchmark data was not available, our Compensation Committee utilized size and industry-appropriate broad survey data from Radford Data & Analytics, a third-party provider of compensation data and analytics.

### **Elements of Compensation**

The following summarizes the compensation elements for our Named Executive Officers:

#### **Base Salary**

In October 2021, in anticipation of the new roles Mr. Henry and Mr. Schreiner would assume upon the closing of the Atotech Acquisition, our Compensation Committee approved salary increases of approximately 6% for each of Mr. Henry and Mr. Schreiner, effective upon the closing. These increases were to be inclusive of any 2022 annual merit increases. When our Compensation Committee set 2022 annual executive compensation in March 2022, the Atotech Acquisition was still pending and the closing date was uncertain. For this reason, the Compensation Committee approved 2022 annual salary increases that reflected the Company's size pre-acquisition. Mr. Henry and Mr. Schreiner each received a salary increase of approximately 5%, Ms. Burke received approximately 4%, and Dr. Lee and Mr. Bagshaw each received approximately 3%. The increases for Mr. Henry and Mr. Schreiner reflected the existing roles they served in the Company. Upon the closing of the Atotech Acquisition in August 2022, when Mr. Henry assumed the position of Senior Vice President, Operations and Corporate Marketing and Mr. Schreiner assumed the position of Senior Vice President and Chief Operating Officer, Materials Solutions Division, Mr. Henry and Mr. Schreiner each received an additional salary increase of approximately 1%, which reflected the difference between their 5% 2022 annual salary increase and the 6% salary increase the Compensation Committee had approved in October 2021 in connection with their new roles following the Atotech Acquisition.

Listed below is the base salary for Dr. Lee, our President and Chief Executive Officer, in 2021 and 2022.

<b>Chief Executive Officer</b>	<b>2021 Base Salary</b>	<b>2022 Base Salary</b>	<b>Percentage Increase</b>
John T.C. Lee	\$925,000	\$950,000	2.7%

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Listed below are the base salaries for our other Named Executive Officers in 2021 and 2022.

<b>Named Executive Officer</b>	<b>2021 Base Salary</b>	<b>2022 Base Salary</b>	<b>Percentage Increase</b>
Seth H. Bagshaw	\$ 600,000	\$ 620,000	3.3%
Kathleen F. Burke	\$ 484,000	\$ 504,000	4.1%
David P. Henry	\$ 425,000	\$ 450,000	5.9%
James A. Schreiner	\$ 440,000	\$ 465,000	5.7%

Our Compensation Committee did not make any material changes to Named Executive Officer salaries for 2023.

### *Annual Cash Incentive Compensation*

For 2022, the Compensation Committee did not make any material changes to our annual cash incentive program. One administrative change was made to the program to consolidate our annual cash incentive plan and our profit improvement cash bonus plan into a single plan, the Management Incentive Plan.

Under the Management Incentive Plan, each Named Executive Officer was eligible to receive a performance bonus based on a specified percentage of base salary earned during the 2022 calendar year. Cash bonus payouts for 2022 under the Management Incentive Plan were based on two financial performance metrics, (i) non-GAAP operating income after bonus, which excluded any charges or income not related to the operating performance of the Company, and (ii) annualized cost savings, defined as profit enhancements or cost reductions approved by the Chief Executive Officer that result, on an annualized basis, in quantified and measured benefits to the Company's financial performance. Any payout under the Management Incentive Plan is capped such that the payout would not exceed an amount equal to 200% of the Named Executive Officer's Target Bonus Amount (defined below).

In 2022, payouts under the Management Incentive Plan were determined by multiplying each Named Executive Officer's "Target Bonus Amount" by the Company's percentage achievement of non-GAAP operating income and annualized cost savings, with certain caps as discussed below. Target Bonus Amount consists of each Named Executive Officer's base salary earned in 2022, multiplied by his or her "Target Bonus Percentage," as determined by our Compensation Committee. If a Named Executive Officer's base salary and/or Target Bonus Percentage changed during 2022, the Named Executive Officer's Target Bonus Amount was pro-rated based on the number of days in 2022 that the Named Executive Officer received such base salary and/or target award percentage. In October 2021, in anticipation of the new role Mr. Henry would assume upon the closing of the Atotech Acquisition, our Compensation Committee approved an increase in his Target Bonus Percentage of 5%, effective upon the closing. This increase was to be inclusive of any 2022 annual merit increase. When our Compensation Committee set 2022 annual executive compensation in March 2022, its decisions reflected the Company's size pre-acquisition, given the uncertainty of the closing date of the Atotech Acquisition. It elected to increase the Target Bonus Percentage for each of Dr. Lee and Mr. Henry by 5% to better align their bonus opportunities with the market in their current roles and maintain the existing Target Bonus Percentage for each of Mr. Bagshaw, Ms. Burke, and Mr. Schreiner. Upon the closing of the Atotech Acquisition in August 2022, no adjustment was needed to Mr. Henry's Target Bonus Percentage, as the increase approved by the Compensation Committee before and after the Atotech Acquisition was the same.

Listed below is the 2022 Target Bonus Percentage for each Named Executive Officer in 2021 and 2022.

<b>Named Executive Officer</b>	<b>2021 Target Bonus Percentage</b>	<b>2022 Target Bonus Percentage</b>
John T.C. Lee	120%	125%
Seth H. Bagshaw	90%	90%
Kathleen F. Burke	70%	70%
David P. Henry	60%	65%
James A. Schreiner	65%	65%

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In 2022, our Compensation Committee approved goals and associated incentive payout opportunities related to our 2022 non-GAAP operating income and annualized cost savings performance. Due to the cyclical nature and volatility of the markets in which we operate, including the consumer electronics market and semiconductor market, our Compensation Committee views it of paramount importance to set financial performance goals that are rigorous but attainable given the outlook for these markets for the coming year. For 2022, our Compensation Committee set target achievement for non-GAAP operating income at an amount that was greater than either target or actual achievement in 2021. Our Compensation Committee also set target achievement for annualized cost savings at an amount that was 60% greater than the target established in 2021.

The successful alignment of our financial performance goals with our incentive payout opportunities for 2022 is evidenced by the fact that our Management Incentive Plan paid out at 100% achievement in a year where we achieved record revenue and strong non-GAAP operating income and annualized cost savings.

**Non-GAAP Operating Income Metric:** In 2022, Named Executive Officers would receive the following percentage of their Target Bonus Amount under the non-GAAP operating income metric of the Management Incentive Plan, with proportional payments for achievement in between the Threshold Bonus Amount and the Maximum Bonus Amount.

<b>Non-GAAP Operating Income</b>	<b>% of Target Bonus Amount</b>
<\$423.29 million	0%
\$423.29 million (Threshold Bonus Amount)	50%
\$846.57 million (Target Bonus Amount)	100%
≥\$1.02 billion (Maximum Bonus Amount)	200%

If non-GAAP operating income before the calculation of bonus was greater than the Threshold Bonus Amount, but the inclusion of the bonus would result in an amount lower than the Threshold Bonus Amount, then only the portion of pre-bonus operating income above the Threshold Bonus Amount would be payable to Named Executive Officers on a pro rata basis. In 2022, for purposes of the Management Incentive Plan, non-GAAP operating income was \$758.84 million. As a result, Named Executive Officers were eligible to receive 90% of their Target Bonus Amounts under this formula. The 2022 non-GAAP operating income calculation excludes restructuring charges, acquisition and integration costs and amortization of intangible assets, as well as the results of Atotech, which we acquired in August 2022.

**Annualized Cost Savings Metric:** Our Management Incentive Plan is also designed to incentivize profitability improvements during cyclical downturns in our business. In 2022, Named Executive Officers would receive the following percentage of their Target Bonus Amount under the annualized cost savings metric, with proportional payments for achievement in between these levels, subject to the limitations described below.

<b>Annualized Cost Savings</b>	<b>% of Target Bonus Amount</b>
\$0	0%
\$10 million (Threshold Bonus Amount)	6%
\$20 million	13%
≥\$40 million (Target/Maximum Bonus Amount)	25%

A Named Executive Officer would only be eligible to receive a payout under the annualized cost savings metric if the Named Executive Officer receives less than 100% of his or her Target Bonus Amount under the non-GAAP operating income metric and, in that case, the combined payout under both metrics could not exceed 100% of his or her Target Bonus Amount.

In 2022, for purposes of the Management Incentive Plan, annualized cost savings were \$42.4 million. As a result, Named Executive Officers were eligible to receive 25% of their Target Bonus Amounts under this formula. However, because Named Executive Officers were eligible to receive 90% of their Target Bonus Amount under the non-GAAP operating income metric, and because the sum of the Target Bonus Amount under both metrics could not exceed 100%, the Target Bonus Amount under the annualized cost savings metric was reduced from 25% to 10%.



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Listed below are our Named Executive Officers' earned cash bonus payouts for 2022.

<b>Named Executive Officer</b>	<b>Cash Payout</b>	<b>Payment as a Percentage of Target</b>
John T.C. Lee	\$1,170,939	100%
Seth H. Bagshaw	\$ 554,154	100%
Kathleen F. Burke	\$ 349,809	100%
David P. Henry	\$ 283,116	100%
James A. Schreiner	\$ 297,407	100%

Our Compensation Committee did not make any material design changes to our annual cash incentive program for 2023.

### *Long-Term Equity Incentive Compensation*

In October 2021, in anticipation of the new roles Mr. Henry and Mr. Schreiner would assume upon the closing of the Atotech Acquisition, our Compensation Committee approved the following time-based and performance-based RSUs to Mr. Henry and Mr. Schreiner, to be issued at the time the 2022 annual RSUs were awarded to the Named Executive Officers, assuming the closing had occurred. These RSU awards were to be inclusive of any 2022 annual merit awards.

<b>Named Executive Officer</b>	<b>Grant Date Value of Performance-Based RSUs(1)</b>	<b>Grant Date Value of Time-Based RSUs</b>
David P. Henry	\$375,000	\$375,000
James A. Schreiner	\$400,000	\$400,000

(1) Grant date value of performance-based RSUs assuming 100% achievement. Achievement is capped at 200%.

When our Compensation Committee set 2022 annual executive compensation in March 2022, its decisions reflected the size of the Company pre-Atotech Acquisition, given the uncertainty of the closing date. It awarded the following time-based and performance-based RSUs to our Named Executive Officers. These awards reflected the existing roles Mr. Henry and Mr. Schreiner served in the Company. These RSUs vest in three equal annual installments. The performance-based RSUs are subject to a one-year performance metric described below.

<b>Named Executive Officer</b>	<b>Grant Date Value of Performance-Based RSUs(1)</b>	<b>Number of Performance-Based RSUs(1)</b>	<b>Grant Date Value of Time-Based RSUs</b>	<b>Number of Time-Based RSUs</b>
John T.C. Lee	\$3,600,000	31,584.49	\$2,400,000	21,056.33
Seth H. Bagshaw	\$1,058,750	9,288.91	\$ 866,250	7,600.02
Kathleen F. Burke	\$ 562,500	4,935.08	\$ 562,500	4,935.08
David P. Henry	\$ 350,000	3,070.71	\$ 350,000	3,070.71
James A. Schreiner	\$ 375,000	3,290.05	\$ 375,000	3,290.05

(1) Grant date value of performance-based RSUs and corresponding number of performance-based RSUs assuming 100% achievement. Achievement is capped at 200%.

Upon the closing of the Atotech Acquisition in August 2022, when Mr. Henry and Mr. Schreiner assumed their new roles, Mr. Henry and Mr. Schreiner each received an additional 226.66 performance-based RSUs with a grant date value of \$25,000 (assuming 100% achievement) and 226.66 time-based RSUs with a grant-date value of \$25,000, which reflected the difference between their 2022 annual RSU awards and the RSU awards the Compensation Committee had approved in October 2021 in connection with their new roles following the Atotech Acquisition.

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With respect to performance-based RSUs, our goal is to select a Company financial metric that best aligns with our Company objectives. Since 2020, we have used Adjusted EBITDA (defined as the Company's GAAP operating income excluding any charges or income not related to the operating performance of the Company plus depreciation and stock compensation expense), which we believe is an appropriate indicator of how effectively we manage the operations of our Company, while continuing to recognize the cyclical nature and volatility of the markets we serve, as well as to drive continued improvement in our Company's operating model independent of revenue levels.

Further, we choose to measure Adjusted EBITDA over a one-year performance period because of the cyclical nature and volatility of our markets, making it challenging, and potentially counterproductive, to set multi-year performance targets. To ensure our executive officers are focused on our Company's long-term performance, the performance-based RSUs vest over a three-year period in equal annual installments.

We use RSUs as our form of equity incentive compensation because we believe RSUs help to ensure that our executive officers' interests are aligned with our shareholders' interests in both a rising and a declining stock market. We believe RSUs are preferable to options, which have a relatively high accounting cost as compared to their potential value to the executive officer, and restricted stock, which gives the executive officer voting and dividend rights prior to full vesting. Also, because RSUs are worth more than options on the date of grant, we are able to grant fewer RSUs as compared to options, resulting in less dilution to shareholders' holdings.

In 2022, our Named Executive Officers would have forfeited all of their performance-based RSUs if our Adjusted EBITDA was less than \$630.36 million at a revenue level of \$2.90 billion, or if such Adjusted EBITDA was less than \$867.90 million at a revenue level of \$3.50 billion (with intermediate Adjusted EBITDA minimum thresholds at different revenue levels in between). However, if we did achieve these Adjusted EBITDA threshold levels at the respective revenue levels identified, then our Named Executive Officers would receive 50% of their target performance-based RSUs. If our Adjusted EBITDA was \$741.60 million at a revenue level of \$2.90 billion or was \$1.02 billion at a revenue level of \$3.50 billion (with proportional thresholds in between), then our Named Executive Officers would receive 100% of their target performance-based RSUs. If our Adjusted EBITDA was at or above \$815.76 million at a revenue level of \$2.90 billion or was at or above \$1.12 billion at a revenue level of \$3.50 billion (with proportional thresholds in between), then our Named Executive Officers would receive the maximum of 200% of their target performance-based RSUs. If revenue was outside the range of \$2.90 billion and \$3.50 billion, then the performance target and payout would be calculated using the same payout formula. Proportional achievement levels would be made for Adjusted EBITDA between the minimum and maximum levels.

In 2022, because our revenue was \$3.03 billion and our Adjusted EBITDA was \$854.2 million, after excluding the results of Atotech, which we acquired in August 2022, as well as restructuring charges, acquisition and integration costs, amortization of intangible assets, depreciation of fixed assets and stock-based compensation expense, our Named Executive Officers received 139% of their target performance-based RSUs. In general, these performance-based RSUs, along with the time-based RSUs granted to our Named Executive Officers, vest in equal annual installments over three years from the original date of grant.

It is our practice to make an initial equity-based grant to all of our Named Executive Officers at the time they commence employment in an amount that is consistent with amounts granted to other executive officers in the industry at similar levels of seniority. We also may make equity-based grants to a Named Executive Officer in connection with a promotion or other change in position. In addition, we typically make an annual grant of equity-based compensation to our Named Executive Officers during the first fiscal quarter of each year. Discretionary equity-based awards may also be made throughout the year to provide an incentive to achieve a specific goal or to reward a significant achievement or for other reasons that the Compensation Committee determines. Our Compensation Committee did not make any discretionary equity-based awards to our Named Executive Officers in 2022.

Our Compensation Committee did not make any design changes to our 2023 annual equity incentive program.

### *Perquisites*

Our Compensation Committee elected to discontinue perquisites effective December 31, 2020, with the exception that Mr. Bagshaw and Mr. Schreiner were permitted to retain their company-leased cars until the

expiration of their leases in May 2023 and November 2023, respectively, to avoid lease cancellation costs. Our Compensation Committee believes the discontinuation of perquisites allows us to simplify and more consistently align our compensation and benefits offerings with other employees, while placing greater focus on performance-based compensation.

#### ***Severance and Change-in-Control Provisions***

Each of our Named Executive Officers is entitled to certain payments and benefits in the event his or her employment terminates under specified circumstances as described in the applicable agreement and subject to his or her entry into a release of claims. In addition, in exchange for these payments and benefits, each of these officers has agreed to be restricted from competing with the Company during and following his or her termination of employment for a twelve-month period. In addition, RSU agreements with our Named Executive Officers generally provide for acceleration of vesting in the event the executive's employment is terminated without cause or the executive resigns for good reason within 24 months after a change-in-control event. The severance and change-in-control provisions are designed to be competitive in the marketplace, to provide security for each of our Named Executive Officers in the event that we are acquired and his or her respective position is impacted and to provide an incentive for our Named Executive Officers to stay with us through such a change-in-control event. These provisions are also intended to protect us from competitive harm by compensating our Named Executive Officers for agreeing to substantial non-compete provisions after employment termination. See "Executive Compensation Tables — Potential Payments Upon Termination or Change-in-Control" for more information about these agreements.

#### ***Compensation of our Chief Executive Officer***

We entered into an employment agreement with Dr. Lee in November 2019 in connection with his promotion to Chief Executive Officer, effective as of January 1, 2020. The terms of Dr. Lee's employment agreement reflected his role as the leader of our Company and the experience he brought to the position. For a detailed discussion of the material compensation terms of Dr. Lee's employment agreement, including all amendments to this employment agreement, see "Executive Compensation Tables — Potential Payments Upon Termination or Change-in-Control."

#### ***Compensation of our Other Named Executive Officers***

We have entered into employment agreements with each of our other Named Executive Officers. For a detailed discussion of the material compensation terms of these executive employment agreements, including all amendments to these employment agreements, see "Executive Compensation Tables — Potential Payments Upon Termination or Change-in-Control."

#### ***Compensation Consultant***

We engage a compensation consultant to serve as an independent advisor to the Compensation Committee regarding compensation for our directors and our executive officers. The Compensation Committee utilizes the compensation consultant in the following ways:

- to provide the Compensation Committee with occasional consultation regarding compensation strategies and programs;
- to review our peer group to determine the appropriateness of its composition;
- to conduct formal competitive compensation analysis for the Compensation Committee regarding our directors and each executive officer, on a position-by-position basis, in comparison to similarly situated executive officers in our peer group using benchmarking data;
- to assess the rigor of proposed performance goals on the basis of a probability analysis, a year-over-year growth analysis and a historical payout versus our peer group analysis; and
- to assist the Compensation Committee with conducting a risk assessment of all of the Company's compensation policies and practices.

Since May 2019, the Compensation Committee has engaged Pearl Meyer as its compensation consultant. The Compensation Committee has determined that the engagement of Pearl Meyer as a compensation consultant does not raise any conflicts of interest with MKS.

### ***Role of our Chief Executive Officer***

Our Chief Executive Officer reviews with the Compensation Committee the performance of all other Named Executive Officers and makes recommendations relating to compensation of such executive officers. Management develops proposed company financial goals for review and approval by the Compensation Committee for the annual cash incentive plan and long-term performance-based equity incentive compensation, develops proposals relating to potential changes in compensation programs for review and approval by the Compensation Committee, and provides the Compensation Committee and its advisors with information necessary to evaluate and implement compensation proposals and programs. Our Chief Executive Officer does not participate in discussions regarding his own compensation.

### ***Governance Policies***

#### ***Stock Ownership Guidelines***

Our Stock Ownership Guidelines in effect as of December 31, 2022, which applied to members of the Board of Directors, the Chief Executive Officer and any other person who is or was a named executive officer while the guidelines were effective, provided that:

- Non-employee members of the Board of Directors shall own at least the lesser of (i) 4,000 shares of our Common Stock (“Minimum Director Share Requirement”) or (ii) the number of shares of our Common Stock equal in value to five times the annual retainer for Board service (exclusive of any compensation for committee service, meeting fees, leadership roles, and the like) (“Minimum Director Value Requirement”).
- The Chief Executive Officer shall own at least the lesser of (i) 50,000 shares of our Common Stock (“Minimum CEO Share Requirement”) or (ii) the number of shares of our Common Stock with a value equal to five times his or her annual base salary (excluding any bonus, award, or special compensation) (“Minimum CEO Value Requirement”).
- Other Named Executive Officers shall own at least the lesser of (i) 10,000 shares of our Common Stock (“Minimum Officer Share Requirement”) or (ii) the number of shares of our Common Stock with a value equal to two times his or her annual base salary (excluding any bonus, award, or special compensation) (“Minimum Officer Value Requirement”).

These guidelines were based, in each case, on values in effect as of December 31 of the applicable year. The Stock Ownership Guidelines provided for a phase-in period over five years to achieve the respective ownership goals. All Named Executive Officers and directors were in compliance with the Stock Ownership Guidelines as of December 31, 2022.

In February 2023, following our annual review of our Stock Ownership Guidelines, including a benchmarking analysis against peer companies, our Board of Directors enhanced our Stock Ownership Guidelines, effective as of February 2023, as follows:

- With respect to our non-employee members of the Board of Directors, the Minimum Director Share Requirement was eliminated. As a result, non-employee members of the Board of Directors may only comply with the Minimum Director Value Requirement.
- With respect to our Chief Executive Officer, the Minimum CEO Share Requirement was eliminated. As a result, the Chief Executive Officer may only comply with the Minimum CEO Value Requirement.
- With respect to other officers, the Stock Ownership Guidelines were expanded to cover Executive Vice Presidents, not only Named Executive Officers. In addition, the Minimum Officer Share Requirement was eliminated. As a result, Executive Vice Presidents may only comply with the Minimum Officer Value Requirement. Finally, the Minimum Officer Value Requirement was amended to require ownership based on Common Stock with a value equal to three times base salary, not two times base salary.

*Clawback Policy*

Our Clawback Policy, which is applicable to incentive-based compensation (specifically our annual cash incentive plan and our performance-based RSUs) that is awarded to our current and former executive officers, provides that in the event we are required to prepare an accounting restatement due to fraud, misconduct, or material noncompliance with financial reporting requirements, we will use reasonable efforts to recover any amount in excess of what would have been paid to such executive officers (or such former executive officers) under the accounting restatement for any such incentive-based compensation during the three-year period preceding the restatement. The Compensation Committee may direct the Company to recover additional amounts of incentive-based compensation up to the entire amount, including different amounts from different executive officers, if the Compensation Committee concludes that executive officer fraud or misconduct directly caused or materially contributed to the accounting restatement.

*Prohibition on Hedging and Pledging*

Our Insider Trading Policy prohibits any of our directors or employees from engaging in purchases of financial instruments or other transactions that hedge or offset, or are designed to hedge or offset, any decrease in the market value of our securities (including pre-paid variable forward contracts, equity swaps, collars, and exchange funds), and prohibits such individuals from purchasing our securities on margin or pledging such securities as collateral for a loan.

*Impact of Accounting on Executive Compensation*

We account for stock-based compensation in accordance with the requirements of ASC 718. The Compensation Committee considers the impact of ASC 718 on our use of equity incentives as a key retention tool. The Compensation Committee regularly reviews its choice of equity incentives, taking into account both tax and accounting considerations.

## **COMPENSATION COMMITTEE REPORT**

The Compensation Committee has reviewed and discussed the “Compensation Discussion and Analysis” required by Item 402(b) of Regulation S-K with management. Based on such review and discussions, the Committee recommended to the Board of Directors that the “Compensation Discussion and Analysis” be included in this proxy statement.

Respectfully submitted,

Rajeev Batra, Chair  
Jacqueline F. Moloney  
Elizabeth A. Mora

## EXECUTIVE COMPENSATION TABLES

### Summary Compensation Table for 2022

The following table sets forth the aggregate amounts of compensation earned by our Named Executive Officers in the years ended December 31, 2022, 2021, and 2020.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$) (1)	Non-Equity Incentive Plan Compensation (\$)(2)	All Other Compensation (\$)(3)	Total (\$)
John T.C. Lee, President and CEO (principal executive officer)	2022	\$ 944,727	\$ -	\$ 6,000,000	\$ 1,170,939	\$ 32,732	\$ 8,148,398
	2021	\$ 908,863	\$ -	\$ 4,520,000	\$ 2,178,466	\$ 31,026	\$ 7,638,355
	2020	\$ 850,000	\$ 30,921(4)	\$ 3,250,000	\$ 1,917,808	\$ 78,297	\$ 6,127,026
Seth H. Bagshaw, EVP, CFO and Treasurer (principal financial officer)	2022	\$ 615,774	\$ -	\$ 1,925,000	\$ 554,154	\$ 44,042	\$ 3,138,970
	2021	\$ 592,075	\$ 50,000(5)	\$ 1,825,000	\$ 1,064,683	\$ 35,155	\$ 3,566,913
	2020	\$ 555,736	\$ 19,715(4)	\$ 1,725,000	\$ 977,888	\$ 68,991	\$ 3,347,330
Kathleen F. Burke, EVP, General Counsel and Secretary	2022	\$ 499,773	\$ -	\$ 1,125,000	\$ 349,809	\$ 32,725	\$ 2,007,307
	2021	\$ 475,885	\$ 50,000(5)	\$ 1,050,000	\$ 665,404	\$ 30,979	\$ 2,272,268
	2020	\$ 440,394	\$ 19,715(4)	\$ 875,000	\$ 592,594	\$ 55,870	\$ 1,983,573
David P. Henry, EVP, Operations and Corporate Marketing(6)	2022	\$ 442,604	\$ -	\$ 750,000	\$ 283,116	\$ 33,047	\$ 1,508,767
	2021	\$ 411,006	\$ 50,000(5)	\$ 600,000	\$ 492,001	\$ 32,952	\$ 1,585,959
James A. Schreiner, EVP and COO, Materials Solutions Division	2022	\$ 457,598	\$ -	\$ 800,000	\$ 297,407	\$ 45,389	\$ 1,600,394
	2021	\$ 433,543	\$ 50,000(5)	\$ 675,000	\$ 563,001	\$ 88,221	\$ 1,809,765
	2020	\$ 407,769	\$ 14,121(4)	\$ 475,000	\$ 549,750	\$ 75,745	\$ 1,522,385

- (1) Represents the aggregate grant date fair value for each RSU granted to the executive officer during the covered year, calculated in accordance with ASC 718. The assumptions used in determining the aggregate grant date fair values of awards are set forth in Note 16 to our consolidated financial statements, which were included in our Annual Report on Form 10-K that was filed with the SEC on March 14, 2023. The amounts under the "Stock Awards" column do not reflect the amount of compensation actually received by the Named Executive Officers during the fiscal year. At least fifty percent of the values listed under "Stock Awards" represent performance-based RSUs, which are valued at the grant date based upon the probable outcome of the performance metrics. The maximum value of the RSUs, assuming the highest level of performance is achieved for the performance-based portion of the RSUs, was as follows for 2022, 2021, and 2020:

Named Executive Officer	2022		2021		2020	
	Maximum	Actual	Maximum	Actual	Maximum	Actual
Dr. Lee	\$ 9,600,000	\$ 7,404,000	\$ 7,006,000	\$ 7,006,000	\$ 4,143,750	\$ 4,036,500
Mr. Bagshaw	\$ 2,983,750	\$ 2,337,913	\$ 2,828,750	\$ 2,828,750	\$ 2,199,375	\$ 2,142,450
Ms. Burke	\$ 1,687,500	\$ 1,344,375	\$ 1,575,000	\$ 1,575,000	\$ 1,093,750	\$ 1,067,500
Mr. Henry	\$ 1,125,000	\$ 896,250	\$ 900,000	\$ 900,000	N/A	N/A
Mr. Schreiner	\$ 1,200,000	\$ 956,000	\$ 1,012,500	\$ 1,012,500	\$ 593,750	\$ 579,500

- (2) Each Named Executive Officer's annual cash performance bonus for 2022, 2021, and 2020 was calculated based on a specified target percentage of his or her eligible earnings for the relevant plan year. The threshold bonus payout was 50% of this individual target bonus percentage and the maximum payout was 200% of this individual target bonus percentage, with proportional payouts for performance between these levels. Bonus payments in 2022 were based on the achievement of two financial metrics: (i) non-GAAP operating income (defined as GAAP operating income after bonus and excluding any charges or income not related to the operating performance of the Company) for 2022, excluding the results of Atotech, which we acquired in 2022, and (ii) annualized cost savings (defined as profit enhancements or cost reductions approved by the Chief Executive Officer that result, on an annualized basis, in quantified and measured benefits to the Company's

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financial performance) for 2022. Bonus payments in 2021 and 2020 were based on the achievement of non-GAAP operating income for the respective year, excluding the results of Photon Control Inc., or Photon Control, which we acquired in July 2021, with respect to 2021, and excluding the results of Electro Scientific Industries, Inc., which we acquired in February 2019, with respect to 2020. The individual target bonus percentage and the actual bonus achieved for each of the Named Executive Officers were as follows:

Named Executive Officer	2022		2021		2020	
	Individual Target Bonus %	Annual Bonus Plan Achievement	Individual Target Bonus %	Annual Bonus Plan Achievement	Individual Target Bonus %	Annual Bonus Plan Achievement
Dr. Lee	125%	100%	120%	200%	110%	200%
Mr. Bagshaw	90%	100%	90%	200%	85%	200%
Ms. Burke	70%	100%	70%	200%	65%	200%
Mr. Henry	65%	100%	60%	200%	N/A	N/A
Mr. Schreiner	65%	100%	65%	200%	65%	200%

- (3) Our Compensation Committee elected to discontinue perquisites effective December 31, 2020, with the exception that Mr. Bagshaw and Mr. Schreiner were permitted to retain their company-leased cars until the expiration of their leases in May 2023 and November 2023, respectively, to avoid lease cancellation costs, as described under “Executive Compensation — Compensation Discussion and Analysis — Elements of Compensation — Perquisites.” The amounts paid for such perquisites and the amount of all other compensation consisted of the following:

Named Executive Officer	Year	Auto	Club Membership	Health & Disability Benefits	401(k) Match	Relocation Expenses
Dr. Lee	2022	\$ -	\$ -	\$ 23,582	\$ 9,150	\$ -
	2021	\$ -	\$ -	\$ 22,326	\$ 8,700	\$ -
	2020	\$ 18,238	\$ 8,714	\$ 42,795	\$ 8,550	\$ -
Mr. Bagshaw	2022	\$ 11,310	\$ -	\$ 23,582	\$ 9,150	\$ -
	2021	\$ 4,129	\$ -	\$ 22,326	\$ 8,700	\$ -
	2020	\$ 12,640	\$ 8,873	\$ 38,928	\$ 8,550	\$ -
Ms. Burke	2022	\$ -	\$ -	\$ 23,575	\$ 9,150	\$ -
	2021	\$ -	\$ -	\$ 22,279	\$ 8,700	\$ -
	2020	\$ 15,526	\$ -	\$ 31,794	\$ 8,550	\$ -
Mr. Henry	2022	\$ -	\$ -	\$ 23,897	\$ 9,150	\$ -
	2021	\$ -	\$ -	\$ 24,252	\$ 8,700	\$ -
Mr. Schreiner	2022	\$ 12,280	\$ -	\$ 23,959	\$ 9,150	\$ -
	2021	\$ 11,579	\$ -	\$ 17,520	\$ 8,700	\$ 50,422
	2020	\$ 11,481	\$ -	\$ 20,511	\$ 8,550	\$ 35,203

Health & Disability Benefits for 2022 included Company-paid medical, dental, vision, short-term and long-term disability, and life insurance.

- (4) Represents a discretionary cash bonus made in recognition of extraordinary efforts managing the Company’s business during the COVID-19 pandemic.
- (5) Represents a discretionary cash bonus made in recognition of outstanding leadership of and attention to multiple strategic transactions.
- (6) Under the applicable rules of the SEC, Mr. Henry was not an executive officer in 2020. Accordingly, his compensation is not included with respect to such year.

## CEO Pay Ratio

We disclose the ratio of our median employee's annual total compensation to our principal executive officer's annual total compensation to provide a measure of equitability of pay within our Company. We believe our compensation philosophy and process yield an equitable result for all of our employees. During 2022, our principal executive officer was our Chief Executive Officer, John T.C. Lee. For 2022, the combined annual total compensation for Dr. Lee was \$8,148,398, and for our median employee was \$65,783, resulting in a pay ratio of approximately 124:1.

In accordance with applicable SEC rules, we identified the median employee as of December 18, 2022 (the median employee determination date) by (i) aggregating for each applicable employee (A) annual base salary for salaried employees (or hourly rate multiplied by expected annual work schedule for hourly employees), (B) target bonus and commissions (or local country equivalent), (C) actual overtime and double-time received for 2022, and (D) the accounting value of any equity granted during 2022, and (ii) ranking this compensation measure for our employees from lowest to highest. This calculation was performed for all employees, excluding Dr. Lee, whether employed on a full-time, part-time, or seasonal basis. For purposes of identifying the median employee, we converted amounts paid in foreign currencies to U.S. Dollars based on the applicable average exchange rates for December 2022.

The pay ratio reported above is a reasonable estimate calculated in a manner consistent with SEC rules based on our internal records and the methodology described above. Because the SEC rules for identifying the median compensated employee and calculating the pay ratio based on that employee's annual total compensation allow companies to adopt a variety of methodologies, to apply certain exclusions, and to make reasonable estimates and assumptions that reflect their employee populations and compensation practices, the pay ratio reported by other companies may not be comparable to the pay ratio reported above, as other companies have different employee populations and compensation practices and may utilize different methodologies, exclusions, estimates, and assumptions in calculating their own pay ratios.



**Pay Versus Performance**

**Tabular Disclosure of Compensation Actually Paid versus Performance**

The following table discloses information on “compensation actually paid,” or CAP, to our principal executive officers, or PEOs, and, the average CAP, to our other Named Executive Officers, or non-PEO NEOs, during the previous three fiscal years, alongside Company total shareholder return, or TSR, peer group TSR, net income, and the Company-selected financial performance measure of Adjusted EBITDA.

Year	Summary Compensation Table Total for PEO(1)		CAP to PEO(2)		Average Summary Compensation Table Total for Non-PEO NEOs(3)	Average CAP to Non-PEO NEOs(4)	Value of Initial Fixed \$100 Investment Based On:		Net Income (\$ millions)	Adjusted EBITDA (\$ millions) (6)
	Lee	Colella	Lee	Colella			TSR	Peer Group TSR(5)		
2022	\$8,148,398	N/A	\$ 3,494,929	N/A	\$ 2,063,860	\$ 759,709	\$ 78.58	\$125.15	\$ 333	\$ 854
2021	\$7,638,355	N/A	\$11,383,747	N/A	\$ 2,320,658	\$ 3,336,104	\$160.26	\$160.00	\$ 551	\$ 868
2020	\$6,127,026	\$423,777	\$ 8,922,167	\$838,753	\$ 2,284,429	\$ 3,494,613	\$137.71	\$123.86	\$ 350	\$ 601

(1) These amounts reflect the total compensation of Dr. Lee for the previous three years and the total compensation of Mr. Colella for 2020, each as calculated in accordance with the requirements of Item 402(c) of Regulation S-K, or Item 402(c). Dr. Lee succeeded Mr. Colella as our Chief Executive Officer on January 1, 2020.

(2) These amounts reflect CAP for Dr. Lee for the previous three years and for Mr. Colella for 2020, each as calculated in accordance with Item 402(v) of Regulation, S-K, or Item 402(v). The table below summarizes the adjustments required to reconcile total compensation from the summary compensation table to CAP for each of our PEOs.

Adjustment	2022	2021	2020	
	Lee	Lee	Lee	Colella
Total Compensation from Summary Compensation Table	\$ 8,148,398	\$ 7,638,355	\$ 6,127,026	\$ 423,777
Less Fair Value of Equity Awards Reported in the Summary Compensation Table in the Covered Year	\$ (6,000,000)	\$ (4,520,000)	\$ (3,250,000)	\$ (200,000)
Plus Fair Value of Covered Year Equity Awards Unvested at Fiscal Year-End	\$ 5,503,956	\$ 7,086,150	\$ 5,333,199	\$ 299,195
Change in Fair Value of Prior Years' Equity Awards Unvested at Fiscal Year-End	\$ (3,482,934)	\$ 698,646	\$ 651,261	-
Change in Fair Value of Prior Years' Equity Awards Vested in the Covered Year	\$ (674,491)	\$ 480,596	\$ 60,681	\$ 315,781
Compensation Actually Paid	\$ 3,494,929	\$ 11,383,747	\$ 8,922,167	\$ 838,753

(3) Reflects the average total compensation of Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner for 2022, the average total compensation of Mr. Bagshaw, Ms. Burke, Dr. Gitin, and Mr. Schreiner for 2021, and the average total compensation of Mr. Bagshaw, Ms. Burke, and Mr. Schreiner for 2020, each as calculated in accordance with the requirements of Item 402(c).

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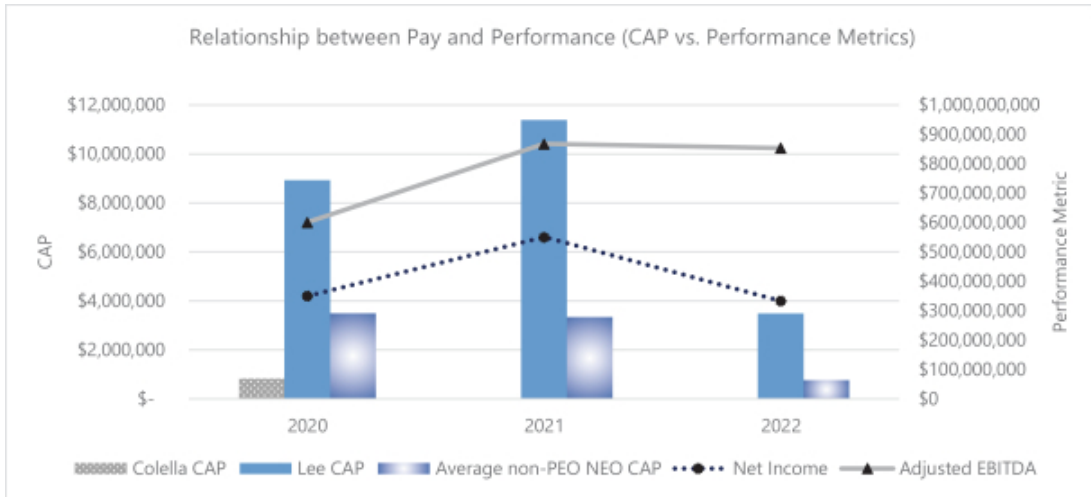
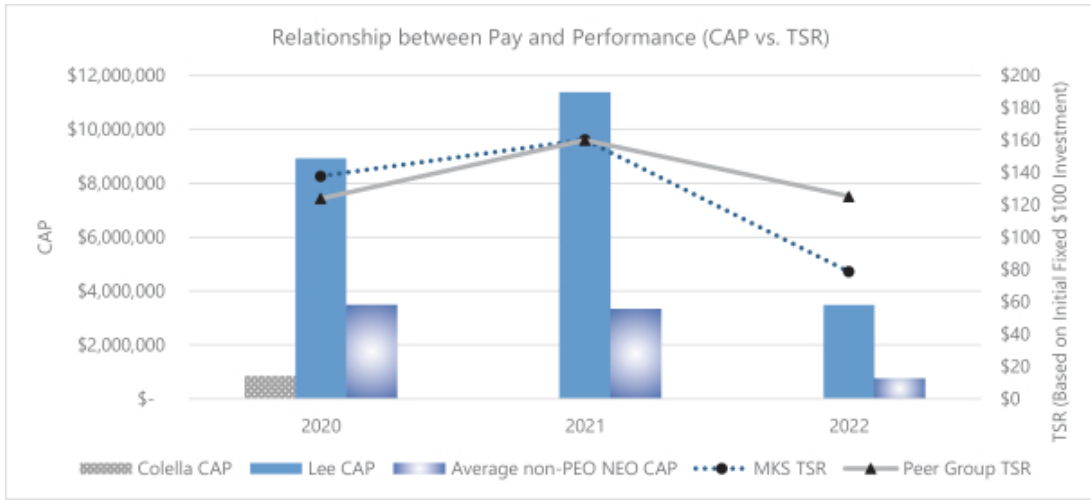
- (4) These amounts reflect the average CAP for our non-PEO NEOs for the previous three years, each as calculated in accordance with the requirements of Item 402(v). The table below summarizes the adjustments required to reconcile average total compensation from the summary compensation table to average CAP for our non-PEO NEOs.

<b>Adjustment</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>
	<b>Non-PEO NEOs</b>	<b>Non-PEO NEOs</b>	<b>Non-PEO NEOs</b>
Average Total Compensation from Summary Compensation Table	\$ 2,063,860	\$ 2,320,658	\$ 2,284,429
Less Average Fair Value of Equity Awards Reported in the Summary Compensation Table in the Covered Year	\$ (1,150,000)	\$ (1,030,000)	\$ (1,025,000)
Plus Average Fair Value of Covered Year Equity Awards Unvested at Fiscal Year-End	\$ 1,025,706	\$ 1,577,301	\$ 1,672,797
Change in Average Fair Value of Prior Years' Equity Awards Unvested at Fiscal Year-End	\$ (805,502)	\$ 305,120	\$ 526,229
Change in Average Fair Value of Prior Years' Equity Awards Vested in the Covered Year	\$ (374,355)	\$ 163,025	\$ 36,158
Average Compensation Actually Paid	\$ 759,709	\$ 3,336,104	\$ 3,494,613

- (5) Peer Group TSR represents TSR for the S&P 1500 Composite Electronic Equipment Instruments & Components Index, which is the industry peer group used for purposes of Item 201(e) of Regulation S-K.
- (6) We selected this measure as the most important in linking 2022 NEO CAP to Company performance because long-term equity incentive compensation comprises the largest percentage of total NEO compensation and Adjusted EBITDA is the financial measure we use to determine achievement under our long-term performance-based equity compensation awards. Adjusted EBITDA is defined as the Company's GAAP operating income, excluding any charges or income not related to the operating performance of the Company, plus depreciation and stock compensation expense. For 2022, Adjusted EBITDA excludes the results of Atotech, which we acquired in August 2022. For 2021, Adjusted EBITDA excludes the results of Photon Control, which we acquired in July 2021. For further information regarding Adjusted EBITDA and its function in our executive compensation program, please see "Executive Compensation — Compensation Discussion and Analysis — Elements of Compensation — Long-Term Equity Incentive Compensation" above.

**Disclosure of the Relationship Between Compensation Actually Paid and Financial Performance Measures**

The following two graphs further illustrate the relationship between the pay and performance figures that are included in the pay versus performance tabular disclosure above. The first graph below illustrates the relationship among PEO CAP, Average Non-PEO CAP, Company total shareholder return (MKS TSR) and that of the S&P 1500 Composite Electronic Equipment Instruments & Components Index (Peer Group TSR). The second graph below illustrates the relationship among PEO CAP, Average Non-PEO CAP, Company Net Income and Company Adjusted EBITDA.



***Tabular Disclosure of Most Important Measures Linking Compensation Actually Paid During 2022 to Company Performance***

We disclose below the most important measures we use to link 2022 NEO CAP to Company performance. Named Executive Officers' performance-based equity compensation is determined based on achievement of Adjusted EBITDA at different revenue levels. Named Executive Officers' variable cash compensation is determined based on achievement of non-GAAP operating income and, if non-GAAP operating income falls below a certain threshold, achievement of annualized cost savings. For further information regarding these measures and their function in our executive compensation program, please see "Executive Compensation — Compensation Discussion and Analysis" above.

**2022 Most Important Measures**

Adjusted EBITDA  
Non-GAAP Operating Income  
Annualized Cost Savings  
Revenue

**Grants of Plan-Based Awards in Fiscal Year 2022 Table**

Name	Grant Date(1)	Approval Date(2)	Estimated Future Payouts Under Non-Equity Incentive Plan Awards(3)			Estimated Future Payouts Under Equity Incentive Plan Awards(4)			All Other Stock Awards: Number of Shares of Stock or Units (#)(5)	Grant Date Fair Value of Stock Awards \$(6)
			Threshold (\$)	Target (\$)	Maximum (\$)	Threshold (#)	Target (#)	Maximum (#)		
John T.C. Lee	N/A	N/A	\$ 590,454	\$ 1,180,908	\$ 2,361,817					
	4/29/2022	3/18/2022				15,792	31,584	63,169	21,056	\$ 6,000,000
Seth H. Bagshaw	N/A	N/A	\$ 277,098	\$ 554,197	\$ 1,108,394					
	4/29/2022	3/18/2022				4,644	9,289	18,578	7,600	\$ 1,925,000
Kathleen F. Burke	N/A	N/A	\$ 174,921	\$ 349,841	\$ 699,682					
	4/29/2022	3/18/2022				2,468	4,935	9,870	4,935	\$ 1,125,000
David P. Henry	N/A	N/A	\$ 143,846	\$ 287,693	\$ 575,386					
	4/29/2022	3/18/2022				1,535	3,071	6,141	3,071	\$ 700,000
	8/17/2022	10/25/2021				113	227	453	227	\$ 50,000
James A. Schreiner	N/A	N/A	\$ 148,719	\$ 297,439	\$ 594,877					
	4/29/2022	3/18/2022				1,645	3,290	6,580	3,290	\$ 750,000
	8/17/2022	10/25/2021				113	227	453	227	\$ 50,000

- (1) This column shows the date of grant for all equity awards granted in 2022. Equity awards granted on April 29, 2022 were made under the 2014 Stock Incentive Plan and equity awards granted on August 17, 2022 were made under the 2022 Stock Incentive Plan.
- (2) This column shows the date on which the Compensation Committee approved the grant of all equity awards. The performance metrics underlying such awards were established on the approval date, except the performance metrics underlying the awards that were approved on October 25, 2021 were established on March 18, 2022.
- (3) Represents aggregate threshold, target, and maximum payout levels under the annual cash incentive plan. The actual amount of annual cash incentive compensation earned by each Named Executive Officer in 2022 is reported under the Non-Equity Incentive Plan Compensation column in the Summary Compensation Table for 2022. See Footnote 2 to the Summary Compensation Table for 2022 for details on the terms of the annual cash incentive plan.
- (4) These RSUs vest in equal annual installments over three years beginning in February 2023, subject to achievement of performance metrics established in 2022 and determined in February 2023.
- (5) These RSUs vest in equal annual installments over three years beginning in February 2023.
- (6) Reflects the combined grant date fair value of performance-based RSUs, if any, at the target achievement level and time-based RSUs. The fair value was \$113.98 per share for RSUs awarded on April 29, 2022 and \$110.30 per share for RSUs awarded on August 17, 2022.

**Outstanding Equity Awards at 2022 Fiscal Year-End Table**

Name	Stock Awards(1)			
	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested(2)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested(2) (\$)
John T.C. Lee	11,817(3) 27,124(4) 21,056(5)	\$ 1,001,281 \$ 2,298,238 \$ 1,784,103	63,169(5)	\$ 5,352,308
Seth H. Bagshaw	6,017(3) 10,508(4) 7,292(5)	\$ 509,810 \$ 890,353 \$ 617,853	18,578(5)	\$ 1,574,099
Kathleen F. Burke	3,126(3) 6,098(4) 4,935(5)	\$ 264,843 \$ 516,712 \$ 418,149	9,870(5)	\$ 836,298
David P. Henry	1,172(3) 3,485(4) 3,071(5) 227(6)	\$ 99,285 \$ 295,325 \$ 260,182 \$ 19,204	6,141(5) 453(6)	\$ 520,363 \$ 38,409
James A. Schreiner	1,697(3) 3,921(4) 3,290(5) 227(6)	\$ 143,798 \$ 332,209 \$ 278,766 \$ 19,204	6,580(5) 453(6)	\$ 557,532 \$ 38,409

- (1) All stock awards in the above table are RSUs. Except as otherwise noted below, all RSUs vest in three equal annual installments, with an annual vesting date of February 15th or the next business day if February 15th is not a business day. RSUs listed in the "Equity Incentive Plan Awards" column were also subject to the achievement of performance criteria. None of the Named Executive Officers had any outstanding option awards.
- (2) The values were calculated based on the closing price of our Common Stock on December 30, 2022 of \$84.73 per share.
- (3) Grant date is February 18, 2020.
- (4) Grant date is February 16, 2021.
- (5) Grant date is April 29, 2022.
- (6) Grant date is August 17, 2022.

**Option Exercises and Stock Vested in Fiscal Year 2022 Table**

Name	Stock Awards*	
	Number of Shares Acquired on Vesting (#)(1)	Value Realized on Vesting (\$)(2)
John T.C. Lee	31,198	\$ 4,759,185
Seth H. Bagshaw	21,992(3)	\$ 3,015,808
Kathleen F. Burke	11,217	\$ 1,563,051
David P. Henry	3,391	\$ 499,345
James A. Schreiner	5,089	\$ 685,361

- (1) Reflects the number of shares vested before the surrender of shares in satisfaction of tax withholding obligations.
- (2) Reflects the value realized before satisfaction of tax withholding obligations.

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- (3) Includes partial vesting of certain awards to cover U.S. Federal Insurance Contribution Act (FICA) tax withholding obligations, as Mr. Bagshaw is retirement eligible.

\* There were no option exercises in 2022.

### **Potential Payments Upon Termination or Change-in-Control**

Pursuant to applicable rules of the SEC, this section, including the tables below, summarizes the estimated payments and other benefits that each Named Executive Officer would be eligible to receive if his or her employment had terminated on December 31, 2022, under the circumstances set forth below.

#### ***John T.C. Lee***

Pursuant to the terms of Dr. Lee's employment agreement dated as of November 18, 2019, Dr. Lee is entitled to receive a base salary and to participate in the Company's annual cash incentive program and long-term equity incentive plan. From time to time in its sole discretion, our Compensation Committee may review and adjust Dr. Lee's base salary, target compensation goal for the annual cash incentive program and target award for the long-term equity incentive plan.

Dr. Lee's employment agreement provides for a term that is at-will, with termination upon death, disability, or at the election of Dr. Lee or the Company. In the event that Dr. Lee's employment is terminated by the Company without cause (as defined below) or is terminated by Dr. Lee for good reason (as defined below), he is entitled to: (i) continuation of base salary for 18 months, (ii) a lump sum equal to 1.5 times the annual amount of his target cash incentive compensation for which he is eligible, (iii) any cash incentive compensation earned for the calendar year preceding his termination but not yet paid and (iv) to the extent that he elects to continue coverage, payment by the Company of premiums for medical, vision and dental insurance coverage under COBRA for a period of 18 months, less the premium contribution paid by similarly-situated employees.

In the event that Dr. Lee's employment is terminated by the Company without cause, or is terminated by Dr. Lee for good reason, within 24 months after a change-in-control (as defined in his employment agreement), he is entitled to: (i) a lump sum payment equal to three times his annual base salary, (ii) a lump sum payment equal to three times the annual amount of his target cash incentive compensation, (iii) any cash incentive compensation earned for the calendar year preceding his termination but not yet paid, (iv) a prorated portion of his then-current year's target cash incentive compensation, and (v) to the extent that he elects to continue coverage, payment by the Company of its usual share of premiums for medical, vision and dental insurance coverage under COBRA during the period of time Dr. Lee is entitled to elect such coverage under COBRA, and after the end of the COBRA continuation period, if Dr. Lee continues to pay the premium that would be charged for COBRA coverage, he may continue such insurance coverage until the end of the 36 month period following his employment termination date on the same terms as if COBRA coverage were still in effect and the Company will continue to pay the Company's usual share of such premiums. In the event such payments are determined to be subject to an excise tax imposed by Section 4999 of the Internal Revenue Code, such payments will be payable in full or, if applicable, reduced so that no portion of the payments is subject to the excise tax, whichever of the foregoing amounts results in receipt by Dr. Lee on an after-tax basis of the greater amount, taking into account all applicable taxes, including the penalty tax. Dr. Lee is not entitled to any gross-up payment for any such excise tax due.

In the event Dr. Lee's employment is terminated due to death or disability, he (or his estate) is entitled to: (i) any cash incentive compensation earned for the calendar year preceding his termination but not yet paid and (ii) a prorated portion of his then-current year's target cash incentive compensation.

Dr. Lee's employment agreement contains non-competition provisions that provide that he may not, during the term of his employment and for one year after termination of employment, engage in any competitive business or activity. In addition, he may not, during the term of employment and for two years after the termination of employment: (i) solicit, hire or otherwise induce any Company employee to terminate his or her employment with the Company, (ii) solicit or hire any of our suppliers, joint ventures, research partners or customers for the purpose of competing with the Company, (iii) encourage any of such persons or entities not to enter into a business relationship with the Company or interfere with the relationship between the Company and such persons or entities, or (iv) sell to any of the Company's customers any products of the types sold by the Company with respect to which products he had material dealings in the performance of his duties within the period two years prior to his termination.

Any equity awarded to Dr. Lee under the current or any future Company equity incentive plan that is unvested as of Dr. Lee's termination of employment date will be subject to accelerated vesting if and to the extent provided in the equity award agreements governing the award.

The RSU agreements for Dr. Lee provide for full acceleration of vesting of all RSUs (or, in the case of performance-based RSUs that are still subject to performance criteria, the target number of RSUs) if he is terminated without cause or resigns with good reason within 24 months following a change-in-control (as defined in the applicable agreements). The RSU agreements for Dr. Lee also provide for full acceleration of vesting of all shares (or, in the case of performance-based RSUs that are still subject to performance criteria, the actual number of RSUs to vest based upon satisfaction of performance criteria) upon retirement, death or disability, or a pro rata portion of such shares and performance-based RSUs upon early retirement. Retirement, in this context, means a voluntary termination of employment by Dr. Lee after he is at least age 65 and has at least 10 years of service with us, and early retirement, in this context, means a voluntary termination of employment by Dr. Lee after he is at least age 60 and has at least 15 years of service with us.

For purposes of the foregoing description of benefits under the employment agreement with Dr. Lee, "cause" will exist if Dr. Lee: (i) commits a felony or engages in fraud, misappropriation or embezzlement, (ii) knowingly fails or refuses to perform his duties in a material way and either the failure or refusal cannot reasonably be cured (as determined by the Company in its reasonable judgment) or he fails to effect a cure within 10 days after the Company notifies him in writing of the failure or refusal, (iii) knowingly causes, or knowingly creates a serious risk of causing, material harm to the Company's business or reputation or (iv) breaches, in a material way, his employment agreement, the confidential information agreement or any other material agreement between him and the Company, and either the breach cannot be cured (as determined by the Company in its reasonable judgment) or he fails to effect a cure within 10 days after the Company notifies him in writing of the breach.

For purposes of the foregoing description of benefits under the employment agreement with Dr. Lee, subject to compliance with certain procedural requirements, "good reason" for Dr. Lee to resign will exist if, without his express written consent: (i) the Company materially reduces his position, duties, title, reporting relationship, authorities or responsibilities, (ii) the Company reduces his then-current base salary or target bonus, (iii) the Company changes his principal place of work to a location more than 50 miles from his then-current principal place of work or (iv) the Company breaches, in a material way, his employment agreement or any other material agreement between him and the Company.

Under the RSU agreements for Dr. Lee entered into prior to February 2023, "cause" means conviction for the commission of a felony, willful failure by him to perform his responsibilities to the Company, or willful misconduct by him. Subject to compliance with certain procedural requirements, "good reason" under these RSU agreements means voluntary separation from service within 90 days following (i) a material diminution in position, duties and responsibilities from those described in his employment agreement, (ii) a material reduction in his base salary (other than as part of a general salary reduction program affecting senior executives), (iii) a material reduction in the aggregate value of his pension and welfare benefits from those in effect prior to the change-in-control (other than as proportionate to the reductions applicable to other senior executives pursuant to a cost-saving plan that includes all senior executives), (iv) a material breach of any provision of the employment agreement by the Company, or (v) the Company's requiring him to be based at a location causing a one way commute in excess of 60 miles from his primary residence. Under the RSU agreements for Dr. Lee that were entered into in February 2023, cause will exist if Dr. Lee (i) commits a felony or engages in fraud, misappropriation or embezzlement, (ii) knowingly fails or refuses to perform his duties in a material way and, to the extent that the Company determines such failure or refusal can reasonably be cured, fails or refuses to effect a cure within 10 days after the Company notifies him in writing of the failure or refusal, (iii) knowingly causes, or knowingly creates a serious risk of causing, material harm to the Company's business or reputation, or (iv) breaches, in a material way, his employment agreement, the confidential information agreement or any other agreement between him and the Company and, to the extent that the Company determines such breach can reasonably be cured, fails or refuses to effect a cure within 10 days after the Company notifies him in writing of the breach. Subject to compliance with certain procedural requirements, "good reason" for Dr. Lee to resign will exist under these RSU agreements if, without his express written consent: (i) the Company materially reduces his position, duties or responsibilities, (ii) the Company reduces his then-current base salary, or (iii) the Company changes such his principal place of work to a location more than 50 miles from his then-current principal place of work.



**Potential Payments Upon Termination or Change-in-Control Table — John T.C. Lee**

The following table sets forth the estimated benefits that Dr. Lee would have been entitled to receive upon termination of his employment effective December 31, 2022:

<b>Termination Circumstance</b>	<b>Cash Severance(1)</b>	<b>Value of Accelerated Unvested Equity</b>	<b>Benefits Continuation</b>	<b>Total</b>
Termination by the Company Without Cause	\$ 3,520,051	\$ -	\$ 32,955(2)	\$ 3,553,006
Resignation for Good Reason	\$ 3,520,051	\$ -	\$ 32,955(2)	\$ 3,553,006
Voluntary Termination or Retirement	\$ 313,801	\$ -(3)	\$ -	\$ 313,801
Death	\$ 1,501,301	\$ 7,759,775(3)	\$ -	\$ 9,261,076
Disability	\$ 1,501,301	\$ 7,759,775(3)	\$ -	\$ 9,261,076
Within 24 Months Following a Change-in-Control:				
• Termination by the Company Without Cause	\$ 7,913,801	\$ 7,759,775(4)	\$ 65,910(5)	\$ 15,739,486
• Executive Resignation for Good Reason	\$ 7,913,801	\$ 7,759,775(4)	\$ 65,910(5)	\$ 15,739,486

- (1) For termination by the Company without cause or resignation for good reason, reflects continuation of base salary for 18 months, a lump sum equal to 1.5 times the annual amount of his target cash incentive compensation, and accrued but unused vacation that we would be required to pay out upon a termination under applicable law. For each of voluntary termination and retirement, reflects accrued but unused vacation. For death and disability, reflects a prorated portion of his then-current year's target cash incentive compensation and accrued but unused vacation. For termination by the Company without cause or resignation for good reason, each within 24 months following a change in control, reflects a lump sum payment equal to three times his annual base salary, a lump sum payment equal to three times the annual amount of his target cash incentive compensation, a prorated portion of his then-current year's target cash incentive compensation, and accrued but unused vacation.
- (2) Reflects our cost for continuation of medical, dental, and vision coverage for 18 months following termination by the Company without cause or resignation for good reason, assuming the termination or resignation occurred on December 31, 2022.
- (3) Upon retirement, death, or disability, RSUs fully vest, subject to achievement of any remaining performance criteria. The stated value assumes the retirement, death, or disability occurred on December 31, 2022 and assumes the target number of unvested performance-based RSUs vested. Dr. Lee did not meet the requirements for retirement as of December 31, 2022.
- (4) The unvested time-based RSUs fully vest and the target number of unvested performance-based RSUs vest.
- (5) Reflects our cost for continuation of medical, dental, and vision coverage for 36 months following termination within 24 months of a change in control, assuming the change in control occurred on December 31, 2022.

**Other Named Executive Officers**

The Company has entered into employment agreements with each of Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner. Pursuant to applicable rules of the SEC, below is a summary of the material terms of these employment agreements in place as of December 31, 2022.

The employment agreements with Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner provide for a base salary, and eligibility to participate in the Company's annual cash incentive compensation program and long-term equity incentive plan. In addition, the employment agreement with Mr. Schreiner, which was amended in October 2021 in connection with Mr. Schreiner's appointment as Senior Vice President and Chief Operating Officer, Materials Solutions Division, and which became effective upon the closing of the Atotech Acquisition, provides for an expatriate service bonus equal to \$500,000. The bonus is payable in a single lump sum within thirty days following Mr. Schreiner's return to the United States following the completion of a two-year term of expatriate service (or such longer term of service as may be mutually agreed by the Company and Mr. Schreiner), which we refer to as the Expatriate Service Term.

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The employment agreements with Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner provide for terms that are at-will, with termination upon death, disability, or at our election if the executive fails to perform his or her duties or commits any other act constituting cause (as defined below). In the event that the executive resigns from the Company or is terminated by the Company without cause, subject to certain procedural requirements, the Company will pay such executive his or her base salary for a period of at least 30 days after the notice of such termination or resignation is delivered. In the event that we terminate Mr. Bagshaw, Ms. Burke, Mr. Henry, or Mr. Schreiner's employment without cause, each executive is entitled to a lump sum payment equal to 12 months base salary and to the extent that such executive elects to continue coverage, payment by the Company of premiums for medical, vision and dental insurance coverage under COBRA for a period of 12 months less the premium contribution paid by similarly-situated employees.

In the event that Mr. Bagshaw, Ms. Burke, Mr. Henry, or Mr. Schreiner's employment is terminated without cause or is terminated by the executive for good reason (as defined below) within 24 months after a change-in-control (as defined in the applicable agreement), or, in the case of Mr. Schreiner, Mr. Schreiner resigns for expatriate service good reason (as defined below), such executive is entitled to "enhanced severance compensation," consisting of: (i) a lump sum payment equal to one and one-half times his or her annual base salary, or two times his annual base salary in the case of Mr. Bagshaw, (ii) a lump sum payment equal to one and one-half times the annual amount of his or her target incentive compensation for which such executive is eligible, or two times the annual amount of his target incentive compensation in the case of Mr. Bagshaw, (iii) a prorated portion of the then-current year's target bonus amount, and (iv) to the extent that such executive elects to continue coverage, payment by the Company of its usual share of premiums for medical, vision and dental insurance coverage under COBRA for a period of 18 months, or 24 months in the case of Mr. Bagshaw, following termination. In the event such payments are determined to be subject to an excise tax imposed by Section 4999 of the Internal Revenue Code, such payments will be payable in full or, if applicable, reduced so that no portion of the payments is subject to the excise tax, whichever of the foregoing amounts results in receipt by Mr. Bagshaw, Ms. Burke, Mr. Henry, or Mr. Schreiner, as the case may be, on an after-tax basis of the greater amount, taking into account all applicable taxes, including the penalty tax. Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner are not entitled to any gross-up payment for any such excise tax due.

The employment agreements of Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner contain non-competition provisions that provide that each executive may not, during the term of his or her employment and for one year after termination of employment, engage in any competitive business or activity. In addition, each of Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner may not, during the term of employment and for one year after the termination of employment: (i) solicit or otherwise induce any Company employee to terminate his or her employment with the Company (ii) solicit or hire any of our suppliers, joint ventures, research partners or customers for the purpose of competing with the Company, (iii) encourage any of such persons or entities not to enter into a business relationship with MKS or interfere with the relationship between the Company and such persons or entities, or (iv) sell to any of the Company's customers any products of the types sold by the Company with respect to which products the executive officer had material dealings in the performance of his or her duties within the period two years prior to his or her termination.

Any equity awarded to Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner under the current or any future Company equity incentive plan that is unvested as of the date of their respective terminations of employment will be subject to accelerated vesting if and to the extent provided in the equity award agreements governing the award.

The RSU agreements for each of Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner provide for full acceleration of vesting of all RSUs (or, in the case of performance-based RSUs that are still subject to performance criteria, the target number of RSUs) if such executive is terminated without cause or resigns with good reason within 24 months following a change-in-control (as defined in the applicable agreements). The RSU agreements for Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner provide for full acceleration of vesting of all shares (or, in the case of performance-based RSUs that are still subject to performance criteria, the actual number of RSUs to vest based upon satisfaction of performance criteria) upon death or disability. The RSU agreements for Mr. Bagshaw and Ms. Burke, and the RSU agreements for Mr. Henry and Mr. Schreiner that were entered into prior to February 2023, provide for full acceleration of vesting of all shares (or, in the case of performance-based RSUs that are still subject to performance criteria, the actual number of RSUs to vest based upon satisfaction of performance criteria) upon retirement, and, for Ms. Burke, Mr. Henry, and Mr. Schreiner, a pro rata portion of such shares and performance-based RSUs upon early retirement. The RSU agreements for Mr. Henry and Mr. Schreiner that were

entered into in February 2023 provide for the same terms upon retirement, except that (i) any unvested RSUs shall be forfeited if such retirement occurs prior to the one-year anniversary of the date such RSUs were granted and (ii) there is no early retirement option. Retirement, in this context, for Ms. Burke, Mr. Henry and Mr. Schreiner, means a voluntary termination of employment by the executive after he or she is at least age 65 and has at least 10 years of service with us. Early retirement, in this context, for Ms. Burke, Mr. Henry and Mr. Schreiner, means a voluntary termination of employment after he or she is at least age 60 and has at least 15 years of service with us. Retirement, in this context, for Mr. Bagshaw means a voluntary termination of employment by Mr. Bagshaw after he is at least age 60 and has at least 10 years of service with us. RSUs granted to executives typically vest in three equal annual installments, and typically at least half of the target annual equity grant value is subject to performance criteria.

For purposes of the foregoing description of benefits under the employment agreements with Mr. Bagshaw, Ms. Burke, Mr. Henry and Mr. Schreiner, “cause” will exist if the executive: (i) commits a felony or engages in fraud, misappropriation or embezzlement, (ii) knowingly fails or refuses to perform such executive’s duties in a material way and, to the extent that the Company determines such failure or refusal can reasonably be cured, fails or refuses to effect a cure within 10 days after the Company notifies such executive in writing of the failure or refusal, (iii) knowingly causes, or knowingly creates a serious risk of causing, material harm to the Company’s business or reputation, or (iv) breaches, in a material way, such executive’s employment agreement, the confidential information agreement or any other agreement between such executive and the Company and, to the extent that the Company determines such breach can reasonably be cured, fails or refuses to effect a cure within 10 days after the Company notifies such executive in writing of the breach.

For purposes of the foregoing description of benefits under the employment agreements with Mr. Bagshaw, Ms. Burke, Mr. Henry and Mr. Schreiner, subject to compliance with certain procedural requirements, “good reason” for the applicable executive to resign will exist if, without such executive’s express written consent: (i) the Company materially reduces such executive’s position, duties or responsibilities, (ii) the Company reduces such executive’s then-current base salary, or (iii) the Company changes such executive’s principal place of work to a location more than 50 miles from such executive’s then-current principal place of work. In addition, for purposes of the foregoing description of benefits under the employment agreement with Mr. Schreiner, subject to compliance with certain procedural requirements, “expatriate service good reason” for Mr. Schreiner to resign will exist if, without Mr. Schreiner’s express written consent: (i) the Company fails to return Mr. Schreiner to the position of Senior Vice President and Chief Operating Officer of the Company or a position of at least substantially similar duties and authority within six months after his return to the United States following the completion of his Expatriate Service Term.

Under the RSU agreements for Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner that were entered into prior to February 2023, “cause” means conviction for the commission of a felony, willful failure by the executive to perform his or her responsibilities to the Company, or willful misconduct by the executive. Subject to compliance with certain procedural requirements, “good reason” means voluntary separation from service within 90 days following (i) a material diminution in position, duties and responsibilities from those described in the executive’s employment agreement, (ii) a material reduction in the executive’s base salary (other than as part of a general salary reduction program affecting senior executives), (iii) a material reduction in the aggregate value of the executive’s pension and welfare benefits from those in effect prior to the change-in-control (other than as proportionate to the reductions applicable to other senior executives pursuant to a cost-saving plan that includes all senior executives), (iv) a material breach of any provision of the employment agreement by the Company, or (v) the Company’s requiring the executive to be based at a location causing a one way commute in excess of 60 miles from the executive’s primary residence. Under the RSU agreements for Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner that were entered into in February 2023, the definitions of “cause” and “good reason” are substantially the same as the definitions of “cause” and “good reason” in the employment agreements for Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner discussed above.

**Potential Payments Upon Termination or Change-in-Control Table — Other Named Executive Officers**

The following table sets forth the estimated benefits that Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner would have been entitled to receive upon termination of his or her employment effective December 31, 2022:

<b>Termination Circumstance</b>	<b>Cash Severance(1)</b>	<b>Value of Accelerated Unvested Equity</b>	<b>Benefits Continuation</b>	<b>Total</b>
<b>Involuntary Without Cause Termination:</b>				
Seth H. Bagshaw	\$ 1,069,063	\$ -	\$ 21,970	\$1,091,033
Kathleen F. Burke	\$ 671,654	\$ -	\$ 21,970	\$ 693,624
David P. Henry	\$ 569,434	\$ -	\$ 21,429	\$ 590,863
James A. Schreiner	\$ 547,755	\$ -	\$ 21,429	\$ 569,184
<b>Within 24 Months Following a Change-in-Control:</b>				
Seth H. Bagshaw	\$ 3,363,063	\$ 2,805,065(2)	\$ 43,940(3)	\$6,212,068
Kathleen F. Burke	\$ 1,805,654	\$ 1,617,853(2)	\$ 32,955(3)	\$3,456,462
David P. Henry	\$ 1,525,684	\$ 953,382(2)	\$ 32,144(3)	\$2,511,210
James A. Schreiner	\$ 1,535,880	\$ 1,071,948(2)	\$ 32,144(3)	\$2,639,972
<b>Death or Disability:</b>				
Seth H. Bagshaw	\$ 449,063	\$ 2,805,065(4)	\$ -	\$3,254,128
Kathleen F. Burke	\$ 167,654	\$ 1,838,609(4)	\$ -	\$2,006,263
David P. Henry	\$ 119,434	\$ 953,382(4)	\$ -	\$1,072,816
James A. Schreiner	\$ 82,755	\$ 1,071,948(4)	\$ -	\$1,154,703
<b>Voluntary Termination or Retirement:</b>				
Seth H. Bagshaw	\$ 449,063	\$ 2,805,065(5)	\$ -	\$3,254,128
Kathleen F. Burke	\$ 167,654	\$ -(5)	\$ -	\$ 167,654
David P. Henry	\$ 119,434	\$ -(5)	\$ -	\$ 119,434
James A. Schreiner	\$ 82,755	\$ -(5)	\$ -	\$ 82,755

- (1) For involuntary without cause termination, reflects a lump sum payment equal to 12 months base salary and accrued but unused vacation that we would be required to pay out upon a termination under applicable law. For involuntary without cause termination or termination by the executive for good reason, each within 24 months following a change in control, reflects a lump sum payment equal to one and one-half times his or her annual base salary (or two times in the case of Mr. Bagshaw), a lump sum payment equal to one and one-half times the annual amount of his or her target incentive compensation (or two times in the case of Mr. Bagshaw), a prorated portion of the then-current year's target bonus amount, and accrued but unused vacation. For each of death, disability, voluntary termination, and retirement, reflects accrued but unused vacation.
- (2) The unvested time-based RSUs fully vest and the target number of unvested performance-based RSUs vest.
- (3) Reflects our cost for continuation of medical, dental, and vision coverage for 18 months (or 24 months in the case of Mr. Bagshaw) following involuntary without cause termination within 24 months following a change-in-control, assuming the termination occurred on December 31, 2022.
- (4) Upon death or disability, RSUs fully vest, subject to achievement of any remaining performance criteria. The stated value assumes the death or disability occurred on December 31, 2022 and assumes the target number of unvested performance-based RSUs vested.
- (5) Upon retirement (as defined in the RSU agreements), RSUs that were outstanding as of December 31, 2022 for Mr. Bagshaw, Ms. Burke, Mr. Henry, and Mr. Schreiner fully vest, subject to achievement of any remaining performance criteria. However, Ms. Burke, Mr. Henry, and Mr. Schreiner did not meet the requirements for retirement as of December 31, 2022.

## EQUITY COMPENSATION PLAN INFORMATION

The following table provides information about the securities authorized for issuance under our equity compensation plans as of December 31, 2022:

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants, and rights <sup>(1)</sup>	Weighted-average exercise price of outstanding options, warrants, and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
	(a)	(b)	(c)
Equity compensation plans approved by security holders	819,354	-	7,291,050(2)
Equity compensation plans not approved by security holders	-	-	-
<b>Total</b>	<b>819,354</b>		<b>7,291,050(2)</b>

(1) In connection with our acquisition of Newport Corporation, or Newport, in April 2016, and Electro Scientific Industries, Inc., or ESI, in February 2019, we assumed certain RSUs granted under certain Newport and ESI equity plans, which we refer to as the Newport Assumed RSUs and ESI Assumed RSUs, as applicable, and which were converted automatically into RSUs with respect to shares of our Common Stock. As of December 31, 2022, the number of shares reflected in column (a) consists of: (i) Newport Assumed RSUs with respect to 2,853 shares of our Common Stock, (ii) ESI Assumed RSUs with respect to 14,903 shares of our Common Stock, (iii) RSUs representing the right to receive an aggregate of 610,160 shares of our Common Stock upon vesting under the 2014 Stock Incentive Plan, and (iv) RSUs representing the right to receive an aggregate of 191,438 shares of our Common Stock upon vesting under the 2022 Stock Incentive Plan.

(2) This number includes 5,794,310 shares available for issuance under our 2022 Stock Incentive Plan and 1,496,740 shares reserved for issuance under our 2014 Employee Stock Purchase Plan. Shares issued under our 2022 Stock Incentive Plan in respect of RSUs, restricted stock, or other stock-based awards with a per share price lower than 100% of fair market value on the date of grant count against the shares available for grant under the plan as 1.91 shares for every share granted.

## OTHER MATTERS

Our Board of Directors does not know of any other matters which may come before the 2023 Annual Meeting. However, if any other matters are properly presented to the meeting, it is the intention of the persons named in the accompanying proxy to vote, or otherwise act, in accordance with their judgment on such matters.

### Expenses and Solicitation

All costs of solicitation of proxies will be borne by us. In addition to solicitations by mail, our directors, officers, and regular employees, without additional remuneration, may solicit proxies by telephone and personal interviews and we reserve the right to retain outside agencies for the purpose of soliciting proxies. Brokers, custodians, and fiduciaries will be requested to forward proxy soliciting material to the owners of stock held in their names, and we will reimburse them for their reasonable out-of-pocket expenses incurred in connection with the distribution of proxy materials.

### Deadline for Submission of Shareholder Proposals for the 2024 Annual Meeting

Proposals of shareholders intended to be presented at the 2024 Annual Meeting of Shareholders, or the 2024 Annual Meeting, must be received by us at our principal office in Andover, Massachusetts no later than December 7, 2023 for inclusion in the proxy statement for that meeting.

In addition, our By-Laws (which are on file with the SEC) require that we be given advance notice of matters that shareholders wish to present for action at an annual meeting of shareholders, including director nominations (other than matters included in our proxy statement in accordance with Rule 14a-8 of the Exchange Act). The required written notice must be delivered to our Secretary at our principal office at least 90 days but no more than 120 days prior to the first anniversary of the preceding year's annual meeting or it will be considered untimely. However, in the event that the date of the annual meeting is advanced by more than 20 days, or delayed by more than 60 days, from the first anniversary of the preceding year's annual meeting, a shareholder's notice must be received no earlier than the 120th day prior to the annual meeting and not later than the close of business on the later of (i) the 90th day prior to the annual meeting and (ii) the seventh day following the day on which notice of the date of the annual meeting was mailed or public disclosure of the date of the annual meeting was made, whichever occurs first. Assuming that the 2024 Annual Meeting is not advanced by more than 20 days or delayed by more than 60 days from the anniversary date of the 2023 Annual Meeting, shareholders will need to give us appropriate notice at the address noted above no earlier than January 17, 2024 and no later than February 16, 2024. The advance notice provisions of our By-Laws contain the requirements of the written notice of shareholders and supersede the notice requirement contained in Rule 14a-4(c)(1) under the Exchange Act.

In addition to satisfying the advance notice provisions in our By-Laws relating to director nominations, including the earlier notice deadlines set out above, in order to comply with the SEC's universal proxy rule, shareholders who intend to solicit proxies in support of director nominees other than the Company's nominees in compliance with Rule 14a-19 under the Exchange Act must also provide notice that sets forth the information required by Rule 14a-19 no later than March 17, 2024. If the date of the 2024 Annual Meeting changes by more than 30 calendar days from the date of the 2023 Annual Meeting, such notice must instead be provided by the later of 60 calendar days prior to the date of the 2024 Annual Meeting or the 10th calendar day following our public announcement of the date of the 2024 Annual Meeting.

### No Incorporation by Reference

As provided under SEC rules, the "Audit Committee Report," the "Compensation Committee Report," and the disclosure under the "Pay Versus Performance" heading are not incorporated by reference into any of our other filings with the SEC, except to the extent we specifically incorporate either report by reference into a filing. This proxy statement includes several website addresses. These website addresses are intended to be inactive textual references only. None of the information on, or accessible through, these websites is part of this proxy statement or is incorporated by reference herein.

By Order of the Board of Directors,

KATHLEEN F. BURKE  
Secretary

April 5, 2023



MKS INSTRUMENTS, INC.  
2 TECH DRIVE  
SUITE 201  
ANDOVER, MA 01810



**SCAN TO**  
VIEW MATERIALS & VOTE

**ELECTRONIC DELIVERY OF FUTURE PROXY MATERIALS**

If you would like to reduce the costs incurred by our Company in mailing proxy materials, you can consent to receive all future proxy statements, proxy cards and annual reports electronically via e-mail or the Internet. To sign up for electronic delivery, please follow the instructions below to vote using the Internet and, when prompted, indicate that you agree to receive or access proxy materials electronically in future years.

**VOTE BY INTERNET**

Go to [www.proxyvote.com](http://www.proxyvote.com) or scan the QR Barcode above

Use the Internet to transmit your voting instructions and for electronic delivery of information up until 11:59 P.M. Eastern Time on May 15, 2023. Have your proxy card in hand when you access the website and follow the instructions to obtain your records and to create an electronic voting instruction form.

**VOTE BY PHONE - 1-800-690-6903**

Use any touch-tone telephone to transmit your voting instructions up until 11:59 P.M. Eastern Time on May 15, 2023. Have your proxy card in hand when you call and then follow the instructions.

**VOTE BY MAIL**

Mark, sign and date your proxy card and return it in the postage-paid envelope we have provided or return it to Vote Processing, c/o Broadridge, 51 Mercedes Way, Edgewood, NY 11717.

TO VOTE, MARK BLOCKS BELOW IN BLUE OR BLACK INK AS FOLLOWS:

V07312-P87529

KEEP THIS PORTION FOR YOUR RECORDS  
DETACH AND RETURN THIS PORTION ONLY

THIS PROXY CARD IS VALID ONLY WHEN SIGNED AND DATED.

<b>MKS INSTRUMENTS, INC.</b> The Board of Directors recommends you vote <b>FOR</b> the following: 1. The election of the two nominees listed below as Class III Directors, each to serve for a three-year term: <b>Nominees:</b> 01) Peter J. Cannone III 02) Joseph B. Donahue		For All <input type="checkbox"/> Withhold All <input type="checkbox"/> For All Except <input type="checkbox"/>	To withhold authority to vote for any individual nominee(s), mark "For All Except" and write the number(s) of the nominee(s) on the line below.
The Board of Directors recommends you vote <b>FOR</b> the following proposal: 2. The approval, on an advisory basis, of executive compensation.		For <input type="checkbox"/> Against <input type="checkbox"/> Abstain <input type="checkbox"/>	
The Board of Directors recommends you vote <b>1 YEAR</b> on the following proposal: 3. An advisory vote regarding the frequency of advisory votes on executive compensation.		1 Year <input type="checkbox"/> 2 Years <input type="checkbox"/> 3 Years <input type="checkbox"/> Abstain <input type="checkbox"/>	
The Board of Directors recommends you vote <b>FOR</b> the following proposal: 4. The ratification of the selection of PricewaterhouseCoopers LLP as our independent registered public accounting firm for the year ending December 31, 2023.		For <input type="checkbox"/> Against <input type="checkbox"/> Abstain <input type="checkbox"/>	
This proxy, when properly executed, will be voted in the manner directed by the undersigned shareholder. If no direction is indicated, this proxy will be voted <b>FOR</b> the election of each of the two (2) nominees listed above as Class III Directors of the Company, <b>FOR</b> proposal 2, <b>1 Year</b> for proposal 3, <b>FOR</b> proposal 4, and, as said proxies deem advisable, in their discretion, on such other matters as may properly come before the meeting.			
Please indicate if you plan to attend this meeting.		Yes <input type="checkbox"/> No <input type="checkbox"/>	
Please sign exactly as your name(s) appears on this card. When signing as attorney, executor, administrator, or other fiduciary, please give your full title. Joint owners should each sign personally. All holders must sign. If a corporation or partnership, please sign in full corporate or partnership name by an authorized officer.			
_____ Signature [PLEASE SIGN WITHIN BOX]	_____ Date	_____ Signature (Joint Owners)	_____ Date



**Important Notice Regarding the Availability of Proxy Materials for the 2023 Annual Meeting:**

The Annual Report, Notice & Proxy Statement are available at [www.proxyvote.com](http://www.proxyvote.com).

V07313-P87529

**MKS INSTRUMENTS, INC.  
2023 Annual Meeting of Shareholders  
May 16, 2023 10:00 AM, Eastern Time  
This proxy is solicited by the Board of Directors.**

The undersigned shareholder of MKS Instruments, Inc., a Massachusetts corporation (the "Company"), hereby acknowledges receipt of the Notice of 2023 Annual Meeting of Shareholders and Proxy Statement, each dated April 5, 2023, and hereby appoints Kathleen F. Burke and M. Kathryn Rickards, and each of them acting singly, proxies and attorneys-in-fact, with full power to each of substitution, on behalf and in the name of the undersigned, to represent the undersigned at the 2023 Annual Meeting of Shareholders of the Company to be held on May 16, 2023 at 10:00 AM, Eastern Time, at MKS Instruments, Inc., 2 Tech Drive, Suite 201, Andover, MA 01810, and at any adjournment or postponement thereof, and to vote all shares of Common Stock which the undersigned would be entitled to vote if attending the meeting, on the matters set forth on the reverse side, and, in their discretion, upon any other matters which may properly come before the meeting.

Your Internet or telephone vote authorizes the named proxies to vote the shares in the same manner as if you marked, signed, dated and returned your proxy card. If you vote the shares over the Internet or by telephone, please do not return your proxy card.

UNLESS VOTING THE SHARES OVER THE INTERNET OR BY TELEPHONE, PLEASE DATE, SIGN AND MAIL YOUR PROXY CARD IN THE ENVELOPE PROVIDED AS SOON AS POSSIBLE.

**Continued and to be signed on reverse side**